Managerial leadership behaviors: A longitudinal investigation of the role of job demands and resources, and implications for managers' own wellbeing

István Tóth-Király†
Substantive-Methodological Synergy Research Laboratory, Concordia University &
Statistics Canada, Ottawa, Canada
Ethan Katz-Zeitlin†
Substantive-Methodological Synergy Research Laboratory, Concordia University
Simon A. Houle
Substantive-Methodological Synergy Research Laboratory, Concordia University
Claude Fernet
Université du Québec à Trois-Rivières
Alexandre J.S. Morin
Substantive-Methodological Synergy Research Laboratory, Concordia University

† Since the first two authors (I. T.-K. & E. K.-Z.) contributed equally to the preparation of this article, their order was determined at random: both should be considered first authors.

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Corresponding author:
István Tóth-Király, Substantive-Methodological Synergy Research Laboratory
Department of Psychology, Concordia University
7141 Sherbrooke W, Montreal, QC, Canada, H4B 1R6
E-mail: tothkiralyistvan@gmail.com; istvan.toth-kiraly@statcan.gc.ca

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Abstract

Although ample research has documented the implications, and organizational drivers, of leadership behaviors, very little research has considered these associations, and their consequences, from the perspective of managers. The present four-wave longitudinal study addresses this limitation by focusing, using the Job Demands-Resources model, on the work-related drivers (job control, recognition, and workload) of transformational, transactional and laissez-faire leadership behaviors, and the associations between these behaviors and manifestations of managers' psychological wellbeing at work (job satisfaction, burnout, and turnover intentions). Analyzing data from 691 high-level managers (i.e., school principals) using novel random intercept cross-lagged panel model analyses, our results revealed that higher levels of job control and recognition, and lower levels of workload, predicted higher levels of transformational and transactional leadership behaviors. In contrast, laissez-faire leadership behaviors were only negatively predicted by recognition. Transformational leadership was associated with the most desirable outcome levels (higher levels of job satisfaction, lower levels of turnover intentions and burnout), followed by transactional and laissez-faire leadership. Most of these associations were limited to the between-person-level, reflecting stable mechanisms of influence, rather than at the within-person level, suggesting the presence of homeostatic mechanism helping high levels managers to maintain a stable level of functioning over time.

Decades of research have supported the idea that managers' leadership behaviors share widespread associations with a range of work-related outcomes at the level of the employees or teams placed under their supervision (Burke et al., 2006; Ceri-Booms et al., 2017; Day, 2014; Long, & Thean, 2011; Skakon et al., 2010; Zwingmann et al., 2014). These associations are consistent with the idea that managers play an important role in ensuring the smooth functioning of their organization through their direct influence on employee productivity, motivation, and wellbeing. However, despite their important role, very little research has considered these leadership behaviors from the perspective of the managers themselves (e.g., Arnold & Connelly, 2013; Connelly & Arnold, 2011). The present study seeks to address this critically important question by relying on the Job Demands-Resources Model (JD-R; Bakker & Demerouti, 2007, 2017) to identify job demands and resources that may influence managers' leadership behaviors, and how these behaviors might in turn influence their own wellbeing (job satisfaction and burnout) and turnover intentions. In doing so, we examine these associations longitudinally while simultaneously considering how they occur at the trait (stable levels observed across the study period) and state (time-specific fluctuations) levels.

The Full Range Model of Leadership

Drawing on the full range model of leadership (Bass, 1985; Bass & Riggio, 2006; Burns, 1978), we focus on three of the most studied leadership behaviors (Dinh et al., 2014). First, *transformational leadership* involves behaviors that contribute to shape employees' values, beliefs, and needs (Burns, 1978). Transformational leaders inspire and motivate their employees, support employees' personal growth, and promote growth and innovation in their work units. Transformational leadership behaviors are seen as contributing to the satisfaction of employees' basic psychological needs, to increase their desire to fulfill their own potential, but also to help employees overlook their own idiosyncratic interests to focus on the interests and needs of the workgroup (e.g., Bass, 1990; Waldman et al., 1987). In contrast, *transactional leadership* involves the exchange of resources and information as part of daily task-focused transactions occurring between managers and their employees (Judge & Piccolo, 2004). Thus, rather than focusing on improvements and growth (like transformational leadership), transactional leadership behaviors are concerned with the smooth accomplishment of the organization's core objectives on a day-to-day basis. Initially seen as the opposite of transformational leadership (Burns, 1978), transactional leadership has come to be seen as a complementary, and equally desirable, set of leadership skills (Bass, 1985; Judge & Piccolo, 2004). Finally, *laissez-faire leadership* (Bass, 1985) occurs when managers abdicate their responsibilities by displaying a lack of involvement in managing tasks and a lack of interest in employees. Laissez-faire leaders often fail to exert their authority by avoiding making important decisions or withholding corrective managerial actions. So far, research has highlighted the benefits of transformational leadership and the risks associated with laissez-faire leadership, with transactional leadership falling in between (e.g., Day, 2014; Skakon et al., 2010; Zwingmann et al., 2014). However, this research has yet to systematically consider what drives managers to adopt these various types of leadership behaviors, or how the adoption of these different behaviors might affect the managers themselves.

A Job-Demands Resource Perspective on Managers' Leadership Behaviors

The JD-R model (Bakker & Demerouti, 2007, 2017) distinguishes two types of work characteristics likely to have an impact on employees' and managers' workplace behaviors and psychological functioning. Job demands (including pressure, workload, or emotionally demanding interactions) are aspects of work that require a sustained effort and are likely to take a physical and psychological toll on exposed individuals (Demerouti et al., 2001). In contrast, job resources (including autonomy, support, or constructive feedback) are aspects of work that help to nurture and support growth, motivation, and performance among exposed individuals, in addition to helping them more efficiently manage the demands of their job (Demerouti et al., 2001).

According to the JD-R model, two complementary psychological mechanisms are expected to underpin the effects of job demands and resources. First, individuals exposed to demands that continually outweigh their resources are expected to be more likely to experience a variety of adverse outcomes due to the progressive depletion of, and inability to restore, their psychological resources. Second, job resources are expected to be instrumental for achieving work goals. They also help individuals to compensate for, and to overcome, their job demands, in turn leading to more desirable outcomes. Generally, previous research has supported these assertions, revealing that the persistent exposure to job demands tend to predict higher levels of burnout, sick leaves, as well as various other

undesirable outcomes, whereas the availability of job resources tended to be associated with wellbeing, performance, and intentions to stay (Alarcon, 2011; Bakker, & Demerouti, 2007, 2017; Lesener et al., 2019). For managers, leadership behaviors represent one critical aspect of their work performance, likely to be affected by their own levels of work motivation, energy, and wellbeing. As such, from the perspective of the JD-R model, job demands and resources can be expected to influence managers' ability to rely on more efficient leadership behaviors.

The present study considers three work characteristics that have long been considered to represent important types of job demands or resources in the JD-R research literature, namely workload, job control, and recognition. The selection of these predictors was guided by self-determination theory (Deci & Ryan, 2000; Ryan & Deci, 2017), which suggest that human functioning in general, and thus managers' leadership behaviors more specifically, are likely to be driven by the extent to which their basic psychological needs for autonomy, relatedness and competence are satisfied. First, job control refers to individuals' ability to benefit from occupational and decisional autonomy regarding how to organize their own work schedule and how to perform that daily job, and thus represents an important type of job resource (Leiter & Maslach, 2003) that shares a close conceptual connection with the need for autonomy (Fernet & Austin, 2014). Job control might be particularly important for the types of managers considered in the present study (i.e., school principals), who have to lead an organization (i.e., schools) but to do so while having to follow decisions made by school boards or the government. Recognition represents another important job resource, referring to individuals' feelings of being recognized and valued for their work either informally (e.g., positive feedback or signs of appreciation) or formally (e.g., rewards) (Leiter & Maslach, 2003), and thus shares close conceptual similarities with the needs for relatedness and competence (Fernet et al., 2012). For managers, recognition thus conveys an impression of being appreciated by the organization, which is likely to enhance their sense of belongingness, while also representing a positive form of feedback in relation to their own performance, which in turn is likely to nurture their feelings of competence. Finally, workload refers to individuals' perceptions of being exposed to (un)manageable job demands, with higher workload perceptions providing a core indicator of one's exposure to job demands (Leiter & Maslach, 2003). From the perspective of SDT, workload can be considered as a source of interference with the satisfaction of all three basic psychological needs (Fernet & Austin, 2014), as it forces managers to focus on external demands, rather than on the satisfaction of their own basic psychological needs.

Research conducted in the leadership area has already demonstrated significant associations between employees' perceptions of their supervisors' leadership behaviors and of various forms of job demands and resources present in their workplaces (Tummers & Bakker, 2021), including workload (e.g., Breevaart & Bakker, 2018; Lewis & Cunningham, 2016), job control (e.g., Lewis & Cunningham, 2016), and recognition (e.g., Lewis & Cunningham, 2016). However, once again, the bulk of previous research has ignored the managers' own perspective in these associations. Among the few exceptions, Lee and Cummings (2008) reported statistically significant associations between various measures of leadership behaviors and managers' perception of workload, job control, and reward, although this study tested reversed associations whereby leadership behaviors were conceptualized as predictors of the job demands and resources present in the workplace as a whole, rather than to the managers' own exposure to these work characteristics. More recently, Rosen et al. (2019) revealed that managers exposed to higher email demands (i.e., a form of workload) and to lower levels of job control were less likely to engage in transformational behaviors. Likewise, Sherf et al. (2019) found that managers reporting higher workloads and lower levels of recognition were more likely to behave in an unjust manner toward their subordinate. Although limited (i.e., few studies, all cross-sectional, and based on a diversified set of leadership behaviors and work characteristics), current research thus suggests that being exposed to a lack of job resources and to a high level of job demands seem to make it harder for managers to regulate their own leadership behaviors, leading to a decrease in desirable leadership behaviors (e.g., transformational and transactional) and to an increase in less desirable leadership behaviors (e.g., laissez-faire).

