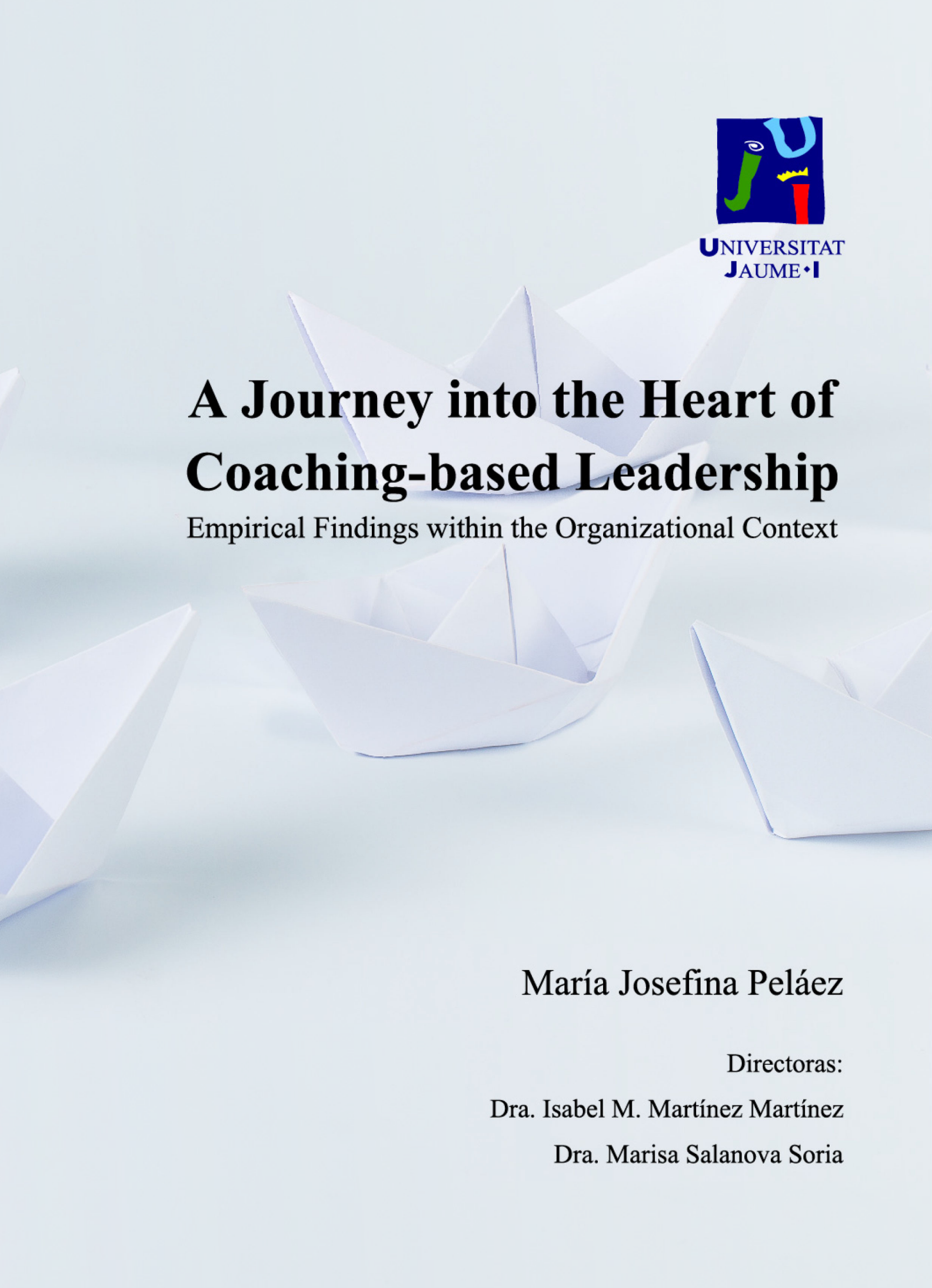

UNIVERSITAT JAUME·I

A Journey into the Heart of Coaching-based Leadership

Empirical Findings within the Organizational Context

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Un Viaje hacia el Corazón del Liderazgo Coaching:
Resultados Empíricos dentro del Contexto Organizacional

Memoria presentada por María Josefina Peláez **para optar al grado de doctora por la Universitat Jaume I**

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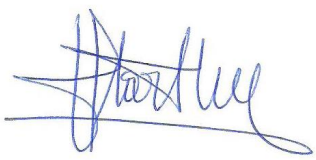


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“The role of a great leader is not to give greatness to human beings, but to help them extract the greatness they already have inside them”

(J. Buchan)

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PRÓLOGO (Foreword)

Todo comenzó con una llamada telefónica de Marisa Salanova. Yo me encontraba viajando con mi madre por el norte de España luego de haber finalizado el Máster en Psicología del Trabajo, las Organizaciones, y RRHH de la UJI. Para mi sorpresa, solo quedaban dos días para que acabara el plazo de la convocatoria de becas FPI (personal investigador en formación). En esta llamada, Marisa me invita a postularme a la beca, proponiéndose ella e Isabel Martínez como mis tutoras de tesis. El gran apoyo "a distancia" recibido por ambas esos dos días, como así también su confianza e interés por la temática propuesta para la tesis, me alentaron a postularme y a embarcarme en este nuevo capítulo de mi vida: la investigación científica.

Así fue como poco a poco me fui insertando en el asombroso mundo de la investigación aplicada, que sin antes habérmelo propuesto, hoy en día considero indispensable en mi camino profesional. Afortunadamente, llegué al equipo WANT en un momento fundamental: la nueva era de las intervenciones psicológicas positivas. Sin duda alguna tan necesarias para la promoción de organizaciones saludables y resilientes. Todo el trabajo realizado junto a mis compañeros y compañeras del equipo para contribuir a este fin, fue el motor de este viaje de 4 años que me permitió ir dando respuesta a los diferentes retos de la tesis.

Esta tesis surge como fruto de mi dichoso encuentro con un equipo de investigación referente en el estudio de la Psicología del trabajo y las organizaciones. Además, se origina desde una inquietud que me ha despertado la atención en los diferentes entornos de trabajo en los que me he involucrado, y que creo es clave para fomentar el desarrollo, el engagement y productividad: el contar con líderes que sepan escuchar desde la empatía y la compasión, que realicen preguntas poderosas que inciten a la reflexión y promuevan el desarrollo y uso de recursos, que acompañen en la consecución de metas desafiantes, y que sobre todo ayuden a florecer el máximo potencial en las personas. He tenido el gran honor de contar con líderes con estas características en mis entornos más cercanos. No obstante, también he notado la ausencia de estas habilidades en tantos otros líderes, lo cual ha repercutido negativamente en los ambientes de trabajo. Por tales motivos, investigar y promover este estilo de liderazgo '*coach*' en las organizaciones es el gran desafío en el que he puesto todo mi empeño e ilusión. Si bien con esta tesis me propuesto dar respuesta a unas preguntas iniciales, el camino para alcanzar esta meta está recién comenzando.

CHAPTER 1
GENERAL INTRODUCTION

We live in an era of intense crisis and institutional failures that is reflected in the destruction of the foundations of well-being (Scharmer, 2017). Many global leaders characterized this era as highly volatile, uncertain, complex, and ambiguous (VUCA). This means that the frequency of change and the future in organizations is unpredictable, the development of long term- strategic decisions is difficult, the interconnected parts and procedures within the organization can be unidentifiable or contradicted with each other, and the diversity of potential results cannot be clearly described (Saleh & Watson, 2017). In this scenario, if companies wish to achieve high involvement goals, it is necessary to better manage employees' capacities and personal development (Boxal & Macky, 2009). Thus, promoting challenges, development, and ultimately, building positive qualities rather than dealing with negative aspects such as weaknesses, is in the common interest of both employees and modern organizations (Salanova et al., 2019). This positive organizational psychology approach aims to study the conditions and processes that foster optimal human functioning and enhance well-being and the quality of work life.

Accordingly, to become healthy and positive organizations, business environments demand a new relational approach to leadership. In order to address this challenge, managers and leaders must engage in an alliance building process with their employees, oriented to attend their needs, encourage awareness (Kemp, 2009) and help them develop and maximize their talents (Berg & Karlsen, 2016). In this context, *Coaching-based Leadership* (CBL) has been suggested as one of the leadership styles that achieve the best results (Berg & Karlsen, 2016; Goleman et al., 2012). This recently form of leadership has been defined as a day-to-day process of providing support, and helping employees identify opportunities to achieve individual development goals (Cox et al., 2010). Leaders who succeed with a coaching style enable employees to gain awareness and reflection, generate their own answers (Cox et al., 2010; Milner et al., 2018), require less control and directing, and have a desire to help them develop and flourish (Berg & Karlsen, 2016). Not surprisingly, the manager with coaching capability has gained considerable attention as a key indicator of effective leadership behaviour to influence on employees without relying on formal authority (Ellinger et al., 2008; Hamlin et al., 2006; Pousa et al., 2018).

From a psychosocial perspective, the Job Demand-Resource (JD-R) model suggests coaching provided by supervisors as an important job (social) resource that facilitate a motivational process that enhances the development of personal resources, leading to work engagement and better performance (Schaufeli & Bakker, 2004). The current thesis intend to contribute to this model by proposing CBL as a key job resource that leads employees to the development of positive psychological capital (PsyCap) – defined as an individual's positive resource comprised of self-efficacy, hope, resilience, and optimism (Luthans et al., 2015) – that stimulate a motivational process that leads to higher levels of work engagement – defined as a positive, fulfilling, work-related state of mind characterized by vigour, dedication, and absorption (Schaufeli et al., 2006) – and in turn leads to higher performance (i.e. in-role or task performance, and extra-role or contextual performance; Goodman & Svyantek, 1999).

Accordingly, leaders as coaches have been identified as crucial in organizational settings due to the adoption of a people-oriented approach to supervision that may prove beneficial to employees' growth, well-being and performance (Ellinger et al., 2005). It has also been identified as crucial in developing and empowering employees due to the high cost of external coaching and the need to become learning organizations and innovate to stay competitive (Kim, 2014; Segers et al., 2011). For these reasons, organizations are starting to invest in training to develop coaching skills in their managers and leaders (Milner et al., 2018).

In spite of the increasing academic interest in the manager or leader as coach and its growing popularity in organizations, new research challenges emerged in order to advance theoretical and empirical research in this field. First, the CBL term remains undertheorized (Berg & Karlsen, 2016). Its value and meaning within the organizational context have not been sufficiently captured (Dahling et al., 2016). Second, a number of measures assess the leader or manager's coaching attributes (Hagen & Peterson, 2014), demonstrating a lack of agreement on its underlying dimensions, and vague theoretical frameworks. A consistent and agreed-upon measurement strategy for CBL is still missing among researchers and Human Resource practitioners. Third, research analysing the relationship between CBL and work-related outcomes is in its infancy. Additionally, comprehensive and integrated reviews of empirical studies on these links are still missing. Fourth, there is a need among organizations and practitioners of effective interventions based on strong methodology and rigorous empirical validation aim to develop coaching capability on leaders and managers. Besides, the efficacy of

such interventions has rarely been examined (Berg & Karlsen, 2016; Ellinger et al., 2011; Grant & Hartley, 2014). Finally, very little is known about the benefits of developing a CBL style and its impact on work-related outcomes (Berg & Karlsen, 2016) such as psychological capital, work engagement and in-role and extra-role performance.

Therefore, the main goal of this thesis project is to contribute to the CBL theory development, by studying its (1) concept and attributes, (2) measurement, (3) relationship with work-related outcomes, (4) efficacy of interventions aim to develop and increase CBL, and (5) impact of its development on work-related outcomes. To achieve this goal, this thesis combines quantitative and qualitative methodology and cross-sectional and longitudinal quasi-experimental studies. It also includes different samples (i.e., Spanish and Latin American workers), different sectors (i.e., automotive, service, construction, education), different sources of information (i.e., employees' perceptions, leaders' perceptions, supervisors' perceptions), and different analyses (i.e., systematic review, measurement validation, structural equation modelling, repeated-measures ANOVA, paired-sample and independent sample *t*-tests).

Research challenges

This thesis project seeks to contribute to CBL research by attempting to answer several research questions that were grouped into five research challenges. They will be addressed by means of the different chapters that make up this thesis.

Research challenge 1: How can coaching-based leadership be conceptualized within the organizational context?

CBL is becoming prevalent as the new managerial paradigm in interactions with employees (Berg & Karlsen, 2016; Cox et al., 2010). As noted by Ellinger et al. (2005), this leadership style offers organizations a theoretical foundation for adopting a people-oriented approach in the relationship with employees. This recent theory on leadership has been developing away from other leadership approaches, toward a new paradigm that seeks to reduce the differentiation between the leader and the employee (Hagen & Aguilar, 2012). For instance, the leader as coach has been related to transformational leadership in terms of similarities among specific attributes, such as intellectual stimulation and inspirational motivation (Grant, 2007). However, Bass and Avolio's (1994) leadership style is essentially about motivating followers to look beyond their

own self-interest towards the achievement of team-related goals (Bormann & Rowold, 2018). In contrast, leaders' coaching behaviours refer to one-on-one interactions between a leader and an employee aimed at stimulating individual growth (Anderson, 2013) and may therefore be more suitable for addressing individual personal and professional developmental goals (Kunst et al., 2018).

CBL may also share commonalities with authentic leadership, defined as a pattern of leader behavior that enhance self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency, fostering positive self- and followers' development (Walumbwa et al., 2008). Although both leadership styles focus on the employee's development, authentic leaders' objective is to achieve authenticity (Gardner et al., 2005), whereas coaching-based leaders attempt to help employees maximize their capacities and generate their own answers to achieve an extraordinary performance (Cox et al., 2010; Goleman et al., 2012).

Moreover, previous researchers have considered managerial coaching to be a similar term to coaching leadership (Milner et al., 2018; Pousa et al., 2018). This participative style of management has been defined as a leadership style designed to get the most out of people (Ellinger et al., 2005). Along similar lines, Anderson (2013) has pointed out that the manager as coach is better understood through the 'lens' of leadership theory than through the perspectives of a specialized coaching. For these reasons, it is important to integrate both terms into a unified CBL theory. To achieve this challenge, this thesis has been inspired on the Leader-Member Exchange (LMX) theory (Graen & Schiemann, 1978), which stated that leaders can develop high-quality relationships with employees characterized by high degrees of mutual trust, respect, interaction, and support, enabling employees to achieve better performance. LMX has been applied to understand exchanges between managers in their leader-as-coach role and employees (Anderson, 2013; Pousa et al., 2017).

Additionally, this thesis is based and intends to align the CBL construct proposal with Kemp (2009) coaching and leadership alliance framework, which contextualize the coaching and leadership self-management and shared relationship process. The author emphasized the need for leaders as coaches to be guided by a personal understanding of their expected responses in order to facilitate change. This theoretical proposal explains the progressive antecedents and building process common to effective and professionally impactful coaching and leadership relationships, and is composed of the following phases: (1) an active process of introspection and awareness; (2) reflection

and processing in order to understand the (leader's) own unique self; (3) self-management for maximizing his/her (the leader) positive effect in the relationship; (4) sharing for relationship, based on the capability to listen and dialogue to the core of what is being communicated; and (5) questioning for insight, as a contributor to raising introspecting self-awareness. Despite the efforts made in advancing theoretical framework, further research is needed to achieve an integrated theory that responds to the needs of the specific CBL style.

Coaching-based leaders display a set of skills and beliefs that support a coaching mentality and enable the execution of specific actions towards their employees (Hagen, 2012). Such actions include questioning, listening, delivering constructive feedback and challenging toward the achievement of developmental and professional goals (Berg & Karlsen, 2016; Milner et al 2018). Several researchers have provided different classifications regarding processes inherent to leaders as coaches (i.e. Ellinger et al., 2003; Heslin et al., 2006; Park et al., 2008; DiGirolamo & Tkach, 2019). These multiple approaches demonstrate a strong scholarly interest to capture coaching attributes within the work field. However, this variety also implies weak theoretical agreement about its underlying dimensions. Determining which attributes are most frequently associated with this leadership style may allow identification and insight into the concept. In order to delineate its main attributes within the organizational context, an extensive literature review related to professional coaching and to coaching-based leaders and managers interacting with their employees should be undertaken. Overall, more research is needed to capture the CBL approach in terms of its conceptualization, function, and the processes inherent in its development (Kemp, 2009).

In this thesis, the terms leader and manager will be used interchangeably when referring to CBL.

Research challenge 2: How can coaching-based leadership be reliable and validly measured within the organizational context?

In the last decade, several scales have been developed to measure the manager coaching behaviours. However, not all the scales are based on a rigorous validation process or solid reliability testing (Hagen & Peterson, 2014). Moreover, a specific measurement strategy for CBL is still missing in the literature. Recently, an assessment tool that integrated a coach approach to both managers and leaders has been developed (DiGirolamo & Tkach, 2019). Although this measurement was based on a solid

theoretical foundation, it has several methodological limitations. The authors recognised that further research is needed on coaching-based leaders scale validation. Finally, despite the existent international scales measuring the manager as coach, none of them are available in Spanish or Latin American countries.

In order to examine the validation processes and guide future scale development, a comprehensive review of previous validated measures should be considered (DiGirolamo & Tkach, 2019; Hagen & Peterson, 2014). A valid and reliable tool for assessing CBL attributes would help to improve our knowledge of how this leadership style can be developed in the work field. It will also assist in developing rigorous and consistent empirical studies examining its contribution and relationship with work-related outcomes (Batson & Yoder, 2012).

Research challenge 3: What is the relationship between coaching-based leadership and work engagement and performance?

Researchers' interest in analysing the relationship between coaching delivered by leaders and work-related outcomes, such as work engagement and performance (Hui & Sue-Chan, 2018; Tanskanen et al., 2019) is on the rise. According to the JD-R model, coaching provided by supervisors is considered a job resource, and as such, initiate a motivational process from which work engagement arises, and consequently fosters employees to meet their goals and achieve a better performance (Schaufeli & Bakker, 2004). Although research exploring the association of managers as coaches and work engagement (Ladyshewsky & Taplin, 2018; Lee et al., 2019; Milner et al., 2018; Tanskanen et al., 2019), and performance (Hui & Sue-Chan, 2018; Tanskanen et al., 2019) is increasing, research on these links is still in its infancy. Besides, there is still a lack of studies that analysed the mediating role of work engagement linking to in-role and extra-role performance based on a specific and unique CBL instrument. Finally, systematic reviews exploring such relationships are still missing.

Moreover, in spite of the potential benefits that CBL can bring to organizations, further research is needed to clarify when and how this leadership style positively influence work engagement and in turn performance, in order to understand the complex mechanisms involved. Goleman et al. (2012) argued that the main purpose of coaching leaders is to develop employee's personal resources. Previous studies have confirmed the positive association between leadership behaviours and employees PsyCap (McMurray et al., 2010; Newman et al., 2014). In line with the JD-R model,

managers as coaches stimulate personal growth through the development of efficacy, organizational-based self-esteem and optimism, which in turn leads to higher work engagement (Xanthopoulou et al., 2007). Despite such findings, there are still no studies that examine the mediating role of PsyCap linking CBL to work engagement.

Research challenge 4: How can coaching-based leadership in organizations be achieved?

Although there has been an increase in the number of studies on this subject (Grant & Hartley, 2014), questions remain about how leaders can be led to display a CBL style (Milner et al., 2018). Specifically, leader as coach training programs aim to enhance leadership quality in organizations by providing training in coaching skills (Graham et a., 1994; Grant & Hartley, 2014). Leadership interventions generally involve a combination of training in a workshop format and participation in executive coaching (Kelloway & Barling, 2010; Lacerenza et al., 2017). Although managers are often expected to apply coaching principles at work, such intervention programs do not always focus on specific coaching skills. In fact, to be operational, training needs to align these skills with personal and professional goals (Milner et al., 2018). An effective way to support leadership development in organizations is the strengths-based leadership coaching approach (MacKie, 2014). Grounded on positive psychology, strengths-based coaching is based on the identification, development, and use of personal strengths in order to foster positive outcomes (Linley, Nielsen et al., 2010). Specifically in leadership development, this approach provides a structure that includes strength awareness and balance, pairing strengths with leadership skills, and aligning them with personal or organizational goals (MacKie, 2014).

In order to develop and increase CBL skills at work, it is important for leaders to establish specific (micro) goals. Previous research suggested that coaching can be effective even when the number of coaching sessions is relatively small (Theeboom et al., 2014). Therefore, further research is needed to design and analyse the efficacy of strengths-based micro coaching (short-term coaching) as an applied positive psychology intervention that can be valuable in increasing well-being (i.e. work engagement) and performance. Going a step further, research should also focus on designing and examining the efficacy of CBL interventions composed by workshop format training and strengths-based micro coaching for the development of specific coaching skills on leaders. There is also a need for empirical studies with quasi-experimental designs (i.e.

control trial) and mixed methodologies (qualitative and quantitative) that investigate possible effects of these intervention programs over time (Grant & Hartley, 2013, 2014).

Research challenge 5: What is the impact of developing coaching-based leadership on work-related outcomes such as psychological capital, work engagement, and in-role and extra-role performance?

Currently, organizations are starting to invest in training to develop coaching skills in their leaders (Milner et al., 2018) in order to enhance wellbeing and performance and facilitate organizational and personal change (Ellinger et al., 2003; Grant & Cavanagh, 2007a). Through the use of coaching skills, leaders foster the development of personal resources, and facilitate an intrinsic motivation process that lead to enhanced levels of engagement and goal attainment (Ellinger et al., 2011; Kim, 2014). Despite the growing popularity of CBL interventions (Milner et al., 2018), basic questions remain about their impact on work-related outcomes (Berg & Karlsen, 2016), such as psychological capital, work engagement and in-role and extra-role performance. Additionally, research exploring the impact of such development programs on increasing the leaders own levels of well-being and performance is still missing. Future studies should also confirm these effects over time, using reliable methodologies and randomized controlled designs.

Overall, further empirical research is needed to provide evidence and validate CBL as a means for managers and employees' development, well-being, and optimal functioning within organizations. Extending this line of research would help to advance in the CBL theory development, and understanding of its value and role in the organizational context. It would also strengthen the rationale for organizations willing to build internal coaching capability in managers and supervisors.

Outline of this thesis:

This thesis project attempts to contribute to the CBL theory development in order to capture its role and grasp its meaning within the organizational context. This main goal was separated into several steps and specific goals. To this end, an opening systematic review (chapter 2) and four empirical studies (chapter 3 with 2 studies, chapter 4, and chapter 5) were designed to address the previously discussed research

challenges, which are shown in Table 1. The content of each chapter, and its specific goals and hypotheses are presented in the following paragraphs.

Table 1.

Overview of research challenges targeted in the chapters of the thesis project

		Chapters			
		2	**3**	**4**	**5**
Challenge 1	Concept and attributes	X	X		X
Challenge 2	Measurement	X	X		X
Challenge 3	Relationship with work outcomes	X	X		X
Challenge 4	Positive interventions to develop CBL			X	X
Challenge 5	Impact of its development on work outcomes			X	X

***Chapter 2*: '*Coaching-based Leadership, Work Engagement and Performance: A Systematic Review and Future Directions*'**

This chapter aims to provide a comprehensive review of CBL research and its relationship with work engagement and performance in the work field. A computerized search was conducted, and 51 empirical studies focusing on the relationships between the aforementioned study variables were considered. This review offers an overview of CBL (and similar terms, such as managerial coaching and supervisory coaching) conceptualizations, theoretical frameworks, study characteristics, measurements, and relationships among the constructs. The knowledge gaps, along with a detailed future research agenda that represent the research challenges of the thesis are identified in this review.

***Chapter 3*: '*Development and Validation of the Coaching-based Leadership Scale and its Relationship with Psychological Capital, Work Engagement, and Performance*'**

This first empirical chapter of the thesis is comprised of two related studies conducted in different settings. The objective of Study 1 is to design and validate a specific CBL scale in Spanish and Latin American countries working populations. To

accomplish this goal, a sample of 706 workers (430 employees and 276 managers) was considered. Going a step further, Study 2 aims to analyse the relationships between CBL and work related outcomes (psychological capital, work engagement and in- and extra-role performance) using a non-experimental cross-sectional design. Based on the JD-R model (Bakker & Demerouti, 2007), the mediation roles of work engagement linking CBL to performance and of PsyCap linking CBL to work engagement are examined in a structural equation modelling. In order to test the relationships proposed, data from 252 employees from Spain and Latin American countries is taken into account.

***Chapter 4*: '*Facilitating Work Engagement and Performance through Strengths-based Micro-Coaching: A Controlled Trial Study*'**

This quasi-experimental study seeks to add to the literature by exploring the impact of a strengths-based micro-coaching program on work engagement and performance using mixed methodology (quantitative and qualitative). The intervention followed a strengths-based coaching approach (Linley, Nielsen et al., 2010), and the Review, Evaluate, Goal, Reality, Option, Wrap-up (RE-GROW; Grant, 2011) model was used to structure the program. Using a controlled trial longitudinal design, 60 employees with non-executives responsibilities participated in the study. Both the participants and their supervisors took part in a pre-post-follow up assessment during the research period. This study was developed with the ultimate goal of designing effective positive psychology interventions that can be valuable for enhancing CBL in organizations. Although achieving this goal corresponds to chapter 5, chapter 4 is a necessary preliminary step before more specific initiatives for developing CBL based on a strengths-based micro-coaching approach can be designed and examined.

***Chapter 5*: '*Coaching-based Leadership Intervention Program: A Controlled Trial Study*'**

Given the results of the previous chapter, this second controlled trial study was incorporated, which aims to examine the efficacy of a CBL intervention program for the development and improvement of CBL skills. The intervention followed a strengths-based micro-coaching approach developed in chapter 4 and the (RE-GROW; Grant, 2011) model. The participants (41 executives and middle managers from an automotive sector company in Spain) and their supervisors (41) and employees (180) took part in a

pre-post-follow up 360-degree assessment during the research period. Specifically, with this study we expect that the intervention program will increase the participants' coaching skills, levels of PsyCap, work engagement, and in- and extra-role performance after finishing the program (post assessment) and four months after finishing it (follow up assessment).

Chapter 6: 'General Conclusions'

Finally, this last chapter summarizes the key findings, conclusions, and contributions from the preceding chapters included in this thesis. In addition, the main practical implications are presented. Finally, the limitations of the studies are identified along with future avenues for research on the CBL field.

CHAPTER 2

Coaching-based Leadership, Work Engagement and Performance: A Systematic Review and Future Directions

Abstract

Coaching-based leadership is becoming increasingly popular in organizations due to its potential benefits for employees' growth, well-being, and performance. The purpose of this study is to provide a systematic review of empirical research focusing on the coaching-based leadership-work engagement and coaching-based leadership-performance links in the work field. A computerized search was conducted, and fifty-one empirical studies focusing on the relationships between the aforementioned study variables were included in the review. Although findings revealed an important role of coaching-based leadership in enhancing work engagement and performance, they also identified a relative lack of consensus about its conceptualization and measurement, and a lack of rigorous theoretical frameworks and methodology to explain the relationship with the two work-related outcomes. Finally, a detailed agenda is presented to advance theoretical and empirical research in this field.

Keywords: systematic review, coaching leadership, work engagement, performance [1]

[1] Chapter 2 has been submitted for publication as: Peláez M. J., Martínez I. M., Salanova, M. Coaching-based Leadership, Work Engagement and Performance: A Systematic Review and Future Directions. *Human Resource Development Review.*

We live in what many global leaders refer to as "VUCA" times, characterized by Volatility, Uncertainty, Complexity, and Ambiguity (Saleh & Watson, 2017). In this scenario, organizations need to develop leaders who have a strong work capacity and high effectiveness while keeping a close watch on their employees' community's wellbeing and thriving (Palmer, 2014). In order to deal with complex requirements, the manager's role has been extended to include enabling employees' development and performance through the use of coaching techniques (Ratiu et al., 2017).

In organizational settings, Coaching-based Leadership (CBL; also known as leader as coach or Managerial Coaching; MC; Berg & Karlsen, 2016; Pousa, Richards et al., 2018) has been suggested as one of the leadership styles that achieves the best results. Its main purpose is to facilitate employees' development (Goleman et al., 2012) and help to accomplish individual and organizational goals (Berg & Karlsen, 2016). Accordingly, the leader as coach is becoming prevalent as the new managerial paradigm in interactions with employees (Pousa et al., 2017) through a variety of conscious skills and behaviours, such as questioning, guiding, feedback, and challenging (Hagen & Aguilar, 2012). Thus, CBL provides organizations with a theoretical rationale for adopting a people-oriented approach to supervision that may prove to foster employees' growth, well-being, and performance (Ellinger et al., 2005).

Despite increasing academic interest in the CBL style and its growing popularity in organizations (Ellinger et al., 2008; Milner et al., 2018), there is still a lack of clarity about several key aspects (Dahling et al., 2016). First, the term remains undertheorized (Kim et al., 2014). Second, the value of the leader as coach concept and its meaning within the organizational context have not been sufficiently captured (Dahling et al., 2016). Third, currently, a variety of measures assess the leader or manager's coaching (behaviours) (Hagen & Peterson, 2014), most of which have not been reviewed yet. Finally, the number of studies that focus on the relationship between CBL and work-related outcomes (Berg & Karlsen, 2016), such as Work Engagement (WE; Ladyshewsky & Taplin, 2018; Tanskanen et al., 2019) and performance (Ellinger et al., 2011; Pousa & Matu, 2014_a), is increasing. However, there is a need for consistent and integrated reviews of empirical studies on these links.

Therefore, the main purpose of this review is to provide a comprehensive review of empirical research on the CBL-WE and CBL-performance links, including an overview of CBL conceptualizations, measurements, theoretical frameworks, and

relationships among the constructs. Finally, a detailed future research agenda is presented to move the field forward, embracing both theoretical and empirical advances.

Defining Coaching-based Leadership

Although relatively little research has addressed what a CBL style entails (Cox et al., 2014; Berg & Karlsen, 2016), in the past two decades the literature has provided a wide variety of conceptualizations. A coaching style of leadership can be defined as a day-to-day process of providing guidance, encouragement, and support, and helping employees to identify opportunities to achieve better performance (Stoker, 2008). Along similar lines, Hui and Sue-Chan (2018) referred to coaching as a component of effective leadership, and conceptualized it as a goal-oriented management practice designed to help employees improve their performance and successfully adapt to change. According to Goleman et al. (2012), the main purpose of the coaching leader is to develop employees' personal resources. Coaching leaders are oriented toward helping employees strengthen their talents by paying attention to their needs and building an effective alliance (Dello Russo et al., 2017).

To fulfil the coaching leader role, leaders are being called upon to use specific skills and behaviours with their employees (Milner et al 2018; Berg & Karlsen, 2016). Some of the essential coaching skills include the creation of a safe environment that contributes to the establishment of mutual trust and respect, the use of listening and powerful questioning techniques (Gilley et al., 2010; Park et al., 2008), helping employees to develop and use personal strengths to better direct their talents toward meaningful behaviours (Berg & Karlsen, 2016) and working collaboratively with each employee to set challenging goals that motivate performance (Dahling et al., 2016).

Overall, leaders who succeed with a CBL style enable employees to generate their own answers (Cox et al., 2010; Milner et al., 2018), require less control and directing, and have a desire to help others to develop and flourish (Berg & Karlsen, 2016). Indeed, the leader or manager as coach has been identified as a key indicator of effective management to exert influence on employees without relying on formal authority (Ellinger et al., 2008; Pousa, Richards et al., 2018). Not surprisingly, the leader as coach has become increasingly popular among academics and human resource professionals due to its potential benefits in enhancing well-being variables such as job satisfaction (Dimas, Rebelo et al., 2016; Ellinger et al., 2003; 2005) and achieving optimal functioning in organizations (Pousa et al., 2017). However, researchers and practitioners

still differ on the conceptualization (Hicks, 2014) and theoretical framework of CBL in explaining its association with work-related outcomes (Kempt, 2009; Kim et al., 2014).

Furthermore, although MC processes and behaviours have been theoretically elaborated several times, the different definitions may overlap (Batson & Yoder, 2012). Moreover, there is still a lack of integration between the coaching roles of manager and leader, without sufficiently defining how these roles are similar or different. Recently, DiGirolamo & Tkach (2019) suggested that coaching managers and leaders often have overlapping activities, functions and purposes. Previous research has noted that to be effective, MC requires a fundamental reconsideration of leadership development models (Anderson, 2013). Therefore, it is important to examine the conceptualizations and development of mental models of both leaders and managers as coaches in order to better understand the definitions and their value within the organizational context (Berg & Karlsen, 2016; Dahling et al., 2016).

Coaching-based Leadership and Work Engagement

Researchers' interest in analysing the relationship between coaching delivered by managers and leaders and measures of well-being in the workplace, such as *Work Engagement* (WE), is on the rise (Tanskanen et al., 2019). WE has been conceptualized by Schaufeli et al. (2002) as a positive work-related state of mind that involves three dimensions: (1) vigour: characterized by high levels of energy and mental resilience while working; (2): dedication: denoting high involvement with one's work, characterized by a sense of significance, inspiration, enthusiasm, pride, and challenge; and (3) absorption: characterized by being deeply immersed in one's tasks. Engagement experienced at work arises from a motivational process that begins with the availability of job resources, such as social support, feedback, and leadership that stimulate the employee's motivation. Engaged employees experience a sense of energetic and effective connection with their work activities, being able to deal with high job demands (Schaufeli et al., 2002). As a result, employees reach desirable work-related outcomes such as organizational commitment and higher performance (Lee et al., 2019).

Although many factors may affect the development of WE, research has highlighted the potential influence of leadership on this positive outcome (Shuck & Herd, 2012). According to MacLeod and Clarke (2009), leaders promote engagement by offering coaching, feedback, and developmental opportunities to employees. Specifically, when leaders provide coaching, employees are engaged with their work

because they receive more support from their managers in achieving their goals (Lee et al., 2019) and, thus, develop a sense of attachment to their jobs. Research has confirmed the predictor role of coaching behaviours, such as direct communication, facilitate development, and support, on WE (Tanskanen et al., 2019).

Compared to external coaching, leaders as coaches have a greater influence on employee attitudes due to the proximal distance and daily interactions they establish with them (Theeboom et al., 2014). As a result of these one-on-one interactions, employees self-regulate their behaviour, increasing their motivation and developing their skills and personal strengths (Berg & Karlsen, 2016). Coaching leaders directly foster learning and development by encouraging employees to try new opportunities and reflect on their experiences. Thus, through coaching provided by their leaders, employees are likely to remain engaged with their work (Schaufeli & Taris 2014) and gain insight into the best way to fulfil their goals (Heslin et al., 2006).

Despite the few studies on this link, research examining the direct and indirect relationship between CBL and WE has increased in recent decades (Ladyshewsky & Taplin, 2018; Milner et al., 2018). Other studies have explored the mediating role of WE in the relationship between the coaching leader or manager and performance-related outcomes (Lee et al., 2019; Tanskanen et al., 2019). However, there are no studies that have systematically examined and synthesized the findings on this link.

Coaching-based Leadership and Performance

Job performance generally refers to an employee's effectiveness in his or her job. According to Goodman and Svyantek (1999), the dimensions of job performance include: (1) in-role or task performance, which refers to the fulfilment of tasks that are related to the formal job and directly serve organizational goals; and (2) extra-role or contextual performance, which refers to cooperative and social actions that go beyond the job requirements and are also beneficial to the organization. An example of extra-role performance is Organization Citizenship Behaviour (OCB), which consists of discretionary behaviours such as helping others or voluntary overtime (Williams & Anderson, 1991).

The increasing literature on coaching has identified job performance as one of the frequent outcome variables of CBL (Hui & Sue-Chan, 2018; Tanskanen et al., 2019). Coaching managers enhance employees' in-role performance by providing resources and clarifying goals and pathways. Specific coaching behaviours, such as providing

individualized close contact, delivering feedback, and supporting employees in their learning processes, enable them to develop and improve performance (Kim et al., 2014). For instance, if managers' coaching behaviour is based on trust and respect, employees are more likely to reflect these behaviours with customers (Pousa & Mathieu, 2014_a). Consequently, employees may feel greater empowerment to solve work activities and, therefore, perform better (Milner et al., 2018).

For some researchers, the coaching manager or leader is a form of organizational support that positively influences extra-role performance (Kim & Kuo, 2015). Specific coaching skills, such as open communication, one-on-one interaction, and customized guidance, are viewed as forms of managerial investment in employees (Kim & Kuo, 2015; Raza et al., 2017). As a result, employees are more likely to reciprocate favours to their managers by helping out their co-workers when they are sick or absent and by welcoming new employees.

Although empirical evidence showing a connection between coaching leaders or managers and task performance is still relatively limited, research exploring this link is increasing (Agarwal et al., 2009; Ellinger et al., 2011; Liu & Batt, 2010). Some research in the past decade has also analysed the influence of MC on extra-role performance (i.e. OCB; Ellinger et al., 2011; Kim & Kuo, 2015). Other studies have suggested underlying mechanisms (i.e. employee engagement, career stage, role clarity and satisfaction with work). Fewer studies have examined the impact of participating in CBL interventions on performance-related outcomes (Grant & Hartley, 2014; Ratiu et al., 2017). However, a consistent and integrated systematic review of empirical studies on the link between CBL and performance in the workplace is still missing.

Methodology

A systematic review was conducted to critically identify and describe empirical research available on CBL-WE and CBL-performance links within the work context. Following the steps provided by Denyer and Tranfield (2009), a literature search was conducted through a scientific database search service, using specific key terms. Articles were selected according to the research criteria, data were evaluated and then analysed, and results were synthesized, categorized, and then presented.

Search Strategy

In order to identify relevant studies to include in our review, an electronic search was performed based on abstract screening, using the following databases: PsycNET

(and PsycARTICLES), PubPsych, ProQuest Central and Business Source Premier. Because CBL is also known in the work field as 'leader as coach', 'manager as coach', 'MC' or 'supervisory coaching' (Liu & Batt, 2010; Pousa, Richards et al., 2018), these terms were also included in our search. The key words used were 'leadership*' OR 'leader*' OR 'manager*' OR 'managerial*' OR 'supervisor*'/ AND 'coaching*' OR 'coaching-based*' OR 'coach*'/ AND 'engagement*' OR 'performance*', NOT 'sport'.

Selection Criteria

To be included in the review, studies had to meet six criteria: (1) the study had to be published in the English or Spanish language (2) in a peer-reviewed academic journal (3) across the last two decades (from 2000 to the end of July, 2019), a period in which empirical studies on this topic have proliferated; (4) the study had to include work field samples, and so studies reporting sport, clinical, or educational samples were excluded; (5) the study had to address the relationship between coaching/leadership and WE and/or performance (i.e. studies in which coaching was provided by a supervisor/manager/leader and its link with the outcome variables); and (6) the study had to examine empirical data. Studies were not excluded based on research design. Both quantitative and qualitative studies were included, considering designs such as case, cross-sectional, and quasi-experimental studies. Book reviews, commentaries, and purely conceptual studies were excluded because they did not meet the requirements.

Data Abstraction and Synthesis

The search in the selected electronic databases was limited by the application of selection criteria 1 (language), 2 (year of publication), and 3 (peer-reviewed academic journals). This initial search resulted in 205 hits in PsycNet, 19 hits in PubPsych, 672 hits in ProQuest Central, and 53 hits in Business Source Premier. Subsequently, the abstracts of the extracted articles were scanned and all duplicate articles were removed, leaving 188 articles that were examined in greater detail by reading the full text. The Mendeley software programme was used to store, organize, and categorize the articles. Finally, applying selection criteria 4 (sample), 5 (topic), and 6 (empirical study), 51 articles published between 2001 and 2019 were included in our final review. Figure 1 shows the flow diagram, which represents the search and retrieval process.

Results

Following broad and narrow screening, 51 papers were considered suitable for inclusion in the review. After the articles were carefully read, analysed, and synthesized, six main themes associated with the purpose of the review emerged: 1) *coaching/leadership definition,* 2) *theoretical framework*, 3) *study characteristics,* 4) *measurements*, 5) *relationship between CBL and WE*, and 6) *relationship between CBL and performance.*

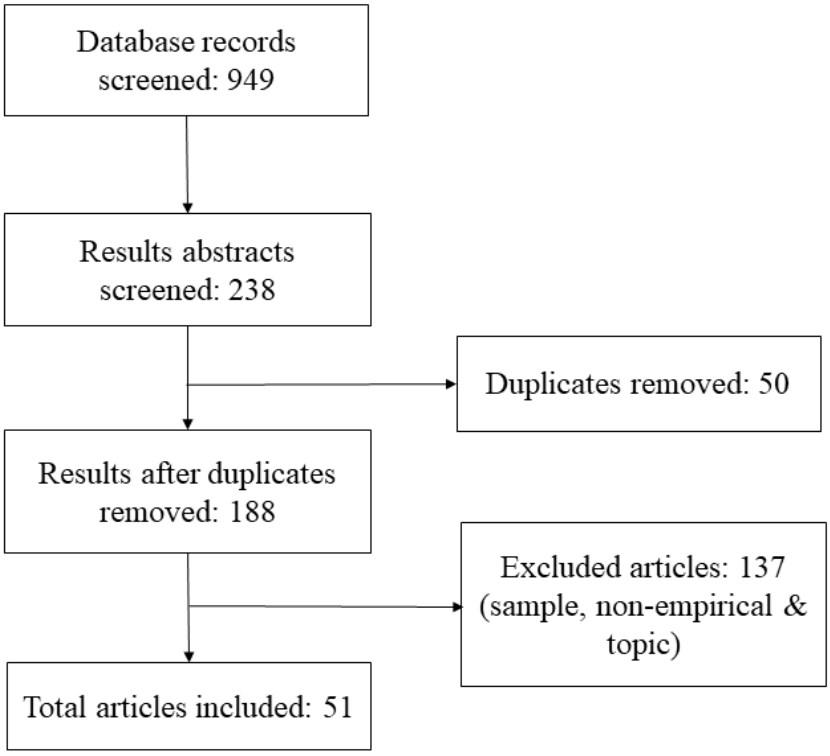

Fig. 1 Study selection flow diagram

Theme #1: Coaching/Leadership Definition

The terms used in the 51 studies that refer to coaching/leadership were related to: 1) *managerial coaching* (N = 32; i.e., 'managerial coaching', 'managerial coaching behaviours', 'manager as coach'); 2) *coaching leadership* (N = 10; i.e., 'coaching leadership', 'leader coaching', 'coaching based leadership' 'leader as coach', coaching as an aspect or skill of leadership); 3) *manager and leader coaching* (N = 1); 4) *supervisory coaching* (N = 7); and 5) *employee coaching* (N = 1). Table 1 summarizes

the constructs provided by all the selected studies.

