

Development and validation of the coaching-based leadership scale and its relationship with psychological capital, work engagement, and performance

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Abstract

Coaching-based leadership (CBL) is becoming increasingly popular in organizations because of its potential benefits for employees' growth, well-being, and performance. For these reasons, valid and reliable assessment instruments of CBL are necessary. Two related studies were conducted. Study 1 reports the development and validation of the CBL Scale (CBLS) with a sample of 706 employees and leaders from Spain and Latin American countries. 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. Study 2 examines the relationships between CBL and work-related outcomes in a sample of 252 employees. Results from structural equation modeling revealed that CBL is positively related to work engagement through the mediation of psychological capital and to in- and extra-role performance through work engagement. Findings help answer important questions about the value of CBL as a promising job resource that can positively impact well-being and performance in the workplace. Practical implications are discussed on the potential of CBLS to be used for assessment and training.

Keywords Coaching leadership · Scale development · Work engagement · Performance

To become healthy and engage in competitive innovation, organizations require new approaches to leadership. Coaching-Based Leadership (CBL; also known as leader as a coach or managerial coaching; Milner, McCarthy, & Milner, 2018; Pousa, Richards, & Trépanier, 2018) has gained considerable attention as a critical indicator of effective managerial behaviour to influence employees without relying on formal authority (Ellinger & Ellinger, 2020; Pousa et al., 2018).

As noted by Cox, Bachkirova, and Clutterbuck (2010), coaching leaders support and challenge employees to help them maximize their talents and achieve individual development goals (Berg & Karlsen, 2016). Coaching skills are essential leader behaviours that help organizations create a competitive advantage (Lee, Idris, & Tuckey, 2019). CBL lies at

the heart of leadership effectiveness, mainly through daily interactions between the leader and his/her followers (Peláez Zuberbühler, Salanova, & Martínez, 2020). This recent approach to leadership is conceived as a new paradigm that seeks to reduce the hierarchical space between the leader and the employee. Previous developments in leadership theory, such as transformational or authentic leadership, are better able to guide leaders' behaviours, but are still not able to pinpoint the most effective micro-behaviours that effective leaders exhibit (Hagen & Aguilar, 2012). Thus, CBL may act as a pathway through which these leadership styles exert their effect. Accordingly, coaching-based leaders have been identified as crucial in organizational settings because of the adoption of a relation-oriented approach to supervision that may prove beneficial to employees' growth, well-being, and performance (Bormann & Rowold, 2018; Peláez, 2020). Although CBL is becoming prevalent as a new managerial paradigm in interactions with employees, relatively little is known about what this construct entails (Karlsen & Berg, 2020). Identifying the attributes that are most frequently associated with this leadership approach may provide insight into the concept and further theory development. It may also assist in relating CBL with other leadership styles, such as

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transformational or authentic leadership more clearly (Berg & Karlsen, 2016),

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, Taylor, Chau, & Dwight, 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 actual 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

The new approach to CBL has been emerging in the past few years from the intersection of research on coaching, leadership, and management (DiGirolamo & Tkach, 2019; Kemp, 2009; Peláez, 2020; Peláez Zuberbühler et al., 2020). Coaching is defined as a collaborative relationship between a coach and a coachee, oriented towards facilitating goal attainment and individual change (Grant & Gerrard, 2020). 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, leaders use a more conversational approach rather than structured sessions (DiGirolamo & Tkach, 2019; Grant, 2010).

Although little has been written on CBL (Karlsen & Berg, 2020), research in the past decade has expanded its conceptualization (Peláez Zuberbühler et al., 2020). Researchers have defined the coaching style of leadership 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, Welch, and Welch (2012) further suggested that coaching is one of the leadership constructs 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, Miraglia, & Borgogni, 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, Ellinger, Bachrach, Wang, & Elmadağ Baş, 2011). In using coaching skills, managers enable employees to generate their own answers and reach greater development and performance (Grant & O'Connor, 2010; Milner et al., 2018). More recently, Karlsen and Berg (2020) stated that leaders use coaching as the main method to empower self-regulation, self-leadership and build personal strengths on their employees.

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 personal recognition, 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, van Woerkom, van Kollenburg, & Poell, 2018). 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). Considering that leaders' coaching behaviours refer to oneon-one interactions between a leader and an employee aimed at stimulating individual growth (Anderson, 2013), they may therefore be more suitable in the delivery of transformational leadership abilities by the use of such individual microbehaviours (Hagen & Aguilar, 2012). Moreover, to meet the intrinsic needs of employees, transformational leaders must have emotional abilities at their disposal, such as sensitivity towards employees' emotional needs and empathy (Lange, Bormann, & Rowold, 2018). Coaching-based leaders may deliver such abilities in their day-to-day interactions with employees. These assumptions are in line with a recent study that has confirmed the effects of transformational leadership on employees' attitudes (e.g. work engagement and turnover intentions) through the leader's coaching behaviours (Lee et al., 2019).