The cross-sectional nature of these previous studies, apart from making it impossible to clearly establish the temporal precedence of these associations (are poor leadership behaviors predicted by a lack of resources, or are poor leadership behaviors predictive of this lack of resources), also make it impossible to clearly disaggregate the "trait" and "state" components of these associations. More precisely, a first possible source of influence stems from managers' exposure to persistent (e.g., stable)

levels of job demands and resources likely to exert a stable influence on their behaviors over time (i.e., a between-person association). Then, a second possible source of influence stems from time-specific fluctuations in the levels of job demands and resources present in their workplace, which are also likely to exert a more circumscribed impact on managers' behaviors at a specific point in time (a within-person association). This assumption is in line with the JD-R model, which explicitly states that chronic (as opposed to temporary) exposure to job demands and resources is likely to lead to outcomes levels that are more persistent over time (Demerouti et al., 2010). In contrast, temporary increases or decreases in job demands and resources remain likely to reduce or increase managers' ability to rely on specific types of leadership behaviors at a specific point in time. Although these more temporary effects are less likely to persist over time, they are still likely to exert an impact on exposed managers, and in turn, on the functioning of the organization.

> **Hypothesis 1-2.** We expect managers' transformational (Hypothesis 1) and transactional (Hypothesis 2) leadership behaviors to be negatively predicted by their own workload and positively predicted by their own job control and recognition.

> **Hypothesis 3.** We expect managers' laissez-faire leadership behaviors to be positively predicted by their own workload and negatively predicted by their own job control and recognition).

Leadership Behaviors and Managers' Wellbeing

Despite the well-documented impact of leadership behaviors on outcomes located at the employee or work unit level (e.g., Day, 2014; Skakon et al., 2010; Zwingmann et al., 2014), very little research has considered how the reliance on different types of leadership behaviors might influence managers' own psychological functioning and desire to remain in their position. In the present study, we first address this limitation by focusing on one negative (i.e., burnout) and on one positive (i.e., job satisfaction) psychological manifestations of managers' psychological wellbeing at work (e.g., Bakker & Oerlemans, 2011). Arguably, burnout is one of the most extensively studied negative manifestation of psychological wellbeing at work and is known to carry a heavy burden that impacts both the affected employees, but also their employing organizations (Maslach et al., 2001). Burnout is defined by the different theoretical approaches as a psychological state stemming from work-related strain and characterized by emotional (i.e., emotional exhaustion), cognitive (i.e., feelings of disconnection from work), and behavioral (i.e., reduced professional efficacy) manifestations (Maslach et al., 1997; Shirom & Melamed, 2006). At the other end of the spectrum, job satisfaction represents one of the most frequently studied positive manifestation of psychological wellbeing at work (Judge et al., 2001; Ryan & Deci, 2001). Finally, we also consider turnover intentions, which has long been considered as a key focal outcome in organizational research because of its role as the main determinant of voluntary turnover, and as a core indicator that the current work situation has lost its appeal for individuals (e.g., Heavey et al., 2013; Rubenstein et al., 2018).

From a JD-R perspective, to achieve the most optimal work outcomes for themselves (e.g., job satisfaction, low burnout, and low turnover intentions), managers should rely on behaviors that are the least demanding for them (i.e., low job demands), and that help them generate the most supportive and pleasant work environment for them (i.e., high job resources) (Fernet et al., 2015). This creates an interesting dilemma given that, by striving to generate growth, to inspire employees, and to lead them through a stimulating vision of the future, transformational leadership behaviors are also likely to tap into managers' own psychological resources (Arnold et al., 2015; Byrne et al., 2014; Connelly & Arnold, 2011; Zwingmann et al., 2016). However, despite their demanding nature, transformational leadership behaviors are also likely to help create a more resourceful work environment for the managers themselves (i.e., a more satisfied, productive, supportive, and collaborative workplace), and thus should be able to generate long-term benefits that far outweigh their short-terms costs. For instance, when managers support employees' personal growth and psychological need satisfaction, their employees should come to act in a more driven, reliable, and competent manner, allowing managers to delegate more work to them when necessary. These propositions share similarities with the dual-pathway model of leadership and wellbeing (Li et al., 2018), suggesting that transformational leaders may experience better wellbeing because of a resource accumulation process (Hobfoll, 1989). Likewise, many transformational leaders engage in this type of leadership because they perceive it to be rewarding and enjoyable in and of itself, and thus as a way to increase the satisfaction of their own psychological needs, psychological wellbeing, and work functioning (Ryan & Deci, 2017).

In contrast, while laissez-faire leadership is a less demanding type of leadership requiring little

efforts or actions, it will undoubtedly create a more stressful work environment for the managers by generating higher levels of performance difficulties, conflicts and even chaos within the organization (Skogstad et al., 2014; Zwingmann et al., 2016). Such an environment is likely to directly interfere with employees' performance and wellbeing, both of which could lead to frustration and to more work for the manager. This accumulation of work, when coupled with a laisser-faire leadership style, is likely to impact the manager's sense of efficacy and control at work, in turn negatively impacting wellbeing. Empirical studies (Arnold et al., 2015, 2017) have provided support for these propositions by reporting strong positive associations between burnout and managers' self-reported laissez-faire leadership behaviors. Moreover, according to the dual-pathway model of leadership and wellbeing (Li et al., 2018), when facing a problematic work environment (even one created by their own inaction), managers often have to take on additional tasks and duties to restore functioning and productivity. This higher workload, in turn, is likely to negatively impact their wellbeing and work functioning.

Transactional leadership falls in between these two extremes. On the one hand, it is less demanding than transformational leadership, as it does not involve inspirational actions or individualized interactions. On the other hand, through its focus on daily transactions, and on the accomplishment of the task that are critical to the organization's mission, transactional leadership also creates a slightly more resourceful environment, albeit less so than transformational leadership (Judge & Piccolo, 2004). At their core, transactional leadership behaviors are associated with more extrinsic forms of motivation and with a more structured exchange of resources, which are both been found to be only inconsistently associated to work outcomes (Eyal, & Roth, 2011; Schaufeli, 2015). For these reasons, transactional leadership might be associated with some, but not all, outcomes.

Providing further support for these theoretical suggestions, a recent meta-analysis (Kaluza et al., 2020) suggested the presence of positive associations between self-perceptions of wellbeing and more transformational types of leadership behaviors (i.e., focused on change or relations), non-significant associations with more transactional types of leadership behaviors (i.e., task-oriented), and negative associations with passive leadership behaviors (i.e., laissez-faire). However, these meta-analytic conclusions emerge from the combination of employees and managers' reports of leadership behaviors as well as managers' perceptions of their own wellbeing, thus making hard to isolate managers' own perspective. This distinction is important because several psychological theories (e.g., Deci, 1975; Lazarus & Folkman, 1984; Perrewé & Zellars, 1999) as well as empirical studies (e.g., Clarkson et al., 2010; Giant & Vartanian, 2003) have already emphasized the importance of one's perceptions of behaviors rather than the objective presence or absence of said behaviors. Therefore, the present study will contribute to this field by examining the longitudinal associations between different leadership behaviors as perceived by managers and their own wellbeing.

Hypothesis 4. We expect managers' transformational leadership behaviors to be associated with the most optimal outcomes (higher job satisfaction, lower burnout, lower turnover intentions).

Hypothesis 5. We expect managers' laissez-faire leadership behaviors to be associated with less optimal outcomes (lower job satisfaction, higher burnout, higher turnover intentions).

Hypothesis 6. We expect managers' transactional leadership behaviors to be associated with some, but not all, outcomes, but leave as an open research question whether these associations will be positive or negative.

A Longitudinal State-Trait Perspective

To achieve a clearer picture of time-structured longitudinal associations between constructs, one of the most frequent approaches used in research on leadership (e.g., Gagné et al., 2020; Nielsen et al., 2019; Skogstad et al., 2014), or focusing on job demands and resources (e.g., Boyd et al., 2011; Hakanen et al., 2008; Lesener et al., 2019), is the autoregressive cross-lagged model (ARCL). ARCL longitudinally consider how scores on a construct at a specific point in time predict scores on another construct at a later point in time (i.e., the cross-lags) while at the same time considering the longitudinal stability of both constructs (i.e., the autoregressions). However, ARCL models are unable to disaggregate the trait (i.e., stable between-person differences) and state (i.e., within-person time-specific fluctuations) components of these constructs, but rather conflate both sources of influence (Berry & Willoughby, 2017; Hamaker et al., 2015; Mund & Nestler, 2018; Usami et al., 2019). In the current study, time-specific fluctuations (state-like) in leadership indicate a deviation from one's normal or typical leadership style (i.e., trait-like level of transformational, transactional, and laissez-faire leadership) that are likely brought on by any kind of internal or external changes occurring in the lives

of the managers themselves. In this sense, state-like fluctuations in leadership levels can be viewed as an attempt by managers to alter their own leadership style to better accommodate the demands of their work environment or occurring as a result of any change in their own personal circumstances. In the present study, we focus on the former type of driver of these fluctuations.