Across the articles, we found different ways of defining *managerial coaching* or manager as coach. The most frequently used definition was conceptualized by eight studies (Cummings et al., 2014; David & Matu, 2013; Kim et al., 2013; Kim, 2014; Kim et al., 2014; Kim & Kuo, 2015; Ratiu et al., 2017; Raza et al., 2017) as an effective managerial and leadership practice that advances the employee learning process toward performing better and being more effective. Along similar lines, in seven other studies (Agarwal et al., 2009; Pousa & Mathieu, 2014a; 2014b; Pousa & Mathieu, 2015; Pousa et al., 2017; Pousa, Richards et al., 2018; Pousa, Hardie et al., 2018), the authors defined MC as a one-on-one, developmental interaction led by the manager to help the employee develop, grow, and achieve a higher level of performance by providing focused feedback and encouragement and raising awareness. In one article (Pousa, Richards et al., 2018), the authors state that MC is also known as the leader-as-coach model. The other studies offer similar definitions, adding extra information; for instance, Ellinger et al. (2005) conceptualized MC as a leadership style based on providing constructive feedback designed to enhance people's performance. More recently, Tanskanen et al. (2019) defined it as a leadership behaviour that supports and prompts individuals and work groups to set and attain goals, improve performance, develop competencies, and strengthen self-directed behaviour.

Of the 10 articles that referred to *coaching-based leadership*, three of them used the term 'coaching leadership', three used '(team) leader coaching', one used 'leader as coach', and the other four referred to coaching as an aspect of leadership (i.e. 'coaching' as a leadership behaviour, 'coach' as a leadership skill, 'coaching' as a component of effective leadership, and 'hands-on coaching' as a leader behaviour). For instance, Dello Russo et al. (2017, p. 772) defined '*coaching leadership'* as a leadership style that "is oriented to help employees maximize their potential and talents by paying attention to their needs and building an effective alliance". Moreover, '*(team) leader coaching'* has been defined as providing guidance, encouragement, and support, and helping members through a process of learning and development that enhances the use of their collective resources in pursuing team purposes (Dimas, Rebelo et al., 2016; Dimas, Renato et al., 2016). The four remaining studies referred to coaching as an aspect, component, skill, or behaviour of leadership. For instance, Hui and Sue-Chan (2018) referred to coaching as a component of effective leadership, and they conceptualized it as a goal-oriented management practice with the aim of helping employees improve their performance and

successfully adapt to change. Moreover, only one study included in this review (DiGirolamo & Tkach, 2019) offered a term integrating both leaders and managers namely *managers and leaders using coaching skills*, and defined it as "a style of participative management or leadership that integrated coaching skills into daily interactions in order to maximize individual and organizational growth" (p. 7).

The seven articles that used the term *Supervisory Coaching* (SC) focused on supervisors' or managers' coaching of employees at work. The most frequently used definition was provided by two studies (Lin et al., 2016; Liu & Batt, 2010) that conceptualized it as an unstructured, developmental process in which supervisors or managers provide one-on-one constructive feedback and guidance to employees so that they can recognize opportunities to improve themselves and enhance their contribution to the organization. More recently, Lee et al. (2019) stated that SC is at "the heart of managerial and leadership effectiveness" (p. 2), mainly through daily routine interactions between leaders and their followers. Finally, only one study (Weer et al., 2016) referred to *employee coaching*, defining it as an unstructured, developmental process where managers as internal coaches provide guidance and feedback to employees in order to enhance improvement and performance.

Theme #2: Theoretical Framework

Of the 51 studies analysed, 28 presented a theory to explain the association between the coaching leader or manager and the study outcome variables. These frameworks were predominantly drawn from social-based or leadership theories. The most commonly used theory was Bandura's (1988) Social Cognitive Theory (SCT), employed by seven studies. In organizational contexts, this theory states that employees can develop skills and behaviours by vicariously learning through guided mastery modelling (Bandura, 1988). Thus, through a role modelling process, MC (Dahling et al., 2016) and leader coach (Dello Russo et al., 2017) behaviours can result in performance improvements.

The second most frequently used theory within the selected articles (N = 5) was the Leader-Member Exchange (LMX) theory, first proposed by Graen and colleagues (Graen & Schiemann, 1978). According to this theory, leaders and managers can develop high-quality relationships with employees characterized by high degrees of mutual trust, respect, interaction, and support, enabling employees to achieve better performance. LMX has been applied to understand exchanges between managers in

their leader-as-coach role and employees (Anderson, 2013; Pousa et al., 2017).

Furthermore, a large number of studies (N = 20) have proposed different models or approaches to explain the dynamic interplay in the relationship between the leader or manager as coach and the employees, such as the model of coaching behaviours (Heslin et al., 2006), the behavioural and skills model of MC (Hagen, 2012; Hagen & Aguilar, 2012) based on displayed actions (i.e. facilitating behaviour) and beliefs that can support a coaching mentality, or the Job Demands-Resources (JD-R) model (Bakker & Demeroutti, 2007), which suggests coaching provided by supervisors as a job resource that initiate a motivational process from which work engagement arises, leading to better performance. Finally, none of the remaining three studies based their research on a model or theory. Table 1 presents a summary of the theoretical frameworks of the selected articles.

Theme #3: Study Characteristics

Of the 51 research articles, 18 were conducted in North America (12 from the United States and six from Canada), 12 in Europe, 12 in Asia, four in Australia, and five were multinational. All the papers were published after 2001, and most of them in the past decade (44/51). The sample sizes ranged from 13 (Wheeler, 2011) to 1534 participants (Tanskanen et al., 2019), with a mean sample size of 339.2 (SD = 287.7). To calculate the sample, we considered 54 studies because three of the selected articles included two studies each (Cajnko et al., 2014; David & Matu, 2013; Kim et al., 2014). The majority of these papers reported quantitative empirical survey studies (N = 45), a small number reported a qualitative approach (N = 3), and only three studies used a mixed-methods approach combining quantitative and qualitative methods.

Of the 45 quantitative studies, 35 were non-experimental and cross-sectional (three of them collected data in two or more waves), one was quasi-experimental and cross-sectional, and nine used a longitudinal study design, of which four conducted quasi-experimental designs involving pre-post tests, and five were non-experimental studies with data collected at two or more time points. Moreover, 35 studies were analysed at the individual (N = 28) or team (N = 7) level, whereas 14 used multilevel analyses.

Theme #4: Measurements

All quantitative and mix-methods studies included in this review used surveys (established, adjusted, and/or developed) as the data collection method. The dominant

instruments for measuring CBL or MC were the Coaching Behaviours Inventory (CBI; N = 14), followed by the Measurement Model of Coaching Skills (MMCS; N = 6) and the Behavioural Observation Scale (BOS; N = 4).

The CBI is a unidimensional measure developed by Ellinger et al. (2003; 2005) based on an interview-based qualitative study conducted by Ellinger (1997). Eight themes that describe the manager or supervisor's coaching behaviours were selected and operationalized in a seven-point Likert scale: using analogies, scenarios, and examples; broadening employees' perspectives; providing feedback to employees; soliciting feedback from employees; being a resource-removing obstacles; question framing to encourage employees to think through issues; setting and communicating expectations; and stepping into others' shoes to shift perspectives. Nine studies used the whole instrument (Ellinger et al., 2003; 2005; Hsu et al., 2019; Kim et al., 2014; 2013; Pousa & Mathieu, 2014_a; 2014_b; 2015; Pousa, Hardie, et al., 2018), and five used only part of it (Ellinger et al., 2011; 2008; Kim, 2014; Pousa et al., 2017; Pousa, Richards, et al., 2018).

The MMCS was developed by McLean et al. (2005), and then revised and modified by Park et al. (2008). This last version consists of a 20-item scale composed of five subscales designed to measure the following manager coaching skills on a seven-point Likert scale: open communication; team approach; value people; accept ambiguity; and facilitating development. Three studies used the complete version of the scale (Ali et al., 2018; Ladyshewsky & Taplin, 2017; 2018), and three used only part of it (Hagen and Aguilar, 2012; Kim & Kuo, 2015; Raza et al., 2017).

The BOS developed by Heslin et al. (2006) presents a 10-item measure divided into three subscales that reflect three types of MC (inspiration, guidance, and facilitation), measured on a five-point Likert scale. Two manuscripts used the whole instrument (Kunst et al., 2018; Lin et al., 2016), and the other two used only one dimension measuring facilitation (Pousa et al., 2017; Pousa, Richards, et al., 2018).

Table 1 Summary of coaching/leadership definitions and theoretical frameworks

No.	Author(s)/Year	Coaching/Leadership construct	Theoretical framework
1	Agarwal et al. (2009)	MC	Feedback in organizational settings SCT and behaviour modelling
2	Ali et al. (2018)	MC	Perceived organizational support theory
3	Buljac-Samardzic & van Woerkom (2015)	MC	Input-process-output framework
4	Cajnko et al. (2014)	MC	MC model
5	Cummings et al. (2014)	MC	Coaching models
6	Dahling et al. (2016)	MC	Feedback intervention theory Goal setting theory SCT
7	David & Matu (2013)	MC behaviours/skills	Behavioural model and skills model of MC
8	Dello Russo et al. (2017)	Coaching Leadership style	SCT
9	Dimas, Rebelo et al. (2016)	Leader coaching	SCT and vicarious learning
10	Dimas, Renato et al. (2016)	(Team) leader coaching	Does not provide theoretical framework
11	DiGirolamo & Tkach (2019)	Managers and leaders using coaching skills	The directive-participative spectrum
12	Ellinger et al. (2011)	MC	Social capital theory
13	Ellinger et al. (2003)	Supervisory coaching	Person-role model
14	Ellinger et al. (2005)	MC	MC

15	Ellinger et al. (2008)	MC	Resource-based theory
16	Grant & Hartley (2014)	Leader as coach	Solution-focused cognitive-behavioural approach Transfer of training
17	Hagen & Aguilar (2012)	MC	Goal setting theory
18	Hui & Sue-Chan (2018)	Coaching as a component of effective leadership	Model of coaching behaviours Situated theory of adaptive learning
19	Hsu et al. (2019)	MC	MC model
20	Kim (2014)	MC	Path-goal leadership theory Organization support theory
21	Kim & Kuo (2015)	MC	Social exchange theory
22	Kim et al. (2014)	MC	Path-goal leadership theory
23	Kim et al. (2013)	MC	MC
24	Kline (2003)	(Team) leadership skills (facilitator, coach, manager)	Market orientation approach
25	Kunst et al. (2018)	MC (behaviour)	Achievement goal theory
26	Ladyshewsky (2010)	Manager as coach	Manager as coach
27	Ladyshewsky & Taplin (2017)	MC	Manager as coach
28	Ladyshewsky & Taplin (2018)	Manager as coach	Manager as coach

29	Latham et al. (2012)	Supervisory coaching	Reinforcement theory Goal setting SCT
30	Lee et al. (2019)	Supervisory coaching	Job demands-resources model
31	Lin et al. (2017)	Manager as coach	Implicit person theory Regulatory focus theory
32	Lin et al. (2016).	Supervisor coaching	Self-regulation theory
33	Liu, & Batt (2010)	Supervisory coaching	Systems approach
34	Longenecker & Neubert (2005)	MC	Does not provide theoretical framework
35	Moen & Skaalvik (2009)	CBL	Goal setting theory SCT Intra-personal causal attribution theory Self-determination theory
36	Pousa, & Mathieu (2014a)	Supervisory Coaching	LMX theory
37	Pousa, & Mathieu (2014b)	MC	LMX theory
38	Pousa & Mathieu (2015)	MC	SCT
39	Pousa et al. (2017)	MC	Social-exchange theory LMX theory
40	Pousa, Richards et al. (2018)	MC	LMX theory
41	Pousa, Hardie et al. (2018)	MC	MC model

42	Ratiu et al. (2017)	MC	Transformational leadership theory
43	Raza et al. (2017)	MC	The perceived organization support theory
44	Schaubroeck et al. (2016)	Team leader coaching	Group leadership
45	Stoker (2008)	Coaching leadership behaviour	Theories describing effective leadership for self-managing teams
46	Sue-Chan et al. (2011)	Supervisor coaching	LMX theory
47	Tanskanen et al. (2019)	MC	Job demands-resources model
48	Wageman (2001)	Two kinds of leader behaviours: design choices and hands-on coaching.	Self-managing team
49	Weer et al. (2016)	Employee coaching	Regulatory focus theory
50	Wheeler (2011)	Coaching behaviours by line managers	Does not provide theoretical framework
51	Zuñiga-Collazos et al. (2019)	MC	MC

Furthermore, seven studies (Cajnko et al., 2014; Cummings et al., 2014; Dahling et al., 2016; David & Matu, 2013; DiGirolamo & Tkach, 2019; Liu & Batt, 2010; Zuñiga-Collazos et al., 2019) used surveys developed specifically to assess coaching/leadership, and two studies (Latham et al., 2012; Moen & Skaalvik, 2009) did not measure these constructs because they were quasi-field experiments based on the effects of an intervention on work-related outcomes. Moreover, the two mix-methods studies used surveys developed specifically for the research to measure leaders' coaching behaviours (Wageman, 2001), and coaching skills, ability to apply coaching, quality of leadership, and ability to recognise when to coach (Grant & Hartley, 2014). Regarding the three qualitative studies (Ladyshewsky, 2010; Longenecker & Neubert, 2005; Wheeler, 2011), the data were collected from multiple sources, including unstructured interviews, semi structured interviews, and web-based discussion boards.

Of all the studies in this review, 33 focused only on the employees' perception of their supervisors' coaching attributes; 10 studies integrated both employees' perceptions and their supervisors/managers' self-perceptions in their surveys; four studies included only the supervisors/managers' self-perceptions of their coaching attributes; and only one study used the managers' supervisor ratings.

Regarding WE, in the majority of the studies (N = 7), it was measured with the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002), which contains three dimensions (vigour, dedication, and absorption) with three items each. Only one study (Grant & Hartley, 2014) measured this construct with a single statement *("I feel more engaged in my work since completing the coaching workshop"*) developed for the research.

Finally, most of the studies related to the CBL-performance link (N = 30) measured performance-related variables with previously validated scales, such as Williams and Anderson's (1991) scale and Porter and Lawler's (1968) scale. Fewer studies (N = 11) developed instruments to measure performance for the purposes of the research. Other studies (N = 7) collected objective metrics such as archival organizational records (Dahling et al., 2016) or different company performance indicators (i.e. product profitability, cost management, profit; Cajnko, et al., 2014), and only two studies used previously validated (Sue-Chan et al., 2011) or developed scales (Wageman et al., 2001) along with objective performance. An overview of the general study characteristics and data collection methods can be found in Table 2.

Theme #5: Relationship between Coaching-based Leadership and Work Engagement

Findings from eight studies measured the relationship between leaders' or managers' coaching and WE, and all of them considered it at the individual level of analysis. The majority of the studies (7) were cross-sectional and evaluated WE as an employee-related outcome. Only one study (Grant & Hartley, 2014) evaluated WE as a leader-related outcome (the leader' perception) in a longitudinal quasi-experimental design.

All eight studies found a positive association with WE. Specifically, four studies found a direct or indirect significant association with WE as an outcome. Ladyshewsky and Taplin's (2017) results indicated a positive significant relationship between MC behaviour and employee WE. More recently, the same authors (Ladyshewsky & Taplin, 2018) found that the positive influence of MC on employee WE was mediated by the organizational learning culture. Moreover, DiGirolamo and Tkach (2019) found a positive relationship between the use of coaching skills by managers and leaders and higher team-members work engagement. In a quasi-experimental study, Grant and Hartley's (2014) findings demonstrated that a leader as coach programme was effective in increasing leaders' workplace engagement.

In the four remaining studies, WE played a mediating role in the relationship between coaching and performance-related outcomes. Ali et al.'s (2018) results indicated that MC influences employee job performance directly and indirectly through WE. Similarly, but in a multilevel analysis, Tanskanen et al. (2019) showed that MC is connected to individual and unit-level performance directly and indirectly via WE. Lin et al.'s (2016) findings demonstrated the mediated role of WE in the relationship between future work-self salience and both supervisor-rated and archival sales performance, and that these relationships were moderated by SC. Finally, Lee et al. (2019) found a positive and significant link between transformational (but not transactional) leadership and SC, and that this latter job resource mediates the relationship between transformational leadership and WE. Additionally, the results indicated that WE mediated the relationships between SC and turnover intention. The most typical explanation for the mediating effect of WE in the link between coaching-based leaders and performance (Lee et al., 2019; Tanskanen et al., 2019) is based on the JD-R model, which states that good leadership functions as a resource for

Table 2 Characteristics of the studies

No.	Author/Year	Country	Sample	Method/Design	Instruments	Analysis	Level of analysis
1	Agarwal et al. (2009)	USA	328 direct sales force employees 93 district managers	Quantitative Cross-sectional Quasi-experimental (surveys distributed 3 months after the programme)	Established and adjusted scales	HLM	Multilevel
2	Ali et al. (2018)	Pakistan	183 public sector employees	Quantitative Cross-sectional	Established scales	SEM	Individual
3	Buljac-Samardzic & van Woerkom (2015)	The Nether-lands	423 team members representing 122 teams and 49 managers.	Quantitative Longitudinal (two points time collected)	Established scales	CA RA Multilevel Regression Analyses	Team
4	Cajnko et al. (2014)	Slovenia	Study 1: 571 managers Study 2: 728 employees	Quantitative Cross-sectional	Established and adjusted scales	CA RA	Individual
5	Cummings et al. (2014)	Canada	21 Long term care managers	Quantitative Longitudinal study Quasi-experimental design (pre-post)	Scales development	Paired t test Nonparametric signed-rank test	Individual

6	Dahling et al. (2016)	USA	1,246 sales representatives and 136 district managers	Quantitative Repeated cross-sectional	Established and developed scales Archival organizational records	HLM	Multilevel
7	David & Matu (2013)	Romania	Study 1: 32 participants from a post-graduate course, 22 middle level managers and 40 employees Study 2: 22 middle-managers	Quantitative Study 1: Cross-sectional Non-experimental Study 2: Longitudinal Quasi-experiment (pre-post)	Scale development and established scales	CA	Individual
8	Dello Russo et al. (2017)	Italy	576 employees and 112 leaders	Quantitative Cross-sectional	Established scales	HLM	Multilevel
9	Dimas, Rebelo et al. (2016)	Portugal	471 employees from 75 teams	Quantitative Cross-sectional	Established scales	HLM	Multilevel
10	Dimas, Renato et al. (2016)	Portugal	344 employees working in 52 teams and 51 leaders.	Quantitative Cross-sectional	Established scales	Standard multiple regressions	Team
11	DiGirolamo & Tkach (2019)	North America/Europe/ Asia	154 team members	Mixed-method (quanti-quali)	Scale development and established scales	CA	Individual
12	Ellinger et al. (2011)	USA	408 employees	Quantitative Cross-sectional	Established scales	SEM	Individual

13	Ellinger et al. (2003)	USA	438 employees and 67 supervisors	Quantitative Cross-sectional	Scales development and established scales	Stepwise regression analysis	Individual
14	Ellinger et al. (2005)	USA	438 warehouse worker and 67 warehouse supervisors	Quantitative Cross-sectional	Established and adjusted scales	RA	Multilevel
15	Ellinger et al. (2008)	USA	123 dyads of frontline service employees and their supervisors	Quantitative Cross-sectional	Adjusted scales	HMRA	Multilevel
16	Grant & Hartley (2014)	Australia	373 Participants (93 responded the questions)	Mixed-method Longitudinal Quasi-experimental (pre-post)	Developed scales Semi-structured interviews	Percentage increase analysis	Individual
17	Hagen & Aguilar (2012)	USA	167 Team leaders and 212 team members	Quantitative Cross-sectional	Established and adjusted scales	Multiple regression analysis	Team
18	Hui & Sue-Chan (2018)	China	51 managers and 373 subordinates	Quantitative Longitudinal (data collected in four waves)	Established and adjusted scales	MSEM	Multilevel
19	Hsu et al. (2019)	Taiwan	689 employees from local enterprises	Quantitative Cross-sectional	Established scales	SEM	Individual
20	Kim (2014)	Korea	234 employees in a private conglomerate	Quantitative Cross-sectional	Established scales	SEM	Individual

21	Kim & Kuo (2015)	Taiwan	280 manager–employee dyads	Quantitative Cross-sectional	Established scales	HMRA	Multilevel
22	Kim et al. (2014)	USA/ Korea	Study 1: 534 public employees Study 2: 270 public employees	Quantitative Cross-sectional	Established scales	SEM	Individual
23	Kim et al. (2013)	Korea	482 employees	Quantitative Cross-sectional	Established scales	SEM	Individual
24	Kline (2003)	Canada	52 employees	Quantitative Cross-sectional	Established and developed scales	CA	Team
25	Kunst et al. (2018)	The Netherlands	521 teachers	Quantitative Longitudinal (two-wave study)	Established scales	Multinomial logistic regression analysis	Individual
26	Ladyshewsky (2010)	Australia	74 adult participants	Qualitative Case study	Unstructured interviews Web-based discussion boards	Reduction strategy	NA
27	Ladyshewsky & Taplin (2017)	Australia	195 MBA students	Quantitative Cross-sectional	Established scales	CA	Individual
28	Ladyshewsky & Taplin (2018)	Australia	195 MBA students	Quantitative Cross-sectional	Established scales	SEM	Individual
29	Latham et al. (2012)	USA	3 restaurants with 30 servers each	Quantitative Longitudinal Quasi-experimental (pre-	Developed scales	Time-series analysis	Individual

				post)			
30	Lee et al. (2019)	Malaysia	500 employees, nested in 65 workgroups	Quantitative Cross-sectional	Established scales	HLM	Multilevel
31	Lin et al. (2017)	Taiwan	119 employees	Quantitative Cross-sectional	Established scales	HRA	Individual
32	Lin et al. (2016).	China	441 sales employees and 98 supervisors	Quantitative Repeated cross-sectional (3 times)	Established scales Archival records	HLM	Multilevel
33	Liu & Batt (2010)	USA	9,918 observations from 2,327 operators in 42 groups in 31 centres (327 workers and 58 supervisors)	Quantitative Longitudinal (5 time points)	Developed scales Company archives	HLM	Multilevel
34	Longenecker & Neubert (2005)	USA	45 focus groups consisting of 225 middle managers	Qualitative Focus group	Semi-structured interview	Percentage analysis	NA
35	Moen & Skaalvik (2009)	Norway	144 executives (20) and middle managers (124)	Quantitative Longitudinal Quasi-experimental (pre- post test control- group)	Established and developed scales	Independent and paired sample t-test	Individual
36	Pousa & Mathieu (2014a)	Canada	122 financial advisors with sales responsibilities	Quantitative Cross-sectional	Established scales	SEM	Individual

37	Pousa & Mathieu (2014b)	Latin America/Canada	176 (Sample 1: salespersons; Sample 2: frontline employees	Quantitative Cross-sectional	Established and adjusted scales	Stepwise linear regression	Individual
38	Pousa & Mathieu (2015)	Canada	122 financial advisors (front-line employees)	Quantitative Cross-sectional	Established scales	SEM	Individual
39	Pousa et al. (2017)	Canada	321 frontline employees	Quantitative Cross-sectional	Established and adjusted scales	SEM	Individual
40	Pousa, Richards et al. (2018)	Canada	318 financial advisors	Quantitative Cross-sectional	Established and adjusted scales	SEM	Individual
41	Pousa, Hardie et al. (2018)	Canada/China	185 frontline employees	Quantitative Cross-sectional	Established and adjusted scales	SEM	Individual
42	Ratiu et al. (2017)	Romania	23 mid-level managers	Quantitative Longitudinal Quasi-experiment (pre-post)	Established scales	Paired sample t-test	Individual
43	Raza et al. (2017)	Pakistan	280 employees	Quantitative Cross-sectional	Established scales	HRA	Individual
44	Schaubroeck et al. (2016)	Israel	338 employees representing work teams	Quantitative Repeated cross-sectional (two waves)	Established and adjusted scales	HLM	Team
45	Stoker (2008)	The Netherlands	154 team members of 21 self-managing teams	Quantitative Cross-sectional	Established and developed scales	HMA	Multilevel

46	Sue-Chan et al. (2011)	China	270 supervisor–subordinate dyads	Quantitative Cross-sectional	Established and adjusted scales	HMA	Multilevel
47	Tanskanen et al. (2019)	Finland	655 employees in measurement validation 879 employees in hypothesis testing	Quantitative Cross-sectional	Established and adjusted scales	MSEM	Multilevel
48	Wageman (2001)	USA	34 self-managing teams	Mix method (quali and quanti)	Structured interviews Established, adjusted and developed scales Organizational archives	RA	Individual/team
49	Weer et al. (2016)	USA	714 managers and their subordinate teams	Quantitative Longitudinal (5 waves research)	Established and adjusted scales	SEM	Team
50	Wheeler (2011)	UK	6 line managers and 7 front-line staff	Qualitative Organizational case study	Unstructured interviews developed questionnaire Document Review	Content analysis	NA
51	Zuñiga-Collazos et al. (2019)	Spain/ South America	214 mid-level executives of private companies	Quantitative Cross-sectional	Scale development	SEM	Individual

Note. HLM = Hierarchical Linear Modelling; SEM = Structural Equation Modelling; HMRA = Hierarchical Multiple Regression Analyses; MSEM = Multilevel Structural Equation Model; CA = Correlation Analysis; RA = Regression Analysis; NA = Not Applicable; HMA = Hierarchical multilevel analysis; HRA = Hierarchical regression analysis

employees, enhancing a motivational process that leads via work engagement to better performance.

Theme #6: Relationship between Coaching-based Leadership and Performance

Forty-nine studies measured the relationship between leaders' or managers' coaching and performance-related outcomes (i.e. task performance, OCB, goal attainment). The majority of these studies are quantitative and have a cross-sectional design. In all of them, performance was included as an outcome variable, and in most of them coaching/leadership constructs were considered as independent variables. In only a few studies, coaching/leadership played a moderating (N = 4) or mediating (N = 1) role.

Individual-level

The majority of the studies (N = 33) explored performance at the individual level of analysis. Twenty-eight of them measured employee-related performance. Of them, 17 (Ali et al., 2018; Agarwal et al., 2009; Dello Ruso et al., 2017; DiGirolamo & Tkach, 2019; Ellinger et al., 2011; Kim, 2014; Kim et al., 2014; 2013; 2018; Lin et al., 2017; Pousa & Mathieu; 2014a; 2014_b; 2015; Pousa et al., 2017; Pousa, Richards et al., 2018; Pousa, Hardie et al., 2018; Stoker, 2008) assessed the employees' perception (self-perception). In seven studies (Ellinger et al., 2003; 2005; Grant & Hartley, 2014; Hui & Sue-Chan, 2018; Hsu et al., 2019; Kim & Kuo, 2015; Raza et al., 2017) performance was evaluated by their direct supervisors; in two studies (Dahling et al., 2016; Liu & Batt, 2010), data were obtained from objective metrics; and in the remaining two studies (Lin et al., 2016; Sue-Chan et al., 2011), both performance reported by supervisors and objective performance were collected. Furthermore, of the 28 employee-related performance studies, four examined the direct relationships among the variables without suggesting underlying mechanisms, whereas the remaining 24 studies suggested mediators (N=17) or moderators (N=10) to explain the relationships among the study variables (see Table 3 for an outline of study variables).

The other five individual-level studies evaluated leader-related performance (i.e., managerial performance, goal attainment, goal setting), in all cases, self-perceived. Three of them used a quasi-experimental design with pre-post tests (Grant & Hartley, 2014; Moen & Skaalvik, 2009; Ratiu et al., 2017), and the other two were qualitative. In one of them, Longenecker and Neubert (2005) identified *"clarify what results/performance outcomes are needed/desired"* as one of the most critical practices

for managers to employ when implementing coaching. The other one (Ladyshewsky, 2010) is a case study whose findings identified awareness of performance management as one of the key factors in the manager as coach-subordinate relationship.

Unit- and organizational-level

Furthermore, eight studies examined performance outcomes at the unit level of analysis (i.e., team performance). Only two of these studies examined and demonstrated a direct and significant relationship (Hagen & Aguilar, 2012; Kline, 2003), whereas the rest of the studies (N = 6; Buljac-Samardzic & van Woerkom, 2015; Dimas, Rebelo et al., 2016; Dimas, Renato et al., 2016; Schaubroeck et al., 2016; Wageman, 2001; Wheer, 2016) included mediators or moderators to explain the relationships.

Even fewer articles (N = 3) examined performance at the organizational level. Wheeler (2011) focused on the achievement of organizational goals, Cajnko et al. (2014) included company performance indicators such as product profitability, cost management, job content, and income growth, and Zuñiga-Collazos et al. (2019) evaluated different components of organizational performance such as quality of the product/service, efficiency of operational processes, organizations of tasks, market share and profitability, and productivity. Three studies (Cummings et al., 2014; Ellinger et al., 2008; Latham et al., 2012) evaluated both individual and organizational-related performance, and two (Tanskanen et al., 2019; David & Matu, 2013) examined both individual and team-related performance.

Effects over time

In terms of the longitudinal impact of coaching leaders/managers on performance-related outcomes, only 6 studies examined the effects after participating in an intervention. None of the studies used a randomized control trial design, and although one of them (Moen & Skaalvik, 2009) included a control group, separate analyses were conducted for the experimental and control groups without conducting repeated measures.

Furthermore, with two exceptions (David & Matu, 3013; Moen and Skaalvik, 2009), findings in the remaining studies were positive, supporting the impact of a leader or manager's coaching intervention (Cummings et al., 2014; Grant & Hartley, 2014; Latham et al., 2012; Ratiu et al., 2017) on performance-related outcomes. Moreover, only Latham et al.'s (2012) study evaluated the potential impact on performance a certain number of months after the intervention. In spite of demonstrating increases at

post assessment, performance decreased when the coaching subsequently ended. Therefore, the coaching's long-term sustained influence was not supported in this study.

Finally, five studies (Buljac-Samardzic & van Woerkom, 2015; Hui & Sue-Chan, 2018; Kunst et al., 2018; Liu & Batt, 2010; Weer et al., 2016) examined the relationship between coaching leaders/managers and performance-related outcomes using a longitudinal non-experimental survey design with data collected at two or more time points. The majority of these studies demonstrated positive and significant associations among the variables over time (see Table 3).

Non-significant results

Not surprisingly, in most of the studies, every hypothesis was supported, indicating a positive and significant association between leaders/managers' coaching and performance-related outcomes. In analysing the relatively few non-supported hypotheses, different patterns emerged. First, in some studies the direct link between coaching leaders and performance was not supported (Dimas, Renato et al., 2016; Raza et al., 2017; Wageman, 2001). In another study (Kunst et al., 2018), findings indicated that only one of the coaching behaviours (facilitation, and not guidance and inspiration) was significant in stimulating a success-oriented profile. Second, in two quasi-experiment studies (Moen & Skaalvik, 2009; David & Matu, 2013), the impact of the intervention on performance was not significant, although findings indicated a strong trend toward improvement after participation. Third, in some studies, although positive relationships between coaching leaders or managers and performance-related outcomes were found, the mediation (i.e. Buljac-Samardzic & van Woerkom, 2015) or moderation (i.e. Agarwal et al., 2009; Pousa et al., 2017) paths were not supported. A summary of the study variables and key findings is presented in Table 3.

Discussion and Agenda for Future Research

The aim of this review was to gain deeper insight into the CBL-WE and CBL-performance relationships by systematically integrating existing empirical studies that have addressed these links. This section presents an analytical synthesis and future research directions, based on the review of findings from 51 empirical studies, for each of the themes mentioned in the results.

Theme #1: Coaching/Leadership Definition

Although interest in CBL research is growing, the findings demonstrate clear gaps related to its conceptualization that need to be addressed. To begin with, in line with

previous researchers' assessment, evidence from the 51 empirical studies demonstrated a lack of consensus about a clear CBL definition or model (Berg & Karlsen, 2016; Batson & Yoder, 2012). Although some of the definitions used in the studies are quite similar, there is no agreement about how they are called or named. Whereas the majority of them used the term CBL or MC, others used SC, employee coaching or coaching as an aspect or skill of leadership to refer to analogous definitions.

Furthermore, the most frequent definitions of CBL, MC, or SC contain the word 'leadership'. For instance, MC was mostly defined as an effective managerial and leadership practice that promotes the employee's learning process for better performance. MC was also defined as an important leadership behaviour because of its empowering and facilitating nature, or as a leadership style designed to get the most out of people. Moreover, some of the authors included in our review (i.e. Pousa, Richards et al., 2018) noted that MC is also known as the leader-as-coach model. Along similar lines, SC is considered to lie at the heart of leadership and managerial effectiveness (Lee et al., 2019). Thus, the findings support the notion that one consistent concept of 'Coaching-based Leadership' may integrate the majority of the definitions provided in this review because they mostly refer to effective leadership practices and behaviours based on one-on-one, developmental interactions to help employees develop, grow, and achieve better performance.

This proposal agrees with previous researchers. For instance, when discussing the implications of the manager-as-coach role for leadership, Anderson (2013) noted that different coaching behaviours identified (i.e. goal setting and planning, development orientation, and feedback) indicate that the manager as coach is better understood through the 'lens' of leadership practice than through the perspective of specialized coaching. The author's findings suggest that MC is not a one-way, directive, performance-driven management tool. To be successful, the manager as coach requires the acceptance of relational and social constructivist features of leadership processes, where the hierarchical space between leaders and followers is diminished, and the potential for growth, challenge, and change is acknowledged. More recently, DiGirolamo & Tkach (2019) proposed that coaching skills could be adopted as a tool to be used as part of a participative style of management, as well as used by leaders to inquire employees how they see themselves working toward a vision. Therefore, the

Table 3 Summary of study findings

No.	Author/Year	Independent variables	Mediators	Moderators	Outcome variables	Main findings related to the current study
1	Agarwal et al. (2009)	Intervention: managers' coaching intensity	NO	Coaching intensity	Subordinates' performance	Positive direct relationship (S) No cross-level moderating effect (NS)
2	Ali et al. (2018)	MC skills	WE, LMX quality, JS, TI	NO	Employee JP	Positive direct and indirect effect via mediating variables (S)
3	Buljac-Samardzic & van Woerkom (2015)	MC	Team reflection	Team reflection	Team performance	Positive moderating effect (S) Non-significant mediating effect (NS) MC only led to better performance when team reflection was low
4	Cajnko et al. (2014)	MC	NO	NO	Employee satisfaction, company performance	Positive relationship (S)
5	Cummings et al. (2014)	Intervention: leadership coaching workshop	NO	NO	Managers' intentions to become coaches, use of coaching skills	Significantly increased (S)
6	Dahling et al. (2016)	MC skill and frequency	Sales team role clarity	MC skill	Sales goal attainment	Positive direct relationship (S) and partial mediating effect (S) Cross-level moderating effect on the link between coaching frequency and outcomes (S)

7	David & Matu (2013)	MC behaviours and skills Rational MC programme	NO	NO	Coaching skills and behaviours, team satisfaction, emotional intelligence, managerial rational attitudes, performance	Study 1: positive correlation (S) Study 2: strong trend for performance improvement (NS)
8	Dello Russo et al. (2017)	Supervisors' CBL style	NO	Employee age	Perceived Organizational Politics in Performance Appraisal (OPPA)	High CBL negatively related to perceptions of OPPA only in the case of older employees (S)
9	Dimas, Rebelo et al. (2016)	Leader coaching	Peer coaching	NO	Satisfaction with the team, team performance	Positive mediating effect (S)
10	Dimas, Renato et al. (2016)	Leader coaching	Peer coaching	NO	Satisfaction with the team, positive and negative emotions, team performance	Direct effect on outcome (NS)
11	DiGirolamo & Tkach (2019)	Managers and leaders using coaching skills	NO	NO	WE, working relationships, TI	The use of coaching was significantly correlated with WE and reduced TI (S)
12	Ellinger et al. (2011)	Organizational investments in social capital	NO	MC	Commitment to service quality, JP, OCB	The positive direct relationship was stronger at low to moderate levels of MC (NS)
13	Ellinger et al. (2003)	SC behaviours	NO	NO	JS, performance	Positive relationship (S)

14	Ellinger et al. (2005)	SC behaviours	NO	NO	JS, performance	Positive relationship (S)
15	Ellinger et al. (2008)	Market orientation	NO	Formal training, coaching, empowerment	Employee performance, OP	Moderating effect of coaching (S)
16	Grant & Hartley (2014)	Intervention: leader as coach programme	NO	NO	Quality of leadership and coaching skills, engagement, goal attainment	Significantly increased (S)
17	Hagen & Aguilar (2012)	Coaching expertise, project difficulty, team Empowerment	NO	NO	Team learning outcomes	Project difficulty explained the most variance in outcomes for team leaders, and coaching expertise and team empowerment explained the most variance in outcomes for team members (S)
18	Hsu et al. (2019)	MC	Psychological capital	NO	JP, team commitment	Positive direct relationships (S) and mediating effect (S)
19	Hui & Sue-Chan (2018)	Styles variations: guidance versus facilitation-based coaching	Adaptive performance, job related feelings of anxiety	NO	Adaptive performance, task performance, job related feelings of anxiety	Style variations reflected by guidance versus facilitation had differential effects on subordinates' outcomes (S)

20	Kim (2014)	MC behaviour	Role clarity, JS, organization commitment	NO	Role clarity, JP, JS, organization commitment	Indirect impact via mediating variables (S)
21	Kim et al. (2014)	MC	Role clarity	NO	JS, JP	Positive indirect relationship via mediator (S)
22	Kim et al. (2013)	MC	JS, role clarity	NO	Career and organization commitment, JP.	Indirect impact via mediating variables (S)
23	Kim & Kuo (2015)	MC	Manager's trustworthiness	NO	Employee in-role performance, OCBI and OCBO	Direct positive impact on OCBI and OCBO, Indirect influence on in-role performance, OCBI and OCBO via mediating variable (S)
24	Kline (2003)	Team leadership skills (facilitator, coach, and manager), work unit market orientation	NO	NO	Perceived team performance	Positive direct relationships (S)
25	Kunst et al. (2018)	MC behavior (inspiration, guidance, facilitation)	NO	NO	Employees' goal orientation profiles	Facilitative MC supported change to outcome (S), whereas guidance and inspirational MC did not support this transition (NS)
26	Ladyshewsky (2010)	Manager as coach	NO	NO	Trust and performance management.	Positive relationship (S)
27	Ladyshewsky &	Manager as coach	NO	NO	WE	Positive relationship (S)

	Taplin (2017)	behaviour				
28	Ladyshewsky & Taplin (2018)	Manager as coach	Organizational learning culture	NO	WE	Positive influence on outcome via mediating variable (S)
29	Latham et al. (2012)	Intervention: feedback obtained from mystery shoppers for managers to coach their employees	NO	NO	Employee performance, OP	Significantly increased (S)
30	Lee et al. (2019)	Transformational and transactional leadership styles	SC, performance feedback, WE	NO	WE, TI	Positive link between transformational (but not transactional) leadership and SC (S) Mediating role of SC (S) Mediating role of WE between SC and performance feedback and TI (S)
31	Lin et al. (2017)	Different coaching orientations – promotion and prevention	NO	Coachees' implicit person beliefs LMX	Subordinate performance	Promotion coaching orientation positively related to outcome (S) Positive moderating effects (S)
32	Lin et al. (2016)	Future work self-salience	Employee engagement	Supervisor coaching	JP	Full mediating effect (S) Moderating effect: relationships stronger for employees exposed to higher levels of supervisor coaching (S)
33	Liu & Batt	SC	NO	Work	Employee performance	Positive prediction over time (S)

	(2010)			automation, process change, pairing, projects, group incentives		Moderating effect: relationship stronger where supervisors made greater use of group incentives, process automation was lower, and process changes were less frequent (S)
34	Longenecker & Neubert (2005)	Coaching as a performance improvement practice	NO	NO	Critical practices	Effective coaching leads to improved managerial performance (S)
35	Moen & Skaalvik (2009)	Coaching based leadership programme	NO	NO	Self-efficacy, causal attribution, goal setting, self- determination	NS effects on goal setting
36	Pousa & Mathieu (2014a)	Manager's coaching	Salesperson's and customer orientation	NO	Employee's performance	Positive direct impact on outcome (S) Indirect influence via mediating variables (S)
37	Pousa & Mathieu (2014b)	MC	NO	NO	Individual performance	Positive increases (S)
38	Pousa & Mathieu (2015)	MC	Employee self-efficacy	NO	Employee's behavioural performance, employee's results performance	Fully mediating effect (S)
39	Pousa et al. (2017)	MC	Behavioural performance	Employee's career stage	Sales performance, behavioural performance	Positive direct effect (S) No moderation effect (NS)
40	Pousa, Hardie et al. (2018)	MC	Customer and sales orientation	NO	Employee performance	Positive direct and indirect effect via customer orientation (S), but not sales orientation (NS)

41	Pousa, Richards et al. (2018)	MC	Behavioural performance	Role of gender	Employees' behavioural and results performance	Positive effect on female behavioural and result and male behavioural performance (S) NS effect on male result performance
42	Ratiu et al. (2017)	Intervention: the rational MC program	NO	NO	Leadership behaviour, performance	Significantly increased (S)
43	Raza et al. (2017)	MC	Thriving at work	NO	Task performance, OCBI and OCBO	Positive relationship with in-role performance (S), but NS OCBI and OCBO Positive mediation role (S)
44	Schaubroeck et al. (2016)	Team leader coaching behaviours	Experiential team learning	Team contentious communication	Team innovation effectiveness Team task performance	Indirect positive relationships through mediating variable (S), only among teams with an average or higher level of contentious communication (S)
45	Stoker (2008)	Directive and coaching behaviour styles	NO	Individual team tenure	Individual performance, emotional exhaustion	Team members with a short team tenure reported lower levels of performance and greater emotional exhaustion when their team leader adopted coaching behaviour (S)
46	Sue-Chan et al. (2011)	LMX, supervisor's coaching LMX	Attributions made about supervisors' coaching	NO	Subordinates' performance	Positive direct and indirect link via mediating variable (S)
47	Tanskanen et al. (2019)	MC LMX	WE	NO	Individual- and unit-level performance	MC was connected more to the unit-level performance, and LMX had stronger effect to individual performance and WE (S)

48	Wageman (2001)	Design choices and hands-on coaching leader behaviours	Self-managing behaviours	NO	Self- management, task performance, quality of members' relationships	Only leaders' design activities, and not hands-on coaching, affect team task performance (NS)
49	Weer et al. (2016)	Facilitative versus pressure-based coaching	Team commitment, team tension	NO	Team effectiveness	Facilitative coaching positively influenced outcome via team commitment (S) Pressure-based coaching negatively influenced team commitment through high tension (S)
50	Wheeler (2011)	Coaching behaviours	NO	NO	Achievement of organisational goals.	Positive link (S)
51	Zuñiga et al. (2019)	MC	NO	NO	OP	Positive relationship (S)

S = significant; NS = not significant; JS = job satisfaction; JP = job performance; TI = turnover intention; OP = organizational performance

authors offered a new term namely a coach approach to managing or leading, which more accurately represents the phenomenon being studied.

