Running Head. LONGITUDINAL SUPPORT PROFILES

Perceived Support Profiles in the Workplace: A Longitudinal Perspective

Gaëtane Caesens*
Université catholique de Louvain, Louvain-la-Neuve, Belgium
Alexandre J.S. Morin*
Substantive-Methodological Synergy Research Laboratory, Concordia University
Nicolas Gillet
Université de Tours, QualiPsy EE 1901, Tours, France
Institut Universitaire de France (IUF)
Florence Stinglhamber
Université catholique de Louvain, Louvain-la-Neuve, Belgium

*The contribution of the first (G.C.) and second (A.J.S.M.) two authors was equivalent. Their authorship order was thus randomized.

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Corresponding author:
Gaëtane Caesens,
Université catholique de Louvain - Psychological Sciences Research Institute
Place Cardinal Mercier, 10, L3.05.01, B-1348 Louvain-la-Neuve, Belgium
E-mail: gaetane.caesens@uclouvain.be

This is the prepublication version of the following manuscript:
Caesens, G., Morin, A., Gillet, N., & Stinglhamber, F. (in press). Perceived Support Profiles in the Workplace:A Longitudinal Perspective. *Group & Organization Management.* Early view doi: 10.1177/10596011211044581

Abstract

This research examines how employee's perceptions of three sources of support in the workplace (i.e., organization, supervisor, colleagues) combine within specific profiles, and the nature of the relations between these profiles and indicators of employees' psychological health (i.e., stress, sleep problems, psychosomatic strains, and depression). Furthermore, this research examines the within-sample and within-person stability of the identified support profiles over the course of an eight-month time interval. Latent profile and latent transition analyses conducted on a sample of 729 workers indicated six identical profiles across the two measurements occasions: 1-moderately supported; 2-weakly supported; 3-isolated; 4-well-supported; 5-supervisor supported; and 6-highly supported. Profile membership was very stable over time for most profiles, with the exception of the *isolated* profile which was only moderately stable. Furthermore, the *isolated* and *supervisor-supported* profiles presented the lowest levels of psychological health, while the *well-supported* and *moderately supported* profiles presented the highest levels of psychological health. Of particular interest, results suggested that some risks might be associated with the *highly supported* profile, although this result could be a simple reflection of the women-dominant composition of this profile. This research has implications for theory and practice, which will be discussed in the article.

Key words: Perceived organizational support, perceived colleagues support, perceived supervisor support, latent transition analysis, psychological health.

The costs of psychological health difficulties are massive for society. For instance, conservative estimates provided by the International Labor Organization mention costs corresponding to 3-4% of the European Union's gross domestic product (OECD, 2012). Chisholm et al. (2016) also suggested that the annual loss of productivity resulting from psychological difficulties approximates $925 billion. Given these costs, there is a clear need for research focusing on the identification of psychological health predictors. Given the time employees spend at work, it is not surprising to note that drivers related to the work domain, particularly those reflecting the way organizations treat and consider their employees, have been reported to have strong effects on people's psychological health both at and outside of work (Eisenberger & Stinglhamber, 2011). Perceived organizational support (POS), typically defined as employees' perceptions that their organization values their contributions and cares about their psychological health, represents one of those likely determinants that is also easily amenable to interventions as managers and practitioners can act upon to increase employees' psychological health (Caesens et al., 2018). Indeed, organizational support theory has long positioned POS (e.g., Eisenberger & Stinglhamber, 2011) as a key driver of employees' positive functioning at work and reducing psychological health problems.

Traditionally, organizational support theory has focused on the organization as the main provider of support. However, organizations themselves need to be analyzed and comprehended as the combination of multiple constituencies (Eisenberger & Stinglhamber, 2011). Employees are indeed able to differentiate the relationship they share with their organization as a whole relative to those they share with other organizational constituencies such as supervisors and coworkers (e.g., Stinglhamber et al., 2002). This multi-foci perspective led to a broadening of organizational support theory to encompass these constituencies, such as perceived supervisor support (PSS) and perceived colleagues support (PCS), respectively defined as employees' impressions that their supervisors and colleagues value their contributions and care about their psychological health (Eisenberger et al., 2002; Ladd & Henry, 2000).