In line with JD-R model (Bakker & Demerouti, 2007, 2017), leaders who experience a temporary change in their exposure to specific job demands and resources are likely to react to these changes by temporarily adjusting their leadership to better cope with these new circumstances. Leaders will thus have to decide whether an increase or a decrease in their transformational, transactional, or laissez-faire leadership behaviors will help them to cope with these new circumstances. Yet, based on the dual-pathway model (Li et al., 2018), this decision is also likely to have long-term implications for managers' overall wellbeing, as increasing their transformational leadership behaviors may expose them to a temporary increase in their level of work-related strain in order to achieve a more optimal level of functioning over the longer-term. In contrast, increasing laissez-faire leadership behaviors can be viewed as further detachment from one's work context that might provide an easy escape from an increase in job demands, but have longer-term negative consequences as the work environment becomes progressively more chaotic as a result of this lack of action. Capturing whether temporary increases or decreases in leadership styles are associated with matching increases or decreases in leaders' wellbeing can thus help to better capture this ongoing process of adjustment between a manager and their work environment in a way that can help maximize, or impede, their own level of wellbeing and psychological functioning.

Although latent curve models, based on their nature (Bollen & Curran, 2004, 2006; Curran et al., 2014; Hamaker et al., 2015), make it possible to achieve a clear representation of how specific constructs, defined in a trait-like manner, evolve over time and share associations with the trait-like components of other constructs, these models typically ignore the role played by time-specific fluctuations (which are in fact absorbed in their time-specific residuals). The random-intercept cross-lagged panel model (RI-CLPM; Hamaker et al., 2015) has been specifically developed to address these limitations. More precisely, RI-CLPMs assume that individuals differ from one another in a relatively stable (i.e., the trait component) around which they may still fluctuate over time (the state component). By accounting for stable between-person differences in each construct, these models thus provide a far more accurate representation of the time-specific relations among constructs.

Method

Participants and Procedure

This study is based on a sample of French-Canadian school principals from the Federation of Quebec School Principals (FQDE; Fédération Québécoise des Directions d'Établissement d'Enseignement of the Province of Quebec). In May 2008, the 2154 members from the FQDE were contacted by email, which allowed them to access an active consent form, directly linked to the questionnaire. Of those, 691 agreed to participate (45% men, $M_{age} = 44.97$, $SD_{age} = 7.21$) at Time 1 (T1). Among participants, 62.7% worked as principals, while 37.3% worked as vice-principals; 58.7% worked in primary schools, while 41.3% worked in secondary schools. Participants had an average tenure of 6.14 years (SD = 4.84 years) in their occupation and rated the SES of their schools as unfavorable (42.6%), average (43.2%), and favorable (14.3%). Using a secured website, data was collected from the school principals at four time points over a two-year period. After the initial data collection point (May 2008), measures were re-administered six months later (November 2008), then again six months later (May 2009), and finally, 12 months later (May 2010).

Measures

Leadership. Managers' leadership behaviors were assessed using the 21-item Leadership Self-Report Scale (LSRS; Dussault et al., 2013), originally developed in French, which is based on the Multifactor Leadership Questionnaire (Bass & Avolio, 1989), the Transformational Leadership Questionnaire (Alimo-Metcalfe & Alban-Metcalfe, 2001), and the Leadership Behavior Questionnaire (Sashkin, 1988), three widely used scales in the leadership field (Bass & Riggio, 2006; Mitchell et al., 2021). The LSRS covers *transformational leadership* (12 items; e.g., "I communicate my vision of the future"; α ranging from .814 to .817), *transactional leadership* (6 items; e.g., "When I see that someone is having problems at work, I make sure that the problem gets fixed"; α ranging from .788 to .819), and *laissez-faire leadership* (3 items; e.g., "I am not available when people need me"; α ranging from .465 to .671), all rated on 1 (*completely disagree*) to 4 (*completely agree*) response scale.

Workload, Job Control, and Recognition. Participants completed the relevant subscales from the Areas of Work Life Scale (Leiter & Maslach, 1999), previously validated in a Canadian context (Leiter & Maslach, 2003). More precisely, we assessed participants' perceptions of *workload* (7 items; e.g., "I do not have time to do the work that must be done"; α ranging from .762 to .788), *job control* (5 items; e.g., "I have control over how I do my work"; α ranging from .738 to .793) and *recognition* (4 items; e.g., "I receive recognition from others for my work"; α ranging from .851 to .880), using 1 (*strongly disagree*) to 5 (*Strongly agree*) response scale.

Job Satisfaction. Job satisfaction was assessed using 5 items (e.g., "In general, my work closely matches my ideals"; α ranging from .830 to .864) from a French version adapted to the work context (Blais et al. 1989) of the Satisfaction with Life Scale (Diener et al., 1985). These items were rated a 1 (*completely disagree*) to 7 (*completely agree*) response scale.

Turnover Intentions. Turnover intentions were measured using the French adaptation (Houle et al., 2020) of a 4-item scale (e.g., "I am thinking of leaving my job"; α ranging from .889 to .904) developed by O'Driscoll and Beehr (1994). Items were rated on a 1 (*completely disagree*) to 7 (*completely agree*) scale.

Burnout. Burnout was measured using the 16 items from French adaptation (Bocéréan et al., 2019) the Maslach et al.'s (1996) Burnout Inventory, covering *emotional exhaustion* (5 items; e.g., "I feel that my work exhausts me emotionally"; α ranging from .894 to .920), *professional efficacy* (6 items; e.g., "I can effectively solve the problems that arise in my work"; α ranging from .841 to .881), and *cynicism* (5 items; e.g., "I have less interest in my job since I started this job"; α ranging from .714 to .806). Items were rated on a seven-point scale ranging from 0 (*never*) to 6 (*daily*).

Analyses

Model Estimation

All analyses were performed using Mplus 8.2 (Muthén & Muthén, 2017) and the robust weighted least-square estimator with mean and variance adjusted statistics (WLSMV), which has been shown to outperform maximum likelihood (ML) estimation and robust alternatives (MLR) with rating scales including five or fewer response categories and/or following asymmetric thresholds, such as the scales used in this study (Finney & DiStefano, 2013). Missing responses across the four points were handled using the default algorithms implemented in Mplus for WLSMV estimation, allowing us to estimate all models using all available participants (Asparouhov & Muthén, 2010). This procedure operates under missing at random (MAR) assumptions, thus allowing missing data to be conditioned on all latent and observed variables included in the model, which comprise the constructs themselves at the preceding time point in RI-CLPMs (Enders, 2010). More precisely, 467 participants participated at Time 1, 432 at Time 2, 376 at Time 3, and 279 at Time 4. Of those, 225 completed one measurement point, 168 completed two measurement points, 191 completed three measurement points, and 107 completed four measurement points. Among participants who responded to each time of measurement, missing data at the item level was very low (Time 1: 0% to 6.64%, M = 4.01%, SD = 2.27%; Time 2: 0% to 4.40%, M = 2.49%, SD = 1.35%; Time 3: 0% to 3.72%, M = 1.35%, SD = 1.21%; Time 4: 0% to 6.81%, M = 3.96%, SD = 2.19%)[1].

Preliminary Measurement Models

As a first step, we estimated preliminary measurement models to verify the psychometric properties our measures. Because longitudinal measurement models tend to be computationally complex, three sets of longitudinal measurement models were separately estimated using confirmatory factor analyses (CFA). For leadership, we relied on a three-factor CFA model, where each of the three leadership factors were estimated using their a priori indicators at each time point, thus resulting in a model including 12 correlated factors (3 factors x 4 time points). For the predictors, a similar approach

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[1] When comparing participants on all measures as a function of the number of time points completed, 36 out of the 38 comparisons (including the study variables, age, and sex) were non-significant (*p*s > .05) between participants who completed one, two, three or four time points, while two measures (Time 4 laissez-faire leadership and burnout) differed significantly between participants (*p* = .028 and *p* = .008, respectively). Still, differences occurring at this last time point are not concerning under the missing at random (MAR) assumption, which is robust to attrition-related differences on all key study variables by allowing the probability of missingness of any variable to be conditioned on all latent and observed variables included in the model, including the variables themselves at previous time points (Enders, 2010).

to estimate the three predictor factors from their a priori indicators (resulting in 12 correlated factors). In this model, two a priori correlated uniquenesses (CUs) were added to control for the negative wording associated with two indicators of the workload factor and two indicators of the recognition factor (Marsh et al., 2010). Finally, in the outcome measurement model, time-specific measures of job satisfaction and turnover intentions were estimated as two CFA factors defined form their a priori indicators (resulting in a total of 8 correlated factors), whereas burnout was estimated using a bifactor-CFA operationalization (Morin et al., 2016). At each time point, this bifactor model includes a global burnout factor (G-factor) reflecting participants levels of burnout across all dimensions, and three orthogonal specific factors (S-factors), representing their levels of emotional exhaustion, cynicism, and professional efficacy left unexplained by the G-factor. This representation is in accord with recent empirical evidence suggesting the superiority of a bifactor representation for measures of burnout (e.g., Isoard-Gautheur et al., 2018; Tóth-Király et al., 2021). Importantly, this operationalization is also aligned with the objectives of the present study (focusing on global levels of burnout rather than on burnout components) and allowed us to obtain a direct estimate of the global burnout factor while still accounting for the residual specificity of each subscale. In these three longitudinal models, all factors were freely allowed to correlate across time points, and a priori correlated uniquenesses (CUs) were included between the matching indicators utilized at different time points to avoid inflated stability estimates (Marsh, 2007).

These models were used to assess the longitudinal measurement invariance of the constructs in sequence (Millsap, 2011): (1) configural invariance; (2) weak invariance; (3) strong invariance; (4) strict invariance; (5) latent variance-covariance invariance; and (6) latent means invariance. For the predictors, the invariance of the a priori correlated uniquenesses (i.e., negatively-worded items) was tested between steps 4 and 5. Factor scores were saved from the model of strict invariance to ensure comparability over time, and used for the main analyses. These factor scores have the advantage of affording a partial control for measurement errors, while also preserving the measurement invariance and factor structure (i.e., bifactor) of our measures (Skrondal & Laake, 2001; Morin et al., 2017).