Future studies should continue to focus on the conceptualization and development of mental models of CBL (Berg & Karlsen 2016). Providing a theoretical definition for this concept may help to differentiate it from other types of leadership (i.e. transformational leadership) and other career development relationships (i.e. mentoring). Although there is growing support for this relatively new form of leadership, there is still a lack of discussion within the peer-reviewed literature on the coaching and leadership alliance. Thus, more time and research are needed to capture and explore the CBL approach in terms of its structure, function, and the processes inherent in its development (Kemp, 2009). This conceptualization will also assist in developing rigorous and consistent empirical studies examining CBL behaviours and skills in the work environment (Batson & Yoder, 2012).

Overall, further research exploring the coaching leader role, the optimal conditions for this style of leadership, and its advantages may benefit organizations wishing to foster a CBL style and convince their managers to adopt and model this approach (Milner et al., 2018). Future empirical studies should also design and implement CBL interventions and provide managers and leaders with strategies to overcome the challenges associated with adopting a coaching-based leader role.

Theme #2: Theoretical Framework

Findings from this systematic review indicated that only half of the studies presented a theoretical framework to explain the association between the coaching leader or manager and the proposed study outcomes. It is encouraging that initial steps have been taken to advance toward a theoretical framework. However, the fact that a large number of studies are lacking in this aspect suggests that the validity of findings describing CBL and the mechanisms through which it is related to outcomes in work settings is still limited by theory (Ladyshewsky & Taplin, 2017). Additionally, the theoretical frameworks were varied, indicating a lack of consensus among researchers, and in some cases vague, with unclear explanations about the way the variables are related.

An in depth analysis of the two most widely used theories (SCT and LMX) have lead us to develop our CBL proposal being inspired on the LMX. The reason for this was the focus of this theory on the quality of the interaction between the leader-as-coach

and employees, based on mutual trust, respect, and support, enabling positive attitudes, behaviours, and outputs (Agarwal et al., 2009; Pousa et al., 2017). On the other hand, we consider that the SCT has its limitations as a theory to support the CBL construct as it states that employees can develop and achieve performance through guided mastery modelling. Far from this assumption, and based on previous research, the guidance behaviour is more related to managing or mentoring than to coaching (DiGirolamo & Tkach, 2019). Coaching-based leaders encourage employees to think through issues, engage in reflection, and increase their ability to take responsibility for their own development (Gilley et al., 2010; Kemp, 2009). By doing so, they help employees maximize their talents and identify opportunities to achieve individual development goals (Cox et al., 2010; Dello Russo et al., 2017).

Despite the efforts made in advancing theoretical framework, further research is needed to achieve an integrated theory that responds to the needs of the specific CBL style. As Ellinger et al. (2005) noted, the coaching style of leadership offers organizations a theoretical foundation for adopting a people-oriented approach in the relationship with employees that may prove beneficial to their growth, development, and performance. According to Hagen and Aguilar (2012), this recent theory on leadership has been moving away from other leadership approaches, such as transactional or transformational, toward a new paradigm that seeks to reduce the differentiation between leaders and followers.

Considering the little guidance that coaching leaders receive in their own growth and development, along with the limited number of frameworks supporting this process, Kemp (2009) emphasized the need for leaders as coaches to be guided by a personal understanding of their expected responses in order to facilitate change. The author developed and proposed a coaching and leadership alliance framework to contextualize the CBL self-management process and clarify its role in supporting employees to maximize the impact of CBL effectiveness. This theoretical proposal suggests that leaders engage in a similar process as coaches by engaging in an alliance building process with employees, which leads to high levels of mutual engagement to drive change and development. This framework explains the progressive antecedents and building process common to effective and professionally impactful coaching and leadership relationships, and is composed of the following phases: (1) an active process of introspection and awareness; (2) reflection and processing in order to understand the (leader's) own unique self; (3) self-management for maximizing his/her (the leader)

positive effect in the relationship; (4) sharing for relationship, which is based on the capability to listen and dialogue to the core of what is being communicated; and (5) questioning for insight, as a contributor to raising introspecting self-awareness.

However, important differences exist between coaching managers or leaders and professional coaching. For instance coaching leaders lack a well-defined coaching agreement with their employees. Additionally, they utilize a more conversational approach than structured sessions (DiGirolamo & Tkach, 2019). In contrast with professional coaching, managers and leaders are often responsible for the achievement of organizational goals, and thus the relationship they establish with employees will always be hierarchical. Although a leader may integrate coaching skills in their daily interactions, they may need to move from a participative to a directive orientation (DiGirolamo & Tkach, 2019.

Despite the limited theory that described the CBL construct within the included studies, it is promising that some of them have proposed specific coaching or MC models to explain the dynamic interplay in the relationship between the leader or manager as coach and employees. For instance, the behaviour and skills model proposed by Hagen (2012) helps to better understand how the manager as coach can be expressed within the workplace, based on displayed actions (i.e. facilitating behaviour) and beliefs that can support a coaching mentality that leads to employee development, personal growth, and performance (Heslin et al., 2006).

In order to enhance the understanding of how coaching leaders and managers impact employees, and organizations, we argue that the JD-R model offers an integrated psychosocial theoretical perspective that sheds light on the specific relationships and mechanisms through which CBL is related to work outcomes. This model states that the leader or supervisor with a coaching capability is considered as an important job (social) resource that facilitate a motivational process that enhances the development of personal resources, increasing the levels of well-being (e.g. work engagement) and better performance (Schaufeli & Bakker, 2004).

Theme #3: Study Characteristics

A wide variety of samples, different sectors, sources of information and analyses were used in the different studies included in this review. In spite of the strengths, several limitations of the selected studies are reflected. First, most of the studies reported quantitative empirical designs. Therefore, further research should include both

qualitative and mixed-method designs in order to capture important distinctions and nonlinear processes and expand our conceptual understanding of CBL and the processes underlying its association with WE and job performance.

Second, regarding quantitative and mixed-methods studies, they were mainly cross-sectional. Therefore, conclusions cannot be drawn related to interpretations of causality among variables. In order to strengthen the validity of previous research, more longitudinal studies are required to evaluate how CBL fluctuates over time and the extent of its impact on work-related outcomes. Third, none of the longitudinal studies used random sampling methods, and not all of them confirmed significant positive results. Thus, randomized control trials may be required in future studies to test the efficacy of interventions aimed at developing CBL within organizations. Finally, the majority of the cross-sectional studies were analysed at the individual level. To strengthen study designs, further multilevel analysis should be considered.

Theme #4: Measurement

With regard to CBL measurements, findings from this review indicate that a wide variety of established or developed scales were used to measure the manager's coaching attributes (i.e. behaviours or skills), CBL, coaching as a type of leadership behaviour, or team leader coaching. These multiple approaches to capturing the concepts of the coaching leader or manager demonstrate a strong scholarly interest in such concepts. However, this variety also implies weak theoretical agreement about a measurement strategy for CBL. Moreover, not all the scales are based on a rigorous validation process or solid reliability testing (DiGirolamo & Tkach, 2019; Hagen & Peterson, 2014). Determining which attributes are most frequently associated with this leadership style allows identification and insight into the CBL concept and further theory development. Identifying these attributes also helps to differentiate CBL from other leadership styles, such as transformational leadership. In line with Berg & Karlsen (2016), CBL can be further developed by the validation and implementation of specific measures unique to this leadership style. By doing so, researchers could benefit from a standard set of measures to assess dimensions that underlie this construct, in order to enable comparisons across studies.

Furthermore, the majority of the studies that assessed WE used the UWES, whereas many different instruments were used or developed to measure performance. Fewer studies collected objective performance metrics or different company

performance indicators, and almost no studies considered both validated measures and objective performance. Therefore, future studies could consider both perspectives in order to strengthen the validity of the results.

Theme #5: Relationship between Coaching-based Leadership and Work Engagement

Research findings from the eight studies that examined the link between the coaching manager or leader and WE demonstrated positive significant results, both directly and via mediation. Additionally, some of the studies proposed and confirmed the mediating role of WE in the relationship between the coaching leader or manager and performance-related outcomes. These findings are consistent with previous research based on the J-DR model, suggesting that WE begins with the availability of job resources (Schaufeli et al., 2002), such as coaching provided by their supervisors (Schaufeli & Taris 2014), allowing employees to achieve higher levels of performance (Lee et al., 2019).

Although positive findings were found, several limitations related to the selected studies should be considered. First, there are still few studies on the CBL-WE link. Second, only one study (Ladyshewsky & Taplin, 2018) attempted to explore mechanisms underlying the relationship between MC and WE. Thus, future studies should consider other mediating and moderating variables (i.e. self-efficacy, hope, quality of work-life, personality) to explain the processes through which the coaching leader or manager influences engagement in work settings, and when and how this occurs. Third, further research that examines the impact of a dyad of CBL on WE could enrich our understanding of the complexity of one-on-one coaching interactions and the effects on employees. Fourth, more research is needed to examine multilevel relationships among these constructs, in order to make the ratings more objective and present a more accurate reflection of the findings (Lee et al., 2019).

Fifth, all the cross-sectional studies on this link are relational in nature, and so they do not provide information on the causality direction or attempt to explore whether the positive relationship between CBL and WE remains stable over time. As Carasco-Saul et al. (2015) noted, without longitudinal studies, research findings on this link remain narrowly focused and inconclusive. Furthermore, in order to expand the body of literature, more longitudinal studies and CBL development interventions should be implemented to assess the impact on managers and their employees' WE. Qualitative research may also be useful to investigate causal relationships between these constructs.

Theme #6: Relationship between Coaching-based Leadership and Performance

The majority of the studies examined the link between coaching/leadership and performance. Most of them were quantitative, with a cross-sectional design. A variety of performance-related variables were included across the studies, and they were examined at the individual, unit, and/or organizational level. Most of the studies measured employee-related performance, and a large number focused on underlying mechanisms to explain the relationships. In all the studies, the relationships were influenced in a positive direction, and in many cases significantly.

Although findings from this review showed a growing trend when examining the relationship between CBL and performance, several limitations should be considered in order to advance and strengthen future research on this topic. First, different constructs and measures were used to assess coaching/leadership and performance. Thus, the findings from the studies cannot be compared. Moreover, only a few studies included extra-role performance in their research models. Researchers should include both in-role and extra-role dimensions in the same study in order to compare the effects.

Second, a strength of the selected studies is the inclusion of underlying processes linking leaders' or managers' coaching and performance. In order to understand the complex mechanisms involved, other mediating and moderating constructs could be considered in future studies, such as personality, psychological capital, or organizational climate and culture. Moreover, further studies are needed to confirm the mediating role of WE linking CBL with individual performance, because results from some of the studies were mixed. More investigations would be welcome to clarify when and how coaching leaders positively influence employees' engagement and performance, in order to understand the complex mechanisms involved.

Third, an important recommendation is that research should be extended beyond cross-sectional relational studies and focus on longitudinal studies in order to confirm evidence for causal relationships. Future studies should also confirm the effectiveness of CBL interventions and the impact on performance using reliable methodologies and randomized controlled designs. Such studies would strengthen the rationale for organizations to invest in CBL training. More studies using qualitative and mixed-methods designs are also needed to strengthen the results. Fourth, we recommend developing multilevel studies that include unit and organizational levels of analysis. Fifth, future studies should further assess performance in a 360-degree format, including different rating sources (i.e. self-perceived, peers, supervisors, and objective metrics).

Sixth, although the results were predominantly positive and significant, in some studies the link between CBL and performance or the moderator or mediator effect of other variables in this link were non-significant. Therefore, future research could help to confirm the positive results and provide more consistent conclusions in this regard. Overall, further empirical research is necessary to provide evidence and validate CBL as a means for employee development, well-being, and performance within organizations.

Strengths and Limitations

The current review makes a number of contributions to the literature. First, it provides a significant overview of CBL and MC definitions, linking them to form a CBL conceptualization in an attempt to capture its value and meaning within the organizational context. Second, it also adds knowledge about the role of coaching-based leaders in ensuring WE and performance because it provides an analysis of the current empirical studies on these links, theoretical frameworks, and measurements, and it identifies the gaps where knowledge is still limited. Leaders and managers can benefit from this research to increase the effectiveness of their coaching efforts and, in turn, work-related outcomes in organizations. Finally, the review provides methodological considerations and novel directions for future research in this developing area.

However, several limitations should be considered with regard to both the review and the studies included. First, this review only included studies published in peer-reviewed journals in the English or Spanish languages, which might lead to potential publication bias. Second, sources generated through the use of additional keywords, databases, and search strategies may have contributed differently. Third, the coaching/leadership concept analyses were only drawn from empirical studies on the relationship with WE and performance, which may limit the conceptualization and theory. However, we believe that a consistent definition should stem from rigorous empirical studies published in peer-reviewed journals that focus on the influence on work outcomes and the attempt to base the findings on theoretical backgrounds.

Fourth, due to the limited number of longitudinal studies, causal inferences about the relationship between CBL and work-related outcomes could not be drawn. Additionally, the quality of the included studies was not assessed in this review. However, it can be assumed that peer-reviewed journals only publish important research submissions with rigorous quality control (Skakon et al., 2010). Finally, a quantitative synthesis was not conducted due to the great variability in the studies.

CHAPTER 3

Development and Validation of the Coaching-based Leadership Scale and its Relationship with Psychological Capital, Work Engagement, and Performance

Abstract

Coaching-based leadership is becoming increasingly popular in organizations because of its potential benefits for employees' growth, well-being, and performance. For this reason, valid and reliable assessment instruments are necessary. Two related studies were conducted in different settings. Study 1 reports the development and validation of the Coaching-based Leadership Scale with a sample of 706 workers from Spain and Latin American countries (Sample 1: 430 employees; Sample 2: 276 managers). The final instrument consists of 16 items, distributed in four factors: working alliance, open communication, learning and development, and progress and results. The instrument offers adequate evidence of reliability and validity based on the internal structure of the test and the relationship with theoretically related constructs. Study 2 examines the relationships between coaching-based leadership, assessed with the 16-item scale, and work-related outcomes (psychological capital, work engagement, and in-role and extra-role performance) in a sample of 252 employees. Structural equation modelling was implemented, and results revealed that coaching-based leadership is positively related to in-role and extra-role performance through the mediating role of work engagement, and to work engagement through the mediating role of psychological capital. Findings help answer important questions about the value and benefits of coaching-based leadership in organizations. Finally, theoretical and practical implications are addressed, and new lines of research are suggested.

Keywords: coaching leadership, scale development, construct validation, psychological capital, work engagement, performance [2]

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Development and Validation of the Coaching-based Leadership Scale and its Relationship with Psychological Capital, Work Engagement, and Performance

In order to become healthy organizations and engage in competitive innovation, business environments require new approaches to leadership. In such environments, *Coaching-based Leadership* (CBL; also known as leader as coach or managerial coaching; Milner et al., 2018; Pousa et al., 2018) has gained considerable attention as a key indicator of effective managerial behaviour to influence employees without relying on formal authority (Ellinger et al., 2008; Hamlin et al., 2006; Pousa et al., 2018).

Grounded theoretically in the coaching leadership theory, Cox et al. (2010) argued that coaching leaders support and challenge employees in order to help them maximize their talents and achieve individual development goals (Berg & Karlsen, 2016). This recent theory on leadership has moved away from transactional and transformational approaches toward a new paradigm that seeks to reduce the differentiation between the leader and the employee (Hagen & Aguilar, 2012). Accordingly, coaching leaders have been identified as crucial in organizational settings because they adopt a more people-oriented approach to supervision that may prove beneficial to employees' growth, well-being and performance (Ellinger et al., 2005).

Although CBL is becoming prevalent as a new managerial paradigm in interactions with employees, relatively little is known about what this construct entails (Cox et al., 2010). Identifying the attributes that are most frequently associated with this leadership style may provide insight into the concept and further theory development. It may also assist in more clearly differentiating CBL from other leadership styles (Berg & Karlsen, 2016), such as transformational or authentic leadership. Moreover, researchers and professionals have not yet benefited from a standard set of measurement strategies for CBL. There are currently a variety of instruments on coaching skills or managerial coaching that assess different sets of managerial behaviours (Dahling et al., 2016), most of which have not yet been reviewed (Hagen & Peterson, 2014). Thus, further scale development and validation are needed to address the underlying dimensions of CBL and ascertain its true benefits and real meaning within the organizational context.

Overall, the aim of this article is twofold: (a) to develop a new instrument, namely the Coaching-based Leadership Scale (CBLS), providing preliminary evidence for its construct validity and reliability and (b) to examine the extent to which CBL contributes

to individual psychological capital (PsyCap), work engagement, and in-role and extra-role performance.

Coaching-based Leadership: Construct Definition

A theory of CBL has been emerging in the past few years from the intersection of research on coaching, leadership, and management (DiGirolamo & Tkach, 2019; Kemp, 2009). Coaching can be defined as a collaborative relationship between a coach and a coachee, oriented towards facilitating goal attainment and individual change (Spence and Grant, 2007). Professional coaching is a well-defined, structured process that generally involves one-on-one private sessions. By contrast, coaching in a specific work context is generally provided by the manager or leader to enhance employees' goal achievement and performance. In such relationships, they use a more conversational approach rather than structured sessions (DiGirolamo & Tkach, 2019; Grant, 2010).

Although little has been written on CBL (Berg & Karlsen, 2006), research in the past two decades has expanded its conceptualizations. A coaching style of leadership has been defined as a day-to-day process of providing support and helping employees to identify opportunities to achieve individual development goals (Cox et al., 2010). Goleman et al. (2012) further suggested that coaching is one of the leadership styles that achieve the best results, where the main purpose is to develop employees' personal resources. Coaching leaders are oriented toward helping employees to maximize their talents by paying attention to their needs and building an effective alliance (Dello Russo et al., 2017). In daily interactions, managers and leaders develop an environment of trust among their employees and attempt to achieve change and development through personalized learning (Ellinger et al., 2011). In using coaching skills, managers enable employees to generate their own answers and reach greater development and performance (Grant and O'Connor, 2010; Milner et al., 2018).

The leader-as-coach has been related to previous leadership theories, such as Bass and Avolio's (1994) transformational leadership, in terms of similarities among specific attributes, such as intellectual stimulation and inspirational motivation (Grant, 2007). However, transformational leadership style refers to behaviours that are targeted at collective employees instead of at individual employees (Kunst et al., 2018). Thus, such behaviours are not able to determine the most effective micro-behaviours that effective leaders exhibit (Hagen & Aguilar, 2012). Similarly, Meuser et al. (2016) demonstrated that transformational leadership is essentially about motivating followers to look beyond

their own self-interest towards the achievement of team-related goals (Bormann & Rowold, 2018). In contrast, leaders and managers' coaching behaviors refer to one-on-one interactions between a leader and an employee aimed at stimulating individual growth (Anderson, 2013) and may therefore be more suitable for addressing personal and professional developmental goals (Kunst et al., 2018). Leaders that support and coach their followers are considered as a relations-oriented leadership style (Bormann & Rowold, 2018).

CBL may also share commonalities with authentic leadership, defined as a pattern of leader behavior that enhance self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency, fostering positive self- and followers' development (Walumbwa et al., 2008). Although both leadership styles focus on the employee's development, authentic leaders' objective is to achieve authenticity (Gardner et al., 2005), whereas coaching-based leaders attempt to help employees maximize their capacities and generate their own answers to achieve positive work outcomes (Cox et al., 2010; Goleman et al., 2012).

Furthermore, previous researchers have considered managerial coaching to be a similar term to CBL (Milner et al., 2018; Pousa et al., 2018). This participative style of management has been defined as a leadership style that supports and provides constructive feedback designed to get the most out of people (Ellinger et al., 2005). Recently, DiGirolamo & Tkach (2019) proposed that coaching skills could be adopted by managers, as part of a participative style of management, and by leaders, in order to align employees with a vision and to inquire how they see themselves working toward that vision. Therefore, the authors offered a new term, namely, 'a coaching approach to managing or leading'. As Anderson (2013) noted, the different coaching behaviours identified (i.e. goal setting and planning, development orientation, and feedback) indicate that the manager as coach is better understood through the 'lens' of leadership theory than through the perspective of specialized coaching. To be successful, the manager as coach requires the acceptance of relational and social constructivist attributes of leadership processes where the hierarchical space between leaders and followers is diminished. Given that coaching managers and leaders often have overlapping activities, functions, and purposes (DiGirolamo & Tkach, 2019), it is important to integrate both concepts into a unified coaching-based leadership style theory.

Considering the little guidance that coaching-based leaders receive in their own growth and development, as well as the limited number of frameworks to support this process, Kemp (2009) emphasized the need for leaders as coaches to be guided by a personal understanding of their expected responses in order to lead and facilitate employee change. The author proposed a coaching and leadership alliance framework to contextualize the CBL process and clarify its role in helping employees to maximize the impact of CBL's effectiveness. This theoretical proposal suggests that leaders engage in a similar process as coaches, by engaging in an alliance building process with employees, which leads to a deep sense of shared meaning and contextual clarity. As a result of this alliance, the coaching leader facilitates employees' outcomes and promotes new ways to achieve performance. Overall, there is a need to determine which attributes are most frequently associated with this leadership style, in order to identify and gain insight into the concept and develop measurement instruments (Berg & Karlsen, 2016; Kemp, 2009).

Review of Previous Validated Measures

Although research on CBL is increasing, there is still no specific measurement strategy available in the literature. The most analogous field in which to search for validated scales is managerial coaching or professional coaching. Some of the instruments developed to assess the managerial coaching attributes that have been dominant in the literature are the Coaching Behaviours Inventory (Ellinger et al., 2003), the Measurement Model of Coaching Skills (Park et al., 2008), and the Behavioural Observation Scale (Heslin et al., 2006). Other instruments developed in the past decade, but less popular among researchers, are the Goal-focused Coaching Skills Questionnaire (Gant & Cavanagh, 2007_b), the Perceived Quality of the Employee Coaching Relationship scale (Gregory & Levy, 2010), the Managerial Coaching Assessment System (David & Matu, 2013), and the Manager and Leader Coaching Composite scale (DiGirolamo & Tlach, 2019).

These multiple approaches demonstrate a strong scholarly interest in capturing the attributes of coaching managers and leaders. However, in line with previous reviews of leadership/managerial coaching scales (DiGirolamo & Tkach, 2019; Hagen, 2012; Hagen & Peterson, 2014), most of the scales suffered from a number of limitations, both theoretical and methodological. Regarding the theoretical background, some of the items were more related to managing than to coaching, such as setting and

communicating expectations and being a resource on the Ellinger et al. (2003) scale, and offering guidance, assisting employees by developing a plan, and communicating how tasks should be accomplished on David & Matu's (2013) scale. Other instruments missed important factors mentioned in the coaching literature, such as listening, questioning, or developing trust and a working alliance (Heslin et al., 2006), or developing a working alliance and effective listening skills (McLean et al., 2005). This latter scale also received criticism due to its association with the sports field (Petterson and Little, 2005).

In terms of methodology, the majority of the scales were criticised for a lack of a rigorous validation process or solid reliability testing. In many cases, confirmatory factor analysis (CFA) fit indices were not provided, or scores were not within the acceptable ranges (David & Matu, 2013; DiGirolamo & Tlach, 2019; Ellinger et al., 2003; Gant & Cavanagh, 2007$_b$; Heslin et al., 2006). Recently, a new scale was developed that integrated a coaching approach to both managers and leaders (DiGirolamo & Tlach, 2019). However, the authors acknowledged that the scale was not created using a rigorous scale development process, and they recognised that more work had to be done on coaching-based manager and leader scale validation. Finally, despite the aforementioned international scales measuring the manager as coach, none of them are available in Spanish or Latin American countries.

In order to enhance optimal functioning, organizations are increasingly asking their managers and leaders to communicate as coaches and, thus, use a wide variety of emotional, cognitive, and behavioural techniques (Grant, 2010). As previous researchers noted, the coaching leader or manager displays a set of skills or beliefs that support a coaching mentality and enable the execution of specific actions or behaviours towards their employees (Hagen, 2012). Although coaching skills can be perceived as being different from the actual coaching behaviours, they are related and, therefore, should be integrated into a framework that characterizes the leader acting as a coach.

Development of the Coaching-based Leadership Scale (CBLS)

An extensive literature review was undertaken to identify key dimensions that underlie a CBL style. The factors identified and supported by the literature are related to professional coaching and to coaching-based leaders and managers interacting with their employees within organizational contexts. The existing leadership/managerial coaching measures were also taken into consideration in the review. As a result, eight key

attributes that constitute essential CBL skills and behaviours were identified and classified into four dimensions: (I) *working alliance*: (1) developing a working alliance; (II) *open communication*: (2) active, empathic, and compassionate listening, and (3) powerful questioning; (III) *learning and development*: (4) facilitating development, (5) providing feedback, and (6) strengths spotting and development; and (IV) *progress and results*: (7) planning and goal setting, and (8) managing progress.

(I) *Working alliance*. Developing a working alliance refers to the creation of a safe and strong relationship that contributes to the establishment of mutual respect, trust, and transparency (Graham et al., 1994; Gyllensten & Palmer, 2007). Effective coaching involves showing genuine interest in employees' wellbeing and future, demonstrating sincerity, establishing clear agreements, and keeping promises. This attribute is essential because it allows leaders to develop partnerships and build a warm, friendly relationship with employees (Graham et al., 1994). As a result, both the leader and the employees share meaning, purpose, and commitment, making it possible to achieve high levels of mutual engagement to drive opportunities and achieve performance (Kemp, 2009).

(II) *Open communication*. Another crucial attribute of coaching leaders is the use of effective communication techniques (Gilley et al., 2010; Park et al., 2008). Coaching leaders engage in formal or informal conversations through the use of listening (i.e. active, empathic, and compassionate) and powerful questioning techniques (Gilley et al., 2010; Graham et al., 1994; Whitmore, 1992). The coaching leader develops a deeper capacity to listen to the intent behind the employee's literal dialogue to get to the core of what is being communicated (Kemp, 2009). In addition, appropriate levels of empathy, understanding, compassion, and acceptance enable the creation of an environment where employees can feel free to express their emotions and ideas (Graham et al., 1994; Kemp, 2009). In order to build profound relationships, the leader listens, hears and responds with compassion to the employee in a way that minimises the subjective influence of his/her own life experiences and opinions and develops a deeper understanding of the employee (Kemp, 2009). Likewise, question framing is considered an essential coaching behaviour that stimulates motivation and subsequently elicits deeper awareness and reflection (Ellinger et al., 2003). This questioning approach allows the employee's needs to surface and be heard and deeply understood (Kemp, 2009).

(III) *Learning and development*. Another predominant behaviour of leaders and managers as coaches is providing employees with opportunities to progress and engage

in continuous learning, effectively leading them towards the desired results (Berg & Karlsen, 2016; Ellinger & Bostrom, 2002; Park et al., 2008). Moreover, coaching leaders are more effective when they provide constructive feedback and help employees to identify, develop, and use personal strengths (Berg & Karlsen, 2016). Consequently, they encourage employees to better direct their talents toward meaningful behaviours (Peterson & Seligman, 2004). Employees who use their strengths are more engaged at work (Harter et al., 2002) and more likely to reach their goals (Linley, Nielsen et al., 2010).

(IV) *Progress and results*. Planning and goal setting refer to the support leaders provide to employees in establishing individual goals that they value and ensuring that they complete the agreed-upon action steps (Grant & Cavanagh, 2007_b). Coaching leaders and managers work collaboratively with each employee to set challenging development goals that motivate performance (Dahling et al., 2016). In order to make consistent progress, they help employees to monitor and evaluate their progress and manage both responsibilities in the process (Grant & Cavanagh, 2007_b).

Outcomes of Coaching-based Leadership

From a psychosocial perspective, leadership is considered an important social resource with a positive impact on psychosocial well-being, such as work engagement and PsyCap, and healthy organizational outcomes, such as performance (Salanova et al., 2012; Schaufeli & Bakker, 2004). Thus, the study of these three specific indicators of leadership's influence is of increasing interest in the CBL literature.

Work Engagement

Work engagement is conceived as the opposite of job burnout. It can be understood as a positive state of mind characterized by three dimensions: 1) vigour: which refers to high levels of energy and mental resilience, the willingness to invest effort in one's work, and persistence in facing difficulties; 2) dedication: which refers to strong involvement with one's work, and characterized by a sense of significance, enthusiasm, pride, inspiration, and challenges; and 3) absorption: which refers to a state of complete concentration and being engrossed in one's activities (Schaufeli, Bakker et al., 2006).

Practitioner literature has highlighted the potential role of leadership in enhancing this positive work-related outcome (Shuck & Herd, 2012). Work engagement arises from a motivational process that begins with the availability of job resources, such as

leadership and feedback, which stimulate employees' motivation (Llorens-Gumbau & Salanova-Soria, 2014). When supervisors and managers provide coaching, employees are more engaged with their work because they receive more guidance in achieving their goals (Kim, 2014). As a result of the daily interactions with their leaders, employees self-regulate their behaviour, boosting intrinsic motivation (Strauss & Parker, 2013) and, thus, engendering a sense of attachment to their jobs (Christian et al., 2011). Although research exploring the association between leaders or managers as coaches and employee work engagement is increasing (Ali et al., 2018; Ladyshewsky & Taplin, 2018; Lee et al., 2019; Milner et al., 2018; Tanskanen et al., 2019), investigation on this link is still in its infancy. Moreover, there is still a lack of studies analysing this link based on a specific and unique CBL instrument.

Psychological Capital

The Conservation of Resources (COR) theory (Hobfoll, 2002) posits that individuals seek to obtain, retain, and protect personal resources in order to control and impact their environment effectively. Based on this theory, Luthans et al. (2015) refer to PsyCap as a positive personal resource and define it as "an individual's positive psychological state of development that is characterized by (1) having confidence (efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success" (p. 2). These four psychological resources are combined in a higher-order construct where they interact in a synergetic way.

In the Job Demand-Resource (JD-R) model, Bakker and Demerouti (2007) claimed that job resources (i.e. supervisory coaching) play an intrinsic motivational role in enhancing employees' growth, learning, and development of personal resources. Consistent with this proposal, Goleman et al. (2012) argued that the main purpose of coaching leaders is to develop employees' personal resources. They do so in daily interactions by developing a trusting environment, forming an effective alliance, paying attention to employees' needs, and providing personalized learning and opportunities for development (Dello Russo et al., 2017; Ellinger et al., 2011). In other words, through the use of specific coaching techniques, leaders foster the development of

PsyCap in their employees. Previous research has shown a positive link between job resources such as coaching provided by supervisors and specific personal resources (i.e. self-efficacy, organizational-based self-esteem, and optimism; Xanthopoulou et al., 2007).

In-role and Extra-role Performance

Job performance generally includes two dimensions: in-role or task performance and extra-role or contextual performance. Whereas in-role performance refers to activities that are related to the formal job and directly serve the goals of the organization, extra-role performance describes actions that exceed what the employee is supposed to do, such as helping others or voluntary overtime (Goodman & Svyantek, 1999). This contextual performance refers to citizenship behaviours related to an employee's propensity to behave in ways that facilitate the social and psychological context of an organization (Borman & Motowidlo, 1993).

The increasing literature on coaching has identified job performance as one of the frequently reported outcome variables of managerial coaching (Hagen, 2012; Hui & Sue-Chan, 2018; Kim & Kuo, 2015; Tanskanen et al., 2019). Managers as coaches enhance employee in-role performance by clarifying goals, delivering instant feedback, and providing resources to achieve their goals (Kim, 2014; Kim & Kuo, 2015). Related to this assumption, previous research has revealed a positive and direct link between supervisory coaching skills and employee in-role performance (Agarwal et al., 2009; Ellinger et al., 2003; Ellinger et al., 2005; 2011; Liu & Batt, 2010). Moreover, daily interactions along with specific leader coaching skills, such as open communication with employees, encourage employees to perform extra-role behaviours in the organization (Raza et al., 2017). Previous research has also revealed that managerial coaching positively influences organizational citizenship behaviours (Ellinger et al., 2011; Kim & Kuo, 2015). However, studies that analysed the direct and indirect links between CBL and in-role and extra-role performance based on a specific and unique CBL instrument are still missing.

Work Engagement as a Mediator between Coaching-based Leadership and Performance

A variety of studies have analysed the positive link between work engagement and in-role and extra-role performance (Christian et al., 2011; Eldor & Harpaz, 2016; Schaufeli, Taris et al., 2006). There are several explanations for this positive

relationship. For instance, employees who are engaged in their work have high levels of energy and intrinsic motivation to concentrate and focus on their tasks (Lee et al., 2019). Additionally, some authors have argued that engaged employees are committed to their teams (Demerouti & Cropanzano, 2010) and have a good disposition toward their working environment, resulting in better extra-role performance. Engagement is considered an indicator of an employee's willingness to expand his/her discretionary effort and step outside of the formal boundaries of the job to facilitate the organization and its employees (Christian et al., 2011). According to the JD-R model, the supervisor as coach as a job resource stimulates a motivational process that leads to work engagement and, consequently, encourages employees to meet their goals and achieve better performance (Bakker & Demerouti, 2007; Llorens & Salanova, 2014).

Although there are few studies on this link, research exploring the mediating role of work engagement in the relationship between managerial coaching or supervisory coaching and performance is increasing. For instance, Ali et al.'s (2018) findings indicated that managerial coaching influences employee job performance directly and indirectly through work engagement. Furthermore, Tanskanen et al. (2019) showed that managerial coaching is connected to individual and unit-level task performance directly and indirectly via work engagement. Finally, Lee et al. (2019) found that work engagement mediated the relationship between supervisory coaching and turnover intention. Despite interesting findings, there is a lack of studies that analyse the mediating role of work engagement in the relationship between CBL and in-role and extra-role performance separately. Considering both facets (Goodman & Svyantek, 1999) is important in order to compare the results and obtain a comprehensive overview of the role of coaching leaders in enhancing performance.

PsyCap as a Mediator between Coaching-based Leadership and Work Engagement

There is growing evidence that PsyCap plays an important role in improving employees' positive work attitudes and behaviours (Luthans et al., 2010). Sweetman and Luthans (2010) proposed that the four constructs of PsyCap create an upward spiral of resources, which may subsequently broaden an individual's mind-set and, thus, provide greater energy and engagement. This proposition is consistent with the JD-R model, which posits that adequate resources to meet demands can promote engagement (Bakker & Demerouti, 2007). In line with this model, Xanthopoulou et al. (2007) found

that personal resources, such as self-efficacy, organizational-based self-esteem, and optimism, mediated the relationship between job resources (i.e. supervisory coaching) and work engagement, suggesting that job resources foster work engagement both directly and indirectly through the development of personal resources. As Luthans et al. (2006) noted, a resourceful work environment activates the development of employees' PsyCap, which in turn may bring organizational benefits. In line with the above, supervisory coaching stimulates personal growth through the development of personal resources, which lead to greater work engagement (Xanthopoulou et al., 2007).

Previous studies have confirmed the positive association between leadership behaviours (transformational and transactional) and employees' PsyCap (McMurray et al., 2010). Other studies have examined the mediating role played by PsyCap in linking transformational and authentic leadership behaviour to employees' work outcomes (Newman et al., 2014). Despite these findings, there are still no studies that examine the mediating role of PsyCap between CBL and work engagement. Therefore, we propose that employees' PsyCap is the underlying mechanism through which coaching-based leaders enhance employees' engagement at work. In other words, employees with a coaching-based leader as their supervisor may feel efficacious, optimistic about their future, and less susceptible to setbacks, persevere toward goals, and, consequently, stay engaged in their work.

Study 1

This study aimed to develop and analyse the psychometric properties of an instrument to assess CBL in organizational settings with Spanish and Latin American workers. Thus, we expect:

Hypothesis 1 (H1): The CBLS will demonstrate acceptable psychometric properties in terms of validity and reliability.

Methodology

Participants

A total of 706 workers from public and private organizations in Spain, Argentina, Mexico, Chile, and Peru were recruited for the final evaluation. Participants were divided into two samples.

Sample 1

Sample 1 was composed of 430 employees with non-executive responsibilities. Participants were recruited from 13 organizations in Spain (7 organizations; 48.4% of employees) and Latin America (6 organizations; Argentina = 15.6%; México = 13.5%; Chile = 11.9%; Peru = 10.7%). Eight companies belonged to the services sector (42.6% of employees), 2 to industry (29.8% of employees), 2 to education (15.1% of employees), 1 to public administration (9.1% of employees), and 1 to construction (3.5% of employees). The organizational size ranged from 12 to 55 employees, with an average of 33.1 (SD = 17.5). Respondents' organizational tenure ranged from 0.6 to 58 years, with an average of 12.7 years (SD = 10.3). Participants ranged in age from 19 to 77 years (18-24 age range = 5.8%; 25-34 age range = 24.6%; 35-44 age range = 32.8%; 45-54 = 26.2; > 54 = 11.1%); 53.3% were female, and 79.9% had an indefinite contract.

Sample 2

Sample 2 was composed of 276 supervisors (managers and middle managers) with executive responsibilities and employees working under them. One-hundred eighty respondents correspond to a convenience sample recruited from 10 organizations, whereas the remaining 96 respondents were recruited from an online questionnaire via Survey Monkey, available on the research team's web site. The total sample was comprised of 62.3% employees working in Spain, 14.9% in México, 7.2% in Argentina, and 7.2% in Peru. By sector, 64.9% of the sample belonged to the services sector, 27.5% to industry, 4% to administration, 3.3% to construction, and 0.4% to education. Respondents' organizational tenure ranged from 0.6 to 59 years, with an average of 13.8 years (SD = 9.9). Participants ranged in age from 25 to 67 years (25-34 age range = 14.5%; 35-44 age range = 30.9%; 45-54 = 38.3; > 54 = 16.3%); 51% were female, and 92% had an indefinite contract.

Procedure

Several steps were taken to generate the items. First, initial content specifications were developed based on an extensive review of the literature on coaching and leadership theory and development, and existing coaching and managerial coaching instruments. Next, four initial domains were identified. A total of 61 items were drafted. Their writing and content were refined by 3 expert judges (organizational health psychology researchers and professionals), discarding a total of 20 items (i.e. 41 items remaining).

Third, because Spanish is the participants' primary language in the present study, all survey items based on previously validated measures were translated from English to Spanish and verified with a back-translation approach conducted by two professional translators. Finally, before the data collection, the whole scale was pilot tested in a small group of participants (doctoral students; n = 10) to verify the items' clarity. Based on the feedback, a minor change was made to ensure the content validity and clarity of the questionnaire.

The data were collected in the context of a broader research project that was approved by the research ethics committee of the host university. In the case of Sample 1, after seeking permission from each CEO and reaching an agreement about the company's participation, researchers conducted informational meetings about the project with middle managers. Next, the employees were asked to collaborate in the investigation through meetings or circulars delivered by the directors of the company or members of the teams. Following a cross-sectional design, self-report questionnaires were administered to the participants online.

For sample 2, 180 participants followed the same procedure as Sample 1, whereas the remaining 96 respondents were recruited from an online questionnaire via Survey Monkey. The link to the questionnaire was available on the research team's web site and disseminated via social networks. For both samples, employees were asked to take part voluntarily, and the confidentiality of their replies was guaranteed. Informed consent was obtained from all individual participants at the beginning of the questionnaire. The questionnaire administration process lasted approximately 30 minutes.