To date, research has typically considered the isolated effects of POS, PSS, and PCS on employees' psychological health (e.g., Eisenberger & Stinglhamber, 2011; Ng & Sorensen, 2008). In the last years, several scholars have started to consider that organizational support theory "would benefit from adopting a broader vision of the POS development and influence, i.e., a vision that exceeds the two-way relationship between an employee and his/her organization" (Stinglhamber & Caesens, 2020, p. 86). From this perspective, recent research has revealed that POS perceptions are partly formed through social contagion (Zagenczyk et al., 2010) and social comparisons (Vardaman et al., 2016) processes involving the people with whom the focal employee interacts at work (e.g., supervisor and coworkers), thus highlighting the need to consider the broader social context in which these perceptions occur. Supporting this view, others have reinforced the need to focus on the combined role of multiple sources of perceived support at work by proposing the possible existence of a global support climate encompassing multiple constituencies (Stinglhamber & Caesens, 2020). Stinglhamber and Caesens (2020) have further noted that "it might indeed be possible that POS is irrelevant or has a less prominent role when employees experience high level of support from their supervisor or colleagues or, on the contrary, to have multiplying effect" (p. 85). For this reason, it appears that examining the combined role of POS, PSS, and PCS may help to clarify whether support from different sources go hand in hand (i.e., creating a global support climate), whether each source of perceived support rather emerges independently from one another (i.e., acting as specific sources of influence), or a combination of both.

These observations have led Caesens et al. (2020) to claim that person-centered research involving the three different sources of support (i.e., organization, supervisor, and colleagues) would help to better capture their joint effects on employees. Person-centered analyses, such as latent profile analyses (LPA), are well-suited to examine potential multiplying or compensatory effects of different sources of support (Caesens et al., 2020). Indeed, LPA explicitly relax the assumption of population homogeneity that characterize more typical variable-centered analyses (such as regression or structural equation modeling), making them particularly useful for the identification of naturally occurring subpopulations (i.e., profiles) of employees experiencing distinct support configurations (e.g., Meyer & Morin, 2016). Although this shift in attention toward support profiles through the application of person-centered methodologies is still in its infancy, this approach is naturally suited to the investigation of whether support perceptions generalize (i.e., the climate perspective) or not (i.e., the specific perspective) across sources, and of whether the response to this question varies across distinct subpopulations of employees.

To address these questions, the present longitudinal person-centered study aims to (1) identify profiles of employees presenting distinct naturally occurring configurations of POS, PSS, and PCS, as well as their prevalence; (2) assess the temporal stability of these support profiles over the course of eight months; and (3)

evaluate the influence of these support profiles on employees' psychological health (i.e., stress at work, sleep problems, psychosomatic complaints, and depression). In doing so, this research contributes to both theory and practice in at least three important ways. First, this study will generate new insights into the nature and consequences of the three sources of support (POS, PSS, and PCS) for employees' psychological health. As such, it will enlarge organizational support theory by examining whether and how the three sources of support generally combine and the effects of these combinations on employees' psychological health. For instance, person-centered results might reveal that multiplicative effects, whereby accumulation of support from multiple sources leads to greater, or lesser, benefits than what might be expected from their simple addition and could co-exist with compensatory effects, whereby one source of support might compensate for the lack of another, but among different types of employees.

Second, to date, the sole person-centered research conducted on organizational support theory (Caesens et al., 2020) has been cross-sectional and therefore did not address the important issue of profile stability. The present study thus seeks to contribute to our understanding of the potential dynamic nature of POS, PSS, and PCS (e.g., Caesens & Stinglhamber, 2020; Eisenberger et al., 2020) by considering the extent to which the identified support profiles display within-sample (i.e., whether the same profile is identified over time, with the same characteristics) and within-person (i.e., whether individuals correspond to similar profiles over time) similarity. A systematic examination of the potential stability or variability of social support profiles will further help to enrich organizational support theory by clarifying whether support profiles reflect some relatively stable phenomenon which can be used to guide interventions, or whether they reflect transient and unstable (within-sample instability) phenomena with limited practical utility (Morin, Meyer et al., 2016). Alternatively, extreme levels of within-person stability suggests that interventions are likely to be more demanding than if profile transitions are more frequent (Morin, Meyer et al., 2016).