CBL may also share commonalities with authentic leadership, defined as a pattern of leader behavior that enhance selfawareness, an internalized moral perspective, balanced processing of information, and relational transparency, fostering positive self- and followers' development (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Although both leadership styles focus on the employee's development, authentic leaders' objective is to achieve authenticity (Gardner, Avolio, Luthans, May, & Walumbwa, 2005), whereas coaching-based leaders attempt to help employees maximize their capacities and generate their own answers to achieve positive work outcomes (Goleman et al., 2012; Peláez Zuberbühler et al., 2020). By engaging in daily interactions with employees, the leaders may be able to effectively communicate their needs to subordinates in a transparent way to build meaningful relationships, thereby increasing authenticity (Nübold, Van Quaquebeke, & Hülsheger, 2020). Overall,

in an attempt to provide an integrative model of leadership behaviours, Behrendt, Matz, and Göritz (2017) highlighted that the influence of different leadership styles occurs through concrete micro-behaviours. Therefore, in the context of employee development, CBL represents key leadership behaviours that may explain the link between leadership styles, such as authentic or transformational leadership, and desirable employee outcomes such as increased well-being and performance (Lee et al., 2019).

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 practice that supports and provides constructive feedback designed to get the most out of people (Ellinger & Ellinger, 2020). Recently, DiGirolamo and Tkach (2019) proposed that coaching skills could be adopted by managers, as part of a participative style of management, and by leaders, 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. 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 to be successful. 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 CBL theory.

CBL is inspired on the Leader-Member Exchange (LMX) theory (Graen & Schiemann, 1978), which states that leaders can develop high-quality relationships with employees. And these relations are 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-ascoach role and employees (Anderson, 2013; Pousa, Mathieu, & Trépanier, 2017). Despite the efforts made in advancing CBL's theoretical framework, further research is needed to achieve an integrated theory that clarifies the attributes and establishes a strong foundation for CBL (Karlsen & Berg, 2020). From a psychosocial perspective, the Job Demand-Resources (JD-R) model has suggested coaching provided by leaders as an important job (social) resource that facilitates a motivational process that enhances positive work-related outcomes (Schaufeli & Bakker, 2004).

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 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. This framework explains the progressive antecedents and building process common to effective and professionally impactful coaching and leadership relationships, based on an active process of introspection, reflection, and self-management for maximizing the leader's positive effect in the relationship. As a result, the leader is able to listen and dialogue to the core of what is being communicated, sharing to build a collaborative relationship with employees, and questioning to raising self-awareness. 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 approach, to identify and gain insight into the concept and develop measurement instruments (Karlsen & Berg, 2020; Kemp, 2009). Therefore, the theoretical contribution of this study to the leadership literature is to identify and determine the specific CBLS micro-behaviours and their relationship with workrelated outcomes, such as PsyCap, work engagement and performance. From a practical perspective, we aim to contribute with a validated measure to effectively assess this CBL attributes in leaders within the organizational context.

Review of Previous Validated Measures

Although research on CBL is increasing, there is still no specific and validated 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, Ellinger, & Keller, 2003), the Measurement Model of Coaching Skills (Park, McLean, & Yang, 2008), and the Behavioural Observation Scale (Heslin, Vandewalle, & Latham, 2006). Other instruments developed in the past decade, but less popular among researchers, are the Goal-focused Coaching Skills Questionnaire (Grant & Cavanagh, 2007), the Perceived Quality of the Employee Coaching Relationship scale (Gregory & Levy, 2011), the Managerial Coaching Assessment System (David & Matu, 2013), and the Manager and Leader Coaching Composite scale (DiGirolamo & Tkach, 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 several limitations, both theoretical and methodological. Regarding the theoretical aspect, some of the items were more related to managing than to coaching. Examples of this are setting and communicating expectations 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 and 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; McLean, Yang, Kuo, Tolbert, & Larkin, 2005). This latter scale also received criticism due to its association with the sports field (Peterson and Little, 2005).

In terms of methodology, most of the scales were criticized for the lack of a rigorous validation process or robust 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 & Tkach, 2019; Ellinger et al., 2003; Grant & Cavanagh, 2007; Heslin et al., 2006). Recently, a new scale was developed that integrated a coaching approach to both managers and leaders (DiGirolamo & Tkach, 2019). However, the authors acknowledged that they didn't follow a rigorous scale development process, and recognized more work is needed to develop better measures further. Finally, despite the aforementioned international scales measuring the manager as coach, none of them are available in Spanish or Latin American countries.