Instruments

Coaching-based Leadership Scale (CBLS). The final version of the questionnaire consisted of 16 items designed to assess eight key coaching leadership attributes integrated in four dimensions: (I) working alliance, which consists of one attribute with 3 items that describe developing a working alliance; (II) open communication, which consists of two attributes, one containing 3 items that describe active, empathic, and compassionate listening, and the other containing one item that describes effective questioning; (III) learning and development, which consists of three attributes, one with 2 items that describe facilitating learning and development, the second with one item that describes providing feedback, and the third with two items that describe strength

spotting and development; and (IV) progress and results, which consists of two attributes, one with 2 items that describe planning and goal setting, and the other with two items that describe managing progress. The questions are behavioural/attitudinal statements rated on a 7-point Likert-type scale ranging from 0 (*strongly disagree*) to 6 (*strongly agree*). Participants in sample 1 filled out the employees' version of the CBLS, whereas managers in sample 2 filled out the self-reported version. The complete 16-item scale is presented in the appendix.

Transformational Leadership. This construct was assessed by the Transformational Leadership questionnaire (Rafferty and Griffin, 2004), adapted to Spanish by Salanova et al. (2012). A 7-point Likert-scale was used, ranging from 0 (strongly disagree/never) to 6 (strongly agree/always). The scale contains five dimensions with three items each: (1) vision (i.e., *"Has a clear understanding of where he/she wants our unit to be in 5 years"*; α = .90); (2) inspirational communication (i.e., *"Says things that make employees proud to be part of this organization"*; α = .92); (3) intellectual stimulation (i.e., *"Challenges me to think about old problems in new ways"*; α = .91); (4) supportive leadership (i.e., *"Sees that the interests of employees are given due consideration"*; α = .92); and (5) personal recognition (i.e., *"Commends me when I do a better than average job"*; α = .96).

Authentic Leadership. Authentic leadership was measured with the 16-item Authentic Leadership Questionnaire (Walumbwa et al., 2008), adapted to Spanish by Moriano et al. (2011). The responses ranged from 1 (never) to 5 (almost always). The scale includes 4 dimensions: (1) self-awareness with 4 items (i.e. *"Seeks feedback to improve interactions with others"*; α = .85); (2) relational transparency with 5 items (i.e. *"Says exactly what he or she means"*; α = .74); (3) balanced processing with 3 items (i.e. *"Solicits views that challenge his or her deeply held positions"*; α = .74); and (4) internalized moral perspective with 4 items (i.e. *"Makes decisions based on his/her core beliefs"*; α = .82).

Work Engagement. Measured with the 9-item short version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker et al., 2006). The scale includes three dimensions containing three items each: (1) vigour (i.e.: *"At my work, I feel bursting with energy";* α =.92); (2) dedication (i.e.: *"I am enthusiastic about my job";* α =.84); and (3) absorption (i.e.: *"I am immersed in my work";* α =.81). All the items were rated on a 7-point Likert scale ranging from 0 (*almost never*) to 6 (*almost always*).

In-role and Extra-role Performance. Performance was assessed by the six items included in the HERO (Healthy & Resilient Organizations) questionnaire (Salanova et al., 2012), adapted from Goodman and Svyantek's (1999) scale. Two different dimensions were considered, with three items in each: (1) in-role performance, (i.e., "*He/she performs all the functions and tasks demanded by the job";* α =.75) and (2) extra-role performance (i.e., "*He/she helps other employees with their work when they have been absent";* α =.83). A 7-point Likert-type scale ranging from 0 (strongly disagree/never) to 6 (strongly agree/always) was used.

Statistical Analyses

The data analysis process was the same for Samples 1 and 2. First, with the 41-item scale, item purification was carried out by eliminating items with intra-dimensional redundancies or slight factorial saturations ($\lambda < .3$) based on CFA. We followed Garrido et al.'s (2011) recommendations for factorial treatment of ordinal variables. A robust weighted least squares (WLSMV) estimation method was also calculated, which is robust with non-normal discrete variables (Asparouhouv & Muthén, 2009).

Second, with the reduced scale (16-item) a second purification was carried out using Exploratory Structural Equation Modelling (ESEM; Asparouhov & Muthén, 2009) with TARGET rotation (matrix of polychoric variables and the WLSMV estimation method), in order to explore the structure of the CBLS. Third, with the final model refined, CFA was performed to examine the factor structure using the maximum likelihood estimation approach. We compared a second-order model (with a single factor) and a covariate model (with four correlated factors) for both the 41-item scale and the reduced 16-item scale. To evaluate the goodness of fit, we computed the chi–square (χ^2), the chi-squared coefficient/degrees of freedom (χ^2/df); root–mean–squared error of approximation (RMSEA) with a confidence interval (90% CI), comparative fit index (CFI), Tucker–Lewis Index (TLI), and weighted root mean square (WRMR).

Fourth, descriptive analyses were performed, followed by Cronbach's alpha (α) and McDonald's omega (ω) reliability coefficients (Ponterotto & Ruckdeschel, 2007) to assess the reliability of the final 16-item scale and each factor. Fifth, studies of Pearson's correlations between factors and with other constructs were performed in order to obtain evidence of criterion validity. All analyses were performed with the IBM SPSS Statistics (25) and MPLUS (7.4) programs.

Finally, to measure invariance across groups (i.e., Spanish and Latin American groups), we tested models of configuration (i.e., same structure across groups), metric (i.e., same factor loadings across groups), and scalar (i.e., same item intercepts across groups) invariance through multi-group CFA using SPSS AMOS 23.0. Following Cheung and Rensvold's (2002) recommendations, the three models were compared using the Δ CFI test. The authors suggested that an absolute difference in CFI of less than .01 indicates measurement invariance, that is, that the models for both groups are equivalent in terms of fit.

Results

Factor Analyses

Table 1 presents the fit of the purified measurement models for the 41-item scale, both in a covariate or four-factor model and in a second-order or single-factor model. Results of the CFA of the second-order model showed a poor fit to the data, whereas CFA of the proposed covariate model showed adequate fit for the 41-item scale, indicating that this version is a better representation of the observed relationships in both Sample 1 and Sample 2 (Schreiber et al., 2006).

Next, an ESEM analysis was carried out, identifying and eliminating items with cross-saturations, intra-dimensional redundancies, or slight factorial saturations, leaving 16 items in the final reduced version. The fit of the final ESEM (see Table 2) for both Sample 1 and Sample 2 met all of the recommended fit standards. Finally, results for the CFA with SEM models for the 16-item scale indicated good fit standards (Schreiber et al., 2006) in both samples.

Table 1 Indicators of fit of measurement models, 41 items (Study 1)

Model	Parameters	χ^2	*d.f.*	$\chi^2/d.f.$	*p*	TLI	CFI	RMSEA	Lower	Upper	WRMR
Sample 1											
Covariate	285	3.425.611	939	3.648	.00	0.93	0.93	.08	.07	.08	1.754
Second-order	279	5.561.354	945	5.885	.00	0.87	0.87	.11	.10	.11	2.402
Sample 2											
Covariate	257	2.802.435	939	2.984	.00	0.91	0.91	.08	.08	.09	1.682
Second-order	251	4.018.865	945	4.252	.00	0.85	0.85	.11	.10	.11	2.125

Sample 1 = Employees; Sample 2 = Leaders

With regard to measurement invariance, as M3 shows (see Table 2), the baseline model showed an acceptable fit, with support for configural invariance. Next, equality constraints were imposed on all factor loadings, and the resulting model also achieved an acceptable fit, indicating metric invariance (M4). Finally, equality constraints were imposed on all item intercepts, indicating scalar invariance (M5). When comparing M3-M4 and M4-M5, the absolute difference in CFI was less than .01. Table 2 shows the indicators of fit for the ESEM, the single-group CFA covariate model, and the multi-group CFA for the final 16-item scale.

Table 3 presents estimates of factor saturations based on the CFA model. Results indicated large representations for all the items ($\lambda \geq .62$ for Sample 1 and $\lambda \geq .65$ for Sample 2; Cohen, 1988) in the latent variables.

Reliability and Correlation Analyses

Tables 4 and 5 show means and standard deviations of the constructs measured for Sample 1 and Sample 2, respectively. The final reduced CBLS showed high levels of internal consistency. The values for each dimension analysed separately also indicated acceptable consistency. Furthermore, the correlation analyses between the four CBL sub-scales showed that all the dimensions were positively related ($p < .01$), with correlations ranging from .54 to .73 in Sample 1 and from .43 to .70 in Sample 2.

In terms of validity based on the relationship with theoretically related constructs, the final 16-item CBLS was positively associated with the transformational leadership construct and the authentic leadership construct. Likewise, correlations between each of these two leadership styles and all the CBLS sub-scales were positive and significant, ranging from .61 to .65 ($p < .01$) in Sample 1 and from .61 to .69 in Sample 2 for transformational leadership, and from .63 to .67 ($p < .01$) in Sample 1 and from .54 to .66 in Sample 2 for authentic leadership.

Moreover, results showed a positive and significant relationship between the CBLS and work engagement and in-role and extra-role performance. Additionally, these three work-related outcomes were positively related to each CBLS sub-scale, with correlations ranging from .32 to .42 ($p < .01$) in Sample 1 and from .23 to .34 ($p < .01$) in Sample 2 for work engagement, from .24 to .32 ($p < .01$) in Sample 1 and from .43 to .52 ($p < .01$) in Sample 2 for in-role performance, and from .30 to .36 ($p < .01$) in Sample 1 and from .41 to .49 ($p < .01$) in Sample 2 for extra-role performance.

Table 2 Indicators of fit of measurement models, 16 items (Study 1)

Model	Parameters	χ^2	*d.f.*	$\chi^2/d.f.$	*p*	TLI	CFI	RMSEA	Lower	Upper	WRMR	ΔCFI
Sample 1												
M1 ESEM	141	145.197	62	2.341	.00	0.98	0.99	.05	.05	.06	0.504	na
M2 SEM/CFA	105	445.783	98	4.548	.00	0.96	0.97	.08	.08	.09	1.141	na
M3 configural invariance	108	486.121	196	2.480	.00	0.88	0.915	.05	.05	.06	na	na
M4 metric invariance	92	542.195	212	2.557	.00	0.87	0.906	.06	.05	.06	na	.009
M5 scalar invariance	70	601.766	234	2.572	.00	0.88	0.893	.06	.05	.06	na	.01
Sample 2												
M1 ESEM	129	108.778	62	1.754	.00	0.98	0.99	.05	.04	.07	0.460	na
M2 SEM/CFA	93	305.449	98	4.3.116	.00	0.95	0.95	.08	.08	.10	1.094	na
M3 configural invariance	108	419.080	196	2.138	.00	0.85	0.895	.06	.05	.07	na	na
M4 metric invariance	80	478.156	224	2.135	.00	0.85	0.891	.06	.05	.07	na	.004
M5 scalar invariance	70	489.566	234	2.092	.00	0.86	0.880	.06	.05	.07	na	.01

Sample 1 = Employees; Sample 2 = Leaders

Table 3 CBLS Factor Loadings of the 16-item measurement model (Study 1)

	Factor 1		Factor 2		Factor 3		Factor 4	
Items	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2	Sample 1	Sample 2
CBL1	.625**	.769**						
CBL2	.953**	.880**						
CBL3	.924**	.901**						
CBL4			.787**	.808**				
CBL5			.780**	.700**				
CBL6			.703**	.765**				
CBL7			.804**	.759**				
CBL8					.766**	.652**		
CBL9					.717**	.742**		
CBL10					.822**	.813**		
CBL11					.825**	.756**		
CBL12					.701**	.685**		
CBL13							.803**	.737**
CBL14							.809**	.785**
CBL15							.748**	.783**
CBL16							.805**	.848**

** $p < .01$; Sample 1 = Employees; Sample 2 = Leaders

Brief Discussion of Study 1

Results from Study 1 confirmed the good psychometric properties of the 16-item CBLS. The factor structure of the scale was satisfactorily explained by a solution with four independent but positively correlated factors: working alliance, open communication, learning and development, and progress and results. Additionally, measurement invariance across Spain and the Latin American countries was also demonstrated. Reliability analysis indicated high internal consistency, and results provided preliminary evidence for the construct validity of the CBLS, minimizing confounding with other leadership constructs (i.e. transformational and authentic leadership). Finally, the positive and significant correlations between CBL and work engagement and in-role and extra-role performance provided initial support for the potential value of CBL in organizations. To further investigate the relationship and underlying mechanisms between CBL and work-related outcomes, a second study was conducted.

Study 2

Study 2 aims to analyse the relationships between coaching-based leadership and work-related outcomes (PsyCap, work engagement, and in-role and extra-role performance). The hypothesized model was explored through the following hypotheses:

Hypothesis 2 (H2): CBL is indirectly associated to in-role performance through the mediating role of work engagement.

Hypothesis 3 (H3): CBL is indirectly associated to in-role performance through the mediating role of work engagement.

Hypothesis 4 (4): CBL is indirectly associated to work-engagement through the mediating role of PsyCap.

Methodology

Participants and Procedure

Convenience sampling yielded 252 employees with non-executive responsibilities from 10 organizations in Spain (4 organizations; 74.6% of employees) and Latin America (6 organizations; Peru = 34.2%; Argentina = 24.3%; México = 31.6%). By sector, 41.7% of the employees belonged to the services sector, 36.9% belonged to industry, 13.1% to public administration, and 8.3% to construction. The organizational size ranged from 3 to 48 employees, with an average of 23.6 (SD = 12.4). Respondents' organizational tenure ranged from 0.6 to 55 years, with an average of 11.8 years (SD = 9.9). Participants ranged in age from 20 to 64 years (18-24 age range = 6.3%; 25-34 age range = 17.1%; 35-44 age range = 35.7%; 45-54 = 17.5%; > 54 = 8.7%); 51.6% were female, and 76.2% had an indefinite contract.

For data collection, we followed the same procedure as in Study 1, Sample 1.

Instruments

Participants completed the employees' version of the CBLS, the self-perceived version of the UWES, and the in-role and extra-role performance scale described in Study 1. Moreover, an additional measure was used in this study to test our hypotheses, i.e., PsyCap.

Table 4 Descriptive statistics, reliabilities, and correlations (Study 1, Sample 1: Employees)

Dimensions	M	SD	α	ω	1	2	3	4	5	6	7	8	9	10
1. CBL_Working alliance	5.25	0.73	0.81	0.86	-									
2. CBL_Open communication	5.06	0.75	0.78	0.79	.66**	-								
3. CBL_Learning and development	4.86	0.76	0.84	0.84	.67**	.65**	-							
4. CBL_Progress and results	4.82	0.83	0.84	0.84	.54**	.57**	.73**	-						
5. CBL_Complete Reduced Scale	4.97	0.65	0.93	0.93	.80**	.83**	.91**	.85**	-					
6. Transformational Leadership	4.95	0.72	0.94	0.94	.63**	.61**	.63**	.65**	.64**	-				
7. Authentic Leadership	4.88	0.70	0.93	0.93	.63**	.66**	.67**	.63**	.64**	.80**	-			
8. Work Engagement	4.98	0.69	0.89	0.92	.32**	.33**	.42**	.37**	.43**	.41**	.33**	-		
9. In-Role Performance	5.17	0.63	0.83	0.83	.24**	.28**	.26**	.32**	.31**	.23**	.24**	.35**	-	
10- Extra-Role Performance	5.26	0.64	0.73	0.73	.32**	.31**	.30**	.31**	.36**	.32**	.29**	.38**	.48**	-

** $p < .01$; α = Cronbach's alpha; ω = McDonald's omega

Table 5 Descriptive statistics, reliabilities, and correlations (Study 1, Sample 2: Leaders)

Dimensions	M	SD	α	ω	1	2	3	4	5	6	7	8	9	10
1. CBL_Working alliance	5.33	0.65	0.82	0.83	-									
2. CBL_Open communication	5.04	0.66	0.83	0.77	.59**	-								
3. CBL_Learning and development	4.84	0.70	0.77	0.80	.69**	.66**	-							
4. CBL_Progress and results	4.47	0.88	0.80	0.84	.43**	.66**	.70**	-						
5. CBL_Complete Reduced Scale	4.89	0.62	0.92	0.92	.75**	.85**	.91**	.86**	-					
6. Transformational Leadership	4.86	0.68	0.91	0.91	.61**	.69**	.64**	.62**	.63**	-				
7. Authentic Leadership	4.70	0.69	0.89	0.89	.54**	.66**	.65**	.61**	.64**	.79**	-			
8. Work Engagement	4.86	0.83	0.91	0.91	.30**	.23**	.33**	.28**	.34**	.42**	.31**	-		
9. In-Role Performance	5.09	0.81	0.89	0.89	.45**	.43**	.48**	.47**	.52**	.53**	.49**	.33**	-	
10. Extra-Role Performance	5.26	0.77	0.82	0.82	.43**	.41**	.43**	.44**	.49**	.50**	.46**	.28**	.63**	-

** $p < .01$; α = Cronbach's alpha; ω = McDonald's omega

PsyCap. This construct was assessed by the Psychological Capital Questionnaire (PCQ-12; Avey et al., 2011), adapted from the PCQ-24 scale (Luthans et al., 2007). The scale consists of four dimensions: (1) self-efficacy, measured with three items (i.e.: *"I am confident presenting information to a group of colleagues regarding this situation."*); (2) hope, measured with four items (i.e.: *"If I should find myself in a jam trying to solve this situation, I could think of many ways to get out of it."*); (3) resilience, measured with three items (i.e.: *"I take stressful things regarding this situation in stride"*); and (4) optimism, assessed by two items (i.e.: *"I look on the bright side of things regarding this situation").* Participants were asked to rate each of the statements using a 6-point Likert-type scale ranging from 0 (strongly disagree) to 5 (strongly agree). The alpha reliability coefficient was .89.

Statistical Analyses

First, descriptive analyses (e.g., means, standard deviations, and Cronbach's alpha coefficients) were calculated, in addition to the bivariate correlations between all the variables, using the IBM SPSS Statistics 25.0 package. Second, Harman's single-factor test (Podsakoff et al., 2003) was applied with CFA, using the SPSS AMOS 23.0 (Analyses of Moment Structures; Arbuckle, 2010) software package, to test for possible common method variance bias. Third, a CFA using Mplus was specified to test the proposed CBLS structure underlying the data.

Fourth, structural equation modelling (SEM) was applied to test the structural relations in the hypothesized model using AMOS. The maximum likelihood method was used, and goodness of fit of each model was determined by considering absolute and relative indexes (Schermelleh-Engel et al., 2003): χ^2, $\chi 2/df$, incremental fit index (IFI), CFI, normed fit index (NFI), RMSEA, standardized root-mean-square residual (SRMR), and Akaike information criterion (AIC). Finally, the product of coefficients method (MacKinnon et al., 2002) was employed to test the mediation hypothesis.

Results

Preliminary Analyses

Table 6 shows means, standard deviations, Cronbach's α indexes, and Pearson's correlations among the study variables. As expected, the internal consistency of all the scales was satisfactory, and all the inter-correlations among the variables were positive and significant (M = .45), ranging from .28 to .61 ($p < .01$). Next, results of preliminary data analyses revealed a significantly poorer fit of the Harman single-factor model

(Podsakoff et al., 2003) [χ^2 (77) = 1249.63 $p < 0.00$; RMSEA = 0.25, IFI = 0.49, CFI = 0.49, NFI= 0.47, AIC = 1303.62]. We compared this result to the model with five latent factors, which revealed an acceptable model fit [χ^2 (59) = 185.79, $p < 0.00$, RMSEA = 0.08, IFI = 0.94, CFI = 0.94, NFI = 0.92, AIC = 275.79]. Hence, one single factor cannot account for the variance in the data. In addition, a one-factor ANOVA did not reveal any significant differences between Spain and the Latin American countries in the study variables. With these results, we proceeded to carry out the study with both groups included in the same sample. Finally, the results of the CFA showed an acceptable fit for the CBLS measurement model with four factors [χ^2 (98) = 390.336, $p < 0.00$, RMSEA = .05, CFI = .98, TLI= .98, WRMR = 1.015].

Table 6 Means, standard deviations, internal consistency and inter-correlations of the study variables (Study 2)

Variables	M	SD	α	1	2	3	4	5
1. CBLS	4.58	1.07	0.96	1				
2. PsyCap	4.73	0.91	0.89	.27**	1			
3. Work Engagement	4.76	0.78	0.92	.45**	.61**	1		
4. In-Role Performance	5.16	0.80	0.90	.28**	.64**	.44**	1	
5. Extra-Role Performance	5.25	0.77	0.82	.34**	.46**	.40**	.60**	1

Correlations; **$p < .01$; α = Cronbach's alpha

Model Fit: Structural Equation Modelling

CBL, PsyCap, work engagement, in-role and extra-role performance are represented as latent variables in the structural model shown in Figure 1. Following James et al. (2006), four models were tested to verify the hypotheses. Our research model (M1) assumes that work engagement plays a full mediating role in the relationship between CBL and in-role and extra-role performance, and that PsyCap plays a full mediating role in the relationship between CBL and work engagement. The results presented in Table 7 show that M1 did not present a good fit to the data. Consequently, a new model (M2) was developed that assumes that work engagement plays a partial mediating role between CBL and in-role performance and between CBL and extra-role performance, and that PsyCap plays a partial mediating role between CBL and work engagement. In other words, there is also a direct relationship between

CBL and work engagement and between CBL and in-role and extra-role performance. The results indicate that M2 fitted the data, and that all the fit indices met the criteria. However, not all the relationships were significant. Specifically, the path from CBL to work engagement was positive and statistically significant ($\beta = .29$, $p < .001$), as was the path from CBL to PsyCap ($\beta = .32$, $p < .001$), from PsyCap to work engagement ($\beta = .66$, $p < .001$), from work engagement to in-role performance ($\beta = .52$, $p < .001$) and to extra-role performance ($\beta = .37$, $p < .001$), and from CBL to extra-role performance ($\beta = .20$, $p < .05$). Finally, the path from CBL to in-role performance ($\beta = .03$, $p = .63$, *ns*) was not significant.

Next, a third model (M3) was developed that assumes that work engagement plays a full mediating role between CBL and in-role performance and a partial mediating role between CBL and extra-role performance, and that PsyCap plays a partial mediating role between CBL and work engagement. The fit indices confirmed the robustness of M3, with all the fit indices meeting the criteria, as Table 7 shows. CBL is directly related to work engagement ($\beta = .29$, $p < .001$) and to PsyCap ($\beta = .31$, $p < .001$); work engagement is directly related to in-role performance ($\beta = .54$, $p < .001$) and to extra-role performance ($\beta = .38$, $p < .001$); PsyCap is directly related to work engagement ($\beta = .66$, $p < .001$); and CBL is directly related to extra-role performance ($\beta = .19$, $p < .05$). Although the difference between M3 and M2 was not statistically significant ($\Delta\chi 2_{\text{M3–M2}}$ (2) = 0.21, *ns*), M3 presents a better fit to the data.

Finally, we compared M3 to a fourth model (M4) that assumes that work engagement plays a full mediating role between CBL and in-role and extra-role performance, and that PsyCap plays a partial mediating role between CBL and work engagement. Although the difference was not significant ($\Delta\chi 2_{\text{M3–M4}}$ (2) = 7.10, *ns*), M3 revealed a better fit to the data than M4. Thus, considering that M3 revealed a better fit to the data than our research Model (M1), with significant differences between the two models ($\Delta\chi 2_{\text{M3–M1}}$ (2) = 41.7, $p < .001$) and significant relationships between the variables, we opted for M3, which assumes that work engagement plays a full mediating role linking CBL to in-role performance and a partial mediating role linking CBL to extra-role performance, and that PsyCap plays a partial mediating role linking CBL to work engagement.

Table 7 Fit indices of the Structural Equation Models (Study 2; N = 252)

Model	χ^2	*d.f.*	RMSEA	IFI	CFI	NFI	TLI	AIC
M1	447.731	115	.09	0.89	0.89	0.86	0.87	557.73
M2	405.823	112	.08	0.90	0.90	0.88	0.89	521.82
M3	406.037	113	.08	0.92	0.92	0.90	0.90	520.03
M4	413.141	114	.08	0.92	0.92	0.90	0.90	518.11

M1 = Model 1; M2 = Model 2; M3 = Model 3; M4 = Model 4

Mediation Analyses

Based on MacKinnon et al. (2002), the product of coefficients method was estimated in order to test the mediation hypotheses. The mediated effect of work engagement in the relationship between CBL and in-role performance (H2; $P = \boldsymbol{Z\alpha \cdot Z\beta} = 49.55$, $p < .001$) and extra-role performance (H3; $P = \boldsymbol{Z\alpha \cdot Z\beta} = 39.13$, $p < .001$) were statistically significant. Additionally, the direct relationship between CBL and in-role performance ($\boldsymbol{\tau} = 0.07$, *ns*) was not statistically significant, whereas the direct relationship between CBL and extra-role performance was statistically significant ($\boldsymbol{\tau} = 0.15$, $p < 0.05$). These results suggest a full mediation effect of work engagement between CBL and in-role performance, confirming H2, and a partial mediation effect of work engagement between CBL and extra-role performance, partially confirming H3. Furthermore, the mediated effect of PsyCap in the relationship between CBL and work engagement (H4) was also statistically significant ($P = \boldsymbol{Z\alpha \cdot Z\beta} = 49.09$, $p < .001$), as was the direct relationship between CBL and work engagement ($\boldsymbol{\tau} = 0.26$, $p < .001$). These results suggest a partial mediation effect of PsyCap, partially supporting H4.

Brief Discussion of Study 2

Results from Study 2 supported H2, suggesting a full mediating role of work engagement in the relationship between CBL and in-role performance, and partially supported H3, suggesting a partial mediating role of work engagement in the link between CBL and extra-role performance. Moreover, H4 was partially supported, indicating a partial mediating role of PsyCap in the link between CBL and work engagement. These results revealed that employees who perceive a CBL style in their supervisors are more engaged at work and, in turn, achieve better task and contextual performance. CBL perceived by employees is also directly related to contextual performance, that is, citizenship behaviors that directly promote the effective

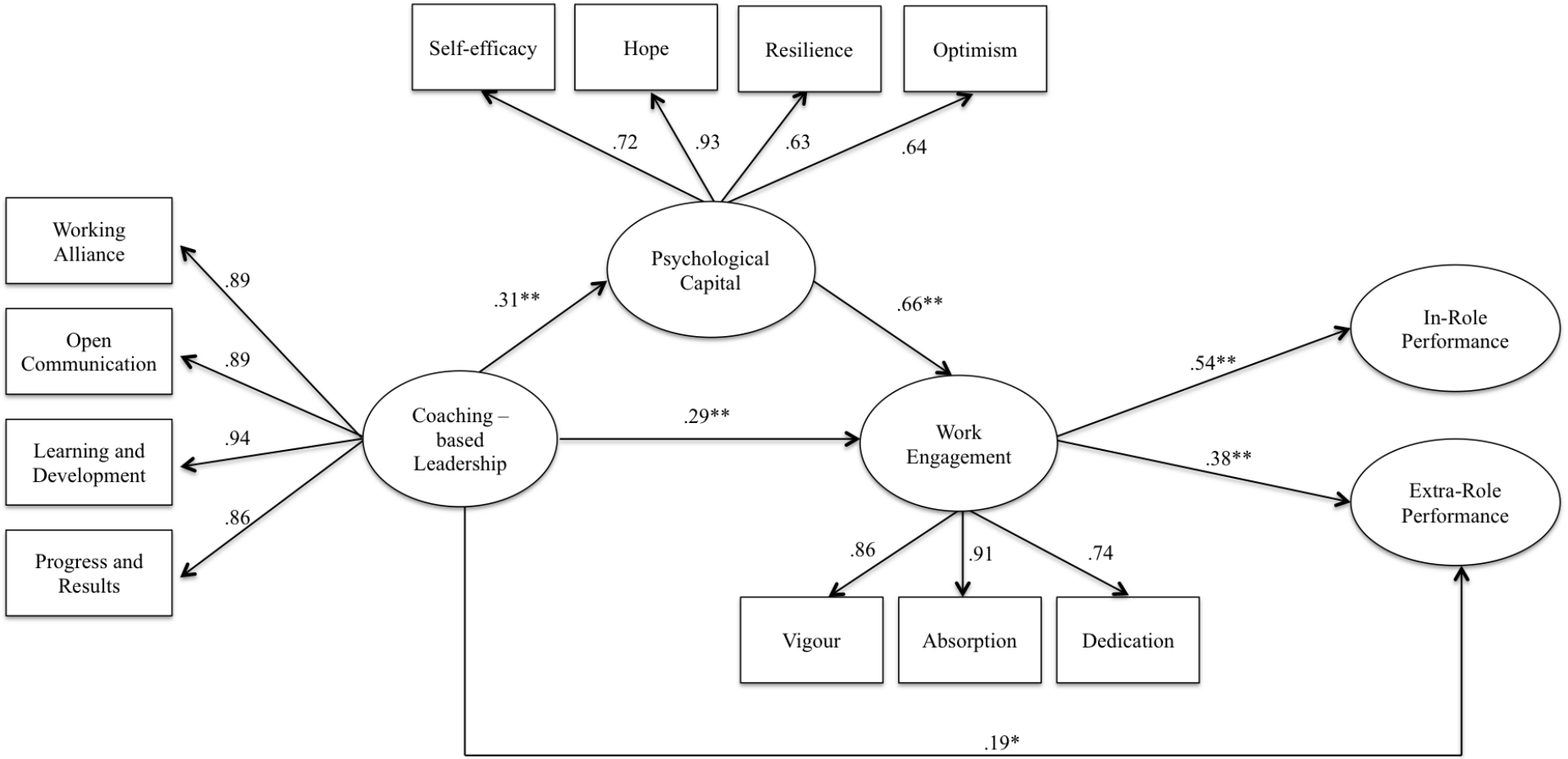

Fig. 1 The final model (M3) with standardized path coefficients (Study 2)

functioning of an organization without necessarily directly influencing an employee's productivity (Podsakoff et al. 2000). Additionally, employees with a coaching-based leader as their supervisor develop a positive psychological state characterized by self-efficacy, optimism, hope, and resilience at work (PsyCap), and, consequently, they experience high levels of work engagement, resulting in higher levels of in-role and extra-role performance.

General Discussion

The purpose of the current study was twofold: first, to develop and validate an instrument to assess CBL attributes in the workplace from both leaders' and employees' perspectives (Study 1); and second, to analyse the relationship and underlying psychological mechanisms between CBL and work-related outcomes (i.e. PsyCap, work engagement, and in-role and extra-role performance; Study 2).

In the case of Study 1, results from the initial validation indicate that the 16-item CBLS is an adequate instrument with good psychometric properties. The adequate levels of reliability and validity are sufficient to support the use of the scale and the interpretation of the scores in Spanish and Latin American working populations equivalent to the study samples. The factor structure of the scale -based on EFA and CFA- indicates that the four dimensions are satisfactorily explained by a solution with four related factors: working alliance, open communication, learning and development, progress and results. This four-factor model showed a better fit than a one-factor model, which agrees with previous literature on conceptualizations and classifications of leaders' coaching role (Berg & Karlsen, 2016; DiGirolamo & Tkach, 2019; Grant & Cavanagh, 2007_b; Kemp, 2009). The acceptability of the covariate model of CBL is further strengthened by the fact that no significant differences were found between the two different samples (sample 1: employees; sample 2: managers). In addition, reliability analysis, based on Cronbach's and Omega's indexes for the subscales and the overall CBLS, indicated high internal consistency. Moreover, cultural invariance was also demonstrated, revealing the capacity of the scale to evaluate CBL attributes in a similar way in Spanish and Latin American leaders and managers, both self- and employee-perceived.

Regarding criterion validity, findings indicated that the 16-item CBLS was positively related to transformational leadership (Bass & Avolio, 1994) and authentic leadership (Walumbwa et al., 2008). Additionally, the four dimensions of CBL

correlated positively with each of the leadership styles mentioned above, but not high enough to indicate construct redundancy. As McCornack (1956) noted, constructs can be highly correlated while still maintaining distinct patterns of associations with other variables.

With regard to Study 2, interesting results emerged that should be mentioned. First, the findings confirmed a positive and direct link between CBL and work engagement, a positive direct link between CBL and extra-role performance, and indirect link between CBL and in-role performance through the full mediating role of work engagement. Thus, the direct link from CBL to in-role performance was not supported. In other words, employees who perceive high levels of coaching attributes (i.e. developing a working alliance, active, empathic, and compassionate listening, powerful questioning, facilitating development, providing feedback, being able to identify and help to develop and use personal strengths, providing support in planning and goal setting, and managing progress) in their supervisors show high levels of energy, strong involvement, and complete concentration in their work activities (work engagement), which in turn leads to high levels of in-role and extra-role performance. Moreover, employees with coaching-based leaders as supervisors experience cooperative and social actions that go beyond the job requirements and are also beneficial to the organization such as helping others or voluntary overtime (Borman & Motowidlo, 1993).

These results are consistent with previous research that confirmed the positive link between managerial coaching and work engagement and the mediating role of work engagement in the link to task performance (Ali et al., 2018; Tanskanen et al., 2019). However, in contrast with our results, these two studies also confirmed a positive direct link from managerial coaching to task performance. In line with our findings, Kim and Kuo (2015) have found that managerial coaching had a direct impact on organizational citizenship behaviour and an indirect influence on employee in-role performance. The mediating variable in this study was employee perception of manager's trustworthiness. Results from the present study present a novel approach regarding the indirect influence of the leader as coach on task performance, which is totally mediated by work engagement.

Second, findings from Study 2 also confirmed the positive and direct link between CBL and PsyCap. In addition, PsyCap played a partial mediating role through which CBL leads to higher work engagement. This result revealed that employees whose

leaders show CBL attributes develop the confidence to successfully execute challenging tasks (self-efficacy), persevere toward goals (hope), bounce back from adversity to attain success (resilience), and make positive attributions about succeeding in the present and in the future (optimism; Yousseff & Luthans, 2012). Consequently, these positive personal resources lead employees to experience a higher level of work engagement.

These findings are consistent with previous research that found a positive direct relationship between managerial coaching and employees' PsyCap (Hsu et al., 2019), and a partial mediating role of personal resources (i.e. self-efficacy, organizational-based self-esteem, and optimism) in the link between job resources (i.e. supervisory coaching) and work engagement (Xanthopoulou et al., 2007). However, there are still no studies that have examined the mediating role of PsyCap in the link between CBL and work engagement. Thus, Study 2 represents a step forward with regard to previous research in analysing and confirming the direct influence of the leader's CBL style on employees' levels of work engagement, and an indirect influence via PsyCap.

Theoretical Contributions and Practical Implications

This study theoretically contributes to CBL theory development by exploring its conceptualization and attributes and the processes inherent in its development (Kemp, 2009). Additionally, the findings advance the theoretical understanding of the potential value and benefits of a CBL style in organizations by offering empirical support for its positive influence on work-related outcomes (i.e., work engagement, PsyCap, in-role and extra-role performance).

Moreover, this study is consistent with previous research on the COR theory (Hobfoll 2002), which posits that personal resources act to preserve and foster health and well-being. Specifically, we found that employees with high levels of personal resources (i.e. PsyCap) were more likely to show high levels of well-being at work (i.e. work engagement). Finally, results from the present study also contribute to the JD-R model (Bakker & Demerouti, 2007), suggesting and confirming both the intrinsic motivational role of CBL as a job resource that enhances personal resources (i.e., PsyCap) and work engagement, and its extrinsic motivational role in fostering performance via underlying psychological mechanisms. In sum, a CBL style in organizations leads employees to develop positive personal resources that stimulate a

motivational process that leads to higher levels of energy, absorption, and dedication to the job and, in turn, higher task and contextual performance.

Results from this study also have practical implications in terms of the development of a CBLS to be used in Spain and Latin American countries. Considering the little guidance that coaching-based leaders receive in their own growth and development (Kemp, 2009), this study addresses a valid and reliable instrument that can be used by researchers, practitioners, or Human Resources professionals to assess and train the development of CBL attributes in organizations willing to build internal coaching capabilities in leaders and managers. The development of coaching-based leadership will in turn enhance psychological wellbeing (i.e., PsyCap, work engagement) and task and contextual performance in organizations.

Strengths, Limitations, and Future Directions

This study has noteworthy strengths. First, a consistent CBL conceptualization and theory review was provided, followed by an outline of existing managerial/leadership coaching scales. Second, data were collected in different countries and from two different sources, which enhances external validity. Our study proposed a novel approach, considering the limited attention given to developing and validating a CBL scale in Spanish language countries. A third strength is the validation of both employees' and leaders' versions of the questionnaire, which mitigates common source and common method biases. Fourth, our measurement model was tested using ESEM and CFA, and the results were consistent with theoretical predictions. Fourth, two studies were conducted in different settings, which helps to strengthen the positive results for measurement validation and the relationships between CBL and work-related outcomes. A fifth strength is the inclusion of underlying psychological processes (work engagement and PsyCap) linking CBL to in-role and extra-role performance.

Despite its strengths, this research also has some limitations. First, the five Spanish-speaking countries considered in the studies may not be representative of all the countries where Spanish is the primary language. Thus, a more representative and diversified sample will be interesting in order to replicate our results. As a complementary approach, future studies should adapt and test the validity of the scale in non Spanish-speaking countries in order to support the use of the scale and compare the results about the role and value of the CBL style in different cultures and settings.

Second, the leaders' version of the questionnaire was not used in Study 2. In order

to strengthen the results, future studies should consider both employees' and leaders' versions of the CBLS when analysing the link with work-related outcomes in individual and multilevel analyses. Moreover, in order to understand the complex mechanisms involved in the link between CBL and work-related outcomes, other mediating and moderating constructs could be considered, such as personality, use of signature strengths, and organizational climate and culture. Future studies could also examine the coaching-based leader-employee dyad in order to enrich our understanding of the complexity of one-on-one coaching interactions and the effects on employees.

Third, data on both studies was cross-sectional, which do not allow to draw firm conclusions about the causal relationship among the variables. There is a need for longitudinal studies to strengthen causal inferences about the influence of CBL on work-related outcomes. Furthermore, future studies could explore and compare how different leadership styles (i.e. coaching, transformational, and authentic) predict work-related outcomes. Finally, future research should continue to use the CBLS to broaden our understanding of the coaching-based leader's role in organizations and examine its predictive role in different relevant work-related outcomes, such as job satisfaction, job commitment, goal attainment, and objective performance metrics.

Appendix

CBLS items for employees' and leaders' versions, respectively

Working alliance
1. He/she and I have mutual respect for one another / My employees and I have mutual respect for one another.
2. I believe that he/she truly cares about me / I truly care about my employees.
3. I believe that he/she feels a sense of commitment to me / I feel a sense of commitment to my employees.
Open communication
4. Asks questions that help me to better understand my situations, identify causes, and see possible actions for improvement / I ask questions that help employees to better understand their situations, identify causes, and see possible actions for improvement.
5. Pays close attention when I talk to him/her / I pay close attention when employees talk to me.

6. Listens patiently when I tell him/her about my problems / I tend to listen patiently when employees tell me about their problems.
7. When I am going through a difficult time, he/she tries to be caring toward my person / When an employee is going through a difficult time, I try to be caring toward that person.

Learning and development

8. Employees' learning and development is one of his/her main responsibilities / My employees' learning and development is one of my main responsibilities.
9. Actively provides opportunities for me to take more responsibility in my work / I actively provide opportunities for employees to take more responsibility in their work.
10. Constantly provides feedback in order to improve my performance / I constantly provide feedback to my employees in order to improve their performance.
11. Finds it easy to identify strengths in the employees / I find it easy to identify strengths in my employees.
12. I appreciate his/her perceptions about strengths because they help me to do my work better / My employees appreciate my perceptions about strengths because they help them to do their work better.

Progress and results

13. The objectives we set are ambitious but achievable / The objectives we set with each employee are ambitious but achievable.
14. Is very good at helping me to develop clear, simple, and achievable action plans / I am very good at helping employees to develop clear, simple, and achievable action plans.
15. Always asks me to inform him/her about the progress on my objectives / I always ask my employees to inform me about the progress on their objectives.
16. Adequately follows up and evaluates my progress towards my goals / I adequately follow up and evaluate employees' progress towards their goals.

CHAPTER 4

Facilitating Work Engagement and Performance through Strengths-based Micro-Coaching: A controlled trial study

Abstract

In spite of the potential benefits that strengths-based coaching can bring to organizations, basic questions remain regarding its impact on work engagement and job performance especially among non-executive employees. In a controlled trial study, 60 employees from an automotive industry company participated in a strengths-based micro coaching program over a period of five weeks. The intervention followed a strengths-based coaching approach, grounded in the identification, development, and balanced use of personal strengths to foster positive outcomes. Mixed methods, using quantitative and qualitative measures, were taken. Both the participants and their supervisors completed pre, post, and follow-up questionnaires, and the results indicated that the intervention program was successful in increasing all the study variables after finishing the program. The results also showed the durability of the effects on the outcome variables over time (follow up). Qualitative data supported the study hypotheses. Through open questions inquiring about the outcomes of the program, the participants stated that it helped them to increase performance and well-being. Practical implications suggest that this program can be a valuable short-term applied positive psychology intervention to help employees increase their work engagement and performance and promote optimal functioning in organizations.

Keywords Strengths-based coaching · Work engagement · Performance · Control trial [3]

[3] Chapter 4 is based on: Peláez, M. J., Coo, C., & Salanova, M. (2019). Facilitating Work Engagement and Performance Through Strengths-Based Micro-coaching: A Controlled Trial Study. *Journal of Happiness Studies*, 1-20. doi:0.1007/s10902-019-00127-5

Introduction

People possess unique signature strengths— such as courage, wisdom, and humor— that are linked to a sense of self, identity, and authenticity, and usually lead to a strong intrinsic motivation to put them into practice (Proctor et al., 2011). In organizational settings, the identification and use of personal strengths is a promising tool for increasing positive experiences, and promoting optimal functioning in the pursuit of goal achievement (Dubreuil et al., 2016; Linley, 2008). Moreover, research suggests that strengths identification and application is a potentially important tool in personal and organizational development that is becoming increasingly attractive to practitioners (Biswas-Diener et al., 2011). In a similar way, coaching psychology provides a remarkable opportunity to apply the principles of character strengths, based on positive psychology, to enhance well-being and achieve excellent performance in organizations (Grant & Cavanagh, 2007_a). Specifically, strengths-based coaching has been suggested as an applied link between strengths development and coaching psychology (Govindji & Linley, 2007; Linley, Nielsen et al., Biswas-Diener, 2010). Employees who use their strengths are more engaged at work (Harter et al., 2002) and more likely to achieve their goals (Biswas-Diener et al., 2011; Linley, Nielsen et al., 2010).