Third, this research should help to guide practitioners and policy makers to optimize their allocation of supportive resources. Indeed, the person-centered approach is well-aligned with professionals' and managers' tendencies to think in terms of categories of employees (Meyer & Morin, 2016) and is also much closer to employees' reality. For instance, documenting the outcome (i.e., ill-being) implications of these profiles will help to decide which should be prioritized from an intervention perspective.

A Person-Centered Approach to Organizational Support Theory

Organizational support theory suggests that POS, PSS, and PCS all contribute to fulfill employees' basic socioemotional needs at work (e.g., the needs for esteem, approval, or emotional support), resulting in greater psychological health (Eisenberger & Stinglhamber, 2011). In addition, high levels of POS, PSS, and PCS are expected to convey to employees the idea that support (material or emotional) will be available to help them maintain adequate levels of performance under stressful conditions, leading to higher levels of psychological health (Eisenberger & Stinglhamber, 2011). In other words, high levels of perceived support from the organization, the supervisor, or colleagues are likely to convey to employees the idea that these entities would be especially helpful during periods of stress and difficulties (e.g., Eisenberger & Stinglhamber, 2011), thus helping to foster optimal functioning and reducing health impairment.

Supporting these theoretical propositions, most variable-centered studies have demonstrated positive relations between POS, PSS, and PCS and various indicators of employees' psychological health such as higher levels of satisfaction at work, and lower levels of sleep difficulties, emotional exhaustion, and stress at work (e.g., Caesens et al., 2014; Eisenberger et al., 1997). Nevertheless, despite the observation that these three facets of support tend to be moderately to strongly correlated, prior research has been limited in considering each of these three sources of support in an isolated manner, thus failing to consider their combined effects in the prediction of employees' psychological health (e.g., Ng & Sorensen, 2008). In line with this perspective, Caesens et al. (2020) recently claimed that these three sources of support "were likely to have compensatory (i.e., employees require a certain amount of support to function in an optimal manner, and this support can be supplied by a variety of sources) or mutually reinforcing (i.e., each source of support helps to reinforce the benefits afforded by the other sources) effects" (p. 689), and that this should be more extensively examined. Following from this claim, the present study seeks to identify naturally occurring profiles of employees characterized by quantitatively and qualitatively distinct configurations of POS, PSS, and PCS, and to examine the effects of these profiles on employees' psychological health.

Within organizational support theory research, evidence from variable-centered studies seeking to explain relations among variables as they occur on average in a specific sample of participants (Howard & Hoffman, 2018) reveals positive correlations between POS, PSS, and PCS. These correlations suggest that employees often generalize the treatment they receive from their supervisors (PSS) or colleagues (PCS) to the whole

organization (POS) (e.g., Stinglhamber et al., 2015). For instance, Eisenberger et al. (2002), based on a cross-lagged panel design with a three-month interval, found that PSS was related to temporal changes in POS, whereas the reverse was not true. In addition, some studies revealed that supervisors' POS trickled down to positively influence subordinates' POS through subordinates' PSS (Shanock & Eisenberger, 2006). In other words, PSS and PCS may generate positive effects on employees' psychological health through POS. Simosi (2012) also demonstrated mutually reinforcing associations between POS, PSS, and PCS while testing two-way interactions between these sources of support. More precisely, the benefits of PSS in terms of training transfer were more pronounced at high levels of POS, whereas the benefits of PCS in terms of affective commitment were increased at high levels of POS. In short, prior variable-centered research suggests that POS, PSS, and PCS generally converge, and that each source of support could reinforce the benefits afforded by the other sources. These results lead us to expect that some profiles should be characterized by converging levels of support across sources, and evidence from mean levels of support reported in prior research (e.g., Eisenberger et al., 2019) suggest that these "converging" profiles should be characterized by low, average, or high levels of POS, PSS, and PCS.