Organizations are increasingly asking their managers and leaders to communicate as coaches and, thus, use a wide variety of emotional, cognitive, and behavioural techniques to enhance the optimal functioning of their subordinates (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 systematic review of the literature, which is not part of this manuscript, was undertaken to identify key dimensions that underlie a CBL (Peláez, 2020). 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.

- Working alliance. Developing a working alliance refers (I) to the creation of a safe and strong relationship that contributes to the establishment of mutual respect, trust, and transparency (Gyllensten & Palmer, 2007; Karlsen & Berg, 2020). Effective coaching involves showing genuine interest in employees' well-being 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, and caring relationship with employees (Graham, Wedman, & Garvin-Kester, 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, Gilley, & Kouider, 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; Whitmore, 2002). 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). To build profound relationships, the leader listens, hears and responds with compassion to the employee in a way that minimizes 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; 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 (Karlsen & Berg, 2020). 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, Schmidt, & Hayes, 2002) and more likely to reach their goals (Linley, Nielsen, Gillett, & Biswas–Diener, 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). Coaching leaders and managers work collaboratively with each employee to set challenging development goals that motivate performance (Dahling et al., 2016). To make consistent progress, they help employees to monitor and evaluate their progress and manage both responsibilities in the process (Grant & Cavanagh, 2007).

Outcomes of Coaching-Based Leadership

From a psychosocial perspective, leadership is considered a valuable social resource with a positive impact on aspects of psychosocial well-being, such as work engagement and PsyCap, as well as on healthy organizational outcomes, such as performance (Salanova, Llorens, Cifre, & Martínez, 2012). Thus, the study of these three specific indicators of leadership's influence is of increasing interest in the CBL literature.

Psychological Capital

The Conservation of Resources (COR) theory (Hobfoll, 2002) posits that individuals seek to obtain, retain, and protect personal resources to control and impact their environment effectively. Based on the COR theory, Luthans, Youssef, and Avolio (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 JD-R model, Bakker and Demerouti (2017) 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 direct 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, Bakker, Demerouti, & Schaufeli, 2007). More recently, Peláez Zuberbühler et al. (2020) demonstrated the positive impact of a CBL intervention program on the participants' levels of PsyCap.

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, & Salanova, 2006).

Practitioner literature has highlighted the potential role of leadership in enhancing this positive work-related outcome (Shuck & Herd, 2012). From a psychosocial perspective based on the JD-R model, 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, Griffin, Parker, & Mason, 2015) and, thus, engendering a sense of attachment to their jobs (Christian,

Garza, & Slaughter, 2011). Although research exploring the association between leaders or managers as coaches and employee work engagement is increasing (Ali, Lodhi, Raza, & Ali, 2018; Ladyshewsky & Taplin, 2018; Lee et al., 2019; Milner et al., 2018; Peláez Zuberbühler et al., 2020; Tanskanen, Mäkelä, & Viitala, 2019), investigation on this link is still in its infancy.

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 growing literature on coaching has identified job performance as one of the frequently reported outcome variables of managerial coaching (Hagen, 2012; Hui and Sue-Chan, 2018; Kim & Kuo, 2015; Tanskanen et al., 2019; Zuñiga-Collazos, Castillo-Palacio, Montaña-Narváez, & Castillo-Arévalo, 2020). Managers as coaches enhance employee inrole performance by clarifying goals, delivering instant feedback, and providing resources to achieve their goals (Kim, 2014; Kim & Kuo, 2015). Previous research has revealed a positive and direct link between supervisory coaching skills and employee in-role performance (Agarwal, Angst, & Magni, 2009; Ellinger et al., 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, Ali, Ahmed, & Ahmad, 2018). Previous research has also revealed that managerial coaching positively influences organizational citizenship behaviours (Ellinger et al., 2011; Kim & Kuo, 2015). However, there are still few 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 (Peláez Zuberbühler et al., 2020).

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, Avey, Avolio, & Peterson, 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, 2017). 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. In line with this assumption, coaching-based leaders may activate employees' internal motivation by directly enhancing learning and personal development (Lee et al., 2019). They do so by using specific micro-behaviours such as listening with empathy and compassion, asking powerful questions, creating a safe environment that contributes to the establishment of trust, and helping employees to identify and use personal strengths. Thus, under the motivational pathway of the JD-R model, the coaching-based leader may directly enhance development by supporting employees to reflect on their experiences and build skills and personal resources (Strauss et al., 2015).