The highly competitive market that automotive companies face often requires an increasing complexity of the design processes and shorter delivery lead times. Manufacturing competitive priorities generally includes low cost, quality, time, flexibility and innovation (Bodein et al., 2013; Jayaram et al., 1999). In these contexts, employees highly involved in their work processes tend to increase their psychological work adjustment, well-being and effectiveness. Movement towards high involvement goals implies making better use of employees' capacities and personal development, if the company wishes to improve their productivity outcomes (Boxal & Macky, 2009). Therefore, to enable employees achieve superior performance, coaching and support are necessary (Bodein et al., 2013).

In spite of the growing body of research about the effects of coaching, mainly executive coaching, on employees' well-being and performance in organizations (Grant, 2013; Grant et al., 2009), little is known about the impact of coaching on these variables in non-executive employees (Grant, 2013). Thus, there is still a need for empirical studies with strong designs to investigate possible effects of non-executive coaching on positive outcomes (Grant, 2006; Green & Spence, 2014) such as engagement and

performance. Overall, given the increasing role of coaching in organizations worldwide (Grant, 2013), further development of an evidence-based framework for strengths-based coaching is needed (Dubreuil et al., 2016; Biswas-Diener et al., 2011).

In order to address this research gap, the present study seeks to add to the literature by reporting on a controlled trial study that explored the impact of a non-executive Strengths-based Micro-Coaching program on work engagement and job performance using mixed methods (quantitative and qualitative) in our research design. To measure job performance, both self-reported and supervisors' perceptions were considered. Finally, based on previous suggestions that coaching can be effective even when the number of coaching sessions is relatively small (Theeboom et al., 2014), we also aim to contribute to the positive psychology coaching literature by highlighting the usefulness of short-term coaching (i.e., micro-coaching) as an applied positive psychology intervention that can be valuable in increasing engagement and optimal functioning in organizations.

Strengths-based Coaching as a Positive Psychological Intervention

Positive Psychology (PP) is defined as the scientific study of the optimal functioning of individuals and organizations (Seligman and Csikszentmihalyi, 2014). The main objective of this discipline is to build positive qualities in order to facilitate happiness and subjective well-being. Based on the humanistic assumption that people are basically healthy and resourceful and want to lead meaningful and fulfilling lives, this discipline can be understood as a strengths-based psychology. Indeed, the strengths approach is one of the main pillars of PP.

A strength can be defined as a natural capacity for behaving, thinking, and feeling that is authentic and energizing to the individual and enables optimal functioning, development, and effectiveness (Linley & Harrington, 2006). Seligman (2002) proposed 24 distinct character strengths ranging from creativity to leadership to humor and classified under the six virtues of wisdom, courage, love, justice, temperance, and spirituality. This taxonomy of strengths is known as the 'VIA' (Values In Action; see Peterson and Seligman, 2004 for a review) inventory of strengths, which defines psychological or character strengths as morally valued traits whose use contributes to fulfillment and happiness. Linley and Harrington (2006) argued that when individuals use their signature strengths, they feel good about themselves, are better able to do what they naturally do best, and work toward fulfilling their potential. Currently, an

increasing number of professionals (i.e. therapists, coaches, and consultants) are using strengths-based interventions with their clients because they have been found to be significantly associated with well-being (Park et al., 2004), happiness (Seligman et al., 2005), and goal attainment (Linley, Nielsen et al., 2010).

Recently, a newly applied sub-discipline of psychology has emerged, namely Coaching Psychology, which can be understood as a collaborative, solution focused, systematic methodology designed to enhance well-being, facilitate goal attainment, and foster purposeful, positive change (Grant et al., 2010). Within the framework of a collaborative relationship, a coach encourages the coachee to set and strive for personally meaningful goals by: (1) identifying desired outcomes, (2) establishing specific goals, (3) enhancing motivation by identifying personal strengths, (4) identifying resources and formulating action plans, (5) monitoring and evaluating progress, and (6) modifying action plans based on this evaluation (Grant, 2011; 2013). In the field of business, the use of coaching as an important tool has increased substantially in the past two decades because it aims to optimize employees' work-related performance and achieve organizational success (Joo, 2005). In this specific work context, coaching is increasingly being used not only as a means of enhancing employees' optimal functioning, but also as a tool for optimizing psychosocial well-being, especially from the perspective of positive psychology coaching.

There is a growing consensus among coaching psychology researchers that PP and coaching psychology are complementary partners because they share a focus on building on individuals' strengths in order to enhance health, growth, and development (Biswas-Diener, 2010; Biswas-Diener & Dean, 2007). From this point of view strengths-based coaching is an example of the integration between both perspectives (Govindji and Linley, 2007; Linley & Harrington, 2006; Linley, Garcea et al., 2010). This strengths-based approach aims to help clients identify their strengths and better direct their talents and abilities toward meaningful and engaging behaviors (Peterson & Seligman, 2004).

Furthermore, previous research has demonstrated that emphasizing personal strengths in the workplace makes employees achieve their goals more effectively (Linley, 2008), be more engaged (Harter et al., 2002), and perform better (Dubreuil et al., 2014). For these reasons, strengths-based coaching has been proposed as an effective organizational intervention for personal and organizational development (Biswas-Diener et al., 2011; Linley, Nielsen et al., 2009). One useful way to make

personal strengths work to promote beneficial outcomes is by using them to achieve goals. Previous research suggests that it is not only goal attainment in itself that leads to well-being and better performance, but also the types of goals pursued and the motivation for pursuing them. In essence, people who seek goals that are consistent with their personal interests and values dedicate more continued effort to achieving these goals, and therefore are more likely to attain them (Govindji & Linley, 2007; Linley, Nielsen et al., 2010).

Overall, the strengths-based approach offers a coherent theoretical framework and methodological consistency to the delivery of coaching in organizations (Mackie, 2014). However, in spite of the potential benefits that strengths-based coaching can bring to organizations (Linley, Nielsen et al., 2009), only a few studies have proposed and tested strengths-based interventions in work settings (Cable et al., 2013; Cable et al., 2015; Dubreuil et al., 2016; Harzer and Ruch, 2016; Hodges & Asplund, 2010; Lee et al., 2016; Meyers and & Woerkom, 2017; Page & Vella-Brodrick, 2010). Thus, further development of an evidence-based framework and empirical research on this approach are needed, especially with non-executive employees.

Strengths-based Coaching, Work Engagement, and Job Performance

Strengths-based Coaching and Work Engagement

Although coaching has primarily focused on the enhancement of optimal functioning, peak performance, and the achievement of organizational goals, more recently the emergence of Positive Psychology coaching methods that encourage employees to develop strengths, positive resources and achieve personally meaningful goals in organizational settings has led to coaching focusing on employees' well-being and engagement (Green & Spence, 2014; McQuaid et al., 2018). Thus, work engagement is an important positive organizational outcome that can be promoted through strength coaching interventions (Crabb, 2011).

Conceived as the opposite of job burnout, work engagement can be understood as a positive state of mind characterized by three dimensions: 1) vigor: which refers to high levels of energy and mental resilience, the willingness to invest effort in one's work, and persistence in facing difficulties; 2) dedication: which refers to strong involvement, that is, psychological identification with one's work, and characterized by a sense of significance, enthusiasm, pride, inspiration, and challenges; and 3) absorption: which refers to a state of complete concentration and being engrossed in

one's activities (Schaufeli et al., 2002). As previous researchers have noted (Llorens-Gumbau & Salanova-Soria, 2014; Salanova et al., 2016), work engagement arises from a motivational process that begins with the availability of job resources that stimulate employees' motivation, and therefore leads to desirable work outcomes, such as life satisfaction, autonomy, positive affect, efficacy beliefs, organizational commitment and higher job performance. Hence, this positive state of mind is an important indicator of occupational well-being for both employees and organizations (Bakker & Demerouti, 2017; Knight et al., 2017).

Grant and Cavanagh (2007_a) suggested workplace engagement as an important outcome to include in research examining the effect of coaching interventions. Other researchers have highlighted the predictive role of core aspects of coaching (e.g. generating meaningful and positive feedback, clarity of goals) in enhancing work engagement (Bakker et al., 2008). However, to date, few attempts have been made to develop frameworks for organizational coaching that integrate and explore the impact on this dependent variable (Grant et al., 2010). In one of the few randomized controlled trials conducted to date, Duijts et al., (2008) found some evidence that coaching significantly reduced participants' levels of burnout and improved general health, life satisfaction, and psychological well-being (Green & Spence, 2014). In a diary study, Xanthopoulou et al., (2009) reported that coaching had a direct positive relationship with work engagement. To explain this relationship, the authors proposed that individuals working in a resourceful work environment, such as one where they receive high-quality coaching, are likely to believe more in their own capabilities, feel valued, and be optimistic that they will meet their goals. Consequently, employees experience goal self-concordance, which may lead to higher levels of work engagement (Hobfoll, 2002).

Furthermore, previous research has demonstrated that playing up one's personal strengths makes employees more engaged at work (Harter et al., 2002; Dubreuil et al., 2016). Related to the first dimension of engagement (vigor), and according to Linley's model (2008), when people use their strengths, they feel that they have more positive energy available to them and are more alive and vigorous. This intensified feeling of energy would be partly responsible for optimal functioning and performance, allowing people to work more vigorously and for longer periods of time. Another central feature of strengths use related to engagement (i.e. absorption and dedication) is that individuals "often" experience a state of deep concentration and involvement in an activity while

using their strengths (Dubreuil et al., 2014). Despite the well-known benefits of using strengths at work and the growing popularity of strengths-based coaching in organizations (Dubreuil et al., 2014; Linley et al., 2009), the impact of this intervention on employees' work engagement has hardly been assessed.

Hypothesis 1: Participants will increase their levels of work engagement after the intervention (from Pre to Post), and compared to a Waiting List-control group (WL).

Strengths-based Coaching and Job Performance

Another way coaching can benefit organizational effectiveness is through its potential impact on employees' performance (Grant, 2013). The definition of *Job Performance* generally includes two dimensions: (1) in-role or task performance, which includes activities related to the formal job that directly serve the goals of the organization, and (2) extra-role or contextual performance, which denotes actions that exceed what the employee is supposed to do (e.g., helping others or voluntary overtime; Goodman & Svyantek, 1999). This second dimension of performance refers to citizenship behaviors that directly promote the effective functioning of an organization without necessarily directly influencing an employee's productivity (Podsakoff et al., 2000).

Previous meta-analytic studies have confirmed the strong relationship between coaching and job performance. Coaching in organizations is essentially a relatively straightforward process of setting goals and developing action plans with the ultimate objective of optimizing employees' work-related functioning and performance (Grant, 2013; Theeboom et al., 2014). Coaching can foster performance by helping employees to establish self-concordant goals, increase their motivation, and become involved in cognitive preparations such as self-awareness and the potential for growth and development (Grant, 2011; 2013). The use of simple process models such as the Review, Evaluation, Goal, Reality, Options, Wrap-up model (RE-GROW; see Grant, 2003; 2011; Whitmore, 1992 for review) encourages coachees to take ownership of their goal striving and behavior change. This coaching process creates a self-regulation cycle that is important for successful behavior change and, thus, better performance.

Although coaching has been widely used in workplaces for several decades, there is still relatively little research on its impact and effectiveness (Green & Spence, 2014). Particularly in the relationship with job performance, the few randomized controlled studies carried out to date indicate that coaching can indeed improve goal attainment

(Grant et al., 2009) and performance (Kines et al., 2010). However, these studies were conducted with executives or employees through workplace coaching by their managers as coaches (Grant, 2013). To the authors' knowledge, to date, no controlled studies of coaching conducted with non-executives by professional external coaches have assessed coaching's impact on job performance (in-role and extra-role). Although the training of managers in coaching skills represents a significant contribution to rise coaching in the workplace, one of the main benefits of appealing to external coaching providers is the need in organizations to distinguish formal coaching from the intermittent use of coaching skills by line managers in their supervisory duties. Additionally, external coaches' specific knowledge domain and expertise (e.g. therapeutic approaches, psychological models, organization development), professional practice and external perspective to the organization are also identified as key factors in coaching success. (Grant et al., 2010).

Moreover, previous research has found the use of strengths to be positively associated with work performance. In essence, individuals who have opportunities to apply their strengths at work are more likely to demonstrate work performance behaviors, not only by fulfilling their required tasks, but also by adapting better to change and acting more proactively in their work environments (Dubreuil et al., 2014; Hodges & Asplund, 2010). Thus, the use of strengths would be associated with both in-role and extra-role performance.

Further research has proposed three underlying psychological processes that might be operating in the relationship between strength use and job performance. When people use their strengths, they: (1) feel like they have more energy available to them; (2) experience a feeling of authenticity, described as a feeling of being true to oneself and following one's own direction, thus, making employees feel genuine and like they are in the right role at work; and (3) experience a state of deep concentration and involvement in an activity, thus engaging in greater cognitive activity and attaining self-concordant goals and success at work (Dubreuil et al., 2014; Linley, 2008). Therefore, work engagement, with its three dimensions (vigor, dedication and absorption), can be understood as an underlying psychological mechanism that explains how the use of strengths is related to job performance.

Despite the growing popularity and well-known benefits of strength-based coaching in organizations, so far very little is known about the impact of this intervention on employees' performance (Dubreuil et al., 2014; Hodges & Asplund,

2010). This is surprising, considering that one of the main goals of the strengths-based approach is to foster optimal functioning (Linley, Nielsen et al., 2010). Furthermore, another important aspect in assessing the efficacy of coaching is collecting ratings not only from the coachees themselves (self-reported), but also from supervisors' perceptions of the outcome variables (Grant, 2013). Therefore, we formulate the following hypotheses:

Hypothesis 2: Participants will increase both their self-reported and supervisor reported levels of job performance after the intervention (from Pre to Post), and compared to WL.

The Durability of the Effects

Previous research suggests that longitudinal research is needed in order to ensure that the impact of coaching is more than just the result of engagement in a helping relationship. Therefore, it is essential to develop and conduct rigorous follow-up studies to establish the effectiveness of a coaching intervention over time (Grant & Cavanagh, 2007_a). The few longitudinal studies conducted to date have indicated that coaching produces sustained changes (Grant & Cavanagh, 2007_a; Grant, 2013). For instance, in a randomized control study, Green et al. (2006) found that gains from participation in a 10-week, solution-focused, cognitive-behavioral life coaching program were maintained at the 30-week follow up. In another longitudinal study, Libri and Kemp (2006) conducted an 18-month follow-up study, and the results indicated that coaching enhanced employees' sales performance and core self-assessments.

Furthermore, previous research has highlighted the important role of the use of strengths as a predictor of well-being over time. Wood et al. (2011) confirmed that people who use their strengths experience greater vitality and positive affect over a long period of time. Moreover, preliminary results from longitudinal research with health sector workers indicated that, following a strengths-development intervention, strength use led to increases in positive outcomes (i.e. subjective vitality and concentration), which in turn led to increases in work performance and satisfaction (Forest et al., 2013). However, there is a gap in the research due to the lack of longitudinal studies that assess the impact of strengths-based coaching on employees' positive outcomes in organizations (Govindji & Linley, 2007). Therefore, in the current study, we attempt to investigate the durability of the effects on the outcome variables (work engagement and job performance) four months after finishing the intervention program.

Hypothesis 3: The whole intervention group (EX plus WL) will maintain their increases in work engagement and job performance four months after the intervention program (Follow up; FUP), compared to Pre intervention.

Method

Participants and Procedure

The present study was conducted in a multinational automotive industry company located in Spain. The researchers contacted the manager of the plant with whom they arranged an initial meeting in order to evaluate the possibility of implementing a positive psychology intervention in the company. During the meeting, the plant manager expressed the employees' need to develop personal resources and motivation in order to address the high demands (e.g., high levels of workload, time pressure, responsibility, shift work) they face in their daily work and achieve ambitious performance goals.

Seventy-six employees who held technical or engineering positions with non-supervisory or executive responsibilities were invited to participate in a Strengths-based Micro-Coaching program through two informational meetings. During these meetings, participants were informed about the nature and characteristics of the study, the aims of the intervention program, and the evaluation procedure. Additionally, they were told that the confidentiality of their replies would be guaranteed according to the European data regulation standards. Participation was entirely voluntary, and there were no additional economic rewards or employee benefits for their involvement in the study. The study adhered to ethical standards, and was part of a broader research project called "Success factors, best practices and positive interventions in healthy and resilient organizations", which was approved by the Research Ethics Committee of Universitat Jaume I, in Spain.

A total of 60 employees (79%) initially agreed to participate. Next, participants were distributed into: (1) the experimental condition (EX; N = 35), divided into six groups that took part simultaneously, and (2) the waiting-list control condition (WL; N = 25), which served as an untreated comparison during the study. The groups were not randomly chosen because many of the participants worked with rotating schedules in the manufacturing plant, and therefore the company preferred them to choose between both groups depending on the workshops dates and their work shifts. After the EX finished the program, the three remaining groups that made up the WL also participated

in the intervention program.

The empirical research was carried out using a mixed methodology, both quantitative and qualitative. With regards to the quantitative method, online questionnaires were distributed via direct links sent by email to each participant (N = 60) at different times: before starting the program (T1; Pre intervention self-assessment), after finishing the program the EX (T2; Post intervention self-assessment for EX and Pre intervention self-assessment for WL), after finishing the program the WL (T3; Post intervention self-assessment just for WL), and four months after finishing the program each group (T4; FUP intervention self-assessment). Participants were asked to complete the surveys during working hours, and the approximate time it took to answer them was 15 minutes. At the beginning of the questionnaire, participants signed an informed consent form agreeing to release their personal data for scientific research exclusively. Supervisors' (N = 9) ratings as measures of employee's Job Performance were included in order to obtain an external performance assessment and avoid common method variance. Each supervisor evaluated between 3 and 16 employees (M = 5.7; SD = 2.2).

The company supported the study by allowing employees to attend sessions during work hours. Due to unexpected changes in work demands, organizational restructuring, or personal reasons, four employees did not complete the intervention program. Therefore, 56 (93%) participants finished the program and completed the Post questionnaires, whereas 52 (87%) responded to the FUP questionnaire. For organizational reasons, the WL groups started the intervention immediately after the EX groups finished (after T2 evaluation), rather than waiting until the completion of the FUP questionnaires. Figure 1 outlines the research design of the study. Last but not least, qualitative data was gathered through open questions obtained from the last individual coaching sessions.

The average age for the participants was 36 years (SD = 7.5, ranging from 22 to 52), and 70% were male. Moreover, 82% had a tenured contract, and the average job tenure in the company was 8.57 years (SD = 8.5).

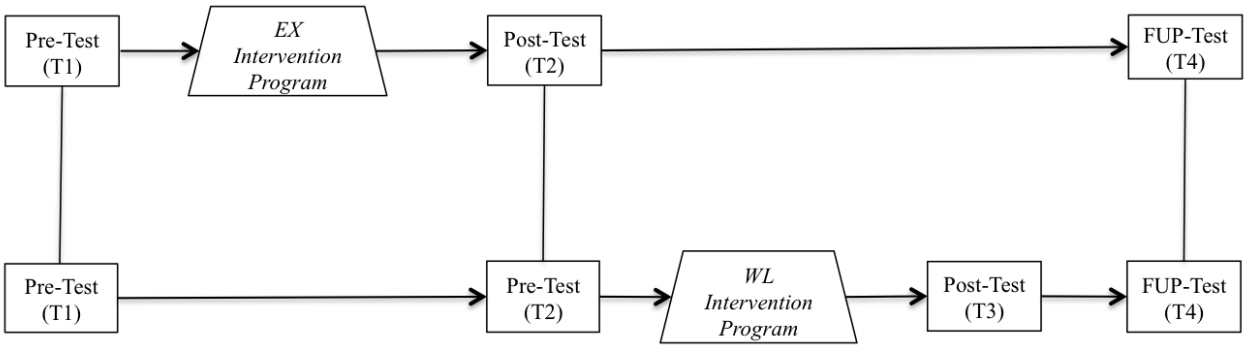

Fig. 1 Experimental design of the study. T1–time 1; T2–time 2; T3–time 3; T4–time 4; EX–experimental group; WL–waiting list-control group

Strengths-based Coaching Program Description

The intervention developed in this study was called the "Strength-based Micro-Coaching Program", and it was conducted by professional coaching psychologists external to the organization. The aims of the program were: (1) to present and deliver feedback on the self-assessment results related to the participants' positive psychological resources (self-efficacy, resilience, hope and optimism), Work Engagement and Job Performance, (2) to support participants' goal achievement through the development of an action plan based on personal strengths, and (3) to increase participants' Work Engagement and Job Performance.

The intervention followed a strengths-based approach (Linley, Nielsen et al., 2010), and the RE-GROW (Grant, 2003; 2011) model was used to structure the program. Based on these two approaches, the intervention focused on the establishment of a specific goal related to personal and professional development, followed by an action plan based on the identification, development, and use of personal strengths. The steps followed during the entire program were based on the generic self-regulation cycle (see Grant for review, 2003) which consists of a series of processes that includes setting a goal, developing an action plan, monitoring and evaluating the progress through self-reflection and changing actions to further enhance performance and achieve goals. The intervention model of the present study (see Figure 2) expands Grant's model by including a self-assessment feedback as a first step previous to establishing the goal, and strengths discovery and integration step followed by identifying options step before developing the action plan.

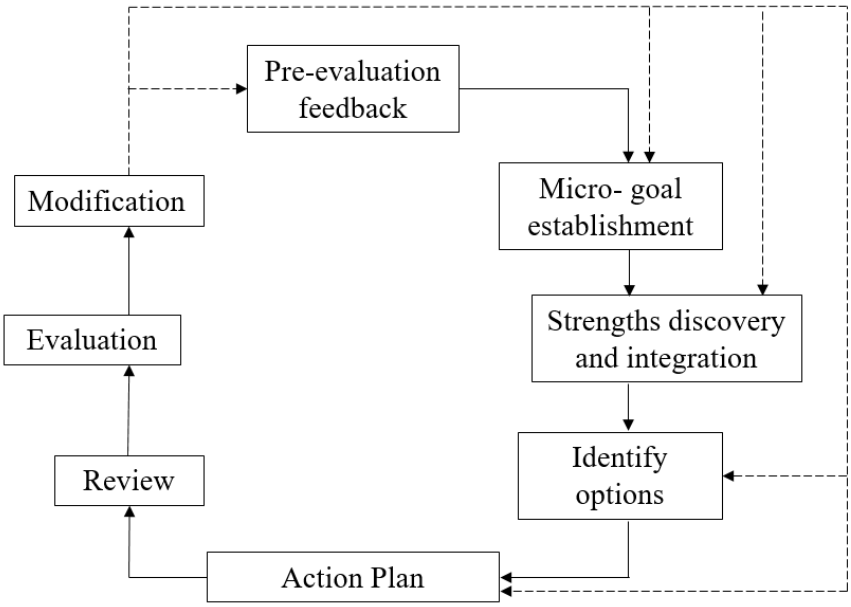

Fig. 2 Intervention program model based on the generic self-regulation cycle (Grant, 2003)

The intervention program lasted for a period of six weeks and was delivered in a two-hour group workshop session, followed by three individual coaching sessions. Previous research confirmed that the number of coaching sessions is not related to the effectiveness of the intervention, and, thus, even short-term coaching can be effective (Theeboom et al., 2014).

First, during the group workshop session, participants received Positive Psychology and Coaching Positive Psychology academic input. Next, feedback on the self-assessment results was given, with the objective of making them aware of their self-perceived personal resources, engagement and performance variables. Supervisors' scores reports were not included in the feedback delivered by the external coaches in this group session. The company considers that it is the supervisor's task to deliver performance feedback to each employee as a regular procedure due to the international policy of the company. So far, that was not part of the intervention program.

Based on these results, participants established a specific goal related to their personal and professional development. In addition, a booklet was provided containing work slogans, information relevant to each coaching session, instructions for coaching activities, and suggested reading materials. Participants also gave written qualitative feedback on their experiences in the workshop and their key learning points.

After the workshop, the participants went through two weekly 90-minute individual sessions, which consisted of the (re) definition of the established goal and the

development of an action plan for goal achievement, based on personal strengths. This strengths-based approach was based on previous work (e.g. Biswas-Diener, 2010; Dubreuil et al., 2016; Linley, 2008; Seligman et al., 2005) and involved three steps: (1) discovery: participants were invited to identify their strengths based on the VIA, and through symbol identification and answering powerful questions; (2) integration: participants were invited to reflect on and analyze their strengths, areas of improvement, and external opportunities for goal achievement; and (3) action: during the development of the action plan, participants were invited to think about ways they could use their strengths at work to better achieve their goals. Additionally, between sessions, participants did specific exercises related to the development of the action plan at work.

Finally, two weeks after finishing the two 90-min sessions, participants received a follow-up 60-minute final session with the aim of supervising the action plan, savoring the positive outcomes and goal attainment, and receiving feedback on the program, in order to ensure the transfer of training back into their day-to-day work. During this session, the *"Best Possible Self"* exercise (BPS; Peters et al., 2010), followed by visualization techniques, was practiced as a closing activity. Participants were invited to write, based on their strengths, about a better future where they imagined themselves in the best possible condition in relation to the achievement of the goal, considering three specific areas (personal, professional, and social). These authors found BPS manipulation to be effective in increasing psychological well-being and personal resources.

Measures

*Work engagement w*as measured by a nine-item short version of the Utrecht Work Engagement Scale (Schaufeli et al., 2006). The scale includes three dimensions measured by three items each: (1) vigor (α =.92), (i.e., *"At my work, I feel bursting with energy"*), (2) dedication (α =.84), (i.e., *"I am enthusiastic about my job"*), and (3) absorption (α =.81), (i.e., *"I am immersed in my work"*). All the items were rated on a seven-point Likert scale ranging from 0 (*almost never*) to 6 (*almost always*).

Job performance was assessed by six items included in the HERO (HEalthy & Resilient Organization) questionnaire (Salanova et al., 2012) and adapted from the Goodman and Svyantek scale (1999). Participants were asked to rate each of the statements individually using a seven-point Likert scale ranging from 0 (*strongly disagree/never*) to 6 (*strongly agree/always*). Two dimensions were considered, with three items in

each: (1) in-role performance (α =.75), (i.e., "*I achieve the objectives of the job"*) and (2) extra-role performance (α =.83), (i.e., "*I help other employees with their work when they have been absent"*). The same measure was administrated to supervisors, but on these questionnaires, supervisors were asked to think about their employees' Job Performance.

Qualitative measure. Participants were asked to respond to an open-question (i.e. *"What specific positive outcomes (if any) did you gain from participating in this program?"*) to obtain information about the outcomes and benefits of the intervention program.

Data Analyses

First, descriptive analyses and inter-correlations among the study variables were performed. Then, one-factor Analyses of Variance (ANOVA) were applied, using SPSS, to examine whether there were significant differences between the EX and WL conditions in the demographic variables before the intervention took place. Next, to test the effects of the intervention program, data were analyzed with a 2 x 2 repeated-measures ANOVA consisting of one between-subjects factor (group: EX, WL) and one within-subjects factor (time: T1, T2). Additionally, paired-sample t-tests were implemented to test for differences between Pre (T1)- and Post (T2)-time factors for EX, and Pre (T2)- and Post (T3) times for WL. The FUP (T4) time factor was not calculated for the WL group because they had completed the intervention before the third evaluation was administrated.

Furthermore, univariate analyses for all outcome variables were also applied to identify effects possibly overlooked in the analysis of variance. Interaction effects were examined by comparing time factors (T1, T2) across each group (EX, WL). A significance level of 0.05 was established for all tests. Following Cohen (1988), Cohen's d as a measure of effect sizes in paired-sample t-tests for both EX and WL results and t-test comparisons between groups, and eta squared in the repeated measures ANOVA were also estimated.

Moreover, once the WL had completed the intervention program, paired-sample t-tests were implemented for the whole intervention group (EX plus WL) to test for differences between Pre (N = 60), Post (N = 56), and FUP (N = 52). Both self-reported and supervisor scores were used. Cohen's d measures of effect sizes were also calculated for the whole intervention group.

Finally, participants' responses were systematically classified and grouped by thematic content, in order to analyze qualitative data on the outcomes of the intervention program (Ahuvia, 2001; Denecke & Nejdl, 2009). Next, frequency and percentage of each emerging category were estimated.

Results

Self-reported measure results

Table 1 shows means, standard deviations, internal consistencies (Cronbach's α), and correlations between the outcome variables for Pre, Post and FUP scores for the whole intervention group (EX plus WL, N = 60). Next, we tested whether there were significant differences between EX and WL on the demographic variables before the intervention (Pre-time). One-factor ANOVA results indicated no differences between the two groups on the socio-demographic data [age (F(1,59) = 0.34; p = 0.56*, ns*;), gender (F(1,59) = 2.04; p = 0.16*, ns*;) and years of tenure (F(1,58) = 01.68; p = 0.56*, ns*;)]. With these results, we proceeded to carry out the study, concluding that the two groups were comparable.

Table 1 Pre, Post, and FUP intervention means, standard deviations, internal consistencies, and correlations of all the variables for the whole intervention group

Variables	M	SD	α	1	2	3
Pre intervention scores						
1. Work Engagement	4.75	0.81	0.92	-		
2. Job Performance (Self-reported)	4.86	0.75	0.83	.33*	-	
3. Job Performance (Supervisors)	4.60	0.98	0.92	.09	.12	-
Post intervention scores						
1. Work Engagement	4.92	0.81	0.92	-		
2. Job Performance (Self-reported)	5.24	0.72	0.92	.50**	-	
3. Job Performance (Supervisors)	4.89	0.83	0.93	.23	.42**	-
FUP intervention scores						
1. Work Engagement	4.83	0.87	0.95	-		
2. Job Performance (Self-reported)	5.16	0.77	0.93	.42**	-	
3. Job Performance (Supervisors)	4.77	0.86	0.90	.07	.05	-

A repeated-measures ANOVA showed a significant time (T1, T2) x group (EX, WL) interaction effect for the outcomes variables [Work Engagement ($F(1, 55) = 5.95$, $p < 0.05$,$\eta_p^2 = .020$), and Job Performance ($F(1, 55) = 9.02$, $p < 0.005$, ,$\eta_p^2 = .059$)]. These results indicated that EX had significantly higher scores than WL at Post intervention (T2) compared to Pre (T1). The differences demonstrated a small effect size for Work Engagement, and an intermediate effect size for self-reported Job Performance. Figure 3 shows plotted means for each time factor (T1, T2) across the groups (EX, WL) for each outcome variable.

Paired-sample *t*-test results for EX indicated significant differences in all the dependent variables' mean scores between evaluation times [Work Engagement ($t(35) = -2.80$; $p < 0.01$, $d = 0.95$), and Job Performance ($t(35) = -2.45$; $p < 0.05$, $d = 0.83$)], with higher scores at T2 compared to T1. The differences demonstrated large effect sizes for both variables. However, for WL, paired-sample t-test results indicated no significant differences from T1 to T2 [Work Engagement ($t(20) = 0.88$; *ns*) and Job Performance ($t(20) = 1.83$; *ns*)].

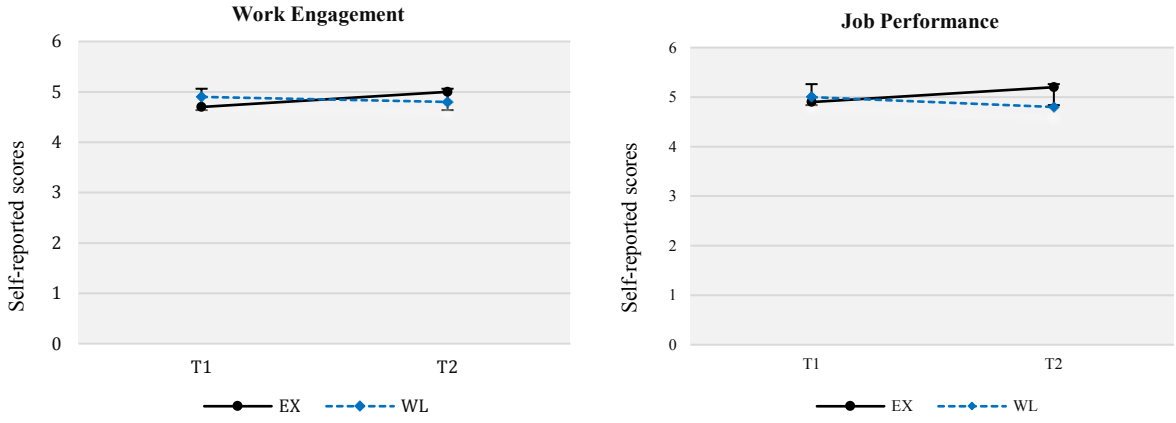

Fig. 3 Self-reported plotted means for each time factor (T1, T2) across groups

Furthermore, results of *t* test comparisons between groups (EX, WL) showed no significant differences in the outcome variables at T1 [Work Engagement ($t(58) = -0.07$; *ns*) and Job Performance ($t(58) = 0.07$; *ns*)]. In addition, results at T2 indicated that there were no significant differences between groups for Work Engagement [$t(54) = 1.04$; *ns*] and Job Performance [$t(54) = 1.68$; *ns*].

Finally, paired-sample *t*-test results for the whole intervention group (EX plus WL, N = 54) indicated significantly higher scores on all the dependent variables at Post

compared to Pre intervention times [Work Engagement ($t(54) = -2.38$ $p < 0.05$, $d = 0.65$) and Job Performance ($t(54) = -3.69$ $p < 0.001$, $d = 1.01$)], revealing an intermediate effect size for Work Engagement and a large effect size for Job Performance. Moreover, results from Pre to FUP showed significant differences in Job Performance [$t(47) = -2.78$ $p < 0.01$, $d = 0.81$], indicating a large effect size, but not Work Engagement [$t(46) = -0.86$; *ns*].

Supervisor measure results

A repeated-measures ANOVA for Job Performance showed a significant time (T1, T2) x group (EX, WL) interaction effect for supervisors' scores [$F(1,51) = 10.28$; $p < 0.005$, $\eta_p^2 = .078$], indicating that supervisors evaluated EX participants with significantly higher scores than WL participants at T2 compared to T1. The difference demonstrated an intermediate effect size for this variable. Figure 4 shows plotted means for each time factor (T1, T2) across the groups (EX and WL).

Paired-sample *t*-test results for the EX group indicated significant differences in the scores given by supervisors for Job Performance between T1 and T2 [$t(33) = -4.72$; $p < 0.001$, $d = 1.64$], with higher scores at T2, indicating an intermediate effect size for this variable. As expected, for the WL group, paired-sample *t*-test results showed no significant differences from T1 to T2 [$t(18) = 0.77$; *ns*].

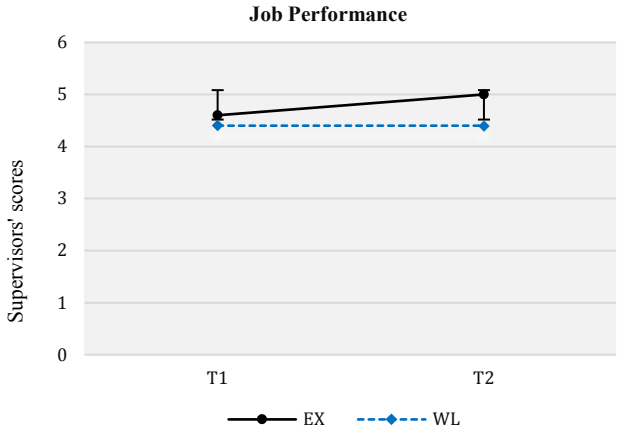

Fig. 4 Supervisors' plotted means for each time factor (T1, T2) across groups

Furthermore, results of *t* test comparisons of supervisors' scores between groups (EX, WL) showed no significant differences in Job Performance at T1 [$t(51) = 0.91$; *ns*]. However, results at T2 indicated significant differences between groups [$t(56) =$

2.18; $p < 0.05$, $d = 0.58$] on the same outcome variable, with higher scores for EX group. This difference revealed an intermediate effect size.

Finally, paired-sample *t*-test results for the whole intervention group (N = 60), after WL had completed the program, indicated significantly higher supervisor scores for Job Performance at Post (M = 4.86) compared to Pre intervention time [M = 4.60; (t(52) = -4.90 p <0.000, d = 1.36)], indicating a large effect size. However, the results showed no significant differences from Pre to FUP (M = 4.77) [$t(52) = -1.27$; *ns*]. Figure 5 shows plotted means for the whole intervention group for self-reported and supervisors' scores.

Means and standard deviations for self-reported and supervisors' scores for each variable across both groups at different times (T1 and T2) are shown in Table 2.

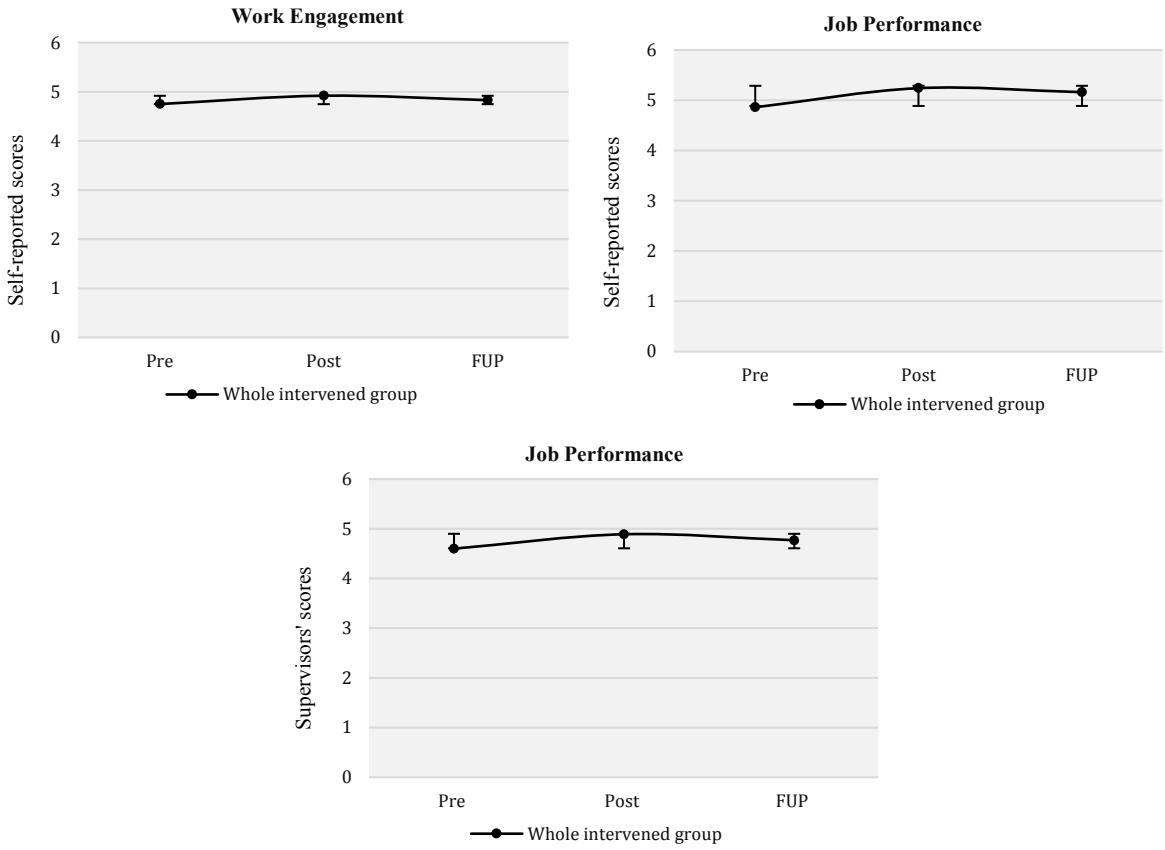

Fig. 5 Dependent variables for the whole intervention group across time

Table 2 T1–T2 means and standard deviations (SD) for EX and WL groups

	EX (N=35)				WL (N=25)			
	T1	T2	*t* value	*p* value	T1	T2	*t* value	*p* value
Self-reported scores								
Work Engagement	4.7 (0.75)	5.0 (0.64)	–2.80	0.008	4.9 (0.70)	4.8 (0.93)	0.88	0.386
Job Performance	4.9 (0.65)	5.2 (0.75)	–2.45	0.017	5.0 (0.61)	4.8 (0.91)	1.83	0.083
Supervisors' scores								
Job Performance	4.6 (0.98)	5.0 (0.87)	–4.72	0.000	4.4 (0.97)	4.4 (0.79)	0.77	0.643

Qualitative data

Participants (N = 56) responses to the qualitative question (*"What specific outcomes did you gain from participating in this program?"*) obtained from the last individual coaching session were classified, and are presented below, listed by order of frequency with which they were mentioned by the participants: (1) 37 responses (42%) were related to 'goal attainment and increased job performance' (e.g., *"Improvements in the definition of goals and the ability to achieve them"*); (2) 34 responses (38.6%) were related to 'awareness and development of strengths and personal resources' (e.g., *"Awareness of how I am, of my strengths and areas of improvement"*); and (3) 17 (19.3%) were related to 'increased satisfaction and well-being' (e.g., *"Satisfaction of having achieved the goal"*).