However, some studies have suggested that it might be unwarranted to assume that the effects of POS, PSS, and PCS are similar and act in the same direction (e.g., Caesens et al., 2020; Ng & Sorensen, 2008; Shi & Gordon, 2020). In this perspective, Eisenberger et al. (2020) claimed that in heterogenous organizations (e.g., geographically distributed organizations or organizations in which employees are exposed to various stressors specific to their own job), some ways of supporting employees may be more effective than others (e.g., PSS or PCS might be more relevant than to POS). In line with this proposition, variable-centered investigations of interaction effects have revealed compensatory effects between POS and PSS in the prediction of organizational outcomes. For instance, Maertz et al. (2017) found that the negative relation between POS and turnover was reinforced when PSS was low. Similarly, they found that low levels of POS strengthened the negative relation between PSS and turnover. Identical findings were reported by Erickson and Roloff (2007) in the prediction of organizational commitment among a population of workers who survived a layoff. More precisely, there results suggested that a certain amount of workplace support might be required, but may be supplied by alternative sources such as the supervisor, the organization, or a combination of both. Therefore, these results led us to expect the identification of additional profiles characterized by non-matching levels of perceived support across sources, particularly between PSS and POS.

To the best of our knowledge, only one recent study (Caesens et al., 2020) adopted a person-centered approach to investigate the combined effects of POS, PSS, and PCS. Their results revealed five profiles of employees differing in their levels of POS, PSS, and PCS. More particularly, three profiles with converging levels of support across the three sources were identified: (1) Moderately supported (i.e., moderate levels of POS, PSS, and PCS); (2) weakly supported (low levels of POS, PSS, and PCS), and (3) highly supported (high levels of POS, PSS, and PCS). Two additional profiles, characterized by diverging levels of support across sources, were also identified: (4) Supervisor supported (i.e., high PSS, moderate PCS, and low POS), and (5) Isolated (low POS and PSS, and moderate PCS). On this basis, we expect that:

Hypothesis 1. At least three profiles showing convergent levels of support across sources (low, moderate, and high), as well as at least one profile characterized by non-matching levels of support across sources, will be identified.

A Longitudinal Person-Centered Perspective

A second objective of this research is to assess the stability of the identified support profiles. As noted by Meyer and Morin (2016; also see Meyer et al., 2018), it is critical to ascertain the stability of person-centered solutions in order to be able to support their utilization as guides for the development of intervention strategies tailored at distinct types, or profiles, of employees. Two distinct forms of longitudinal stability can, and should, be considered (Gillet et al., 2017; Kam et al., 2016). A first form of longitudinal stability, within-sample stability, is related to the nature of the profiles themselves, which could change over time. For example, the number or structure of the profiles could change over time, which would suggest that the profiles have only limited usefulness as intervention guides as they apparently reflect highly transient phenomenon, or that the sample under consideration has recently been exposed to internal or external changes. More importantly, the ability to devise interventions focused at specific profiles of employees requires the ability to assume that profiles of the same nature would be identified over time and across distinct samples.

These two forms of within-sample profile stability are typically referred to as configural (same number of profiles) and structural (profiles with the same nature) similarity (Morin, Meyer et al., 2016). In contrast, changing circumstances may lead to a change in the degree of similarity among members of specific profiles

(dispersion similarity), or in the relative size of the profiles (distributional similarity). These two subtypes of within-sample profile stability do not preclude the reliance on person-centered solutions as intervention guides, but suggest that the identified profiles show some degree of reactivity to internal or external changes.

A second form of longitudinal stability, within-person stability, is related to changes in the degree to which employees correspond to specific profiles over time (Gillet et al., 2017; Kam et al., 2016) and can be observed in the absence of within-sample changes. Thus, observing a general increase in POS could alternatively be expressed, at the profile level, into: (a) increases in the number of employees corresponding to profiles with higher levels of POS (within-sample distributional instability); (b) changes in the nature of the identified profiles which come to present higher levels of POS (within-sample structural instability); and (c) a high number of employees who transition toward profiles in which POS levels are higher (within-person instability). For intervention purposes, although some evidence of within-person stability is required to ascertain that individual profile membership does not randomly fluctuate over time, evidence that within-person changes do happen is critical in order to support the assumptions that interventions are worth the effort.