As Luthans, Avey, Avolio, Norman, and Combs (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, Pirola-Merlo, Sarros, & Islam, 2010). Other studies have examined the mediating role played by PsyCap in linking transformational and authentic leadership behaviour to employees' work outcomes (Newman, Ucbasaran, Zhu, & Hirst, 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.

Work Engagement as a Mediator between Coaching-Based Leadership and Performance Via PsyCap

A variety of studies have analyzed the positive link between work engagement and in-role and extra-role performance

(Christian et al., 2011; Eldor & Harpaz, 2016; Schaufeli, Taris, & Bakker, 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 the development of personal resources, work engagement and, consequently, encourages employees to meet their goals and achieve better performance (Bakker & Demerouti, 2017; Llorens-Gumbau & Salanova-Soria, 2014; Xanthopoulou et al., 2007).).

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. Lee et al. (2019) found that work engagement mediated the relationship between supervisory coaching and turnover intention. Finally, Alessandri, Consiglio, Luthans, and Borgogni (2018) tested and confirmed a dynamic mediational model posing work engagement as the mediator of the longitudinal relation between PsyCap and job performance. Despite interesting findings, there is a lack of studies that analyse the mediating role of work engagement in the relationship between PsyCap and performance and 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.

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 nonexecutive 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 2 to 74 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

Following McCoach, Gable, and Madura (2013), several steps were taken to determine the CBLS attributes, and thus generate the items. First, the whole CBL construct was described and defined. Second, initial content specifications were developed based on a systematic review of the literature on coaching and leadership theory and existing coaching and managerial coaching instruments published elsewhere (manuscript under review). As an outcome of the systematic review process, four initial factors were identified, and a total of 61 items were drafted based on the content from existing scales and proposed theoretical models of managerial coaching and leadership coaching skills. Through a structured interview process, the initial list of 61 items was submitted to a group of three expert judges in work and organizational psychology who discarded a total of 20 items and agreed unanimously on the propposed domains from where the initial factor structure of the scale stems from.

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 wastested in a pilot study with a small group of participants (doctoral students; n = 10) to verify the items' clarity and content. Based on the group's feedback, we made minor changes 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. 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 authors' research team's web site and was disseminated via social networks. For both samples, employees were asked to take part voluntarily, and the confidentiality of their replies was guaranteed according to GDPL laws. Informed consent was obtained from all individual participants at the beginning of the questionnaire.

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 factors: (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 16item scale is presented in the appendix.

Transformational Leadership This construct was assessed by the Transformational Leadership questionnaire (Rafferty & 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"*; $\alpha = .90$); (2) inspirational communication (i.e., *"Says things that make employees proud to be part of this organization"*; $\alpha = .92$); (3) intellectual stimulation (i.e., *"Challenges me to think about old problems in new ways"*; $\alpha = .91$); (4) supportive leadership (i.e., *"Sees that the interests of employees are given due consideration"*; $\alpha = .92$); and (5) personal recognition (i.e., *"Commends me when I do a better than average job"*; $\alpha = .96$).

Authentic Leadership Authentic leadership was measured with the 16-item Authentic Leadership Questionnaire (Walumbwa et al., 2008), adapted to Spanish by Moriano, Molero, and Lévy (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"; $\alpha = .85$); (2) relational transparency with 5 items (i.e. "Says exactly what he or she means"; $\alpha = .74$); (3) balanced processing with 3 items (i.e. "Solicits views that challenge his or her deeply held positions"; $\alpha = .74$); and (4) internalized moral perspective with 4 items (i.e. "Makes decisions based on his/her core beliefs"; $\alpha = .82$).

Work Engagement Measured with the 9-item short version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006). The scale includes three dimensions containing three items each: (1) vigour (i.e.: "*At my work, I feel bursting with energy*"; $\alpha = .92$); (2) dedication (i.e.: "*I am enthusiastic about my job*"; $\alpha = .84$); and (3)

absorption (i.e.: "*I am immersed in my work*"; $\alpha = .81$). 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*"; $\alpha = .75$) and (2) extra-role performance (i.e., "*He/she helps other employees with their work when they have been absent*"; $\alpha = .83$). 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, to establish convergent validity for the structure of the scale we performed a confirmatory factor analysis to establish the initial factor structure of the 41-item scale. We tested a fourfactor covariate model against a single factor model and established reliability, and discriminant and convergent validity measures [i.e., Composite Reliability (CR), Average Variance Extracted (AVE), and Maximum Shared Variance, (MSV)] using the four-factor solution according to the cutoff points suggested by Hair, Black, Babin, and Anderson (2010). Second, we tested a four-factor model with a second-order factor reflecting CBL. 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), and used the cut off points suggested by Schreiber, Nora, Stage, Barlow, and King (2006). Then, we performed an exploratory factor analysis using structural equation modelling (EFA-ESEM, Asparouhov & Muthén, 2009) with GEOMIN rotation and the robust weighted least squares estimation method (WLSMV) to develop a brief and optimized 16-item scale based on 41-item instrument retaining the secondorder factor solution (Model 1). For the item reduction process, we followed three criteria: (1) presence of strong factor loadings $(\lambda > .5)$, (2) removal of redundant items, and (3) removal of items with strong factor cross-loadings (>.3) as suggested by Xiao, Liu, and Hau (2019).