Discussion

The purpose of this study was to evaluate the impact of participating in a non-executive Strengths-based Micro-Coaching Program on employees' Work Engagement and Job Performance. Overall, the results of the study are consistent with the proposed hypothesis. After participating in the program, participants showed significant increases in both outcome variables. Therefore, findings from this study contribute to the coaching psychology literature by highlighting that short-term strengths coaching can be a valuable applied positive psychology intervention to increase well-being and optimal functioning in organizations. Thus, the results from the study are consistent with previous research suggesting that coaching can be effective even when the number of coaching sessions is relatively small (Theeboom et al., 2014) and, in this specific case, when signature strengths are used as the main tool during the coaching sessions. In addition, the results extend the literature on empirical randomized control trial studies

with longitudinal designs considering the perceptions of both employees and their supervisors.

Specifically, regarding the impact of the intervention program on Work Engagement, the results supported H1, indicating that after participating in the program (Post-time), participants perceived significant increases in their levels of Work Engagement, when comparing EX and WL and when considering the whole intervention group. These findings are congruent with previous research confirming the positive and direct effect of coaching (Grant & Hartley, 2014; Xanthopoulou et al., 2009) and the use of personal strengths at work (Harter et al., 2002; Dubreuil et al., 2016) on work engagement. Additionally, the qualitative results indicated that participants found that the program helped them to increase satisfaction and wellbeing. Based on the assumption that work engagement can be considered a positive, work-related state of wellbeing (Schaufeli et al., 2002), this qualitative finding contributed to confirming H1 of the present study.

Furthermore, considering the effects of the program on Job Performance, the results fully supported H2; that is, participants' levels of Job Performance (both self-reported and perceived by their supervisors) significantly increased after participating in the program (Post time), both compared to WL (from T1 to T2) and considering the whole intervention group (from Pre to Post times). Additionally, qualitative data also confirmed H2, showing that the most relevant outcome of participating in the program was an increase in goal attainment and job performance.

The results are consistent with previous meta-analytic studies showing the impact of coaching on job performance in a variety of empirical studies (Grant, 2013; Theeboom et al., 2014). Specifically, the few randomized controlled studies carried out to date have confirmed the positive effect of executive coaching on goal attainment (Grant et al., 2009) and the impact of employee workplace coaching on performance (Kines et al., 2010). Furthermore, the results also contribute to the strengths-based coaching literature, highlighting the strong association between the use of strengths and performance (Dubreuil et al., 2014; Hodges & Asplund, 2010).

Moreover, although results on the durability of the effects indicated that all the outcome variables' levels remained higher at FUP compared to Pre-intervention in the whole intervention group, the difference was only statistically significant in self-reported levels of Job Performance, indicating that employees who participated in the program perceived their levels of performance significantly higher from Pre to FUP.

This result is consistent with previous longitudinal studies showing that coaching (Libri & Kemp, 2006) and strengths-based interventions (Forest et al., 2013) enhance employees' performance over time. Additionally, even though participants' levels of Work Engagement and supervisors' perception of Job Performance were also higher four months after finishing the program, compared to baseline levels, the differences were not statistically significant, and the levels at FUP started to decrease somewhat over time. Thus, H3 was only partially confirmed. We believe that one of the reasons for this could be the lack of a second follow-up session one or two months after finishing coaching in order to monitor progress and ensure that participants stay motivated and persist in their goal achievement.

Finally, the participants' qualitative responses not only supported the quantitative findings about the expected outcomes of the program, but they also revealed that the Strengths-based Coaching intervention was successful in helping participants to gain awareness and develop strengths and personal resources. This finding is consistent with previous research indicating that: (1) coaching has a positive impact on psychological characteristics (e.g. self-efficacy, resilience, hope; Franklin and Doran, 2009), and (2) strengths-based coaching helps individuals to build on their strengths and personal resources (Biswas-Diener & Dean, 2007; Govindji & Linley, 2007; Proctor et al., 2011).

Limitations and Future Research

The present study also has some limitations. First, a strictly randomized assignment of the participants to the experimental conditions was not possible. However, one-factor ANOVA results revealed no significant differences between EX and WL groups on the socio-demographic data, and results from *t* test comparisons between both groups also showed no significant differences in the outcome variables at T1 (before starting the intervention).

Second, because this study reports on data collected in one specific organization within the automotive sector, the findings cannot be generalized to other organizations or settings. Therefore, future research should implement and explore the impact of this intervention program in companies of other sectors to further compare the results.

A third limitation is that because a field study was conducted in a real organization, the research design had to be adapted to the organizational context. For instance, the WL groups started the intervention immediately after the EX groups finished, and, thus, comparisons of the two conditions at FUP could not be estimated.

However, considering the whole intervention group (EX and WL), paired-sample t-test comparisons across the three evaluation times (Pre, Post and FUP) were calculated and showed interesting results. Moreover, considering that the levels of the outcome variables showed a decreasing pattern at FUP, although the levels remained higher than at Pre intervention, future studies should include follow-up coaching sessions over time in order to maintain and optimize the outcome variables.

Finally, to the authors' knowledge, this study is the first to explore the impact of a non-executive, short-term, strengths-based coaching program on work engagement and job performance using a control design. Although we found positive effects that confirmed our hypotheses, further research is needed to better understand the underlying psychological mechanisms throughout the intervention program that can influence the outcome variables. For instance, diary study evaluation and data from each coaching session could offer relevant information about the evaluation process. Furthermore, upcoming studies could also evaluate the impact of this intervention program on the development and use of personal strengths and resources, in addition to objective organizational performance metrics. Finally, employees' appraisals of the intervention process (e.g. employees' readiness for change and involvement, exposure to components of the intended intervention, line managers' actions, etc.) should also be considered because previous research suggests that they can explain variance in the outcomes and, thus, determine the success of an intervention (Randall, et al., 2009).

CHAPTER 5

Coaching-based Leadership Intervention Program: A Controlled Trial Study

Abstract

In spite of the potential benefits that coaching-based leadership interventions can bring to organizations, basic questions remain about their impact on developing coaching skills and increasing psychological capital, work engagement and in- and extra-role performance. In a controlled trial study, 41 executives and middle managers (25 in the experimental group and 16 in the waiting-list control group) from an automotive sector company in Spain received pre-assessment feedback, a coaching-based leadership group workshop, and three individual executive coaching sessions over a period of three months. The intervention program used a strengths-based approach and the RE-GROW model, and it was conducted by executive coaching psychologists external to the organization. Participants (N=41) and their supervisors (N=41) and employees (N=180) took part in a pre-post-follow up 360-degree assessment during the research period. Quantitative data were analyzed using Analyses of Variance with a 2 x 2 design, paired-samples t-tests, and univariate analyses between groups. Results indicated that the intervention program was successful in increasing the participants' coaching-based leadership skills, psychological capital, work engagement, and in- and extra-role performance. Qualitative measures were also applied, and results from individual responses provided additional support for the study hypotheses. Regarding practical implications, the results suggest that the Coaching-based Leadership Intervention Program can be valuable as an applied positive intervention to help leaders develop coaching skills and enhance well-being and optimal functioning in organizations.

Keywords: coaching leadership[1], psychological capital[2], work engagement[3], performance[4], control trial [4]

[4] Chapter 5 has been submitted for publication as: Peláez M. J., Martínez I. M., & Salanova M. Coaching-based Leadership Intervention Program: A controlled Trial Study. *Frontiers in Psychology.*

Introduction

The rapid changes and advances in economic, political, technological, and social factors (Kirchner & Akdere, 2014) require managers in organizations to develop human capital in order to achieve strategic organizational goals (Kim, 2014). This complex and challenging context also creates the need to develop healthy and positive leaders who are able to maintain and optimize psychosocial wellbeing in organizations (Salanova et al., 2012).

Moreover, research increasingly shows that being an effective leader means being an effective coach (Goleman et al., 2012; Grant & Hartley, 2014). Thus, good coaching skills are becoming an essential part of effective leadership and positive workplace cultures (Ellinger et al., 2011; Stehlik et al., 2014). In such cultures, coaching is the main style of managing and working with others, with a predominant commitment to employees' growth (Underhill et al., 2007; Wood & Gordon, 2009). Currently, organizations are starting to invest in training to develop coaching skills in their managers and leaders (Milner et al., 2018) in order to enhance wellbeing and performance and facilitate organizational and personal change (Ellinger et al., 2003; Grant & Cavanagh, 2007$_a$; Wright, 2005).

Previous studies have highlighted *Coaching-based Leadership* (CBL; also known as leader-as-coach or managerial coaching) as a key indicator of effective managerial behaviour to influence employees without relying on formal authority (Ellinger et al., 2008; Hamlin et al., 2006; Pousa et al., 2018). Specifically, leaders as coaches have been identified as crucial in developing and empowering employees due to the high cost of external coaching and the need to become learning organizations and innovate to stay competitive (Kim, 2014; Segers et al., 2011). For these reasons, organizations are transferring responsibilities of Human Resources Development practitioners, such as coaching, to their leaders (Kim, 2014; Liu & Batt, 2010). In this study, the term coaching-based leadership will be used to refer to the leader, manager, or supervisor in their roles as coaches or when using coaching skills in work settings.

Despite the growing popularity of CBL interventions (Milner et al., 2018), the efficacy of these programs and their impact on the development of effective leaders have rarely been assessed (Berg & Karlsen, 2016; Ellinger et al., 2011; Grant & Hartley, 2014). Indeed, previous research has revealed that only one-third of these initiatives are evaluated (Ely et al., 2010). Although there are good initiatives and significant

investments in leadership skill development programs, organizations still believe they have not effectively trained their leaders. In fact, they continue to report a lack of leadership skills among their employees (Lacerenza et al., 2017). Research has shown that leaders need at least three to six months to develop coaching skills and feel comfortable using them (Grant, 2010). So far, very little is known about the benefits of developing a CBL style and its impact on work-related outcomes (Berg & Karlsen, 2016) such as psychological capital (PsyCap), work engagement and in-role and extra-role performance.

Moreover, effective methodologies for teaching and training coaching skills in organizations have to be further developed (Ellinger et al., 2003; Segers et al., 2011). There is also a need for empirical studies with strong designs and mixed methodologies (qualitative and quantitative) to investigate possible effects of these intervention programs over time (Grant and Hartley, 2013, 2014). Previous research has highlighted the value of qualitative approaches in the evaluation of the human process of coaching because they can lead to the discovery of novel themes and new insights about a topic under investigation (Coe, 2004; Gyllensten & Palmer, 2007). To address this research gap, we conducted a controlled trial CBL Intervention Program and explored its impact on leaders' coaching skills, PsyCap, work engagement, and in- and extra-role performance over time, using a 360-degree assessment.

Theory and Hypotheses

Defining Coaching-based Leadership

Coaching can be understood as a collaborative relationship between coach and coachee, oriented towards facilitating goal attainment and individual change (Spence & Grant, 2007). In the specific work context, coaching is generally provided by the leader as a way to enhance employees' goal achievement and performance through the use of a variety of emotional, cognitive, and behavioural techniques (Grant, 2010). Grounded theoretically in coaching leadership theory, this recently form of leadership has been defined as a day-to-day process of providing support, and helping employees identify opportunities to achieve individual development goals (Cox et al., 2010; Berg & Karlsen, 2016). Leaders who succeed with a coaching style enable employees to gain awareness and reflection, generate their own answers (Cox et al., 2010; Milner et al., 2018), require less control and directing, and have a desire to help them develop and flourish (Berg & Karlsen, 2016). Goleman et al. (2012) suggested that coaching is one

of the leadership styles that achieves the best results, and that its main purpose is to develop employees' personal resources. Coaching-based leaders are oriented toward helping employees strengthen their talents by paying attention to their needs and building an effective alliance (Dello Russo et al., 2017). From a psychosocial perspective, coaching provided by leaders is suggested as an important job (social) resource that facilitate a motivational process that enhances the development of personal resources, leading to work engagement and better performance (Schaufeli & Bakker, 2004).

As noted by Ellinger et al. (2005), the coaching leadership style offers organizations a theoretical foundation for adopting a people-oriented approach in the relationship with employees. This recent theory on leadership has been developing away from other leadership approaches, such as transactional or transformational, toward a new paradigm that seeks to reduce the differentiation between the leader and the employee (Hagen & Aguilar, 2012). For instance, Bass and Avolio's (1994) transformational leadership style is essentially about motivating followers to look beyond their own self-interest towards the achievement of team-related goals (Bormann and Rowold, 2018). In contrast, leaders' coaching behaviours refer to one-on-one interactions between a leader and an employee aimed at stimulating individual growth (Anderson, 2013) and may therefore be more suitable for addressing personal and professional developmental goals (Kunst et al., 2018).

Given the little guidance that coaching-based leaders receive in their own growth and development, along with the limited number of frameworks to support this process, Kemp (2009) emphasized the need for leaders as coaches to be guided by a personal understanding of their expected responses in order to enhance change. This author proposed a coaching and leadership alliance framework to contextualize the coaching leadership process and clarify its role in helping employees to strengthen their potential. According to this theoretical proposal, leaders engage in a process similar to that of coaches by engaging in an alliance-building process with employees that leads to a deep sense of shared meaning. As a result of this alliance, the coaching leader facilitates work-related outcomes and fosters new ways to achieve performance.

The coaching leader or manager displays a set of skills or beliefs that can support a coaching mentality that enables the execution of specific actions or behaviours towards their employees (David & Matu, 2013). In order to enhance optimal functioning, organizations increasingly ask their managers and leaders to develop

specific skills such as effective communication, empathy, or trust, promote goal achievement, and enhance professional and personal change (Berg and Karlsen, 2016; Ellinger and Bostrom, 2002; Grant, 2010; Grant and Hartley, 2013; Mai and Akerson, 2003). According to the International Coach Federation (ICF, n.d.), the leading global coaching organization, essential coaching competencies consist of establishing trust and a working alliance, active listening, powerful questioning, direct communication, designing actions and goal setting, and managing progress. In using coaching skills, leaders enable employees to generate their own answers, thus enhancing development and performance (Grant and O'Connor, 2010; Milner et al., 2018). In the current study, we follow previous literature and research related to the professional coach's skills, the leader as coach, and managerial coaching, in order to identify eight core CBL skills classified into four dimensions: (I) *working alliance*: (1) developing a working alliance; (II) *open communication*: (2) active, empathic, and compassionate listening, and (3) powerful questioning; (III) *learning and development*: (4) facilitating development, (5) providing feedback, and (6) strengths spotting and development; and (IV) *progress and results*: (7) planning and goal setting, and (8) managing progress.

Working alliance. Developing a working alliance refers to the ability to create a safe environment that contributes to the establishment of mutual respect, sincerity, trust, and transparency (Graham et al., 1994; Gyllensten & Palmer, 2007). Previous coaching and managerial coaching literature has highlighted the essential role of trust in the coaching relationship (Gregory & Levy, 2011; Hunt & Weintraub, 2002; Ting & Riddle, 2006). Effective coaching involves showing genuine interest in employees' wellbeing and future, continually demonstrating sincerity, establishing clear agreements, and keeping promises. This skill is essential for leaders because it allows them to develop partnerships and build warm, friendly relationships with employees (Graham et al., 1994). As a result, shared meaning, purpose and commitment emerges, allowing for high levels of mutual engagement to drive opportunities and achieve performance (Kemp, 2009).

Open communication is considered one of the key factors leading to effective coaching (Park et al., 2008). This dimension refers to the use of effective communication techniques to establish a good rapport with employees and facilitate personal and professional potential and performance (Gilley et al., 2010). Specifically, leaders as coaches engage in formal or informal conversations using techniques such as asking powerful questions, and active, empathic, and compassionate listening (Gilley et

al., 2010; Graham et al., 1994; Whitmore, 1992). Question framing is considered an essential CBL behaviour that encourages employees to think through issues (Ellinger et al., 2003). Adequate questions are those that stimulate motivation and subsequently elicit deeper awareness and reflection (Kemp, 2009). Likewise, appropriate levels of empathy, understanding, compassion, and acceptance create an environment where employees can feel free to express their emotions and ideas (Graham et al., 1994; Grant & Cavanagh, 2007$_a$; Kemp, 2009). With the leader's help, employees gain awareness, engage in reflection, and increase their ability to take responsibility for their own development (Gilley et al., 2010).

Learning and development. Facilitating development refers to the ability to provide support and training to employees in order to encourage their progress and continuous learning and effectively lead them toward the desired results (Berg & Karlsen, 2016; Park et al., 2008). As Ellinger and Bostrom (2002) observed, a predominant behaviour in CBL involves creating and promoting a learning environment, for instance, by providing feedback and helping employees to identify, build and use personal strengths (Berg and Karlsen, 2016). In doing so, they encourage employees to better direct their talents and abilities toward meaningful and engaging behaviours (Peterson & Seligman, 2004). In essence, employees who use their strengths are more engaged at work (Harter et al., 2002) and more likely to achieve their goals (Linley, Nielsen et al., 2010).

Progress and results. Planning and goal setting refers to the ability to support employees in establishing individual development goals that are valued by them, and ensure that they complete the agreed-upon action steps (Grant & Cavanagh, 2007$_b$). Previous research has indicated that leaders as coaches work collaboratively with each employee to set engaging, challenging goals that motivate performance (Dahling et al., 2016). Finally, managing progress requires leaders to monitor, re-define, and evaluate employee action plans and performance, and manage both responsibilities in the process (Grant, 2003; Grant & Cavanagh, 2007$_b$).

Coaching-based Leadership Intervention and its Efficacy

In their meta-analysis on the impact of leadership, Avolio et al. (2009) defined leadership interventions as focusing on manipulating leadership as the independent variable through training, assignments, or other means. The authors indicated that the most common aim of these interventions is leadership training and development.

Further research has suggested that leadership intervention programs should focus on knowledge and skills that can enhance leader effectiveness (Amagoh, 2009). These interventions have generally involved training in a workshop format, participation in executive coaching, or a combination of these two approaches (Kelloway & Barling, 2010; Lacerenza et al., 2017).

There has been some question about how managers and leaders can be led to display a CBL style. Specifically, leader-as-coach training programs aim to enhance leadership quality in organizations by providing training in coaching skills (Graham et a., 1994; Grant & Hartley, 2014; Hagen, 2012). The increased demand for leaders with coaching skills is generally attributed to the many recognized benefits, such as enhanced employee and organizational performance (Ellinger et al., 2011; Kim et al., 2013; Liu & Batt, 2010; Tanskanen et al., 2019). Additionally, previous studies have identified leaders as coaches as a powerful developmental intervention for motivating, developing, and retaining employees in organizations (Ellinger et al., 2011). Although leaders are often expected to apply coaching principles at work, and many of them express a desire for further training, these developmental programs do not always focus on specific coaching skills. In fact, to be operational, training needs to align these skills with personal and professional goals (Milner et al., 2018).

The second approach involved in leadership interventions, executive coaching, is an increasingly popular approach to help executives develop leadership skills or behaviors and improve their performance and, therefore, the performance of the organization as a whole (Feldman et al., 2005; Gray, 2006). The number of organizations using executive coaching to develop leaders increases every year because it is considered one of the dominant methodologies for developing effective leaders (Grant, 2013). An effective way to support leadership development in organizations is the strengths-based leadership coaching approach (MacKie, 2014). This approach is based on positive psychology discipline, which focuses on developing positive qualities, rather than dealing with negative aspects such as weaknesses and pathologies (Seligman & Csikszentmihalyi, 2014). Strengths-based coaching is based on the identification, development, and use of personal strengths in order to foster positive outcomes such as goal attainment, optimal functioning, fulfillment, and well-being (Linley, Nielsen et al., 2010). Specifically in leadership development, this approach provides a structure that includes strength awareness and balance, pairing strengths with leadership skills, and aligning them with personal or organizational goals (MacKie, 2014).

The use of coaching behaviours as a performance enhancement method has gained popularity in organizations (Boyatzis et al., 2013; Dimas et al., 2016). However, relatively few empirical studies have attempted to examine the efficacy of training and developing leaders as coaches (Grant, 2006). This is surprising because previous researchers reported that leadership interventions could be useful in developing and improving coaching skills (Ellinger et al., 2010; Styhre, 2008). In one of these studies, David and Matu (2013) found a positive impact of a managerial coaching program on increasing coaching abilities reported by the managers themselves and by external observers. Similarly, in the Cummings et al. (2014) quasi-experimental study, leaders' attitudes and intentions to be a coach increased significantly after participating in a workshop on how to coach their employees.

Although there has been an increase in the number of studies on this topic, there continues to be a call for more empirical investigation on the way leaders and managers are being trained in coaching skills (Milner et al., 2018) and on the effectiveness of these intervention programs. Additionally, there is still a need to develop effective methodologies for training and assessing these interventions (Cavanagh & Grant, 2004; Day et al., 2014; Grant & Hartley, 2013, 2014). To fill this gap, in a controlled trial study, we tested the effects of a CBL Intervention Program on essential coaching skills. A 360-degree format evaluation was applied that includes self-assessment along with employees' and supervisors' evaluations of the leader's coaching skills. Considering different insights is important in order to have diverse views of the training outcomes and efficacy (Milner et al., 2018).

Hypothesis 1 (H1): Participants' levels of CBL skills will increase after the intervention (POST) compared to their baseline levels (PRE) and compared to the waiting-list control group (WL).

Coaching-based Leadership and PsyCap

According to the Conservation of Resources theory (Hobfoll, 2002), individuals seek to obtain, retain, and protect personal resources to control and impact upon their environment successfully. Based on this theory, Luthans and colleagues (Luthans et al., 2007; Luthans et al., 2015) refer to PsyCap as a positive personal resource and defined it as an individual's positive psychological state of development that is comprised of: (1) self-efficacy; having confidence to mobilize the motivation, cognitive resources or courses of action needed to successfully executive challenging tasks; (2) hope:

persevering toward goals, and identifying alternative ways to reach goals in order to succeed; (3) resilience: the capacity to bounce back from adversity to attain success; and (4) optimism: making a positive attribution about succeeding in the present and in the future (Luthans et al., 2015). Although these four psychological resources are conceptually distinct, they combined into a higher-order construct in which they interact in a synergetic way. As a result of the investment of such set of psychological resources, individuals obtain experiential rewards from the present moment while also increasing the likelihood of future benefit (Kersting, 2003).

Based on the Job Demands-Resources (JD-R) model, Bakker and Demerouti (2007) claimed that job resources, such as supervisory coaching and opportunities for professional development, play an intrinsic motivational role fostering employees' growth, learning and development, thus suggesting that such job resources foster the development of personal resources. In line with this proposition, Goleman et al. (2012) argued that the main purpose of coaching leaders is to develop employee's personal resources. Leaders do so in daily interactions by paying attention to their employees' needs, developing a trust environment, building an effective alliance, and providing personalized learning (Dello Russo et al., 2017; Ellinger et al., 2011). In other words, leaders can foster PsyCap through the use of specific coaching skills. Previous research has shown a positive direct link between job resources such as coaching provided by leaders and specific personal resources (i.e., self-efficacy, organizational-based self-esteem and optimism; Xanthopoulou et al., 2007). A recent study has examined and confirmed the positive direct relationship between managerial coaching and employees' PsyCap (Hsu et al., 2019). Furthermore, Pitichat et al. (2018) highlighted the significant relationship between the leaders self-development and their levels of PsyCap, thus resulting in enhanced chances of success at work. However, there is still a lack of studies that empirically examined the impact of a CBL intervention on the leaders' PsyCap. This is important because there is growing evidence that PsyCap plays an important role in improving positive work attitudes and behaviors (Luthans et al., 2010).

Hypothesis 2 (H2): Participants' levels of PsyCap will increase after the intervention (POST), compared to PRE and compared to the WL.

Coaching-based Leadership and Work Engagement

Research on leadership and coaching that analyses the relationship between coaching skills and well-being related outcomes, such as employees' job satisfaction, is

on the rise (Ellinger et al., 2003, 2011; Kim et al., 2013). However, fewer studies have attempted to explore the impact of CBL skill training and development on engagement in the work field. Work engagement is defined as a positive, fulfilling, work-related state of mind characterized by three dimensions: 1) vigour: which refers to high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence when facing difficulties; 2) dedication: which refers to strong involvement and psychological identification with one's work, characterized by a sense of significance, enthusiasm, pride, inspiration, and challenges; and 3) absorption: which refers to a state of full concentration and being engrossed in one's activities, where time passes quickly and it becomes difficult to separate oneself from work (Schaufeli et al., 2006). Based on the JD-R model (Bakker & Demerouti, 2007), work engagement arises from a motivational process that begins with the availability of job and personal resources that stimulate employees' motivation and, therefore, leads to desirable work outcomes such as organizational commitment and higher job performance (Llorens-Gumbau & Salanova-Soria, 2014).

Practitioner literature has highlighted the potential of leadership behaviour as a key driver in enhancing engagement (Shuck & Herd, 2012). In line with MacLeod and Clarke's (2009) research, leaders promote engagement by providing employees with autonomy, empowerment, and developmental opportunities, offering them coaching and feedback, and ensuring that the work is effectively and efficiently designed. When the leader provides coaching, employees are more engaged with their work because they receive more guidance from their leader in achieving their goals (Kim 2014). Although there are few studies on this link, research exploring the association between CBL and employee work engagement is increasing. For instance, Ladyshewsky and Taplin (2017; 2018) found a significant positive relationship between these constructs. Further studies demonstrated a mediating role of work engagement in the relationship between the leader's coaching and performance-related outcomes (Ali et al., 2018; Lee et al., 2018; Lin et al., 2016; Tanskanen et al., 2019). Despite interesting findings, all these studies are cross-sectional, and work engagement is evaluated as an employee-related outcome.

With only one exception (Grant & Hartley, 2014), research exploring the impact of leader-as-coach development programs on increasing the leaders own work engagement is still missing. This is surprising because engagement is generally associated with core aspects of coaching, such as generating meaningful and positive feedback, goal clarity, and effective leader-employee communication (Bakker et al.,

2008; Grant & Hartley, 2014). Moreover, previous research has highlighted the positive impact of training on individuals' self-efficacy (Holladay & Quiñones, 2003), which in turn generates the perception of challenging demands, positive job resources, and higher levels of engagement with work (Ventura et al., 2015). Accordingly, when leaders have high levels of energy, vitality, and engagement, they are likely to invest more effort in their activities and tasks and, therefore, in practicing their leadership skills at work (Kark, 2011). Thus, focusing on the leader's work engagement, we hypothesize the following:

Hypothesis 3 (H3): Participants' levels of work engagement will increase after the intervention (POST), compared to PRE and compared to the WL.

Coaching-based Leadership and In-role and Extra-role Performance

Job performance generally includes two dimensions: in-role or task performance and extra-role or contextual performance. In-role performance refers to activities that are related to the formal job and directly serve the goals of the organization (Goodman & Svyantek, 1999). According to the JD-R model, the extrinsic motivational potential of job resources, such as supervisor support, fosters employees to meet their goals, and become more committed to their job because they derive fulfilment from it (Bakker & Demerouti, 2007). Previous research has specified the role of managerial coaching in improving employee in-role performance by clarifying goals and providing resources to achieve them (Kim, 2014; Kim & Kuo, 2015). Managers or leaders who act as role models, deliver instant feedback, and assist employees in the learning processes help to improve employees' task performance. Related to this assumption, previous research revealed a positive and direct link between supervisory coaching skills and employee in-role performance (Agarwal et al., 2009; Ellinger et al., 2003; Ellinger et al., 2005; 2011; Liu & Batt, 2010). Further studies also found an indirect effect of managerial coaching on task performance (Kim et al., 2013; Kim & Kuo, 2015).

Whereas in-role performance describes technical core behaviours, extra-role performance denotes actions that exceed what the employee is supposed to do, such as helping others or voluntary overtime (Goodman & Svyantek, 1999). This contextual-related performance refers in part to citizenship behaviours that directly promote the effective functioning of an organization without necessarily directly influencing an employee's productivity (Podsakoff et al., 2000). Specific leader coaching skills, such as open communication with employees (Bester et al., 2015; Podsakoff et al., 2000) and

one-on-one interactions, encourage employees to perform extra-role behaviours in the organization (Raza et al., 2017). From a social exchange perspective, the leader- as-coach is considered a form of organizational support (Kim, 2014; Kim & Kuo, 2015) that positively influences organizational citizenship behaviours (Ellinger & Cseh, 2007; Kim & Kuo, 2015).

Previous research has indicated that training to enhance the knowledge, skills, and abilities of individuals leads to an increase in performance in the work setting (Holladay & Quiñones, 2003). Although coaching can be perceived as time-consuming, the development of effective workplace coaching skills leads to increased performance at both managerial and supervisory levels (Graham et al., 1994; Grant, 2010). However, only a few studies have examined the impact of leader coaching skill interventions on job performance (Cummings et al., 2014; Grant & Hartley, 2014; Ratiu et al., 2017). Indeed, recent research has focused more on the effects of CBL interventions on employees' performance, rather than examining the impact on the leader's own performance (Grant, 2010). Moreover, the few studies that have examined the impact of leader- as-coach interventions (David & Matu, 2013; Grant & Hartley, 2014; Moen and Skaalvik, 2009; Ratiu et al., 2017) have considered performance as a whole, without distinguishing between task and contextual dimensions. In the current study, we focus on leaders' in-role and extra-role performance as perceived by their supervisors and employees.

Hypothesis 4a (H4a): Participants' levels of in-role performance will increase after the intervention (POST), compared to PRE and compared to the WL.

Hypothesis 4b (H4b): Participants' levels of extra-role performance will increase after the intervention (POST), compared to PRE and compared to the WL.

The Durability of the Effects

In order to truly assess the effectiveness of an intervention, it is necessary to evaluate whether or not the reported effects are maintained over time (Grant & Hartley, 2013). Despite the significant investment in training programs in leadership skills, organizations continue to report a lack of leadership skills among their employees in the workplace (Lacerenza et al., 2017). Because leaders need time to develop and apply coaching skills in the workplace (Grant, 2010; Grant & Hartley, 2013), it is always a challenging task for facilitators and practitioners to ensure that the skills developed during training are actually transferred to the workplace (Burke and Baldwin, 1999;

Grant & Hartley, 2013). Therefore, previous researchers have highlighted the need to explore the long-term impact of leader-as-coach interventions (Kirchner & Akdere, 2014; Milner et al., 2018). Only a few scholars have demonstrated a long-term sustained influence of a leader-as-coach program on improvements in coaching skills and engagement (Grant & Hartley, 2014).

Not surprisingly, the development of effective methodologies for providing training in CBL skills can facilitate positive organizational change, leading to higher levels of productivity and engaging workplace environments (Grant & Hartley, 2013). The majority of the quasi-experimental studies carried out to date have examined the effects of these interventions on performance-related outcomes immediately after participation (Moen & Skaalvik, 2009; Ratiu et al., 2017). However, none of these studies evaluated the long-term sustained impact after a certain number of months had passed (follow up) since the intervention. Thus, in the current study, we attempt to investigate the durability of the intervention program's effects on the outcome variables (CBL skills, work engagement, and in- and extra-role performance) over time (FUP; Follow Up time; four months after finishing the program).

Hypothesis 5: Participants' levels of CBL skills (H5a), PsyCap (H5b), work engagement (H5c), and in- and extra-role performance (H5d), will remain higher at FUP, compared to PRE intervention.

Materials and Methods

Participants and Procedure

The study was conducted in a multinational automotive industry company in Spain. The plant had 42 managers and middle managers, all of whom were invited to participate in the program through informational meetings held by university researchers. During these meetings, participants were informed about the nature of the study and the aims of the intervention. There were no additional economic rewards or employee benefits in exchange for their involvement in the study. They were asked to take part voluntarily, with the confidentiality of their replies guaranteed, and 41 of them (97%; 15 managers and 26 middle managers) initially agreed to participate. The study adhered to ethical standards and was approved by the University Research Ethics Committee.

Next, participants were distributed into the *experimental group* (EX; N=25) and the *waiting-list control group* (WL; N=16). Two simultaneous workshop groups were

assigned to the EX, one for the managers (N=15) and the other for the middle managers (N=10), with one person dropping out in each group after the first individual coaching session. The groups were not randomly chosen because the managers have management responsibilities that affect middle managers; therefore, the company decided to separate the two groups. The WL served as an untreated comparison group during the study. After the EX had ended, 15 members of this WL also participated in the intervention program, with only one person dropping out after the workshop ended. Thus, the final sample consisted of 37 participants (EX=23; WL=14). For organizational reasons, the WL started the intervention immediately after the EX finished it, rather than waiting until the FUP assessment took place.

Participants (N=41) and their supervisors (N=41) and employees (N=180) were asked to answer an online research questionnaire at different times (three times by the EX and four times by the WL) during the research period: (1) before starting the intervention, the EX (Time1: pre-assessment for the whole intervention group; participants: N=41; supervisors: N=38; employees: N=180); (2) immediately after finishing the intervention, the EX, and before the WL started (Time 2: post-assessment for EX and pre-assessment for WL; participants: N=40; supervisors: N=38; employees: N=117); (3) immediately after finishing the intervention, the WL (Time 3: post-assessment just for WL; participants: N=14; supervisors: N=14; employees: N=53); and four months after finishing the intervention each group (Time 4: follow up assessment for the whole intervention group; participants: N=37; supervisors: N=33; employees: N=90). All the study variables (coaching-based leadership skills, PsyCap, work engagement, in- and extra-role performance) were assessed at the four different times. Figure 1 outlines the research design of the study.

The participants' CBL skills were both self- reported and evaluated by their supervisors and employees, in a 360-degree format. Additionally, only participants assessed their levels of work engagement. Furthermore, supervisors' and employees' ratings of the participants' performance were included in order to obtain an external performance assessment and avoid common method bias. Finally, during the last individual sessions, qualitative data were gathered through open questions.

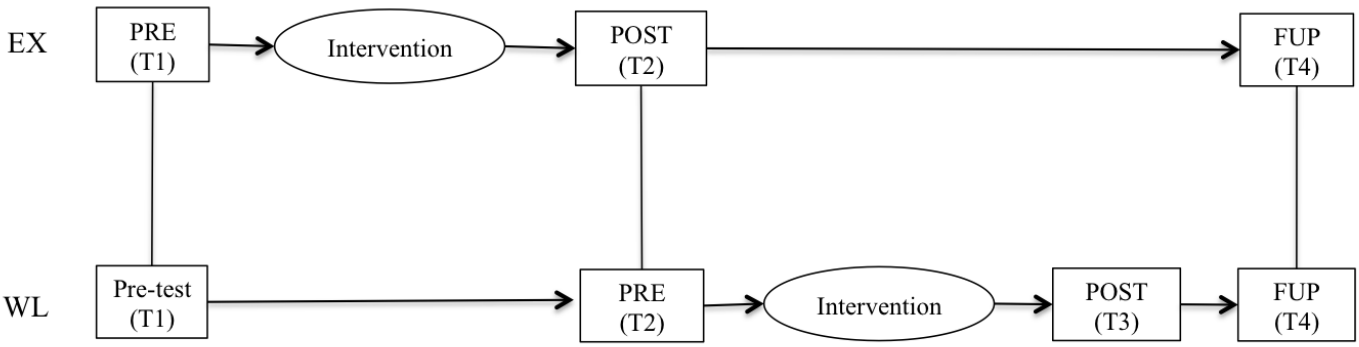

Fig. 1 Experimental design of the study. Ex—experimental group; WL—waiting list-control group; PRE—pre-assessment; POST—post-assessment; FUP—follow up-assessment; T1—time 1; T2—time 2; T3—time 3; T4—time 4

Regarding the demographic breakdown of the subjects, 88% were men, with a mean age of 45 years (SD = 9.3, ranging from 28 to 63). Moreover, 100% had a tenured contract, and the average tenure in the company was 16.5 years (SD=10.8).

Coaching-based Leadership Intervention Program Description

Participants took part in a "Coaching-based Leadership Intervention Program" over a period of three months. The main goal of the program was to support the development and improvement of the managers' and middle managers' coaching skills. The intervention was delivered in a group workshop format, followed by three individual executive coaching sessions. The intervention program used a strengths-based approach, based on the identification, development, and use of personal strengths in order to achieve specific goals related to the development of CBL skills (Biswas-Diener, 2010; Dubreuil et al., 2016; Linley, 2008), and the Review, Evaluate, Goal, Reality, Options, Wrap-up (RE-GROW) model (Grant, 2011) based on the execution of four interrelated phases: (1) Goal: establish the coaching goal; (2) Reality: examine the current situation; (3) Options: identify and assess available options; (4) Wrap-up: develop an action plan and build motivation; (5) Review and (6) Evaluate the learnings and actions competed since the last session.

Based on the above, the intervention program was structured in seven phases: (1) feedback and insight into PRE-assessment results; (2) establishing specific goals related to the development or improvement of CBL skills; (3) awareness and development of personal strengths; (4) identifying options in order to achieve the goal; (5) formulating an action plan based on the use of personal resources and strengths for goal

achievement; (6) reviewing and evaluating progress; and (7) modifying action plans based on the previous evaluation.

The group workshop consisted of five 180-minute weekly group sessions. In the first session, feedback about the PRE-assessment questionnaire results (CBL skills, PsyCap, work engagement, and in- and extra-role performance variables) was given. Next, participants received academic input related to positive organizational psychology (Salanova et al., 2016) and emotional appraisal and regulation, given that every leader has to have the ability to manage his/her emotions and consider others' emotions when directing actions (Goleman et al., 2012). Previous research considered emotional regulation to be an important factor influencing general leadership effectiveness (Gooty et al., 2010). Next, participants received emotional regulation practice based on role-playing activities and mindfulness techniques (Hanson, 2013; Kashdan & Ciarrochi, 2013; Tan, 2012). By receiving training in this generic leadership skill, participants were then prepared to receive training in specific coaching skills.

The following four sessions combined academic input and practicing a coaching-based leadership skillset through role-playing among participants and with the use of the skills on-the-spot with their employees. Based on the pre-assessment results, the workshop contents, and the Goal phase of the GROW model, during session 2 participants established a goal related to the development or improvement of their coaching-based leadership skills. Additionally, they received theory and practice related to developing a working alliance (Acosta et al., 2012; Gyllensten & Palmer, 2007) and open communication (Boyatzis et al., 2013; Gilbert, 2013; Hoffman et al., 2008; Neff, 2003; Tan, 2012Whitmore, 2003) skills. During session 3, theory and practice related to facilitate development, providing feedback and strengths spotting and development skills was delivered (Berg & Karlsen, 2016; Park et al., 2008). During this session and based on the Reality phase of the GROW model, participants worked on the identification, development and use of personal strengths, based on the VIA (Values In Action) inventory of strengths, the identification of strengths through answering open questions (e.g. 'of what are you most proud?') in pairs, and the establishment of a strengths in action plan to be developed at work (Biswas-Diener, 2010; Meyers & Van Woerkom, 2017; Peterson & Seligman, 2004). During session 4, the participants received academic inputs and practice related to planning goals and managing progress skills (Grant, 2003; Grant & Cavanagh, 2007$_b$). Based on the Options and Wrap up phases of the GROW model (Grant, 2011), the participants explored options in order to

achieve the goal set during session 2, and established an action plan to be reviewed during the individual coaching process. Finally, a brief two-hours closing session took place with the objective of savouring the positive experiences that occurred during the workshop. A future 'best possible self' (Peters et al., 2013) visualization exercise related to developing a coaching-based leadership style was delivered to strengthen the resulting improvements and foster the motivation to continue working on goal achievement during the coaching process. Participants also gave written qualitative feedback about their experiences in the workshop and the key learning points. The specific workshop contents and structure are presented in Table 1.

After the workshop, the participants went through an executive micro-coaching process based on a previous validated strengths-based micro-coaching intervention (see Peláez et al., 2019), which consisted of three biweekly 90-minute individual sessions with a professional coaching psychologist external to the organization. Previous research has confirmed that coaching can be effective even when the number of coaching sessions is relatively low (Peláez et al., 2019; Theeboom et al., 2014). The individual coaching sessions aim to support participants during the development of an action plan related to the goal they set during the workshop, related to the improvement of their coaching skills. The coaching process followed a strengths-based leadership coaching approach, based on the identification, development, and use of personal strengths (Govindji & Linley, 2007; Linley, Nielsen et al., 2010) and alignment with leadership skills (MacKie, 2014) to foster positive outcomes. Additionally, the RE-GROW model was used to structure the coaching sessions. Specifically, during the first session the goal was evaluated and re-structured if necessary. The next two coaching sessions started with a process of reviewing and evaluating the learnings and actions competed since the last session. Finally, between sessions, specific exercises were used to practice the skill set they were developing at work. The CBL Intervention Program model is summarized in Figure 2.