Random Intercept Cross-Lagged Panel Models

Because factor scores are continuous in nature, all of our main RI-CLPM (Hamaker et al., 2015) analyses were conducted using Mplus' Robust Maximum Likelihood (MLR) estimator. First, RI-CLPM estimate a between-person component reflecting stable (trait-like) inter-individual differences in the constructs of interest, represented by a random intercept term associated with each variable. These random intercepts synthesize the average level of each variable experienced by school principals across all time points. Associations between these random intercept components are interpreted as occurring at the trait level. Second, RI-CLPM estimate a within-person component reflecting state-like deviations (i.e., temporary variations or fluctuations) occurring around the stable trait component at each specific time point. Autoregressive associations between these state-like components reflect carryover effects whereby time-specific deviations occurring at one time point for one specific construct can be expected to lead to further deviations from the trait-level at a later time point for the same construct. Strong autoregressive effects suggest the presence of lasting effects of time-specific deviations, whereas weak or non-significant autoregressive effects suggest that the time-specific deviations tend to disappear (bounce back to normal levels) at later time points. Cross-lagged associations between the state-like components reflect the extent to which time-specific deviations on one variable (e.g., increases or decreases in job control) is likely to influence time-specific deviations on a second variable occurring at a later time point (e.g., increases or decreases in transformational leadership behaviors). Finally, time-specific correlations reflect the extent to which time-specific fluctuations share cross-sectional associations.

Given the complexity of the RI-CLPMs and the number of constructs of interest, a total of three sets of RI-CLPMs were estimated: Set 1: Leadership only; Set 2: Leadership and predictors; and Set 3: Leadership and outcomes. Within each set, alternative models were contrasted in the following sequence designed to help us locate the most parsimonious, and yet accurate, representation of the data (e.g., Cole & Maxwell, 2003; Hamaker et al., 2015). In our first, baseline model (M1): (a) All autoregressive relations, all a priori cross-lagged relations (i.e., from the job demands/resources to leadership or from leadership to wellbeing), and all time-specific correlations between constructs were freely estimated and free to vary over time, (b) the mean levels of the latent constructs were free to vary over time (the time-specific intercepts were freely estimated, and the mean of the random intercept

factor was fixed to 0), and (c) all relations between constructs are assumed to occur only at the within-person level (the regressions between the random intercepts of the job demands/resources and leadership factors, or between the leadership and the wellbeing factors were set to be 0). In the second model (M2), the latent mean structure was entirely expressed as part of the random intercept factor rather than to vary freely over time (the mean of the random intercept factor was freely estimated whereas the time-specific intercepts were fixed to be 0). In a third model (M3), all autoregressive paths set to equality over time. In our fourth model (M4) all of our a priori cross-lagged paths were set to equality over time. In the fifth model (M5), the time-specific correlations between the constructs were set to equality over time. In the sixth model (M6), relations between constructs were also allowed to occur at the between-person level (the regressions between the random intercepts of the job demands/resources and leadership factors, or between the leadership and the wellbeing factors were freely estimated). Finally, in our last model (M7), the within-person cross-lagged relations opposite to our a priori expectations were also freely estimated (time-specific fluctuations in leadership were allowed to predict fluctuations in job demands-resources, or time-specific fluctuations in wellbeing were allowed to predict fluctuations in leadership). If this last model is retained, then a second model (M8) constraining these reciprocal paths to be equal over time would then have to be estimated. It should be noted that for the models estimated in Set 1 (Leadership only), only models M1, M2, M3 and M5 were estimated given that no regressions had to be estimated between the leadership factors either at the within- or between- person level.

Model Fit Assessment

The fit of the models was evaluated using the comparative fit index (CFI), the Tucker-Lewis Index (TLI) and the root mean square error of approximation (RMSEA) (Marsh et al., 2005; Yu, 2002). In the case of CFI and TLI, values above .90 and .95 describe good or excellent model fit, respectively. As for RMSEA, values below .08 and .06 demonstrate good or excellent model fit, respectively. For model comparison changes (Δ) in fit indices were inspected and a change of at least .010 for CFI and TLI and a change of at least .015 for the RMSEA were taken to suggest meaningful differences (Cheung & Rensvold, 2002; Chen et al., 2006). Additionally, the model-based composite reliability indices (ω; McDonald, 1970) were calculated to assess the reliability of the factors.

Results

Preliminary Measurement Models

The fit of the preliminary longitudinal measurement models is reported in Table S1 of the online supplements. These results indicate that all of these measurement models resulted in an adequate level of fit to the data (all CFI/TLI $\geq$ .90 and all RMSEA $\leq$ .06) and appeared to be fully invariant over time (ΔCFI and ΔTLI $\leq$ .01; ΔRMSEA $\leq$ .015). Parameter estimates from the most invariant of these models are reported in Tables S2, S3 and S4 of the online supplements. These results reveal that the three leadership factors were well-defined and reliable across time points (transformational leadership: λ = .475 to .793; ω = .917; transactional leadership: λ = .699 to .876; ω = .909; laissez-faire leadership: λ = .551 to .744; ω = .661). Similarly, the results indicate well-defined and reliable factors for the predictors (workload: λ = -.700 to .900; ω = .828; job control: λ = .601 to .805; ω = .854; recognition: λ = -.737 to .900; ω = .902) and outcomes (job satisfaction: λ = .660 to .867; ω = .881; turnover intentions: λ = .884 to .928; ω = .951; Global burnout: λ = -.604 to .859; ω = .937).

Random-Intercept Cross-Lagged Panel Models

Model fit information for the alternative RI-CLPM solutions is reported in Table 1. Focusing on the first set of models (Set 1: Leadership only), the baseline model (M1) was able to achieve an excellent level of fit to the data, which decreased substantially when the time-specific means of the leadership factors were forced to be stable over time (i.e., entirely expressed as part of the random intercept factor). However, examination of the parameter estimates associated with M1, and of the modification indices associated with M2, suggested that this decrease in fit was only due to the laissez-faire factor. We thus estimated an alternative solution (M2p) in which the time-specific means of the transformational and transactional leadership factors were entirely summarized as part of their random intercept factors, whereas those of the laissez-faire factor were freely estimated over time. From this model, the results associated with the subsequent models indicated that the autoregressions (M3) and time-specific correlations (M5) could both be constrained to equality over time without resulting in any decrease in model fit and were thus retained. Model S1-M5 was thus retained as our final unconditional model to which predictors (Set 2) and outcomes (Set 3) were directly incorporated.

For the second set of models (Set 2) including the theoretical predictors (workload, job control, and recognition), the results indicated that the time-specific means of the predictors (M2) could not be constrained to equality over time (with no suggestion of a valid partial model apparent from the results), but that the autoregressions (M3), a priori cross-lagged effects (M4), and time-specific correlations (M5) could all be constrained to equality over time without resulting in any decrease in model fit. These specifications were thus retained. Furthermore, allowing relations to occur at the between person level (M6), in addition to the within-person level, resulted in a substantial increase in model fit, leading us to retain the S2-M6 parameterization. However, adding the reciprocal cross-lagged paths resulted in a decrease in model fit according to the TLI, and to an unchanged level of fit according to the CFI and RMSEA, leading us to reject model S2-M7.

Within-person results from the retained solution (S2-M6) are reported in Table 2, whereas the between-person results are reported in the top section of Table 3. These results first reveal significant positive autoregressions for transformational leadership and workload, recognition, and job control at the within-person level, suggesting carryover effects of state-like deviations over time. In contrast, no such carryover effect was evidenced for transactional and laissez-faire leadership, suggesting that deviations from trait-like levels tend to be circumscribed to a single time point. Furthermore, none of the within-person cross-lagged effects were significant, suggesting the absence of within-person effects of time-related fluctuations in levels of job demands and resources, and time-specific levels of leadership observed at the next point in time. In contrast, the between-person results reveal associations occurring at the trait level, showing that managers' global tendencies to rely on transformational and transactional leadership were both negatively predicted by workload, and positively predicted by recognition and job control. These results thus support Hypotheses 1 and 2 at the between-, but not the within-, person level. Conversely, managers' global tendencies to rely on laissez-faire leadership were negatively predicted by recognition. This result thus provides partial support to Hypothesis 3 at the between-, but not within-, person level.

The model fit results associated with the models including the outcomes (Set 3) essentially replicated those obtained for the models including the predictors (Set 2), leading us to retain a model in which the autoregressions, the a priori cross lagged paths, and the time-specific correlations were constrained to equality over time, where the time-specific means were allowed to differ over time, where the effects were allowed to occur at both the between- and within- person level, and where the inclusion of reciprocal paths was not necessary.

The within-person results from the retained solution (S3-M6) are reported in Table 4, while the between-person results from the same model are reported in the bottom section of Table 3. In this model, within-person effects were sparse as only the autoregressive paths involving transformational leadership (as in Set 2), as well as the positive cross-lagged path linking transformational leadership to later increases in levels of job satisfaction were statistically significant. Furthermore, between-person results revealed that managers' global tendencies to rely on transformational leadership were related to lower levels of burnout and turnover intentions as well as to higher job satisfaction over time, thus supporting Hypothesis 4 at both the between-, and within-, person level. In contrast, managers' global tendencies to rely on laissez-faire leadership were related to higher levels of burnout and turnover intentions as well as to lower levels of job satisfaction over time, thus supporting Hypothesis 5 at the between-, but not the within-, person level. Finally, managers' global tendencies to rely on transactional leadership were only related to higher levels of burnout over time, thus providing support for Hypothesis 6 at the between-, but not the within-, person level.