Next, with the final refined 16-item scale, we performed a CFA to examine the factor structure using the robust maximum likelihood estimation approach retaining the four-factor solution with a second order factor (Model 2).

Furthermore, to measure invariance across groups (i.e., Spanish and Latin American groups), we tested models of configurational (i.e., same structure across groups; Model 3), metric (i.e., same factor loadings across groups; Model 4), and scalar (i.e., same item intercepts across groups: Model 5) 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. Next, to examine differences between gender and age groups on the perception of CBLS, analysis of variance (ANOVA) was conducted for both samples.

Moreover, 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. Finally, 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.

Results

Factor Analyses

Table 1 presents the fit indexes of the three measurement models for the 41-item scale: a covariate or four-factor model, a single-factor model, and a four-factor model with a second order factor. Results of the CFA indicated the single-factor model showed a poor fit to the data, whereas CFA of the proposed four-factor model showed adequate fit for the 41item scale. Using the correlations matrix and the stadarized regression weights of the four-factor solution we calculated reliability and validity indexes. First, composite realiability (CR) for all four factors was between .79 and .84, indicating good reliability. Next, average variance extracted (AVE) was between .51 and .69 for all four factors, indicating acceptable convergent validity. Finally, maximum shared variance (MSV) was between .36 and .45 for all four factors, supporting discriminant validity by showing lower index magnitudes than those in AVE. Next, a four-factor model with a second order factor was tested, which showed the best fit to the data, indicating that this version is a better representation of the observed relationships in both Sample 1 and Sample 2 according to the suggested cutoff points for fit indexes (Schreiber et al., 2006). We kept the four-factor structure with a second order factor for further analyses.

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

Table 1 indicators of it of measurement models, 41 terns (Study 1)													
Model	Parameters	χ^2	<i>d</i> . <i>f</i> .	$\frac{\chi^{2/}}{d.f.}$	р	TLI	CFI	RMSEA	Lower	Upper	WRMR		
Sample 1													
Four-factor	285	3.425.611	939	3.648	.00	.93	.93	.08	.07	.08	1.754		
Single-factor	279	5.561.354	945	5.885	.00	.87	.87	.11	.10	.11	2.402		
Second-order	294	3.269.311	930	3.515	.00	.94	.94	.07	.06	.08	1.632		
Sample 2													
Four-factor	257	2.802.435	939	2.984	.00	.91	.91	.08	.08	.09	1.682		
Single-factor	251	4.018.865	945	4.252	.00	.85	.85	.11	.10	.11	2.125		
Second-order	294	2.672.322	930	2.873	.00	.92	91	.07	.06	.08	1.592		

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Sample 1 = Employees; Sample 2 = Leaders

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.

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 final CFA model. Results indicated large representations for all the items ($\lambda \ge .62$ for Sample 1 and $\lambda \ge .65$ for Sample 2; Cohen, 2013) in the latent variables.

Finally, differences in the perception of CBLS by age and gender groups was examined. For Sample 1, statistically significant differences were found between age range 18-24 and age ranges 25–34 and 35–44 [F (4) = 3.074, p = .016]. This result indicates that employees in the age range 18-24 reported higher values of CBLS in average compared to the other two groups. With regard to gender, statistically significant differences were found in favour of women, meaning that these reported higher values of CBLS in average than men [F (1) = 7.210, p = .008]. For Sample 2, results did not show statistically significant differences between age groups [F (3) = 1.819, p = .144, ns] and between men and women [F (1) = 2.149, p = .144, ns].

Reliability and Correlation Analyses

Tables 4 and 5 show means and standard deviations of the constructs measured for Sample 1 and Sample 2, respectively.