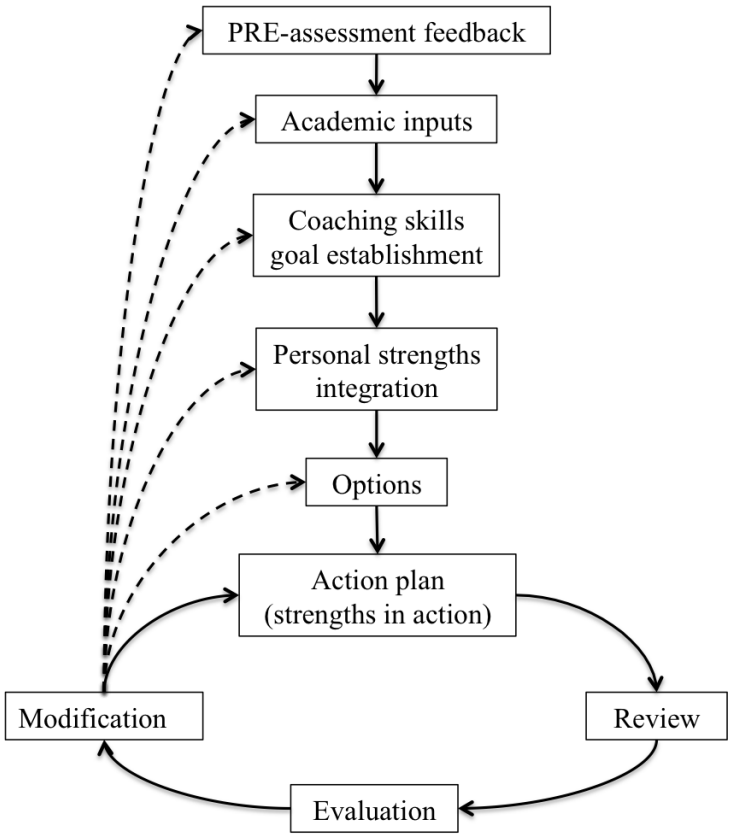

Fig. 2 Coaching-based Leadership Intervention Program Model

Measures

Coaching-based Leadership Skills. Based on the existing literature and research, a 12-item scale assessing eight essential coaching-based leadership skills classified into four dimensions was developed for the purpose of this particular study: (1) Working alliance, which consists of one skill (developing a working alliance) with two items based on the genuineness of the relationship subscale of the full Perceived Quality of the Employee Coaching Relationship scale (Gregory & Levy, 2010); (2) Open communication, which consists of two skills: active, empathic, and compassionate listening with three items based on the Compassionate Scale (Pommier, 2010) and powerful questioning with one item based on the communication dimension of the Coaching Skills Scale (Baron & Morin, 2009; (3) Learning and development, which consists of three skills: facilitate development and providing feedback with one itemeach based on the facilitate development subscale of the Managerial Coaching Skills Scale (Park et al., 2008), and strength spotting and development, with one item based on the ability and application subscales of The Strength Spotting Scale (Linley,

Table 1. Specific workshop session contents

Workshop session nº	Topics	Activities	Homework
1	Positive psychology and coaching-based leadership skills Workplace coaching Emotion appraisal and regulation as a generic leadership skill	Welcome: presentation, objectives, structure and internal rules of the program. Pre-assessment results: feedback and reflection Role-playing and mindfulness practice Booklet provided with work-session slogans, the week's instruction, and suggested reading materials.	Self- compassion test (online) Field weekly to practice emotion appraisal and regulation
2	GROW Model: phase 1: Goal setting (SMART+ goals) Skill nº 1: Development of a working alliance Skill nº 2: Active, empathic, and compassionate listening Skill nº 3: Powerful questioning	Brief mindfulness practice. Role-playing in pairs: setting goal related to the development and/or progress of coaching-based leadership skills. Self-compassion test results and reflection. Role-playing in pairs: practicing effective listening and questioning.	VIA Inventory of Strengths (online) Field weekly to practice skill nº 1 and skill nº 2
3	Skill nº 4: Facilitate development Skills nº 5: Providing feedback	Brief mindfulness practice. VIA inventory of strengths results and reflection. Role-playing in pairs: detect and develop strengths	SWOT: analysis of Strengths, Weaknesses, Opportunities and Threats.

	Skill nº 6: Strengths spotting and development GROW Model: phase 2: Examine Reality: Personal strengths, weaknesses, opportunities and threats (or limitations)	Choice of key personal strengths. Strengths in action. Role-playing: practicing structured feedback process.	Field weekly to practice skill nº 3
4	GROW Model: phase 3: Explore Options, and phase 4: Wrap up. Skill nº 7: Planning and goal setting Skill nº 8: Managing progress	Table of alternatives: advantages and disadvantages. Action plan: establish and develop an action plan for goal achievement.	Field weekly to practice skill nº 4
5	Closing, review, and reflection.	Topics, booklet exercises and field weekly review. Follow-up of the action plan. Future BPS (Best Possible Self) exercise and visualization.	Public image: ask co-workers and employees to complete files with strengths and improvement areas.

Garcea et al., 2010); and (4) Progress and results, which consists of two skills: planning and goal setting and manage progress with one item each based on the Goal-Focused Coaching Skills Questionnaire (Grant & Cavanagh, 2007b). Sample items are listed in the appendix representing each dimension. Participants were asked to respond using a Likert scale ranging from 0 (*strongly disagree*) to 6 (*strongly agree*). The same measure was administrated to participants' employees and supervisors, but in this case, respondents were asked to think about their perception of the participants' skills. The scale was adapted and reworded, so that the referent was the leader who participated in the intervention (i.e., *"He/she is able to…"*). The revised scale was next tested using Confirmatory factor analysis via Mplus and reliability tests using SPSS. Confirmatory factor analysis was constrained to a four-factor model and resulted in an acceptable fit to the data in almost all indicators (self-reported scores: χ^2 = 86.252; d.f. = 48; p = .00; TLI = .87; CFI = .90; RMSEA = .08; WRMR = 0.813; supervisors' scores: χ^2 = 88.702; d.f. = 48; p = .00; TLI = .97; CFI = .98; RMSEA = .09; WRMR = 0.734; employees' scores: χ^2 = 104.150; d.f. = 48; p = .00; TLI = .99; CFI = .99; RMSEA = .08; WRMR = 0.538). Additionally, the coefficient alpha for the whole scale showed high levels of internal consistency: .85 for self-reported scores, .94 for supervisors' scores, and .97 for employees' scores. The values for each dimension analysed separately also indicated acceptable consistency: developing a working alliance (self-reported scores = .64; supervisors' scores = .91; employees' scores = .91); open communication (self-reported scores = .79; supervisors' scores = .83; employees' scores = .93); facilitating learning and development (self-reported scores = .79; supervisors' scores = .86; employees' scores = .93); manage progress and results (self-reported scores = .81; supervisors' scores = .93; employees' scores = .93).

Work Engagement. This variable was measured by the 9-item short version of the Utrecht Work Engagement Scale (Schaufeli et al., 2006). The scale consists of three dimensions with three items each: (1) vigour (i.e., *"At my work, I feel bursting with energy";* α =.92); (2) dedication (i.e., *"I am enthusiastic about my job";* α =.84); and (3) absorption (i.e., *"I am immersed in my work";* α =.81). All the items were rated on a 7-point Likert scale ranging from 0 (*almost never*) to 6 (*almost always*).

Psychological Capital. This construct was assessed by the Psychological Capital Questionnaire (PCQ-12; Avey et al., 2011), adapted from the PCQ-24 scale (Luthans et al., 2007). The scale consists of four dimensions: (1) self-efficacy, measured with three

items (i.e., *"I am confident presenting information to a group of colleagues regarding this situation."*); (2) hope, measured with four items (i.e., *"If I should find myself in a jam trying to solve this situation, I could think of many ways to get out of it."*); (3) resilience, measured with three items (i.e., *"I take stressful things regarding this situation in stride"*) and (4) optimism, assessed by two items (i.e., *"I look on the bright side of things regarding this situation").* Participants were asked to rate each of the statements using a 6-point Likert-type scale ranging from 0 (strongly disagree) to 5 (strongly agree). The alpha reliability coefficient was .89.

In- and Extra-role Performance. This variable was assessed by six items included in the HERO (HEalthy and Resilient Organizations) questionnaire (Salanova et al., 2012), adapted from Goodman and Svyantek's (1999) scale. Two different dimensions were considered, with three items in each: (1) in-role performance, (i.e., "*He/she performs all the functions and tasks demanded by the job";* α =.75) and (2) extra-role performance (i.e., "*He/she helps other employees with their work when they have been absent";* α =.83). Participants' supervisors and employees were asked to rate each of the statements individually using a 7-point Likert-type scale ranging from 0 (strongly disagree/never) to 6 (strongly agree/always).

Qualitative measure. In order to obtain data about their personal experiences with the program, participants were asked to respond to the following question during the last coaching session: *"What specific positive outcomes (if any) did you gain from participating in this program?"* The use of an open-question methodology is an important point in this study because it allows the participants to determine which issues they consider most beneficial (Grant & Hartley, 2014).

Data Analyses

Different data analyses were conducted. First, internal consistencies (Cronbach's alpha), descriptive analysis, and inter-correlations among the study variables were calculated. Then, one-factor Analyses of Variance (ANOVA) were performed, using SPSS, to discover whether there were significant differences between the executives and middle managers within the EX at the three evaluation times (PRE, POST and FUP). Next, the same analyses were applied to examine whether there were significant differences in the study variables between the EX and WL prior to the intervention.

In order to test the effects of the intervention program, data were analysed using 2 x 2 repeated-measures ANOVA, consisting of one between-subjects factor (group: EX,

WL) and one within-subjects factor (time: Time 1; T1, and Time 2; T2). In this comparison, T1 refers to the first pre-intervention assessment for both EX and WL, whereas T2 refers to the post-intervention assessment for EX and the second pre-intervention assessment for WL, just before this group starts the program. The FUP time factor could not be considered when comparing the two groups. For organizational reasons, the WL had completed the intervention before the EX filled out the FUP assessment.

For supervisors' data, the same analyses were performed as in the self-reported data. However, for the employees' data, because responses were not identifiable, 2 x 2 repeated-measures could not be performed, and so univariate analysis was applied to employees' scores to examine interaction effects by comparing the whole means between T1-T2 for each group (EX and WL) separately.

Moreover, once the WL group had completed the intervention program, paired-sample *t*-tests were carried out for the whole intervention group (EX and WL; N=37) to test for differences between PRE, POST, and FUP time factors. In this comparison, T1 referred to the PRE assessment for the EX, whereas T2 referred to the PRE assessment for the WL, that is, the evaluation applied just before this latter group started the intervention. For these analyses, both self-reported and supervisors' scores were used. Next, to test for differences in employees' scores across the three time factors, univariate analyses were performed.

Following Cohen (1998), eta squared in the repeated-measures ANOVA and Cohen's d as a measure of effect sizes (small effect = 0.1 – 0.3; moderate or intermediate effect = 0.3 – 0.5; large effect = > 0.5) in paired-sample *t*-tests were estimated, in addition to *t*-test comparisons between groups.

Finally, qualitative data on the outcomes of the intervention program were analysed using the interpretive content analysis, proposed for coding texts into categories and counting the frequencies in each category (Ahuvia, 2001). This method is used to analyse categories and obtain conclusions based on a previous theoretical framework (Denecke & Nejdl, 2009). First, each leader's response was carefully analysed and incorporated into a database. Next, responses were systematically classified and grouped according to thematic content. At this stage, a construction of themes emerged for the whole group of participants. Finally, the frequency of each emerging theme was estimated.

Results

Means, standard deviations, internal consistencies (Cronbach's alpha), and correlations among the study variables for PRE, POST and FUP intervention scores are shown in Table 2 for self-reported scores, Table 3 for supervisors' scores, and Table 4 for employees' scores. Next, one-factor ANOVA results showed that there were no significant differences in self-reported variables between the executives and middle managers in the EX at the PRE intervention time [CBL skills: $F(1,24) = 0.31$; $p = 0.58$, *ns*; PsyCap: $F(1,24) = 1.92$; $p = 0.18$, *ns;* work engagement: $F(1,24) = 0.17$; $p = 0.68$, *ns*]. Moreover, one-factor ANOVA results comparing the EX and WL revealed no significant differences between the two groups on the same variables at PRE intervention [CBL skills: $F(1,40) = 0.24$; $p = 0.88$, *ns*; PsyCap: $F(1,40) = 0.41$; $p = 0.53$, *ns;* work engagement: $F(1,40) = 0.86$; $p = 0.36$]. With these results, we proceeded to carry out the study with both groups included in the same sample.

Coaching-based Leadership Skills

A repeated-measures ANOVA for CBL skills showed no significant time (T1, T2) x group (EX, WL) interaction effects [$F(1,38) = 2.11$; $p = .15$, *ns*] for self-reported scores, although the levels were higher at T2 than at T1. Paired sample *t* tests results for EX separately indicated no significant differences from T1 to T2 [$t(23) = -1.883$; *ns*] for self-reported scores. However, results showed significant differences from T1 to T4 (FUP) for this variable [$t(22) = -2.604$, $p < 0.05$, $d = 1.11$)], demonstrating a large effect size. Moreover, paired sample t test results for WL indicated no significant differences from T1 to T2 [$t(15) = -.330$; *ns*], as expected.

Results for supervisors' scores indicated a significant time (T1, T2) x group (EX, WL) interaction effect [$F(1, 33) = 17.78$, $p < 0.001$, $\eta_p^2 = .054$], indicating statistically higher levels at T2 compared to T1. This result had an intermediate effect size. Paired sample *t* tests results for EX separately indicated significant differences from T1 to T2 [$t(19) = -5.233$, $p < 0.001$, $d = 2.40$)] and from T1 to T4 (FUP) [$t(18) = -5.316$, $p < 0.001$, $d = 2.50$)], demonstrating large effect sizes. Whereas paired sample t test results for WL indicated no significant differences from T1 to T2 [$t(14) = -.636$; *ns*], as expected.

Table 2 PRE, POST and FUP self-reported means, standard deviations, internal consistencies, and correlations of all variables for the whole intervention group

Variables	M	SD	α	1	2	3
PRE intervention scores						
1. Coaching leadership skills	4.80	0.48	0.85	-		
2. PsyCap	4.15	0.44	0.82	.57**	-	
3. Work engagement	4.85	0.71	0.86	.52**	.56**	-
POST intervention scores						
1. Coaching leadership skills	4.92	0.41	0.84	-		
2. PsyCap	4.40	0.33	0.79	.35*	-	
3. Work engagement	5.12	0.55	0.93	.31*	.43**	-
FUP intervention scores						
1. Coaching leadership skills	4.97	0.53	0.92	-		
2. PsyCap	4.27	0.47	0.87	.56**	-	
3. Work engagement	4.96	0.74	0.90	.24*	.45**	-

Correlations; **$p < .01$; *$p < .05$

Table 3 PRE, POST and FUP supervisor score means, standard deviations, internal consistencies, and correlations of all variables for the whole intervention group

Variables	M	SD	α	1	2	3
PRE intervention scores						
1. Coaching leadership skills	4.21	0.90	0.94	-		
2. In-role performance	4.69	0.96	0.94	.66**	-	
3. Extra-role performance	5.00	0.96	0.90	.62**	.71**	-
POST intervention scores						
1. Coaching leadership skills	4.51	0.84	0.93	-		
2. In-role performance	4.90	0.75	0.87	.65**	-	
3. Extra-role performance	5.22	0.69	0.83	.49**	.55**	-
FUP intervention scores						
1. Coaching leadership skills	4.6	0.86	0.94	-		
2. In-role performance	5.00	0.94	0.93	.73**	-	
3. Extra-role performance	5.14	0.72	0.81	.55**	.61**	-

Correlations; **$p < .01$

Table 4. PRE, POST and FUP employee score means, standard deviations, internal consistencies, and correlations of all variables for the whole intervention group

Variables	M	SD	α	1	2	3
PRE intervention scores						
1. Coaching leadership skills	4.19	1.38	0.97	-		
2. In-role performance	4.55	1.26	0.94	.84**	-	
3. Extra-role performance	4.32	1.35	0.87	.82**	.83**	-
POST intervention scores						
1. Coaching leadership skills	4.76	0.95	0.96	-		
2. In-role performance	4.94	1.03	0.94	.79**	-	
3. Extra-role performance	4.82	1.03	0.87	.76*	.81**	-
FUP intervention scores						
1. Coaching leadership skills	4.98	0.66	0.92	-		
2. In-role performance	5.23	0.81	0.86	.66**	-	
3. Extra-role performance	5.14	0.76	0.79	.54**	.79**	-

Correlations; **$p < .01$

Additionally, univariate analysis of this variable was performed on employees' scores to compare time factors for each group separately. Results showed that the EX group had significantly higher scores at T2 compared to T1 [$t(195) = -2.31$, $p < 0.05$, $d = 0.33$], with an intermediate effect size, whereas the WL group did not differ significantly from T1 to T2 [$t(113) = -0.49$; *ns*], as expected. Figure 3 shows plotted means for each time factor (T1, T2) across the groups (EX, WL) for self-reported, supervisors', and employees' scores.

Finally, paired-sample *t*-test results for the whole intervention group (N=41) after the WL had completed the program indicated significant differences in the self-reported CBL skills variable from PRE to POST [$t(37) = -2.07$, $p < 0.05$, $d = 0.68$] and from PRE to FUP [$t(37) = -2.07$, $p < 0.05$, $d = 0.70$]. In both cases, levels were significantly higher at the endpoint compared to baseline, and the effect sizes reported were moderate. In the case of supervisors' scores, results also showed statistically significant higher levels at POST compared to PRE [$t(34) = -4.08$, $p < 0.001$, $d = 1.39$], and at FUP compared to PRE [$t(32) = -3.51$ $p < 0.001$, $d = 1.24$], with large effect sizes. Additionally, results from univariate analyses of employees' scores indicated that the whole intervention group

had significantly higher scores at POST [$t(276) = -3.75$, $p < 0.001$, $d = 0.45$] and FUP [$t(252) = -4.93$, $p < 0.001$, $d = 0.62$], compared to PRE, with intermediate effect sizes.

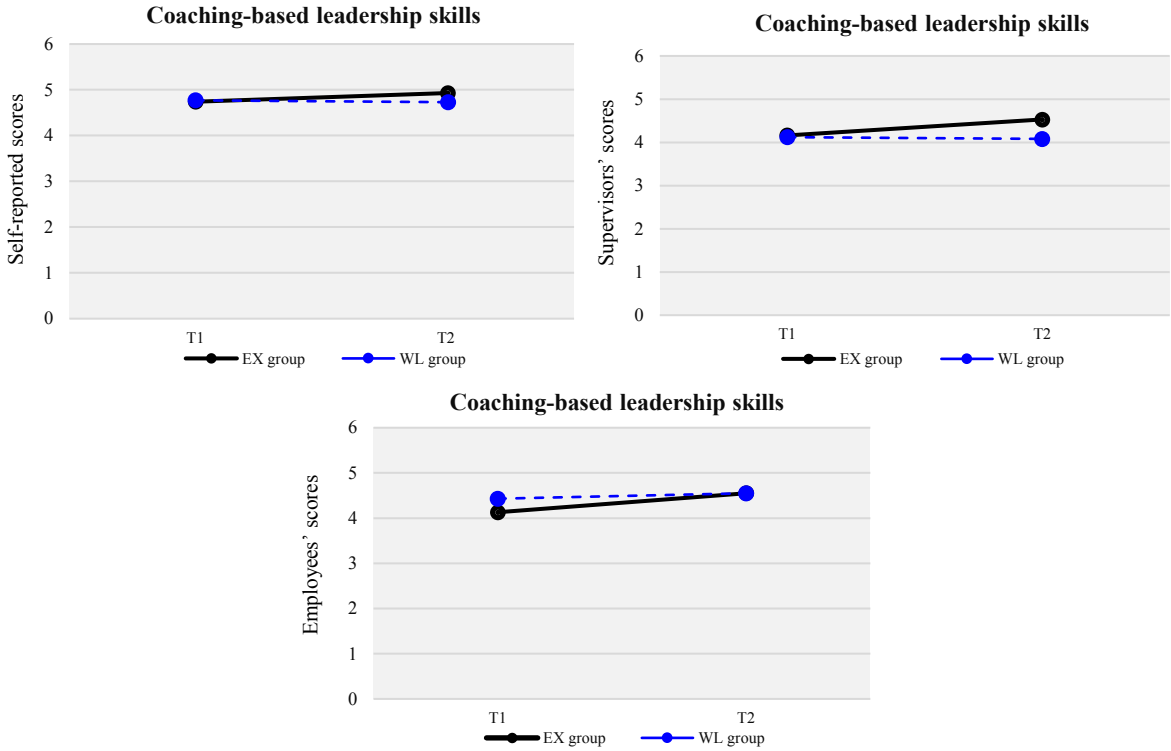

Fig. 3 Coaching-based leadership skills for groups (EX, WL) across time (T1, T2)

PsyCap

A repeated-measures ANOVA of PsyCap showed a significant time (T1, T2) x group (EX, WL) interaction effect for self-reported scores [$F(1, 38) = 6.78$ $p < 0.05$, $\eta_p^2 = .15$], with a large effect size. Results indicated that the EX had statistically significant higher PsyCap scores than the WL at T2. Figure 4 shows plotted means for each time factor (T1, T2) across the groups (EX, WL) for self-reported scores. Paired sample *t* tests results for EX separately indicated significant differences from T1 to T2 [$t(23) = -3.699$, $p < 0.001$, $d = 1.54$)] and from T1 to T4 (FUP) [$t(22) = -2.798$, $p < 0.001$, $d = 1.19$)], demonstrating large effect sizes. Additionally, paired sample t test results for WL indicated no significant differences from T1 to T2 [$t(15) = ,629$; *ns*], as expected.

Furthermore, paired-sample *t*-test results for the whole intervention group (N=41) after the WL had completed the program indicated significantly higher self-reported scores for PsyCap at POST compared to PRE [$t(37) = -3.65$ $p < 0.001$, $d = 1.20$], with a

large effect size. However, results showed no significant differences between PRE and FUP [$t(34) = -.94$ $p = .35$; *ns*], although the levels were higher at FUP.

Work Engagement

A repeated-measures ANOVA of work engagement showed a significant time (T1, T2) x group (EX, WL) interaction effect for self-reported scores [$F(1, 38) = 10.9$, $p < 0.005$, $\eta_p^2 = .19$], with a large effect size. Results indicated that the EX had statistically significant higher work engagement scores than the WL at T2. Figure 4 shows plotted means for each time factor (T1, T2) across the groups (EX, WL) for self-reported scores. Moreover, paired sample *t* tests results for EX separately indicated significant differences from T1 to T2 [$t(23) = -3.759$, $p < 0.05$, $d = 1.56$)], demonstrating a large effect size. However, results showed no significant differences from T1 to T4 (FUP) for this variable [$t(23) = -1.024$; *ns*]. Additionally, paired sample t test results for WL indicated no significant differences from T1 to T2 [$t(15) = 1.374$; *ns*], as expected.

Finally, paired-sample *t*-test results for the whole intervention group (N=41) after the WL had completed the program indicated significantly higher self-reported scores for work engagement at POST compared to PRE [$t(37) = -3.42$ $p < 0.05$, $d = 1.12$], with a large effect size. However, results showed no significant differences between PRE and FUP [$t(37) = -0.54$; *ns*], although the levels were higher at FUP.

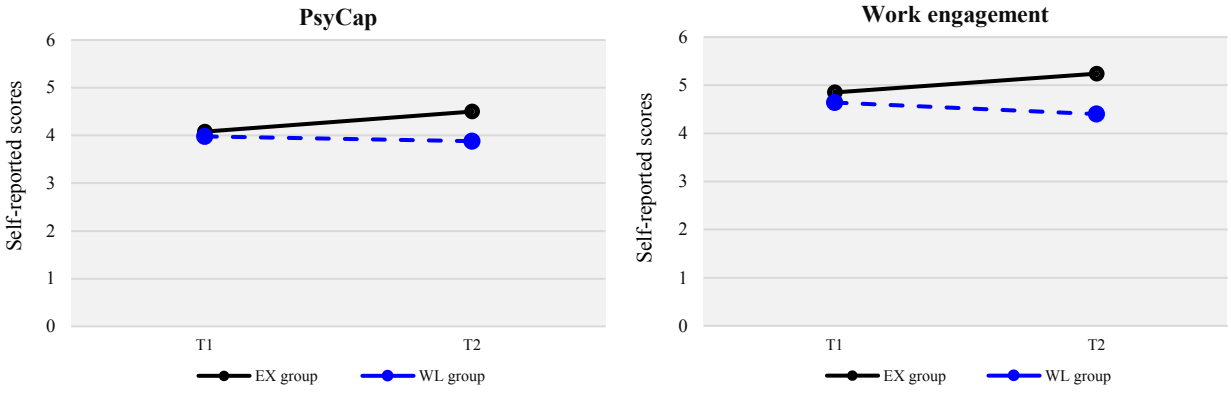

Fig. 4 PsyCap and Work Engagement for groups (EX, WL) across time (T1, T2)

In-role and Extra-role Performance

A repeated-measures ANOVA for performance showed no significant time (T1, T2) x group (EX, WL) interaction effects for supervisors' scores [in-role performance: $F(1, 33) = 1.88$; $p = .17$, *ns*; extra-role performance: $F(1, 33) = 1.7$; $p = .2$, *ns*], although the levels were higher at T2 compared with T1. Moreover, paired sample *t* tests results

for EX separately indicated no significant differences from T1 to T2 [$t(19) = -1.831$; *ns*)], and significant differences from T1 to T4 (FUP) [$t(18) = -2.394$, $p < 0.01$, $d = 1.13$)], demonstrating a large effect size, for in-role performance. Additionally, results for extra-role performance for this group indicated significant differences from T1 to T2 [$t(19) = -1.945$, $p < 0.05$, $d = 0.89$)] and from T1 to T4 (FUP) [$t(18) = -1.932$, $p < 0.05$, $d = 0.91$)] demonstrating large effect sizes. Whereas paired sample t test results for WL indicated no significant differences from T1 to T2 [in-role performance: $t(14) = -.626$; *ns*; extra-role performance: $t(14) = .118$; *ns*], as expected.

Additionally, univariate analysis of this variable was performed on employees' scores to compare the time factors for each group separately. Results showed that the EX had significantly higher scores at T2 [in-role performance: $t(195) = -2.24$, $p < 0.05$, $d = 0.32$; extra-role performance: $t(195) = -2.24$, $p < 0.05$, $d = 0.32$] compared to T1 (with a intermediate effect size), whereas the WL did not differ significantly from T1 to T2 [in-role performance: $t(90) = -.69$; *ns*; extra-role performance: $t(90) = .005$; *ns*]. Figure 5 shows plotted means for each time factor (T1, T2) across the groups (EX, WL) for supervisors' and employees' scores.

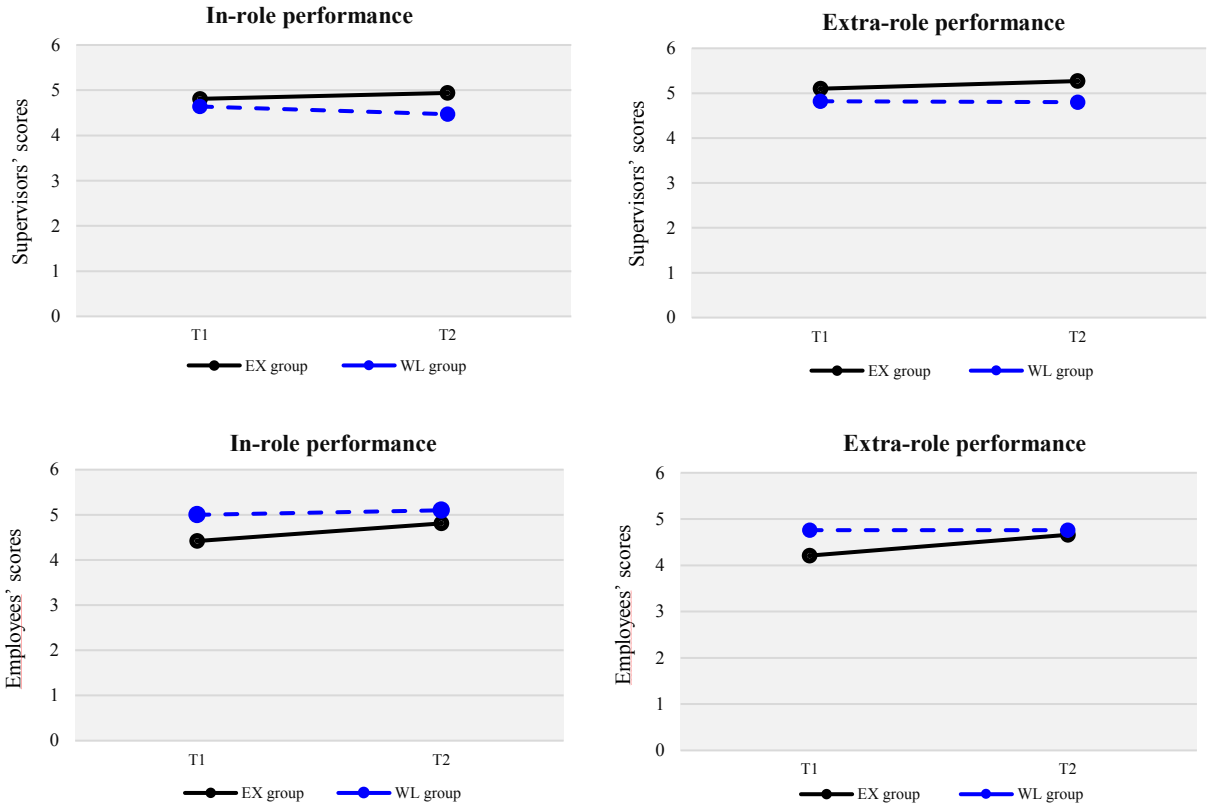

Fig. 5 In-role and extra-role performance for groups (EX, WL) across time (T1, T2)

Finally, paired-sample *t*-tests were carried out for the whole intervention group (N=41) after the WL had completed the program. Results for supervisors' scores showed significantly higher levels at POST compared to PRE [in-role performance: $t(33) = -2.20$ $p < 0.05$, $d = 0.77$; extra-role performance: $t(33) = -1.98$ $p < 0.05$, $d = 0.69$], with intermediate effect sizes; and at FUP compared to PRE [in-role performance: $t(30) = -2.48$ $p < 0.05$, $d = 0.90$; extra-role performance: $t(30) = -1.84$ $p < 0.05$, $d = 0.67$], with large and intermediate effect sizes, respectively. Additionally, results of univariate analyses of employees' scores indicated that the whole intervention group had significantly higher scores at POST compared to PRE [in-role performance: $t(277) = -2.65$, $p < 0.05$, $d = 0.32$; extra-role performance: $t(277) = -3.22$, $p < 0.001$, $d = 0.39$], with intermediate effect sizes; and at FUP compared to PRE [in-role performance: $t(253) = -4.54$, $p < 0.001$, $d = 0.57$; extra-role performance: $t(253) = -5.18$, $p < 0.001$, $d = 0.65$], with moderate effect sizes. Moreover, results also showed significantly higher scores at FUP compared to POST [in-role performance: $t(196) = -2.20$, $p < 0.05$, $d = 0.31$; extra-role performance: $t(196) = -2.46$, $p < 0.05$, $d = 0.35$], with an intermediate effect size.

Figure 6 shows the study variables' plotted means for the whole intervention group (N=41) for self-reported, supervisors', and employees' scores. Means and standard deviations for each variable across both groups at different times (T1 and T2) are shown in Table 5.

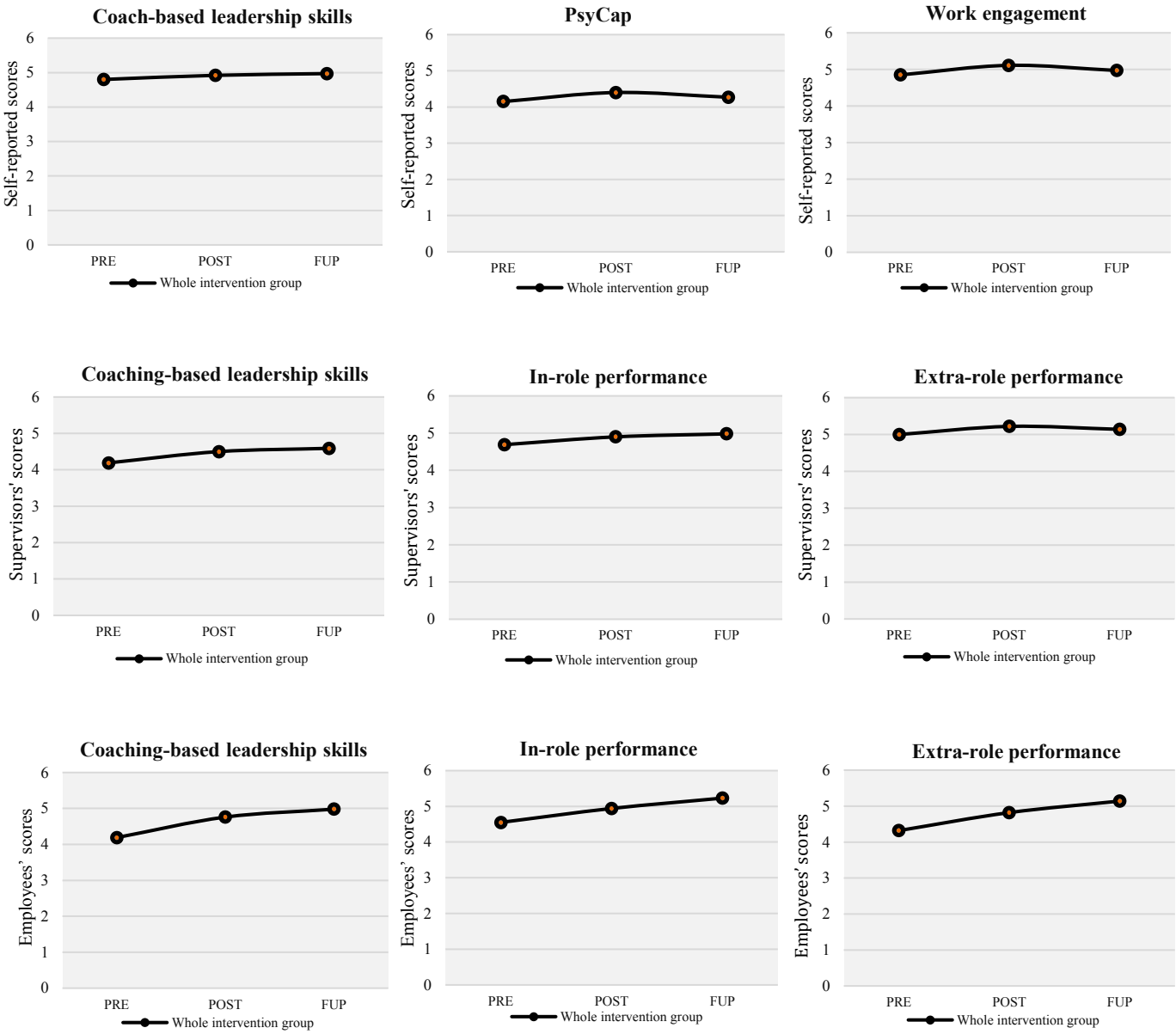

Fig. 6 Coaching-based leadership skills, PsyCap, work engagement, in-role and extra-role performance for the whole intervention group across time

Table 5 T1 and T2 means and standard deviations (SD) for the EX and the WL

	EX (N=23)				WL (N=15)			
	T1	T2	*t*-Value	*p*-Value	T1	T2	*t*-Value	*p*-Value
Self-reported scores								
CBL skills	4.7 (0.50)	4.9 (0.37)	–1.89	0.072	4.7 (0.46)	4.7 (0.51)	0.33	0.746
PsyCap	4.0 (0.50)	4.5 (0.34)	–3.69	0.001	4.0 (0.53)	3.9 (0.73)	0.63	0.54
Work engagement	4.8 (0.68)	5.2 (0.51)	–3.76	0.001	4.6 (0.78)	4.4 (1.25)	1.37	0.190
Supervisors' scores								
CBL skills	4.1 (0.81)	4.5 (0.82)	–5.23	0.000	4.1 (1.02)	4.1 (0.98)	0.63	0.535
In-role performance	4.8 (0.77)	4.9 (0.73)	–1.83	0.083	4.6 (.1.05)	4.5 (1.13)	0.63	0.540
Extra-role performance	5.1 (0.83)	5.3 (.66)	–1.94	0.067	4.8 (0.80)	4.8 (1.12)	0.12	0.908
Employees' scores								
CBL skills	4.1 (1.38)	4.6 (1.05)	–2.31	0.022	4.3 (1.28)	4.5 (1.34)	–0.49	0.620
In-role performance	4.4 (1.29)	4.8 (0.99)	–2.24	0.026	4.9 (1.00)	5.1 (0.82)	–0.70	0.483
Extra-role performance	4.2 (1.37)	4.6 (1.17)	–2.35	0.019	4.7 (1.20)	4.7 (1.15)	0.05	0.996

CBL = Coaching-based Leadership

Qualitative Data

All the participants (N=37) answered a qualitative question (*"What specific positive outcomes (if any) did you gain from participating in this program?"*) during the last individual coaching session. The following themes emerged and are listed below according to the frequency with which they were mentioned by the participants (note: some participants gave more than one response): (1) Awareness and professional insight (28 responses: 23.8%; e.g., *"Awareness of how I see myself as a leader and how others see me"*); (2) Development/increases in CBL skills (17 responses: 14.4%; e.g., *"Greater capacity to listen and ask employees powerful questions"*); (3) Increased self and/or team performance (16 responses: 13.6%; e.g., *"The program has followed the plant's continuous improvement line, such as IDP; Indicators for Personal Development"*); (4) Increased personal strengths/resources (14 responses: 11.9%; e.g., *"Being aware of how employees see me in the role of leader has increased my humility and open-mindedness"*); and (5) Positive changes in the environment (10 responses: 8.5%; e.g., *"I am getting more signs of optimism from co-workers, and with better predisposition to help others"*).

Discussion

This study examined the impact of participating in a CBL Intervention Program on CBL skills, PsyCap, work engagement, and in-role and extra-role performance. Overall, the results of the study revealed that the intervention program is a successful strategy for improving the participants' outcome variables (self-reported and assessed by their employees and supervisors) after participating in the program and four months after finishing it. In other words, managers and middle managers that trained to develop a CBL style, improved their CBL skills (i.e., develop a working alliance, active, empathic, and compassionate listening, powerful questioning, facilitate development, provide feedback, strengths spotting and development, support in planning and goal setting, and manage progress), and increased their levels of positive PsyCap (i.e., self-efficacy, hope, resilience, and optimism), work engagement (vigour, dedication, and absorption), and in-role and extra-role performance.

This study makes several contributions to the CBL development literature. First, this is the first empirical study to evaluate and confirm the positive effects of a CBL intervention on increasing the levels of the leaders' coaching skills, PsyCap, work engagement, and in-role and extra-role performance. Since the CBL term remains undertheorized (Berg & Karlsen, 2016), and its value and meaning within the organizational context have not been sufficiently captured (Dahling et al., 2016), findings of the current study can notable contribute to research on the benefits of this relatively new style of leadership. Additionally, identifying the attributes and outcomes that are most frequently associated with CBL may allow for insight into the concept and further theory development (Cox et al., 2010).

Second, considering that previous research has focused on the impact of leadership development interventions on employees' variables (Grant, 2010), in this study we focused on the leaders' levels of the study variables (in a 360-degree assessment). Of the few studies that have examined the impact of a coaching leadership (Grant & Hartley, 2014; Moen & Skaalvik, 2009) or managerial coaching intervention (David & Matu, 2013; Ratiu et al., 2017) on the leaders' own performance, none of them considered task and contextual performance separately. An additional contribution of this study is the innovative approach implemented during the intervention program aim to support the development and improvement of the managers' CBL skills. To achieve this goal and enhance positive outcomes, we followed a combination of

workshop format, strengths-based leadership coaching, and practicing the skillset on-the-spot.

Fourth, this study extends the limited existing literature on empirical controlled trials with a 360-degree format using mixed methodologies to examine the efficacy of these intervention programs over time (longitudinal study; Grant, 2010). Given the importance of understanding the perceived benefits of participating in a leadership intervention and adopting CBL skills in the workplace (Grant, 2010; Milner et al., 2018), a strength of this study is the exploration of the perceived outcomes of participating in the intervention using a qualitative methodology. Previous researchers have highlighted the potential usefulness of mixed methods for achieving a broader high-quality evaluation of interventions and providing a better understanding of research (Saksvik & Nielsen, 2016). Lastly, considering the current lack of effectiveness (Lacerenza et al., 2017) and success in applying CBL skills back in the workplace (Moen & Federici, 2012), in the current study we also analysed the durability of the effects over time.

Post-intervention effects

Results for CBL skills partially supported H1 of the study. Findings indicated statistically significant higher supervisor scores after finishing the intervention, comparing the two groups (experimental and waiting-list control), and for the whole intervention group. Employee scores showed that, although there were no significant differences between the two groups at T1 and T2, the experimental group significantly increased their CBL skills after the intervention program compared to their baseline levels. Additionally, employees' scores for the whole intervention group also increased significantly after finishing the intervention. Moreover, participants' self-reported levels for the whole intervention group increased significantly after finishing the program. However, self-reported increased levels of this variable were not statistically significant after finishing the program the experimental group compared to waiting-list. This result may be explained by the insight participants gained after receiving feedback from the pre-assessment about how they are seen by their employees. Additionally, this result is in line with prior research, which emphasized that leaders need at least three months to assimilate and feel really comfortable with using coaching skills in the workplace (Grant & Hartley, 2013). In line with this statement, we understand that, first, there might have been a process of self-discovery and consciousness-raising, followed by

long-term assimilation of the coaching skills and application in their daily work. However, it is worth mentioning that results for the whole intervention group demonstrated a positive impact with significant differences in self-reported CBL skills after finishing and four months after finishing the intervention compared to the baseline levels. Furthermore, the use of supervisor and employee ratings, which indicated a significant increase in leaders' coaching skills, help to support H1.

Overall, self-reported, employees', and supervisors' scores significantly increased after finishing the program in the whole intervention group, which helped to confirm H1. Additionally, participants' qualitative responses also supported H1 for one of the expected outcomes of the program (i.e., "*development and increases in CBL skills*"). Participants reported a greater capacity to enhance the strengths of their employees, help them achieve goals, and make them grow. Some of them also reported more authenticity in their role as coach, greater closeness in the relationship, and an increased ability to communicate by using effective listening and questioning techniques. Both the quantitative and qualitative results suggest the importance of helping leaders to develop and increase coaching skills (i.e., developing a working alliance and trust environment, open communication, facilitating learning and development, managing progress and results) in the workplace. The results on the impact of the implemented intervention on coaching skills are aligned with past research specifying the effectiveness of these development programs for leaders (Cummings et al., 2014; David & Matu, 2013; Ellinger et al., 2010; 2011; Grant, 2010; Grant & Hartley, 2014). Overall, the CBL Intervention Program can be recommended for implementation in organizational settings due to the set of tools it provides and its effective methodology for enhancing coaching skills that interact in the workplace.