Discussion

The present study was designed to help us better understand the longitudinal determinants (job demands and resources) of managers' leadership behaviors, and the implications of these behaviors for their own personal wellbeing. In order to be able to achieve a more accurate understanding of the relative role played by stable work characteristics and leadership behaviors, relative to the role played by time-specific fluctuations over the course of a two-year period, we relied on a novel analytic method, the RI-CLPM (Hamaker et al., 2015). As an exploratory finding, our results revealed that most associations occurred at the trait, rather than state, level. This observation is consistent with the idea that leadership behaviors are mainly influenced by stable work environmental characteristics and relatively immune to circumstantial changes in these characteristics. These results thus provide strong support for the JD-R's proposition that chronic, instead of temporary, levels of exposure to job demands

and resources should be the most important drivers of workplace behaviors (Bakker & Demerouti, 2007; Schaufeli, 2017). In addition, our results are consistent with the idea that the wellbeing implications of managers' own leadership behaviors are also fairly robust to the effects of time-specific fluctuations. Interestingly, the only exception to this generic pattern suggests that managers who succeed in temporarily increasing their transformational leadership behaviors at a specific point in time experience an increase in their feelings of job satisfaction over time.

Job Demands and Resources' Role for Leadership Behaviors

Managers' tendencies to rely on transformational and transactional leadership behaviors were positively predicted by the stable availability of job resources (job control and recognition) and negatively predicted by stable workload perceptions, thus supporting our a priori expectations (Hypothesis 1 and 2, respectively) and prior studies (e.g., Rosen et al., 2019) at the between-person level. More precisely, the ability to feel in control of their work seems to help managers to display more active leadership behaviors. This sense of job control, providing decision latitude, allows managers to choose when and how to delegate part of their workload to others, thus allowing them to maintain a focus on their core managerial role. The importance of job control is also underscored by self-determination theory (SDT; Ryan & Deci, 2017) which posits that the satisfaction of the basic psychological need for autonomy, which is closely connected with managers' sense of job control, represents a core driver of one's ability to maintain a satisfactory level of psychological functioning and performance (also see Assor, 2018; Fernet & Austin, 2014). In addition to job control, managers' perceptions of being recognized for their work seems to provide them with a valuable resource, enabling them to engage in more active leadership behaviors. In fact, by receiving recognition (monetary or not) for their work, managers might feel a sense of mattering (Rosenberg & McCullough, 1981), as well as a sense of competence and belonging to their organization (Ryan & Deci, 2017) which have been positioned as key nutrients for optimal functioning (e.g., Flett, 2018).

Conversely, workload perceptions seemed to hinder managers ability to rely on more adaptive (i.e., transformational and transactional) leadership behaviors. This is not surprising when we consider how managerial roles have broadened in recent years across many types of organizations, including the educational system (e.g., Fernet, 2011). For instance, high-level managers (including school principals) now typically need to combine administrative (e.g., organization, finance, acquisitions), instructional (e.g., leading by example, coaching, feedback, performance evaluation), and informational roles (e.g., information transmission both within and between organizations, communication) (Fernet, 2011). In such a multifaceted job, higher workloads can very quickly become overwhelming, and impede managers' ability to successfully engage in all aspects of their role (Bakker & Demerouti, 2007, 2017). Even though high-level management naturally tends to be accompanied by a high workload for all managers, it does not mean that between-person differences in perceptions of the scope of this workload does not matter. In fact, our results suggest that it does matter to managers' ability to successfully accomplish one core component of their work role, which is actualized by transformational and transactional leadership behaviors (Arnold & Connelly, 2013).

In contrast, and only partly matching our expectations (Hypothesis 3), laissez-faire leadership was negatively predicted by perceptions of recognition, but not by perceptions of job control or workload. These findings indicate that managers need to feel recognized for their work in order to be able to engage in more adaptive leadership behaviors, thus suggesting that any form of recognition might be an important tool to help them adopt more desirable leadership behaviors. These results are also aligned with the JD-R model whereby recognition can restore managers' mental energy, giving them more resources to maintain a satisfactory level of performance when facing job demands (Crawford et al., 2010; Van den Broeck et al., 2010). Based on past research, recognition does not necessarily need to be financial but can simply include the informal communication of appreciative feedback by the staff or a colleague (Jimenez & Dunkl, 2017). These results also support the effort-reward imbalance model (Siegert, 1996), positing that workers experiencing an imbalance between the effort invested in their jobs and the reward (and recognition) received for that work generate a feeling of strain linked to a lack of reciprocity between costs (i.e., effort) and gains (i.e., recognition). As a result of this imbalance, the current results suggest that managers may not only refrain from engaging in desirable leadership behaviors, but that they might even come to stop trying (i.e., to passively refrain from proactively engaging in leadership behaviors as a way to restore a more appropriate cost-benefits balance; Van Vegchel et al., 2005).

Interestingly, none of these associations were apparent at the state level, indicating that time-specific fluctuations in workload, recognition, and job control perceptions failed to influence leadership behaviors. This observation is first consistent with the JD-R model expectations' (Bakker & Demerouti, 2007; Schaufeli, 2017) suggesting that chronically high or low levels of exposure to job demands or resources were likely to play a far greater role for exposed employees than any time-specific deviations in these levels. These results suggest the presence of homeostatic processes via which high-level managers are able to reallocate their demands and resources over time, in order to better manage the unavoidable time-structured fluctuations in work characteristics that interfere with their core responsibilities. Clearly, future research would be needed to better understand the mechanisms at play in explaining these homeostatic processes.

Leadership Behaviors Implications for Managers' Psychological Wellbeing

Matching our expectations (Hypothesis 4) and also previous research indicating the widespread benefits of transformational leadership behaviors for a variety of outcomes (Day, 2014; Li et al., 2018; Skakon et al., 2010; Zwingmann et al., 2014), our results indicated that managers' reports of their own transformational leadership behaviors were associated with the most desirable outcome levels (higher job satisfaction, lower turnover intentions and burnout). In other words, transformational managers tended to be more satisfied with their job, less prone to burnout, and less inclined to seek other job opportunities. These results match some previous reports (e.g., Kaluza et al., 2020) while also contradicting others (Byrne et al., 2014; Zwingmann et al., 2016). Overall, the current results seemed to be aligned with the idea that transformational managers help to foster more engaging workplaces where employees are happier and more productive (Long & Thean, 2011). As a result, and in line with the conservation of resources theory (Hobfoll, 1989), transformational managers may gain access to additional job resources from their ability to create happier, more productive, and collaborative work environments which makes managing subordinates less demanding (Long & Thean, 2011). In other words, they are likely to create a gain cycle of resources.

Transformational leadership behaviors have already been shown to be associated with creating working environments that encourage collaboration, communication, and recognition while also providing employees with more resources to engage in their work roles (Fernet et al., 2015). As a result, managers are more likely to experience the satisfaction of their own needs for autonomy, competence and relatedness, positioned by SDT (Ryan & Deci, 2017) to be core drivers of individuals functioning at work by being able to successfully create (i.e., competence) on their own (i.e., autonomy) an environment in which they have positive social interactions with the staff (i.e., relatedness). In fact, the greater desirability of transformational leadership behaviors is also evidenced by the fact that this is the only leadership set of behaviors to have an observable effect at the within-person level. Indeed, temporary increases in managers transformational behaviors were found to directly lead them to experience a higher level of job satisfaction at the next point in time, thus leading to mutually reinforcing associations likely to result, over the long term, in increases visible at the trait level. Thus, even though transformational leadership behaviors may require sustained energy and effort, this style appears to be beneficial and highly adaptive for managers' wellbeing. This suggests that the self-consistent nature of transformational leadership actions is likely to generate a positive emotional state, thus increasing managers' job satisfaction over time.

Although transactional leadership behaviors were not found to be associated with managers' job satisfaction or turnover intentions, they were found to be associated with higher levels of burnout, thus supporting Hypothesis 5. More precisely, our results indicated that managers relying on transactional leadership behaviors might be at risk of burnout due to the fact that they mostly focus on task-oriented leadership behaviors, preventing them from reaping the benefits of transformational leadership behaviors, such as developing quality relationships with the staff. Indeed, the lack of meaningful social relationships have been identified as a potential risk factor for ill-being (Holt-Lundstad et al., 2010). Even though all high-level managers might not equally feel a pressing need for positive social relationships, employees tend to reciprocate support received from leaders via, for instance, non-obligatory extra-role behavior (Settoon et al., 1996), which in turn is likely to benefit all managers. In contrast, due to a lack of reciprocated benefits, mainly transactional managers might end up with more work than they can handle, in turn increasing their risk of burnout. The lack of observed associations between transactional leadership behaviors and job satisfaction or turnover intentions suggests that these leadership behaviors may only partially impact leaders' wellbeing as they require less emotional

or social effort from them (Kaluza et al., 2020). Eventually, however, managers' burnout is likely to have important implications for the organization, such as by compromising the achievement of strategic and operational objectives (Parent-Lamarche & Fernet, 2020).

Conversely, and supporting Hypothesis 6, laissez-faire leadership behaviors were associated with the least desirable outcome levels (lower job satisfaction, higher turnover intentions, and burnout). This result is aligned with those from previous studies showing that managers not engaging in leadership behaviors that meet their job demands tend to present poorer levels of wellbeing and higher levels of burnout (Kanste, 2008; Zopiatis et al., 2010). Laissez-faire leadership behaviors might be interpreted as a passive form of destructive leadership behaviors (Schilling & Schyns, 2014) that is likely to create stress and frustration among employees and leaders alike via, for example, role conflict or role ambiguity (Kelloway et al., 2005). This frustration, in turn, might hamper managers' wellbeing. The present results thus extend previous research stating that managers who engage in suboptimal leadership behaviors might negatively influence not only their employees' wellbeing and job satisfaction (Long & Thean, 2011; Skogstad et al., 2007), but their own as well. Laissez-faire managers may also fail to establish positive work environments, leading them to experience a depletion of their work-related resources (Hobfoll, 1989) and, in turn, to see their job as more demanding and less satisfying, thus increasing their risk of burnout or turnover. Clearly, future studies are needed to better unpack the mechanisms underlying the observed between-person associations between leadership behaviors and managers' own wellbeing.