				-								
Model	Parameters	χ^2	d.f.	$\chi^2/d.f.$	р	TLI	CFI	RMSEA	Lower	Upper	WRMR	ΔCFI
Sample 1												
M1 ESEM	141	145.197	62	2.341	.00	.98	.99	.05	.05	.06	0.504	na
M2 SEM/CFA	105	445.783	98	4.548	.00	.96	.97	.08	.08	.09	1.141	na
M3 configural invariance	108	486.121	196	2.480	.00	.88	.92	.05	.05	.06	na	na
M4 metric invariance	92	542.195	212	2.557	.00	.87	.91	.06	.05	.06	na	.009
M5 scalar invariance	70	601.766	234	2.572	.00	.88	.89	.06	.05	.06	na	.01
Sample 2												
M1 ESEM	129	108.778	62	1.754	.00	.98	.99	.05	.04	.07	0.460	na
M2 SEM/CFA	93	305.449	98	4.3.116	.00	.95	.95	.08	.08	.10	1.094	na
M3 configural invariance	108	419.080	196	2.138	.00	.85	.90	.06	.05	.07	na	na
M4 metric invariance	80	478.156	224	2.135	.00	.85	.89	.06	.05	.07	na	.004
M5 scalar invariance	70	489.566	234	2.092	.00	.86	.88	.06	.05	.07	na	.01

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

Sample 1 = Employees; Sample 2 = Leaders

Table 3 CBLS factor loadings ofthe 16-item measurement model(Study 1)

Items	Factor 1		Factor 2		Factor 3		Factor 4		
	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

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 (p < .01) in Sample 2 for transformational leadership, and from .63 to .67 (p < .01) in Sample 1 and from .54 to .66 (p < .01) 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 workrelated outcomes were positively related to each CBLS subscale, 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

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

		CD			1	2	2	4	-	(7	0	0	10
Dimensions	M	SD	α	ω	1	Z	3	4	3	0	/	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

.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.

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 (i.e. working alliance, open communication, learning and development, and progress and results), and a second-order factor reflecting CBL. 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 CBL and work-related outcomes (PsyCap, work engagement, and inrole and extra-role performance). The hypothesized model was explored through the following hypotheses:

Hypothesis 2 (H2): CBL is indirectly associated to workengagement through the mediating role of PsyCap. Hypothesis 3 (H3): PsyCap is indirectly associated to inrole performance through the mediating role of work engagement.

Hypothesis 4 (H4): PsyCap is indirectly associated to extra-role performance through the mediating role of work engagement.

Methodology

Participants and Procedure

Convenience sampling yielded 252 employees with nonexecutive 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 15.2. Respondents' organizational tenure ranged from 0.6 to 45 years, with an average of 11.5 years (SD = 9.0). 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. *PsyCap.* This construct was assessed by the Psychological Capital Questionnaire (PCQ-12; Avey, Avolio, & Luthans, 2011), adapted from the PCQ-24 scale (Luthans, Avolio, Avey, & Norman, 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.: "*I f 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, MacKenzie, Lee, & Podsakoff, 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, Moosbrugger, & Müller, 2003): χ^2 , χ^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, Lockwood, Hoffman, West, & Sheets, 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 self-reported CBL, PsyCap, Work Engagement, In-role and Extra-Role Performance.

Moreover, 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].

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 Fig. 1. Following James, Mulaik, and Brett

Table 6Means, standarddeviations, internal consistencyand inter-correlations of the studyvariables (Study 2)

Variables	М	SD	α	1	2	3	4	5	6	7
1. Age	40.41	10.16	_	_	_	_	_	_	_	_
2. Gender	1.53	0.50	-	11	-	-	_	_	-	_
3. Tenure	11.82	9.95	-	.63**	.02	-	_	_	_	-
4. CBLS	4.58	1.07	0.96	03	.17**	07	_	_	_	-
5. PsyCap	4.73	0.91	0.89	.09	04	05	.27**	_	_	-
6. Work Engagement	4.76	0.78	0.92	.03	.08	07	.45**	.61**	_	-
7. In-Role Performance	5.16	0.80	0.90	00	02	07	.28**	.64**	.44**	_
8. Extra-Role Performance	5.25	0.77	0.82	.03	-05	06	.34**	.46**	.40**	.60**

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



Fig. 1 The final model (M3) with standardized path coefficients and factor loadings (Study 2). ** = p < .001; CBL = Coaching-based Leadership; PsyCap = Psychological Capital; WE = Work Engagement; Ex-Role = Extra-Role

(2006), four models were tested to verify the hypotheses. Our research model (M1) assumes that PsyCap plays a full mediating role in the relationship between CBL and work engagement, and that work engagement plays a full mediating role in the relationship between PsyCap and in-role and extra-role performance. The results presented in Table 7 show that M1 presents a good fit to the data, and that almost all the fit indices met the criteria. The path from CBL to PsyCap was positive and statistically significant ($\beta = .34$, p < 0.001), as was the path from PsyCap to work engagement ($\beta = .73$, p < 0.001), from work engagement to in-role performance ($\beta = .67$, p <0.001), and from work engagement to extra-role performance ($\beta = .42$, p < 0.001). Furthermore, considering that gender was the only sociodemographic variable that showed a significant correlation with the rest of the study variables, we