Regarding the effects of the intervention on PsyCap and work engagement, the results fully supported H2 and H3 respectively; that is, participants' self-reported levels of PsyCap and work engagement increased significantly after participating in the program, both compared to the WL (from T1 to T2) and considering the whole intervention group (from PRE to POST). These findings suggest that training in core coaching skills, such as developing a warm and trusting environment among employees, generating effective communication, delivering meaningful and positive feedback, and helping them to discover and use strengths and achieve valuable goals and action plans, leads managers and leaders to develop their personal resources (i.e., PsyCap), and increase their levels of energy, absorption, and dedication to the job. This is important

because a resourceful work environment (i.e., coaching provided by the leader and opportunities for professional development) stimulate personal growth through the development of self-efficacy, hope, resilience, and optimism, which in turn lead to higher work engagement (Luthans et al., 2006; Xanthopoulou et al., 2007). Additionally, employees with high levels of engagement are likely to make more effort in their tasks and be more efficient (Kark, 2011; Llorens-Gumbau & Salanova-Soria, 2014).

Findings for the impact of the intervention program on PsyCap are consistent with previous research that found a positive direct relationship between job resources (i.e., coaching provided by the leader and opportunities for professional development) and personal resources, (i.e., self-efficacy, organizational-based self-esteem and optimism; Xanthopoulou et al., 2007), and between managerial coaching and employees' PsyCap (Hsu et al., 2019). However, there are still no studies that examined coaching leaders and their own levels of PsyCap in cross-sectional and quasi-experimental studies. Thus, the present study represents a step forward with respect to previous research in analysing and confirming the effect of leaders developing a CBL style on their levels of PsyCap after participating in a training intervention. Moreover, our findings for the impact of the intervention on work engagement are in line with previous research that found a positive link between this variable and the leader's coaching (Ali et a., 2018; Ladyshewsky and Taplin's, 2017; 2018; Lee et al., 2018; Lin et a., 2016; Tanskanen et al. 2019). Despite the increasing number of studies exploring this link, work engagement has mostly been evaluated in non-experimental cross-sectional studies and as an employee-related outcome. Thus, our study provides an innovate approach by evaluating the effect of the intervention on the leaders' work engagement. Additionally, participants' qualitative responses helped to support H2 and H3 about two of the expected outcomes of the intervention (i.e., "*increased personal strengths/resources"* and *"positive changes in the environment"*). Specifically, the responses revealed that the program was a valuable tool in helping individuals to gain awareness and insight into personal resources and strengths, and produce positive changes in the work environment (i.e., quality of life, well-being, optimism, better communication).

Furthermore, the results for performance partially supported $H4_a$ and $H4_b$. Particularly, supervisors' perception of participants' in-role and extra-role performance was higher for the experimental group after finishing the program, compared to the waiting-list control group, although the differences were not significant. However,

employees' perception of both in- and extra-role performance was significantly higher after finishing the intervention, compared to the waiting-list control group. These results may be explained by the fluent interaction during the intervention between the participants and their employees while applying the coaching skills at work. Therefore, employees observed a short-term improvement in their leaders' performance after finishing the intervention, compared to the supervisors' assessment, which may have required more time to perceive any significant change in the leaders' performance. This last interpretation is confirmed by $H5_d$. Precisely, supervisors perceived a significant increase in the participants' in-role and extra-role performance levels four months after finishing the program. Additionally, both supervisors' and employees' scores for the whole intervention group were significantly higher after finishing the program.

Findings for the impact of the intervention program on in-role and extra-role performance are consistent with previous research that found a positive link between leaders' as coaches skills and task-related performance (Agarwal et al., 2009; Ellinger et al., 2003; 2005; 2011; Grant & Cavanagh, 2007_a; Grant et al., 2009; Gray, 2006; Kim, 2014; Kim & Kuo, 2015; Liu & Batt, 2010) and employees' contextual-related performance (Ellinger & Cseh, 2007; Kim & Kuo, 2015). However, there are still few empirical studies examining the impact of CBL interventions on leaders' in-role and extra-role performance, and so our study contributes to and extends this aspect to the CBL literature. Additionally, participants' qualitative responses helped to support H3 about one of the expected outcomes of the intervention (i.e., "*increased performance levels*"). Specifically, the intervention appears to be a valuable method for improving leaders' productivity and their teams' performance, as reported by the participants.

The durability of the effects

Taking into account the durability of the effects (FUP) in the whole intervention group, the findings fully confirmed $H5_a$; that is, self-reported, supervisors', and employees' scores given for CBL skills significantly increased at FUP compared to PRE intervention time. These results are consistent with previous research confirming that leaders need at least three months to develop and feel comfortable with using coaching skills in the workplace (Grant & Hartley, 2013). However, $H5_b$ and $H5_c$ were not supported, indicating that although participants' levels of work engagement and PsyCap were higher four months after finishing the intervention, compared to the baseline levels, the differences were not significant, and so the effects were not

sustained for these two variables. Finally, the study findings fully supported $H5_d$. Specifically, supervisors' and employees' perceptions of leaders' in-role and extra-role performance levels increased significantly four months after finishing the program, compared to PRE intervention time. Additionally, employees also perceived a significant increase in participants' performance at FUP compared to POST time. Although this was not included in our hypotheses, it is worth mentioning because it demonstrates a strong trend toward improvement in leaders' performance over time, as perceived by their employees.

Theoretical and Practical Implications

This study has a number of theoretical implications. First, it contributes to the coaching and leadership framework alliance by exploring its conceptualization, structure, and the processes inherent in its development (Kemp, 2009). The study presents a rigorous and consistent empirical design that examines behaviours and skills of this relatively new form of leadership in the work environment (Batson & Yoder, 2012). Second, findings offer empirical support for the potential benefits of a CBL style in organizations, advancing the theoretical understanding of its positive influence on work-related outcomes (i.e., PsyCap, work engagement, and in-role and extra-role performance).

Third, results from the present study contribute to the JD-R model (Bakker & Demerouti, 2007), confirming both the intrinsic motivational role of CBL as a job resource that enhances personal resources (i.e., PsyCap), and work engagement, and its extrinsic motivational role fostering task performance. Additionally, the study findings extend this model by demonstrating the potential role of coaching-based leaders in fostering extra-role performance. In sum, leaders who train in developing a CBL style (job resource), tend to increase their levels of positive PsyCap (personal resource), that is they expect good thing to happen at work, believe they can perform effectively, are more confident in accepting challenging tasks, are motivated to work hard when they encounter difficulties, proactively plan for alternative pathways for task accomplishment, and are able to rebound and start over when needed (Yousseff & Luthans, 2012). Additionally, the development of a CBL style and personal resources stimulate a motivational process that leads to higher levels of energy, absorption, and dedication to the job, and higher task and contextual performance.

Fourth, the intervention presented in this study contributes to the positive psychology literature through the development of an effective intervention methodology based on a strengths-based coaching approach (Biswas–Diener & Dean, 2007; MacKie, 2014). It also extends this approach by pairing personal strengths with CBL skills and aligning them with goal achievement. Finally, findings from this study also help to confirm that strengths-based coaching can be effective, even when the number of coaching sessions is relatively low (Peláez et al., 2019; Theeboom et al., 2014).

In terms of practical implications, given the little guidance that coaching leaders receive in their own growth and development (Kemp, 2009), this study addresses useful tools and techniques that can be used by practitioners or Human Resources professionals to teach and train the development of CBL and, therefore, increase the effectiveness of leadership and work-related outcomes in organizations. Another practical implication is the potential for short-term coaching sessions to help improve CBL skills, PsyCap, personal strengths, work engagement, well-being, and performance in work settings. In line with previous research that have indicated that 47% of line managers use coaching in their work, this study highlights the organizational need to build internal coaching capability in leaders (Hsu et al., 2019). This is important because as a result of the alliance-building process, both the leader and the employee collaborate to develop performance goals and new ways to achieve them (Kemp, 2009).

Limitations and Directions for Future Research

Although interesting results were obtained, the present study also has some limitations. First, the groups were not randomly chosen for the experimental condition because the middle managers in the study were line managers for whom the executives had management responsibilities. Thus, the company decided to separate the two groups. However, one-factor ANOVA results showed that there were no significant differences in any of the variables between the executives and middle managers in the experimental group on the PRE, POST, and FUP assessments. Moreover, previous studies highlighted the need to reinforce the link between research and professional practice, while considering the company or organization's characteristics, preferences, and requirements, in order to implement interventions (Ortega-Maldonado, 2018; Tkachenko et al., 2017).

Second, the sample size is not large enough to make assumptions about the general efficacy of the intervention. However, previous research stated that statistical

significance can also be influenced by small sample sizes (Cumming, 2014). In line with this assumption, the majority of the effects, with moderate to large effect sizes, obtained were significant, and the findings were novel. Moreover, this study aimed to be useful for both practitioners and researchers in terms of scientific accuracy, while approaching fieldwork activities as much as possible. Qualitative data were also obtained to reinforce and confirm the study conclusions. However, future research should extend and replicate this study in more diverse and larger samples to improve the generalizability of the results.

Third, due to an organizational decision, employees' answers to the questionnaires were anonymous, and responses were not identifiable over time. Additionally, some of the participants were supervisors or employees of other participants. This unbalanced sample may lead to non-independence in the study measures and experimental assignments. However, in the assessment, both supervisors and employees were asked to assess the leaders' skills and performance in their specific roles in the company, rather than the observed changes from the intervention.

A fifth limitation is that the research design had to be adapted to the organizational context and requirements, and so some adjustments were made. For instance, the waiting-list control group started the program immediately after the experimental group finished, and so comparisons of the two conditions at FUP could not be assessed. Although scores remained higher than baseline levels for the whole intervention group, the levels of some of the study outcomes (self-reported PsyCap and work engagement, and extra-role performance assessed by the supervisors) showed a decreasing pattern at FUP compared to POST-assessment. Therefore, future studies should include follow-up coaching sessions over time in order to maintain and optimize the outcome variables.

As a complementary approach, it would be interesting for future studies to include diary studies in order to obtain relevant information about the underlying psychological mechanisms throughout the program that can influence the outcome variables (i.e., PsyCap, work engagement). Future studies could also evaluate the impact of such programs on employees' variables of well-being and performance, in addition to objective organizational performance metrics. Finally, future controlled-trial studies should conduct research comparing coaching-based leadership interventions with other interventions, such as self-development tools from positive psychology, and with control groups, in order to explore and compare the effects on work-related outcomes.

Appendix

Coaching-based Leadership Skills Scale sample items for leader's version

1. I am able to develop a climate of mutual respect with my employees (developing a working alliance).
2. I pay close attention when my employees talk to me (active, empathic, and compassionate listening).
3. I ask questions that help employees to better understand their situation, identify causes, and see possible improvement actions (powerful questioning).
4. My employees' learning and development is one of my main responsibilities (facilitate development).
5. I constantly provide feedback to employees in order to improve their performance (providing feedback).
6. I find it easy to identify employees' strengths, and help them use and develop new strengths (strength spotting and development).
7. I am very good at helping employees establish goals and develop clear, simple, and achievable action plans (planning and goal setting).
8. I adequately follow up and evaluate employees' progress towards their goals (manage progress).

CHAPTER 6
GENERAL CONCLUSIONS

The main objective of this thesis was to advance the stream of research on Coaching-based Leadership (CBL) by providing theoretical and empirical evidence for its role within the organizational context. This objective has resulted in the establishment of several research questions related to the knowledge gaps detected in the literature. To address these questions, one systematic review (chapter 2) and four empirical studies (chapter 3, 4, and 5) were conducted.

This thesis was based on CBL as a novel construct and therefore we focused on addressing an integrated study of such construct. To identify the field of study, first it was necessary to define and narrow down the construct by conducting an analysis of the concept and underlying attributes, to which we have responded with chapter 2 and 3. Once the construct was comprehensively defined, we took care of the measurement, developing a reliable and valid instrument to evaluate it. We dealt with this challenge in chapter 3. Subsequently, we analyzed relationships with other important organizational variables (chapter 2 and 3) and finally showed how to intervene to develop this leadership style within the work field and proved the effectiveness of its interventions and impact on work-related outcomes (chapter 4 and 5).

The four empirical studies were conducted with workers from different organizational settings (i.e., services, industry, construction, education, etc.) and different countries (i.e., Spain, Argentina, Mexico, Peru, and Chile). Furthermore, quantitative and qualitative methodologies were combined, and both cross-sectional and longitudinal quasi-experimental studies were developed. Data from different sources (i.e., employees' perceptions, leaders' perceptions, supervisors' perceptions) were collected, and different statistical methods (i.e., measurement validation, exploratory structural equation modelling, confirmatory factor analysis, structural equation modelling, repeated-measures ANOVA, paired-sample and independent samples *t*-tests) were used to test the hypotheses and reach the conclusions of each study.

The main features of each study along with the results and contributions that correspond to the five challenges identified in the introduction section (see chapter 1) are presented in the sections below. Next, practical implications, limitations, and future research directions are discussed. The main contributions of this thesis are presented in Figure 1.

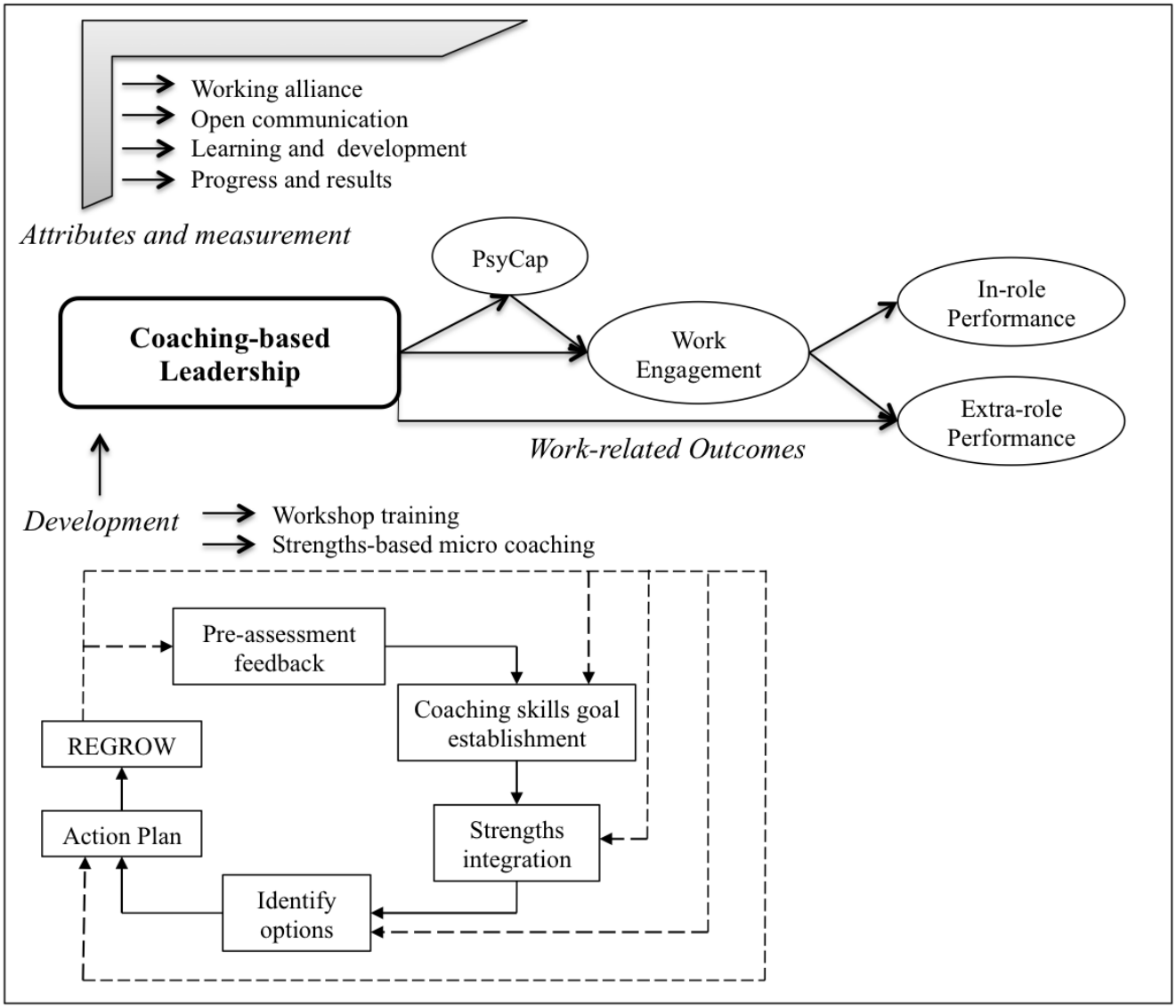

Fig 1 Integrated model with main findings

Addressing the research challenges

Research Challenge 1: How can coaching-based leadership be conceptualized within the organizational context?

In order to address the first challenge of this thesis, chapter 2 provided a comprehensive systematic review of CBL, along with similar constructs (i.e. managerial coaching, supervisory coaching, employee coaching, and coaching as an attribute of leadership) definitions, in an attempt to define similarities and differences and better understand the CBL value within the organizational context. Consistent with previous researchers' assessment (Berg & Karlsen, 2016; Batson & Yoder, 2012), evidence from the 51 empirical studies included in the review demonstrated a lack of consensus about

a clear CBL definition or model. Furthermore, given that the most frequent definitions of the constructs analysed (i.e., managerial coaching, supervisory coaching) contained the word 'leadership', findings support the notion that one consistent concept of 'CBL' may integrate such constructs. Previous researchers indicated that the manager as coach is better understood through relational and social leadership processes where the hierarchical space between leaders and followers is diminished, and the potential for growth, challenge, and change is acknowledged (Anderson, 2013). Considering the above, this thesis conceptualizes CBL in organizational settings as 'a style of leadership that integrates effective coaching skills and behaviours into one-on-one, developmental interactions with employees to help them maximize their talents, and achieve an extraordinary performance'. Moreover, this thesis intends to align the CBL construct proposal with Kemp (2009) coaching and leadership alliance framework, which contextualize the coaching/leadership self-management and shared relationship processes. This thesis also intends to incorporate CBL into the Job Demand-Resource (JD-R) model (Bakker & Demerouti 2007) in order to enhance the understanding of how coaching leaders impact employees positive psychological and work-related outcomes.

Going a step further, chapter 3 and chapter 5 attempted to define the main attributes associated with CBL. Given the limited theory that described the CBL construct and the weak agreement among researchers about its features (David and Matu, 2013; DiGirolamo & Tkach, 2019), an extensive literature review related to professional coaching and to coaching-based leaders and managers interacting with their employees was undertaken, and the following attributes, grouped in four dimensions, were identified: (I) *working alliance*: (1) developing a working alliance; (II) *open communication*: (2) active, empathic, and compassionate listening, and (3) powerful questioning; (III) *learning and development*: (4) facilitating development, (5) providing feedback, and (6) strengths spotting and development; and (IV) *progress and results*: (7) planning and goal setting, and (8) managing progress.

Overall, by addressing this first challenge, in chapter 2, 3, and 5 we intended to contribute to the CBL theory development by shedding insight into its concept, dimensions, and understanding of the coaching and leadership alliance framework (Kemp, 2009). Identifying the main attributes was also a necessary preliminary step toward further measurement development, as we attempted to address in Challenge 2.

Research Challenge 2: How can coaching-based leadership be reliable and validly measured within the organizational context?

In order to address Challenge 2, chapter 2, 3, and 5 included an overview of validated measurements related to CBL. Findings from the three reviews indicated the existence of a variety of scales used to measure the managers or supervisors' coaching attributes (i.e. behaviours or skills), or coaching as a type of leadership behaviour. However, this variety suggests a weak theoretical agreement about the constructs and underlying dimensions. Besides, the majority of the scales have received criticism both theoretically and methodologically (DiGirolamo & Tkach, 2019; Hagen & Peterson, 2014; Petterson & Little, 2005). Most importantly, a specific valid and reliable measurement strategy for CBL is still missing in the literature.

Therefore, chapter 3 developed and tested the psychometric properties of the Coaching-Based Leadership Scale (CBLS) in a sample of Spanish and Latin American working populations (employees and leaders samples). Results provided evidence of reliability and validity of the 16-item CBLS, minimizing confounding with other leadership constructs (i.e., transformational and authentic leadership). The factor structure of the scale was satisfactory explained by a solution with four related factors (working alliance, open communication, learning and development, and progress and results) that constitute the underlying dimensions addressed in Challenge 1. Additionally, measurement invariance across Spain and Latin American countries was also demonstrated, revealing the capacity of the scale to evaluate CBL attributes in a similar way in Spanish and Latin American leaders. This study proposed a novel approach, considering the limited attention given to developing a CBL scale in such countries. Another strength is the validation of both employees and managers versions of the questionnaire, which mitigates common source and common method biases.

Furthermore, based on the 16-item CBLS validated in chapter 3, in chapter 5 a shorter 12-item scale, with the same four dimensions, was developed to test the impact of a CBL intervention on the leaders' coaching skills. In a 360-degree format, the participants, and their supervisors and employees answered the scale at three different times (pre, post, and follow up) during the research period. The scale in its two versions (self-reported and perceived by supervisors or employees) demonstrated good psychometric properties, based on confirmatory factor analysis and reliability test.

By addressing Challenge 2, we intended to advance knowledge about the existent measurement tools to assess CBL and related constructs (i.e., managerial coaching), and to provide researchers and practitioners with effective scales to be used to assess and train on the development of internal coaching capability in leaders within the organizational field.

Research Challenge 3: What is the relationship between coaching-based leadership and work engagement and performance?

Chapter 2 provided a comprehensive review of the CBL-work engagement and CBL-performance links within the work field. Fifty-one empirical studies focusing on these relationships were included in the review and results revealed an important role of managers and supervisors as coaches in enhancing work engagement and performance. However, a large number of studies lacked of a theoretical framework, which demonstrates unclear explanations about the way the variables are related. Additionally, the theories were varied, indicating a lack of consensus among researchers.

With regards to the CBL-work engagement link, findings from the eight studies that examined this link demonstrated a positive direct relationship. In addition, results confirmed the mediating role of work engagement in linking the coaching manager to performance-related outcomes. In spite of the positive findings, this chapter highlighted that only a few studies explored the CBL-work engagement link, and the majority of them focused on managerial coaching and not on a coaching style of leadership. Besides, only one study (Ladyshewsky & Taplin, 2018) attempted to explore mechanisms underlying (i.e., organizational learning culture) the link. Thus, this study shed light into the need to further investigate underlying mechanisms that explain the processes through which the coaching leader influences engagement in work settings.

Regarding the CBL-performance link, this was examined in the majority of the studies included in the systematic review. In all of them, the relationships were influenced in a positive direction, and in many cases significantly. A variety of performance-related variables (i.e., task performance, sales performance, organizational citizenship behaviour, goal attainment, innovation) were included across the studies. Additionally, a large number of studies focused on underlying mechanisms (i.e., work engagement, role clarity, self-efficacy) to explain the link. Although findings showed a growing trend when examining this link, only a few studies (Kim & Kuo, 2015; Raza et al., 2017) included both in-role and extra-role performance (i.e., organizational

citizenship behaviour) in their research models. Considering both facets (Goodman and Svyantek, 1999) is important in order to compare the results and obtain a comprehensive overview of the role of coaching leaders in enhancing performance. Moreover, results from this review indicated that further studies are needed to confirm the mediating role of work engagement linking CBL with performance, because results from some of the studies were mixed. In fact, the few studies that analysed the link with work engagement and with performance used the term managerial coaching. Thus, more research focusing on the CBL term is needed in order to clarify when and how this leadership style positively influences employees' engagement and performance.

Chapter 3 intended to address the research gap highlighted in chapter 2 by examining the relationship of CBL and work engagement and in-role and extra-role performance in two complementary studies. In spite of the fact that it was not the main goal of Study 1, during the 16-item CLS validation process, the positive and significant correlations between CBL and the aforementioned outcomes were confirmed with two different samples (employees and managers). These results provided initial support to the potential value of CBL in organizations. To further investigate the relationships and underlying mechanisms between the two links, Study 2 tested a structural equation model in which the positive and direct link from CBL to work engagement was confirmed, as was the direct link to extra-role performance, and the indirect link to both in-role and extra-role performance through the mediating role of work engagement. Furthermore, a positive direct link between CBL and PsyCap was also suggested and confirmed, as was the partial mediating role of PsyCap in the link between CBL and work engagement. These findings contribute to the JD-R model (Bakker & Demerouti, 2007), suggesting that CBL is an important job resource that leads employees to the development of positive personal resources (i.e., PsyCap) that stimulate a motivational process evidenced in higher levels of energy, absorption, and dedication to the job, and in turn higher task and contextual performance.

Overall, results from chapter 3 revealed that employees that perceive a CBL style within their supervisors, are more engaged at work, and in turn achieve a better performance. Employees with coaching-based leaders as supervisors also experience cooperative and social actions (extra-role performance) that go beyond the job requirements and are beneficial to the organization such as helping others or voluntary overtime (Borman & Motowidlo, 1993). Additionally, they develop a positive psychological state characterized of self-efficacy, optimism, hope, and resilience at

work (PsyCap), and consequently experience high levels of work engagement, resulting in higher levels of in-role and extra-role performance. This study represents a step forward with respect to previous research in analysing and confirming the direct and indirect influences of CBL style on employees' work outcomes.

Research challenge 4: How can coaching-based leadership in organizations be achieved?

Chapter 4 was conducted in order to achieve the ultimate goal of designing effective positive psychology interventions that can be valuable for enhancing CBL in organizations. This chapter presented a longitudinal controlled trial study conducted with a sample of non-executive employees from the automotive sector. The study examined and confirmed the impact of participating in a Strengths-based Micro Coaching Program on increasing the levels of work engagement and performance (self-reported and assessed by their supervisors) after finishing the program. Additionally, results on the durability of the effects indicated that all the outcome variables' levels remained higher four months after finishing the program (follow up). However, the differences between pre and follow up were only significant in self-reported levels of performance. Therefore, we believe that more follow up sessions after finishing the coaching process should be included in the program in order to monitor progress and ensure that participants stay motivated and persist in their goal achievement. Moreover, qualitative results supported the quantitative findings and also revealed that the program was successful in helping participants to gain awareness and develop strengths and personal resources.

This chapter contributes to the coaching psychology literature, as it is the first study to explore the impact of a non-executive, short-term program based on a strengths-based coaching approach (Linley, Garcea et al., 2010), and the RE-GROW model (Grant, 2011), on work engagement and job performance using a quasi-experimental control trial design. Finally, this study served as a preliminary step towards the development of specific initiatives for enhancing CBL that follows a strengths-based micro-coaching approach.

Considering the results of chapter 4, chapter 5 designed and conducted a CBL Intervention Program that aimed to develop and enhance coaching skills in leaders within the organizational field. The results of the study held with managers and middle managers of the automotive sector revealed that the intervention program was a

successful strategy for improving the participants' coaching-skills (self-reported and assessed by their employees and supervisors) after participating in the program and four months after finishing it (follow up). Additionally, qualitative results supported these findings. Participants reported a greater capacity to enhance the strengths of their employees, help them achieve goals, and make them grow. Some of them also reported more authenticity in their role as coach, greater closeness in the relationship, and an increased ability to communicate by using effective listening and questioning techniques.

This chapter extended the limited existing literature on empirical controlled trials with a 360-degree format using mixed methodologies to examine the efficacy of these intervention programs over time (Grant, 2010). An additional contribution is the innovative approach implemented during the intervention program aim to support the development of the managers' CBL skills (i.e., develop a working alliance, active, empathic, and compassionate listening, powerful questioning, facilitate development, provide feedback, strengths spotting and development, support in planning and goal setting, and manage progress). To achieve this goal, the program followed a combination of workshop format, micro-coaching sessions based on a strengths-based leadership coaching approach (Linley, Nielsen et al., 2010; Mackie, 2014), and the RE-GROW model (Grant, 2011), and practicing the skillset on-the-spot.

Research challenge 5: What is the impact of developing coaching-based leadership on work-related outcomes such as psychological capital, work engagement, and in-role and extra-role performance?

In chapter 5, the effects of the CBL intervention program on PsyCap, work engagement, and in-role and extra-role performance were also tested. Results confirmed a significant increase of these outcomes after participating in the program. In other words, managers and middle managers that trained to develop a CBL style increased their (self-reported) levels of positive PsyCap (i.e., self-efficacy, hope, resilience, and optimism) and work engagement (vigour, dedication, and absorption), and in-role and extra-role performance assessed by their supervisors and employees. Qualitative answers supported these findings. Specifically, the responses revealed that the program helped the participants to gain awareness and develop personal resources and strengths, and produce positive changes in the work environment (i.e., quality of life, well-being, optimism, better communication). Additionally, the intervention appears to be a

valuable method for improving leaders' productivity and their teams' performance, as reported by the participants. Although results on the durability of the effects indicated that participant' levels of work engagement and PsyCap were higher four months after finishing the intervention compared to the baseline levels, the differences were not significant. However, in-role and extra-role performance increased significantly four months after finishing the program, compared to the baseline levels. Overall, we believe that is important to include in future studies follow-up coaching sessions over time in order to maintain the positive effects on PsyCap and work engagement.

This chapter contributes to the coaching and leadership framework alliance by exploring the CBL structure and the processes inherent in its development (Kemp, 2009). Additionally, since its role and meaning within the organizational context have not been sufficiently captured (Dahling et al., 2016), findings of this chapter offer empirical support for the potential benefits of a CBL style in organizations, advancing the theoretical understanding of its positive influence on work-related outcomes (i.e., PsyCap, work engagement, and in-role and extra-role performance). We expect that it would also strengthen the rationale for organizations willing to build internal coaching capability in managers and supervisors. Furthermore, in line with the conclusions of the systematic review (chapter 2), chapter 5 extended cross-sectional relational studies and focused on longitudinal studies in order to confirm evidence for causal relationships. Finally, results from this chapter also contribute to the JD-R model (Bakker and Demerouti, 2007), suggesting both the intrinsic motivational role of CBL as a job resource that enhances positive PsyCap and work engagement, and its extrinsic motivational role fostering task performance. Additionally, the study findings extend this model by demonstrating the potential role of coaching-based leaders in fostering extra-role performance.

In sum, leaders who train in developing a CBL style (job resource), tend to increase their levels of positive PsyCap (personal resource), that is, they expect good things to happen at work, believe they can perform effectively, are more confident in accepting challenging tasks, are motivated to work hard when they encounter difficulties, proactively plan for alternative pathways for task accomplishment, and are able to rebound and start over when needed. Additionally, managers and leaders that developed coaching skills are involved in a motivational process that leads to higher levels of energy, absorption, and dedication to the job, and higher task and contextual performance.

Practical implications

This thesis offers practitioners several implications to guide their work in the field of CBL. In current volatile, uncertain, complex, and ambiguous times, making employees develop and maximize their talents towards involvement in challenging goals is a necessary role of leaders in organizations willing to become healthy and productive. Thus, understanding the concept, structure and potential value of CBL is a first implication of this thesis for practitioners to invest in training to develop this leadership style in work settings. This is important because as our results demonstrated, CBL is an important antecedent that enhances the development of psychological capital, work engagement and in-role and extra-role performance in both employees and managers.

Second, this thesis provides researchers and practitioners with valid and reliable novel instruments for assessing CBL attributes (behaviours and skills) in Spanish and Latin American working populations. The results of such assessment can be used as a first step towards training. Specifically, results of this thesis highlight the importance for employees and managers training to build a CBL style to receive feedback and gain insight into their coaching skills and behaviours, both self-reported and perceived by others (i.e., employees, supervisors, peers). Moreover, given the good psychometric properties of the CBLS, along with the strong theoretical foundations, we encourage further researchers to use this scale to adapt and validate it in other cultures and settings.

Third, this thesis provides the development of an effective and novel positive intervention, namely strengths-based micro coaching, for promoting personal development and optimal functioning in the pursuit of goal achievement. With this intervention we intend to highlight the potential for short-term coaching sessions (Peláez et al., 2019; Theeboom et al., 2014) and, in particular, when signature strengths are used as the main tool to help attain goals and foster psychological well-being and performance over time. Previous research suggested that strengths identification and application is a potentially important tool in personal and organizational development that is becoming increasingly attractive to practitioners (Biswas-Diener et al., 2011).

Fourth, this dissertation presents an evidence-based intervention that follows the aforementioned strengths-based micro-coaching approach (Peláez et al., 2019) for developing CBL at work. Given the little guidance that coaching leaders receive in their own growth and development, this thesis addresses useful tools and techniques that can be used by practitioners or Human Resources professionals to teach and train the

development of coaching behaviours and skills and, therefore, increase psychological wellbeing (i.e., PsyCap, strengths, work engagement) and performance in organizations. Such tools include pre-assessment feedback, academic inputs, practicing coaching leadership skillset through role-playing and at work with employees, micro-coaching sessions based on the establishment of specific goals (RE-GROW model), and on the identification, development, and use of personal strengths, and alignment of such strengths with leadership skills to achieve goals related to the development of coaching skills.

In addition to the set of useful tools that the two interventions presented above provide, they can also be recommended for implementation in work setting due to their strong methodology based on empirical controlled trials, and 360-degree format with mixed methodologies that examines the efficacy of these interventions over time.

Limitations and future research

The studies presented in this thesis have some limitations that should be considered in the interpretation of the results. First, the systematic review (chapter 2) only included studies published in peer-reviewed journals in the English or Spanish languages, which might lead to potential publication bias. Additionally, the coaching/leadership concept analyses in this review were only drawn from empirical studies on the relationship with work engagement and performance, which may limit the conceptualization and theoretical framework overview. Thus, future studies should include other sources of information (i.e., books, editorials, and purely conceptual studies) and languages in their selection criteria in order to advance in the knowledge and understanding of the CBL literature.

Second, the five Spanish-speaking countries considered in the validation process of the 16-item CBLS (Study 1; chapter 3) may not be representative of all countries in which Spanish is the primary language. Thus, a more diversified sample is needed to compare the results. As a complementary approach, future studies should translate, adapt, and test the validity of the scale in non Spanish-speaking countries in order to support the use of the scale in different cultures and settings.

Third, the leaders' version of the CBLS was not used in Study 2 (chapter 3). In order to strengthen the results, future studies should consider both employees and leaders' versions of the scale in analyzing the link with work-related outcomes. Moreover, in order to understand the complex mechanisms involved in the link between

CBL and work-related outcomes, other mediating and moderating constructs could be considered, such as personality, use of signature strengths, and organizational climate and culture. As complementary approaches, future studies could examine multilevel analyses, in addition to coaching-based leader-employee dyads to enrich our understanding of the complexity and effects of one-on-one coaching interactions. Furthermore, future research could be conducted to explore and compare how different leadership styles (i.e., coaching, transformational, and authentic) predict work outcomes. Additionally, future research should continue to use the CBLS to examine its predictive role in different relevant work-related outcomes, such as job satisfaction, job commitment, and goal attainment.

Fourth, the research design of the two quasi-experimental studies (chapter 4 and 5) had to be adapted to the organizational context and requirements, and so some adjustments were made. For instance, a strictly randomized assignment of the participants to the experimental conditions was not possible. Additionally, the waiting-list control groups started the program immediately after the experimental groups finished, and so comparisons of the two conditions at FUP could not be assessed.

Fifth, the sample sizes in both studies (chapter 4 and 5) were not large enough to make assumptions about the general efficacy of the interventions. However, previous research stated that statistical significance could also be influenced by small sample sizes (Cumming, 2014). In line with this assumption, the majority of the effect sizes obtained ranged from moderate to large, and the findings were novel. Moreover, this study aimed to approach fieldwork activities as much as possible. Nevertheless, future research should extend and replicate this study in more diverse and larger samples to improve the generalizability of the results. Furthermore, the studies reported on data collected in one specific organization within the automotive sector, and thus the findings cannot be generalized to other settings. Therefore, future research should implement and explore the impact of these interventions in companies of other sectors.

As a complementary approach, further research is needed to better understand the underlying psychological mechanisms throughout the intervention program that can influence the outcome variables. Evaluation through diary studies could also yield relevant information in this subject. Future studies could also evaluate the impact of the CBL intervention programs on employees' variables of well-being and performance, in addition to objective organizational performance metrics in order to reinforce the results obtained in chapter 3 (Study 2).

Final note

With the results on the different studies, it is possible to confirm that this thesis contributes to the emerging field of literature on CBL by addressing its concept, attributes, measurement, development, and role in enhancing personal development, psychological well-being and performance in the work field. Additionally, we believe that our results may be relevant for organizations willing to adopt a relational approach to leadership, as it offers effective positive interventions aim to develop and increase CBL. Leaders and managers that adapt this leadership style impact positively on the enhancement of personal resources, work engagement and performance. Thus, focusing on the development of coaching-based leaders is also important for organizations that wish to become healthy and productive, especially in the current era characterized by crisis and institutional failures (Scharmer, 2017).

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SUMMARY (English)

The main objective of this thesis project is to advance the stream of research on coaching-based leadership by providing theoretical and empirical evidence for its value and role within the organizational context. To achieve this goal, several research questions related to the knowledge gaps detected in the literature were established and grouped into the following five challenges:

1. *How can coaching-based leadership be conceptualized within the organizational context?*
2. *How can coaching-based leadership be reliable and validly measured within the organizational context?*
3. *What is the relationship between coaching-based leadership and work engagement and performance?*
4. *How can coaching-based leadership in organizations be achieved?*
5. *What is the impact of developing coaching-based leadership on work-related outcomes such as psychological capital, work engagement, and in-role and extra-role performance?*

These challenges are addressed in several chapters that include theoretical and empirical studies. First, a systematic review is presented (chapter 2), which provides an overview of the coaching-based leadership concept, measurement, and links with two key work-related outcomes (work engagement and performance). Next, two related empirical studies were included in chapter 3, aimed to design and validate a specific coaching-based leadership scale (Study 1), and to analyse its links and underlying mechanisms with work related outcomes (psychological capital, work engagement and in-role and extra-role performance). Finally, two longitudinal quasi-experimental studies were conducted. Specifically, chapter 4 explores the impact of a strengths-based micro-coaching program on work engagement and performance, with the ultimate goal of validating positive interventions aim to develop coaching-based leadership in organizations. Finally, chapter 5 examines the efficacy of a coaching-based leadership intervention program based on the aforementioned strengths-based micro-coaching approach, on enhancing coaching-based leadership skills, psychological capital, work engagement, and in-role and extra-role performance. All these chapters are framed by a general introduction (chapter 1) and general conclusions (chapter 6).

To test the hypothesis, this test includes different research methodologies and designs, samples of workers from different countries and sectors, and different data analysis. The results of the different studies advance on the coaching-based leadership theory development by shedding light on its concept, underlying dimensions, measurement, and key role in enhancing personal resources, psychological well-being, and performance. They also highlight the usefulness of positive interventions to develop and increase this leadership style in organizations and its impact on work outcomes.

RESUMEN (Español)

El principal objetivo de esta tesis doctoral es profundizar en el conocimiento científico sobre el liderazgo coaching, proporcionando evidencia teórica y empírica de su valor y función dentro del contexto organizacional. Para alcanzar este objetivo, se plantean diferentes preguntas de investigación relacionadas con los vacíos de conocimiento detectados en la literatura. Dichas preguntas fueron agrupadas en los siguientes cinco retos:

1. ¿Cómo puede ser conceptualizado el liderazgo coaching dentro del contexto organizacional?

2. ¿Cómo puede ser medido válidamente el liderazgo coaching dentro del contexto organizacional?

3. ¿Cuál es la relación entre el liderazgo coaching y el engagement y el desempeño en el trabajo?

4. ¿Cómo puede desarrollarse el liderazgo coaching en las organizaciones?

5. ¿Cuál es el impacto de desarrollar liderazgo coaching sobre variables resultado como el capital psicológico, el engagement, y el desempeño in- y extra-rol?

Estos retos se intentan abordan en diferentes capítulos basados en estudios teóricos y empíricos. En primer lugar, se presenta una revisión sistemática (capítulo 2), que proporciona una revisión del concepto y medición de liderazgo coaching y relación con el *engagement* y desempeño en entornos de trabajo. A continuación, el capítulo 3 aborda dos estudios empíricos relacionados, con el objetivo de diseñar y validar una escala específica de liderazgo coaching (Estudio 1), y analizar los vínculos y mecanismos subyacentes con variables de resultados del trabajo (capital psicológico, *engagement* y desempeño in-rol y extra-rol). Finalmente, se realizaron dos estudios longitudinales cuasi-experimentales. Específicamente, el capítulo 4 explora el impacto de un programa de micro-coaching basado en fortalezas en el *engagement* y el desempeño, con el objetivo final de validar intervenciones positivas que desarrollen líderes como coaches en las organizaciones. Finalmente, el capítulo 5 examina el impacto de un programa de intervención de liderazgo coaching basado en el anteriormente mencionado enfoque de micro-coaching basado en fortalezas, en la mejora de las habilidades coaching, capital psicológico, *engagement* y desempeño in-rol y extra-rol. Todos estos capítulos están enmarcados por una introducción general (capítulo 1) y conclusiones generales (capítulo 6).

Para poner a prueba las hipótesis, esta tesis incluye diferentes metodologías y diseños de investigación, muestras de trabajadores de diferentes países y sectores, y diferentes análisis de datos. Los resultados de los estudios contribuyen al desarrollo de una teoría del liderazgo coaching al arrojar luz sobre su concepto, dimensiones subyacentes, medición y rol clave en la mejora de los recursos personales, el bienestar psicológico y el desempeño en el trabajo. Además, destacan la efectividad de intervenciones positivas para desarrollar e incrementar este estilo de liderazgo en las organizaciones y su impacto en los resultados positivos del trabajo.

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