Limitations and Future Directions

When interpreting our findings, some limitations should be acknowledged. First, this study was conducted using self-reported data. Fortunately, multivariate analyses such as those used in the present study are naturally protected against the role played by shared method variance (Siemsen et al., 2010). However, this protection does not extend to other types of self-report biases (e.g., social desirability), thus reinforcing the need for future research to also consider including informant-reported measures of leadership (e.g., colleagues and employees), group-based or objective assessments of work characteristics, and objective work-related indicators of functioning (e.g., performance, turnover, sick leaves) to complement the self-reported data obtained directly from our participants. Second, even though the study design was longitudinal, causality cannot be established. Longitudinal designs are only able to establish the directionality of the observed associations, which is not, in and of itself, sufficient to establish causality. In this regard, it would be interesting to complement the present results with those obtained in the context of laboratory studies (relying on artificial manipulations of work characteristics or leadership behaviors) or with those from intervention studies. Associations estimated using RI-CLPM provide a strong test of directionality (Granger causality; Granger, 1969) but are unable to fully determine true causality, which requires experimental methods (Hamaker et al., 2015). Furthermore, although RI-CLPM relations tend to be immune to omitted time-invariant variables, it does not offer a complete protection against the effects of omitted time-varying covariates (Usami et al., 2019). As a result, the present result should be considered as providing strong evidence of directionality, but not causality, and future research would be required to estimate whether and how the observed relations are maintained when additional time-varying predictors of the variables considered in this study are considered.

It would also be fruitful to test whether and how the present results generalize to different time intervals. Third, in terms of generalizability, the present results remain limited by their consideration of a single type of manager (i.e., school principals) located in a single Canadian province. Future research should thus seek to replicate this study among other, more diversified, samples of mid-level and high-level managers form the public and private sectors across a wider range of cultures to document the boundary conditions of the current results. Fourth, although our results suggest that recognition seems to be particularly important for managers, the current results fail to inform us regarding how these effects differ according to the mode of delivery of this recognition (i.e., material versus social, formal versus informal). Future research should thus more directly investigate the role played by different forms of recognition, as well as of both types of work characteristics (e.g., quality of the social interactions managers has with other managers, with their employees, or with the union). Based on evidence suggesting that job resources might be particularly important in highly stressful and demanding situations (Bakker et al., 2007), future studies may wish to investigate how the interaction between job demands and resources impact managers' leadership behaviors, including how job

resources might potentially protect one against the negative impact of job demands, but also how job demands could possibly boost the benefits of job resources. Finally, it is important to acknowledge that the concept of transformational leadership has recently been criticized (Behrendt et al., 2017; Siangchokyoo et al., 2020; van Knippenberg & Sitkin, 2013). Thus, some have argued that: (1) it lacks a clear conceptual definition, leading to ambiguities related to its dimensionality and differentiation from other forms of leadership (e.g., transactional); (2) it is not characterized by a clear directional ordering of associations between managers' behaviors, employees' responses, and performance outcomes; (3) its operationalization confounds leadership behaviors with their effects; and (4) its measures often fail to reproduce the dimensional structure proposed by different theories.

Implications for Practice

There are several implications from the findings of this research. From a research perspective, it appears to be important to conduct more longitudinal studies relying on a proper disaggregation of trait (stable) and state (temporary) effects to obtain a more fine-grained picture of the associations between leadership behaviors, job demands and resources, and wellbeing. From a practical perspective, our results suggest that organizations should seek to maximize the job resources available to their high-level managers, as these resources seem to be directly involved in their ability to adopt more desirable leadership behaviors. To achieve long-term positive effects, these resources should be provided on a continuous basis given that most of the associations were observed on the stable-trait level. The lack of state level effects suggests that temporary interventions are not likely to cultivate tangible, lasting effects. For instance, if organizations want to retain and give their managers the resources required to be transformational rather than laissez-faire leaders, they should invest in work recognition, job control, and in helping their managers to achieve more acceptable workloads. Importantly, these interventions should not ignore managers who already engage in transformational leadership behaviors to ensure that they have the resources they need to maintain their current behavior. Interventions could also focus on laissez-faire leaders who are at the highest risk for poor wellbeing and burnout. Providing these managers with additional job resources could be protective against these negative work outcomes. This safeguarding mechanism could be important for managers' own mental health, as well as to reduce employee attrition. Finally, our results suggest that organizations should focus on the relatively stable work characteristics of their leaders, without worrying too much about time-specific fluctuations. This would mean that annual surveys should not be used, on their own, to guide interventions implemented at the managerial level, but rather that evidence supporting such interventions should be anchored in continuous assessment procedures.

Conclusion

Given the lack of leadership research focusing on managers' own perspective of the impact of different types of leadership behaviors, we examined the longitudinal associations between managers self-reported leadership behaviors, perceptions of work-related job demands and resources, and psychological wellbeing. Relying on RI-CLPM, our results revealed the importance of job resources (job control and recognition) and low levels of job demands (workload) as predictors of managers' reliance on different leadership behaviors (transformational, transactional and laissez-faire). Of these behaviors, transformational leadership was found to associated with the most desirable outcomes for the managers themselves (high job satisfaction, low turnover intentions and burnout). Most of these associations were located at the between-person-level, suggesting the presence of homeostatic mechanisms that might help high level managers to maintain a stable functioning over time.

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Table 1

Goodness-of-Fit Indices for the Random Intercept Cross-Lagged Panel Models

	χ^2	df	CFI	TLI	RMSEA	90% CI
Set 1 – Leadership only						
S1-M1. No constraint	52.565*	39	.995	.992	.023	[.000, .037]
S1-M2. Intercepts Mean @0	189.403*	48	.953	.935	.066	[.056, .076]
S1-M2p. Intercepts Mean @0 partial	71.387*	45	.991	.987	.030	[.015, .042]
S1-M3. Equal AR	77.658*	51	.991	.989	.028	[.014, .040]
S1-M5. Equal TSC	91.857*	60	.989	.988	.028	[.016, .039]
Set 2 – Leadership and predictors						
S2-M1. No constraints	664.945*	120	.946	.905	.081	[.075, .087]
S2-M2. Intercepts Mean @0	773.697*	126	.935	.892	.086	[.080, .092]
S2-M3. Equal AR	710.131*	123	.941	.900	.083	[.077, .089]
S2-M4. Equal CL	728.891*	141	.941	.913	.078	[.072, .083]
S2-M5. Equal TSC	807.785*	165	.936	.918	.075	[.070, .080]
S2-M6. Free RI effect	680.831*	156	.948	.930	.070	[.064, .075]
S2-M7. Full CL parameterization	676.786*	138	.946	.918	.075	[.070, .081]
Set 3 – Leadership and outcomes						
S3-M1. No constraints	305.569*	162	.979	.964	.036	[.030, .042]
S3-M2. Intercepts Mean @0	357.269*	171	.972	.955	.040	[.034, .046]
S3-M3. Equal AR	363.586*	177	.972	.957	.039	[.034, .045]
S3-M4. Equal CL	389.736*	195	.971	.959	.038	[.033, .044]
S3-M5. Equal TSC	441.442*	231	.969	.963	.037	[.031, .042]
S3-M6. Free RI effect	332.398*	222	.984	.980	.027	[.021, .033]
S3-M7. Full CL parameterization	304.209*	195	.984	.977	.029	[.022, .035]

Note. *$p < .05$; χ^2: robust chi-square test of exact fit; df: degrees of freedom; CFI: comparative fit index; TLI: Tucker–Lewis index; RMSEA: root mean square error of approximation; 90% CI: 90% confidence interval of the RMSEA; @0: constrained to zero; AR: autoregressive paths; CL: cross-lagged paths; TSC: time-specific correlation; RI: random intercept

Table 2

Relations between Leadership and the Predictors (Model S2-M6)

Predictor (t)	Outcome (t+1)	t → t+1 [invariant] b (SE)	T1 → T2 β	T2 → T3 β	T3 → T4 β
		Autoregressive paths			
Transformational	Transformational	.159 (.061)**	.152**	.155**	.152*
Transactional	Transactional	.047 (.052)	.057	.044	.048
Laissez-faire	Laissez-faire	.106 (.079)	.091	.091	.083
Workload	Workload	.288 (.089)**	.343**	.444**	—
Recognition	Recognition	.385 (.084)**	.375**	.376**	—
Job control	Job control	.324 (.067)**	.395**	.310**	—
		Predictive cross-lagged paths			
Workload	Transformational	.055 (.104)	.029	.023	.015
Recognition	Transformational	.042 (.050)	.049	.049	.048
Job control	Transformational	-.083 (.127)	-.049	-.040	-.040
Workload	Transactional	-.050 (.124)	-.025	-.019	-.013
Recognition	Transactional	-.024 (.060)	-.026	-.025	-.026
Job control	Transactional	.035 (.135)	.020	.015	.016
Workload	Laissez-faire	.037 (.079)	.046	.033	.017
Recognition	Laissez-faire	-.007 (.028)	-.019	-.017	-.014
Job control	Laissez-faire	-.001 (.064)	-.001	-.001	-.001

Note. *p < .05; **p < .01.; SE: standard error; The final model included invariant predictive paths, which explains why the non-standardized coefficients (b) are invariant across time periods. Conversely, the standardized coefficients (β) are a function of the variances of latent constructs on which no constraints were imposed, and thus differ slightly across time periods.