 Table 7
 Fit indices of the Structural Equation Models (Study 2)

Model	χ^2	d.f.	RMSEA	IFI	CFI	NFI	TLI	AIC
M1	1590.611	837	.06	0.91	0.91	0.83	0.91	1894.611
M2	1765.355	836	.07	0.89	0.89	0.82	0.88	2071.355
M3	1543.751	835	.06	0.92	0.92	0.85	0.91	1867.300
M4	1553.631	836	.06	0.92	0.91	0.84	0.91	1887.568

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

included it in the initial SEM model as a control variable of CBL. Upon examination, gender showed a non-significant relationship with CBLS ($\beta = .006$, p = .548, *ns*) and thus we excluded it from further models.

Next, a new model (M2) was developed that assumes that PsyCap plays a partial mediating role between CBL and work engagement, and that work engagement plays a partial mediating role between CBL and in-role performance and between CBL and extra-role performance. 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 did not fitted the data, and that not all the fit indices met the criteria. Consequently, 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 extrarole 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 PsyCap ($\beta = .29$, p < .001) and to work engagement $(\beta = .31, p < .001)$; PsyCap is directly related to work engagement ($\beta = .63$, p < .001); work engagement is directly related to in-role performance ($\beta = .61$, p < .001) and to extra-role performance ($\beta = .31$, p < .001); and CBL is directly related to extra-role performance ($\beta = .23, p < .05$).

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. M4 also presents a good fit to the data, with statistical and significant links between the variables. Although the difference was not significant ($\Delta \chi 2_{M3-M4}$ (2) = 9.88, *ns*), M3 revealed a better fit to the data than M4. Thus, considering that M3 also revealed a better fit to the data than our research Model (M1), with significant differences between the two models ($\Delta \chi 2_{M3-M1}$ (2) = 29.3, p < .001) and significant relationships between the variables, we opted for M3, which assumes that PsyCap plays a partial mediating role linking CBL to work engagement, that is, with a direct positive link between CBL and work engagement, and that work engagement plays a full mediating role linking PsyCap to in-role performance and extra-role performance and a partial mediating role linking CBL to extra-role performance.

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 PsyCap in the relationship between CBL and work engagement (H2) was statistically significant $(P = \mathbf{Z}_{\alpha} \cdot \mathbf{Z}_{\beta} = 49.09, p < .001)$, as was the direct relationship between CBL and work engagement ($\tau = 0.26, p < .001$). These results suggest a partial mediation effect of PsyCap, partially supporting H2. Furthermore, the mediated effect of work engagement in the relationship between PsyCap and inrole performance (H3; $P = \mathbf{Z}_{\alpha} \cdot \mathbf{Z}_{\beta} = 49.55$, p < .001) and extra-role performance (H4; $P = Z_{\alpha} \cdot Z_{\beta} = 39.13, p < .001$) were statistically significant. These results suggest a full mediation effect of work engagement between PsyCap and inrole performance, confirming H3, and between PsyCap and extra-role performance, also confirming H4. Additionall analysis revealed that the direct relationship between CBL and inrole performance ($\tau = 0.07$, ns) was not statistically significant, whereas the direct relationship between CBL and extrarole performance was statistically significant ($\tau = 0.15$, p < 0.05).

Brief Discussion of Study 2

Results from Study 2 partially supported H2, indicating a partial mediating role of PsyCap in the link between CBL and work engagement. Moreover, H3 and H4 were supported, suggesting a full mediating role of work engagement in the relationship between PsyCap and in-role performance, and between PsyCap and extra-role performance. Results revealed that employees who perceive a CBL 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 behaviours that directly promote the effective functioning of an organization without necessarily directly influencing an employee's productivity (Podsakoff, MacKenzie, Paine, & Bachrach, 2000). Additionally, employees with a coachingbased 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 workrelated 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 fourfactor 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; 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. Furthermore, while leaders perceive their own CBLS style homogeneously, with no differences between gender and age groups, for the employees perspective it was different. Women and workers in the age range 18-24 perceived their coaching-based leaders as significantly more positive than males and older employees. This might be related to participants in both groups (i.e., females and younger employess) being more sensitive to the one-toone relational aspect that CBL highlights. This resonates with the calling for a more inclusive and relation oriented leadership styles by women and younger workers (Javidan, Bullough, & Dibble, 2016).