Table 3

Effects of the Intercept in the Predictors (Model S2-M6) and Outcomes (Model S3-M6) Models

Predictor	Outcome	b	β
	Predictors model		
Workload	Transformational	-.170 (.073)*	-.146*
Recognition	Transformational	.249 (.037)**	.432**
Job control	Transformational	.331 (.096)**	.232**
Workload	Transactional	-.185 (.090)*	-.127*
Recognition	Transactional	.293 (.047)**	.406**
Job control	Transactional	.307 (.114)**	.172**
Workload	Laissez-faire	.008 (.029)	.017
Recognition	Laissez-faire	-.099 (.015)**	-.427**
Job control	Laissez-faire	-.074 (.041)	-.129
	Outcomes model		
Transformational	Burnout	-.440 (.126)**	-.516**
Transactional	Burnout	.304 (.117)**	.430**
Laissez-faire	Burnout	1.074 (.246)**	.497**
Transformational	Job satisfaction	.341 (.173)*	.297*
Transactional	Job satisfaction	-.142 (.166)	-.150
Laissez-faire	Job satisfaction	-1.151 (.331)**	-.396**
Transformational	Turnover intentions	-.518 (.260)*	-.308*
Transactional	Turnover intentions	.383 (.248)	.275
Laissez-faire	Turnover intentions	1.262 (.481)**	.296**

Note. *$p < .05$; **$p < .01$.; SE: standard error; The final model included invariant predictive paths, which explains why the non-standardized coefficients (b) are invariant across time periods. Conversely, the standardized coefficients (β) are a function of the variances of latent constructs on which no constraints were imposed, and thus differ slightly across time periods.

Table 4

Associations between Leadership and the Outcomes (Model S3-M6)

Predictor (t)	Outcome (t+1)	t → t+1 [invariant] b	t1 → t2 β	t2 → t3 β	t3 → t4 β
		Autoregressive paths			
Transformational	Transformational	.156 (.061)**	.150**	.153*	.144*
Transactional	Transactional	.065 (.050)	.070	.060	.079
Laissez-faire	Laissez-faire	.130 (.091)	.104	.112	.114
Burnout	Burnout	.068 (.065)	.062	.067	.075
Job satisfaction	Job satisfaction	.047 (.061)	.055	.044	.046
Turnover intentions	Turnover intentions	.029 (.080)	.028	.024	.032
		Predictive cross-lagged paths			
Transformational	Burnout	-.004 (.064)	-.004	-.005	-.005
Transactional	Burnout	-.025 (.047)	-.039	-.032	-.038
Laissez-faire	Burnout	.116 (.137)	.051	.058	.074
Transformational	Job satisfaction	.161 (.077)*	.169*	.163*	.161*
Transactional	Job satisfaction	-.025 (.059)	-.036	-.028	-.029
Laissez-faire	Job satisfaction	-.094 (.158)	-.038	-.040	-.045
Transformational	Turnover intentions	-.085 (.115)	-.059	-.053	-.061
Transactional	Turnover intentions	-.156 (.092)	-.150	-.105	-.129
Laissez-faire	Turnover intentions	.005 (.226)	.001	.001	.002

Note. *p < .05; **p < .01.; SE: standard error; The final model included invariant predictive paths, which explains why the non-standardized coefficients (b) are invariant across time periods. Conversely, the standardized coefficients (β) are a function of the variances of latent constructs on which no constraints were imposed, and thus differ slightly across time periods.

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Table S1

Goodness-of-Fit Indices Associated with the Preliminary Measurement Models

Model	χ^2	df	CFI	TLI	RMSEA	[90% CI]	$\Delta\chi^2$	Δdf	ΔCFI	ΔTLI	ΔRMSEA
Leadership											
Configural	4650.835*	3210	.928	.922	.026	[.024, .027]					
Weak	4685.781*	3264	.929	.924	.025	[.024, .027]	52.838	54	+.001	+.002	-.001
Strong	4750.398*	3330	.929	.926	.025	[.024, .027]	83.577	66	.000	+.002	.000
Strict	4815.464*	3393	.929	.927	.025	[.023, .027]	144.482*	63	.000	+.001	.000
Latent Variance-Covariance	4822.466*	3411	.929	.928	.025	[.023, .026]	37.617*	18	.000	+.001	.000
Latent Means	4842.067*	3420	.929	.928	.025	[.023, .026]	26.989*	9	.000	.000	.000
Predictors											
Configural	2629.870*	1782	.961	.956	.026	[.024, .028]					
Weak	2670.520*	1821	.961	.957	.026	[.024, .028]	62.543*	39	.000	+.001	.000
Strong	2825.308*	1953	.960	.959	.025	[.023, .027]	202.965*	132	-.001	+.002	-.001
Strict	2905.414*	2001	.959	.959	.026	[.024, .028]	133.995*	48	-.001	.000	+.001
Correlated uniquenesses	2912.329*	2007	.959	.959	.026	[.024, .028]	11.229	6	.000	.000	.000
Latent Variance-Covariance	2890.015*	2025	.961	.961	.025	[.023, .027]	24.233	18	+.002	+.002	-.001
Latent Means	2899.266*	2034	.961	.961	.025	[.023, .027]	15.659	9	.000	.000	.000
Outcomes											
Configural	5663.419*	4384	.974	.971	.021	[.019, .022]					
Weak	5726.181*	4489	.975	.972	.020	[.019, .022]	138.123	105	+.001	+.001	-.001
Strong	6013.430*	4816	.976	.975	.019	[.018, .021]	348.412	327	+.001	+.003	-.001
Strict	6107.263*	4891	.975	.975	.019	[.018, .021]	173.965*	75	-.001	.000	.000
Latent Variance-Covariance	6079.803*	4936	.977	.977	.019	[.017, .020]	61.648	45	+.002	+.002	.000
Latent Means	6103.105*	4954	.977	.977	.019	[.017, .020]	32.711	18	.000	.000	.000

Note. *p < .01; χ^2 = robust chi-square test of exact fit; df = degrees of freedom; CFI = comparative fit index; TLI = Tucker–Lewis index; RMSEA = root mean square error of approximation; 90% CI = 90% confidence interval of the RMSEA; Δ: change in fit information relative to the previous model.

Table S2

Standardized Parameter Estimates for the Confirmatory Factor Analytic Model of Leadership (Latent Mean Invariance)

	Transformational (λ)	Transactional (λ)	Laissez-faire (λ)	δ
Item 1	.793**			.371**
Item 2	.669**			.552**
Item 3	.669**			.553**
Item 4	.773**			.403**
Item 5	.636**			.596**
Item 6	.671**			.550**
Item 7	.786**			.383**
Item 8	.787**			.381**
Item 9	.566**			.679**
Item 10	.475**			.774**
Item 11	.668**			.554**
Item 12	.772**			.404**
Item 1		.839**		.296**
Item 2		.876**		.233**
Item 3		.768**		.410**
Item 4		.819**		.330**
Item 5		.699**		.511**
Item 6		.731**		.466**
Item 1			.551**	.696**
Item 2			.744**	.446**
Item 3			.581**	.662**
ω	.917	.909	.661	

Note. **$p < .01$; λ: standardized factor loadings; δ: item uniqueness; ω: McDonald's (1970) omega coefficient.

Table S3

Standardized Parameter Estimates for the Confirmatory Factor Analytic Predictors Model (Latent Mean Invariance)

	Workload (λ)	Job Control (λ)	Recognition (λ)	δ
Item 1	.683**			.533**
Item 2	.265**			.930**
Item 3	.806**			.350**
Item 4	.900**			.190**
Item 5	-.700**			.510**
Item 6	-.508**			.742**
Item 7	.520**			.729**
Item 1		.672**		.548**
Item 2		.798**		.363**
Item 3		.805**		.351**
Item 4		.784**		.385**
Item 5		.601**		.638**
Item 1			.900**	.190**
Item 2			.897**	.196**
Item 3			-.800**	.361**
Item 4			-.737**	.457**
ω	.828	.854	.902	

Note. **p < .01; λ: standardized factor loadings; δ: item uniqueness; ω: McDonald's (1970) omega coefficient.

Table S4

Standardized Parameter Estimates for the Confirmatory Factor Analytic Outcomes Model (Latent Mean Invariance)

	Job satisfaction (λ)	Turnover intentions (λ)	Burnout (G-λ)	Emotional exhaustion (S-λ)	Cynicism (S-λ)	Professional efficacy (S-λ)	δ
Item 1	.810**						.345**
Item 2	.660**						.565**
Item 3	.867**						.248**
Item 4	.804**						.354**
Item 5	.708**						.498**
Item 1		.906**					.180**
Item 2		.925**					.144**
Item 3		.928**					.139**
Item 4		.884**					.219**
Item 1			.617**	.541**			.326**
Item 2			.470**	.762**			.199**
Item 3			.570**	.679**			.214**
Item 4			.616**	.543**			.326**
Item 5			.580**	.653**			.237**
Item 6			.859**		-.004		.262**
Item 7			.794**		-.009		.369**
Item 8			.448**		-.038		.798**
Item 9			.709**		-.132		.480**
Item 10			.799**		-.015		.362**
Item 11			-.341**			.583**	.544**
Item 12			-.476**			.617**	.393**
Item 13			-.347**			.709**	.377**
Item 14			-.527**			.678**	.262**
Item 15			-.450**			.737**	.254**
Item 16			-.604**			.590**	.286**
ω	.881	.951	.937	.886	.017	.879	

Note. **$p < .01$; λ: standardized factor loadings (G- and S- respectively refer to global and specific factors estimated in a bifactor measurement model); δ: item uniqueness; ω: McDonald's (1970) omega coefficient.

Table S5

Correlations Among the Study Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1. TFL (T1)	—																	
2. TSL (T1)	.788**	—																
3. LFA (T1)	-.697**	-.728**	—															
4. TFL (T2)	.648**	.545**	-.513**	—														
5. TSL (T2)	.586**	.643**	-.513**	.820**	—													
6. LFA (T2)	-.481**	-.491**	.623**	-.585**	-.723**	—												
7. TFL (T3)	.630**	.538**	-.436**	.636**	.585**	-.472**	—											
8. TSL (T3)	.608**	.654**	-.502**	.537**	.660**	-.524**	.808**	—										
9. LFA (T3)	-.428**	-.514**	.586**	-.377**	-.519**	.628**	-.543**	-.649**	—									
10. TFL (T4)	.644**	.510**	-.430**	.587**	.545**	-.427**	.649**	.568**	-.366**	—								
11. TSL (T4)	.585**	.625**	-.512**	.507**	.594**	-.463**	.586**	.644**	-.417**	.823**	—							
12. LFA (T4)	-.442**	-.475**	.525**	-.328**	-.393**	.451**	-.451**	-.492**	.430**	-.560**	-.677**	—						
13. WL (T1)	-.201**	-.189**	.252**	-.143**	-.172**	.232**	-.123*	-.110*	.210**	-.081	-.108	.179**	—					
14. JC (T1)	.331**	.277**	-.268**	.219**	.223**	-.162**	.241**	.287**	-.257**	.220**	.174**	-.134*	-.548**	—				
15. RW (T1)	.391**	.363**	-.365**	.338**	.319**	-.350**	.301**	.275**	-.241**	.305**	.292**	-.199**	-.402**	.482**	—			
16. WL (T2)	-.154**	-.136**	.203**	-.178**	-.169**	.269**	-.078	-.050	.176**	-.063	-.084	.196**	.863**	-.436**	-.321**	—		
17. JC (T2)	.316**	.241**	-.297**	.315**	.280**	-.275**	.267**	.276**	-.308**	.292**	.238**	-.244**	-.528**	.808**	.483**	-.594**	—	
18. RW (T2)	.365**	.329**	-.392**	.369**	.341**	-.408**	.294**	.260**	-.286**	.271**	.248**	-.215**	-.369**	.371**	.878**	-.409**	.567**	—
19. WL (T3)	-.195**	-.173**	.246**	-.154**	-.156**	.250**	-.143**	-.113*	.216**	-.064	-.068	.202**	.890**	-.547**	-.363**	.927**	-.607**	-.410**
20. JC (T3)	.230**	.175**	-.238**	.185**	.166**	-.155**	.268**	.285**	-.323**	.176**	.129*	-.203**	-.474**	.787**	.308**	-.420**	.820**	.378**
21. RW (T3)	.324**	.309**	-.375**	.285**	.269**	-.327**	.328**	.292**	-.339**	.246**	.207**	-.204**	-.476**	.392**	.750**	-.452**	.508**	.838**
22. WL (T4)	-.146**	-.134**	.216**	-.123*	-.150**	.223**	-.096	-.103*	.211**	-.074	-.114	.258**	.832**	-.489**	-.248**	.864**	-.543**	-.330**
23. JC (T4)	.272**	.208**	-.283**	.278**	.248**	-.218**	.253**	.274**	-.305**	.262**	.235**	-.267**	-.411**	.745**	.453**	-.403**	.876**	.512**
24. RW (T4)	.335**	.289**	-.336**	.324**	.301**	-.327**	.326**	.297**	-.274**	.381**	.342**	-.318**	-.273**	.442**	.748**	-.317**	.667**	.773**
25. JS (T1)	.386**	.350**	-.378**	.258**	.238**	-.214**	.291**	.321**	-.236**	.207**	.230**	-.154*	-.505**	.543**	.419**	-.436**	.505**	.378**
26. TI (T1)	-.219**	-.173**	.213**	-.189**	-.158*	.145*	-.150*	-.109	.087	-.120	-.070	.057	.298**	-.318**	-.299**	.296**	-.334**	-.304**
27. BU (T1)	-.439**	-.377**	.425**	-.285**	-.237**	.234**	-.297**	-.286**	.240**	-.219**	-.205**	.165*	.413**	-.433**	-.403**	.386**	-.433**	-.381**
28. JS (T2)	.341**	.266**	-.321**	.404**	.353**	-.367**	.284**	.255**	-.257**	.229**	.146*	-.135	-.488**	.468**	.400**	-.553**	.610**	.477**
29. TI (T2)	-.187**	-.141*	.184**	-.210**	-.164**	.229**	-.191**	-.136*	.130*	-.136	-.066	.122	.263**	-.285**	-.268**	.332**	-.396**	-.316**
30. BU (T2)	-.255**	-.223**	.286**	-.342**	-.278**	.393**	-.258**	-.197**	.248**	-.146*	-.105	.172*	.425**	-.359**	-.398**	.502**	-.534**	-.485**
31. JS (T3)	.281**	.231**	-.290**	.169**	.184**	-.215**	.330**	.291**	-.292**	.211**	.174*	-.193**	-.408**	.435**	.337**	-.393**	.524**	.420**
32. TI (T3)	-.187**	-.119	.180**	-.157*	-.181**	.181**	-.248**	-.193**	.215**	-.135	-.108	.192**	.286**	-.297**	-.286**	.305**	-.371**	-.350**
33. BU (T3)	-.342**	-.254**	.319**	-.255**	-.240**	.324**	-.374**	-.322**	.394**	-.230**	-.207**	.261**	.399**	-.396**	-.361**	.384**	-.483**	-.432**
34. JS (T4)	.320**	.286**	-.354**	.346**	.327**	-.298**	.348**	.315**	-.288**	.403**	.411**	-.394**	-.370**	.425**	.370**	-.367**	.536**	.414**
35. TI (T4)	-.239**	-.177*	.198**	-.204**	-.196**	.168*	-.230**	-.219**	.155*	-.287**	-.275**	.261**	.238**	-.233**	-.244**	.287**	-.355**	-.315**
36. BU (T4)	-.328**	-.280**	.376**	-.270**	-.266**	.311**	-.333**	-.311**	.313**	-.426**	-.434**	.465**	.341**	-.379**	-.361**	.342**	-.459**	-.385**

Note. *p < .05; **p < .01; T: time; TFL: transformational leadership; TSL: transactional leadership; LFA: laissez-faire leadership; WL: workload; JC: job control; RW: reward; JS: job satisfaction; TI: turnover intentions; BU: burnout. All variables are factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1.

Table S5 (continued 1)

Correlations Among the Study Variables

	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
1. TFL (T1)																		
2. TSL (T1)																		
3. LFA (T1)																		
4. TFL (T2)																		
5. TSL (T2)																		
6. LFA (T2)																		
7. TFL (T3)																		
8. TSL (T3)																		
9. LFA (T3)																		
10. TFL (T4)																		
11. TSL (T4)																		
12. LFA (T4)																		
13. WL (T1)																		
14. JC (T1)																		
15. RW (T1)																		
16. WL (T2)																		
17. JC (T2)																		
18. RW (T2)																		
19. WL (T3)	—																	
20. JC (T3)	-.571**	—																
21. RW (T3)	-.540**	.527**	—															
22. WL (T4)	.884**	-.567**	-.434**	—														
23. JC (T4)	-.429**	.844**	.480**	-.527**	—													
24. RW (T4)	-.349**	.495**	.732**	-.321**	.671**	—												
25. JS (T1)	-.501**	.480**	.417**	-.456**	.461**	.368**	—											
26. TI (T1)	.331**	-.333**	-.332**	.297**	-.310**	-.280**	-.642**	—										
27. BU (T1)	.436**	-.408**	-.393**	.382**	-.388**	-.329**	-.728**	.688**	—									
28. JS (T2)	-.560**	.507**	.479**	-.494**	.533**	.460**	.699**	-.612**	-.622**	—								
29. TI (T2)	.344**	-.344**	-.305**	.286**	-.340**	-.326**	-.528**	.739**	.584**	-.676**	—							
30. BU (T2)	.484**	-.421**	-.443**	.435**	-.452**	-.447**	-.544**	.584**	.655**	-.747**	.726**	—						
31. JS (T3)	-.503**	.581**	.505**	-.446**	.481**	.436**	.675**	-.541**	-.570**	.707**	-.555**	-.539**	—					
32. TI (T3)	.385**	-.416**	-.419**	.325**	-.318**	-.335**	-.496**	.683**	.533**	-.535**	.693**	.564**	-.668**	—				
33. BU (T3)	.496**	-.539**	-.521**	.427**	-.447**	-.422**	-.547**	.522**	.663**	-.617**	.495**	.649**	-.741**	.626**	—			
34. JS (T4)	-.419**	.515**	.412**	-.460**	.539**	.515**	.659**	-.502**	-.534**	.688**	-.470**	-.463**	.722**	-.502**	-.603**	—		
35. TI (T4)	.316**	-.346**	-.311**	.364**	-.335**	-.353**	-.461**	.644**	.506**	-.492**	.667**	.446**	-.516**	.666**	.422**	-.641**	—	
36. BU (T4)	.382**	-.464**	-.410**	.459**	-.480**	-.470**	-.508**	.517**	.635**	-.593**	.469**	.561**	-.579**	.512**	.663**	-.787**	.658**	—

Note. $*p < .05$; $**p < .01$; T: time; TFL: transformational leadership; TSL: transactional leadership; LFA: laissez-faire leadership; WL: workload; JC: job control; RW: reward; JS: job satisfaction; TI: turnover intentions; BU: burnout. All variables are factor scores saved from the latent mean invariant measurement models with a mean of 0 and a standard deviation of 1.