Regarding criterion validity, findings indicated that the 16item 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. The high levels of correlation between CBL and such leadership constructs are in line with the assumption that coaching-based leaders may act as a mechanism through which they deliver those leadership concepts by the use of specific day-to-day micro-behaviours (Lee et al., 2019). In other words, the influence of authentic and transformational leadership style may occur through concrete coaching behaviours within the day-to-day caring relationship with employees (Behrendt et al., 2017). However, these assumptions remain to be tested in future studies.

With regard to Study 2, interesting results emerged that should be mentioned. First, findings 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; Youssef & 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, Chun-Yang, Pi-Hui, & Ching-Wei, 2019), a positive impact of a CBL intervention program on PsyCap (Peláez Zuberbühler et al., 2020), and for the 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). In the context of employee development, the leader's coaching behaviours are important in activating employees' internal motivation and shaping employee work attitudes and psychological resources (Lee et al., 2019; Lonsdale, 2016). Hence, under the motivational pathway of the JD-R model, the coaching-based leader may directly enhance development by supporting employees to reflect on their experiences and develop skills and personal resources (e.g., self-efficacy, resilience, optimism, hope). In turn, this may help employees to self-regulate their motivation, foster their well-being, and help them achieve an extraordinary performance (Strauss et al., 2015). Nonetheless, 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 concerning analyzing and confirming the direct influence of the leader's CBL on employees' levels of work engagement and an indirect influence via PsyCap.

Second, findings from Study 2 also 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 PsyCap and in-role and extra-role performance through the full mediating role of work engagement. Also, a direct link from CBL to extra-role, but not in-role performance was found. 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), through the development of personal resources, 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 PsyCap and work engagement and the mediating role of work engagement in the link to job performance (Alessandri et al., 2018). Also, results confirmed a direct link between CBL and work engagement and mediating role of work engagement in the link to in-role 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.

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 (Peláez, 2020; Peláez Zuberbühler et al., 2020). In this process, the CBL proposal is inspired by the LMX theory, given that it has been considered one of the most frequent applications of social- exchange theory to model the exchanges between managers in their leaderas-coach role and employees (Agarwal et al., 2009). Thus, this study contributes to the expansion of LMX theory, reinforcing the quality of the interaction between the leader with coaching capability and employees, based on mutual trust, respect, and support, enabling positive attitudes, behaviours, and outputs (Pousa et al., 2017). Additionally, the current study contributes to the coaching and leadership alliance framework (Kemp, 2009), and extends this approach by demonstrating the construct structure and the progressive building process in terms of a shared caring day-to-day interaction with employees through the use of specific coaching behaviours.

Moreover, the findings advance the theoretical understanding of the potential value and benefits of CBL in organizations by offering empirical support for its positive influence on workrelated outcomes (i.e., work engagement, PsyCap, in-role and extra-role performance). Accordingly, results from the present study contribute to the JD-R theory (Bakker & Demerouti, 2017), 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 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. 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 wellbeing. 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). Overall, we provide evidence and theoretical support for the identification of specific CBL micro-behaviours and their relationship with work-related outcomes, such as PsyCap, work engagement and 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 (Peláez Zuberbühler et al., 2020). Assessment, both selfreported and perceived by others (i.e., employees, top managers, peers) should be considered of key relevance for Human Resources Development practitioners to provide feedback to leaders and help them gain insight into their internal coaching capability and areas of improvement. The development of coaching-based leadership will, in turn, enhance psychological wellbeing (i.e., PsyCap, work engagement) and task and contextual performance in organizations. Therefore, focusing on the development of coaching-based leaders is important for organizations that wish to become healthy and productive, especially in the current era characterized by crisis and institutional failures (Scharmer, 2017).

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 to replicate our results. As a complementary approach, future studies should adapt and test the validity of the scale in non-Spanish-speaking countries to support the use of the scale and compare the results about the role and value of the CBL in different cultures and settings.

Second, the leaders' version of the questionnaire was not used in Study 2. Data in the second study was collected through self-report measures, which could lead to common method bias. However, the Harman test revealed no bias in the common variance method in the database for CBL, PsyCap, Work Engagement, In-role and Extra-role Performance. In order to increase the validity of the scores, future studies should consider both employees' and leaders' versions of the CBLS when analysing the link with workrelated outcomes in individual and multilevel analyses, in addition to non-self-reported and objective measures and the development of longitudinal studies. 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, meaningful work, 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 the mediating role of CBL in the relationship between different leadership styles (i.e. transformational, and authentic) and 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 (Peláez Zuberbühler et al., 2020).

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.

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Declarations

Conflict of Interest The authors declare that they have no conflict of interest.

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