If we more carefully examine the bulk of past variable-centered longitudinal studies conducted on POS or PSS over the course of several months, most of them have relied on autoregressive cross-lagged analyses to examine the longitudinal associations between POS or PSS and a variety of antecedents or outcomes (e.g., Eisenberger et al., 2002, 2014; Neves & Eisenberger, 2012). Overall, these studies reported moderate to high estimates of rank-order stability for POS and PSS over a period of three to five months (e.g., Caesens et al., 2016; Eisenberger et al., 2002, 2014). Yet, no longitudinal research on POS, PSS, and PCS was conducted using a person-centered approach.

Interestingly, Ciarrochi et al. (2017) relied on a longitudinal person-centered approach to study profiles of perceived support outside of the work area (i.e., among secondary school students), and found that membership (i.e., within-person stability) into their isolated, weakly supported, or moderately supported profiles remained relatively stable over time, and mainly characterized by downward transitions toward profiles characterized by lower levels of support. Conversely, adolescents presenting more desirable profiles displayed a lower level of within-person stability in profile membership, mainly related to upward transitions toward more desirable profiles. Yet, this study was conducted during a different developmental period (the transition was assessed across grades 8 and 11) in which adolescents' relationships with peers and adults are known to undergo major transformations. As such, these results are unlikely to be directly transposable to this study of working adults. Despite this, it is noteworthy that Ciarrochi et al. (2017) found no evidence of within-sample differences occurring at the configural, structural, or dispersion levels, only revealing a few relatively small distributional changes. Therefore, based on these various sources of evidence, we propose that:

Hypothesis 2. The identified support profiles will display a moderate to high level of within-sample stability and of within-person stability.

Support Profiles at Work and Employees' Psychological Health

A key tenet of organizational support theory is that being able to feel valorized and cared for by one's colleagues, supervisor, and organization will contribute to the fulfillment of employees' basic socio-emotional needs and will convey to employees the idea that help will be available when needed, which in turn should contribute to maintain their psychological health (Eisenberger & Stinglhamber, 2011). In line with this, prior variable-centered research has established positive associations between each source of support (POS, PSS, and PCS) and various indicators of employees' psychological health at work, such as job satisfaction, reduced stress levels at work, and lower levels of sleep difficulties (e.g., Caesens et al., 2014; Eisenberger & Stinglhamber, 2011). Because psychological health occupies such a key position in these models, this study was designed to ascertain the construct validity (Meyer & Morin, 2016) of the support profiles related to indicators of psychological health both in and out of the work setting.

Over time, psychological health has been operationalized in many different ways, with the general recognition that it was a complex multifaceted construct (Diener et al., 1999; Gonzalez-Roma et al., 2006; Warr, 1990). The World Health Organization (2014) has synthetized these conceptions as encompassing various positive manifestations of psychological well-being (Su et al., 2014) as well as the absence of negative manifestations (ill-being or distress). In a recent study relying on a comprehensive set of positive and negative work-related manifestations of psychological health, Morin, Boudrias et al. (2016) showed that these manifestations could all be considered to reflect a single overarching continuum of psychological health. In this research, we consider affective (stress at work and depression) and somatic (psychosomatic complaints and sleep problems) manifestations of psychological health. This decision is anchored on the general recognition that these affective and somatic components are among the most important facets of employees' psychological

health at work, due to their important impact on both the employees and the organization (medical leave, loss of productivity, etc.) (e.g., Diener et al., 2003; Van Horn et al., 2004).

Organizational support theory and research have rarely focused on the combined effects of multiple sources of support (i.e., POS, PSS, and PCS), limiting their ability to generate expectations regarding the associations between support profiles and psychological health (Stinglhamber & Caesens, 2020). As a whole, organizational support theory assumes that higher levels of support are necessarily best for employees, and that each source of support is useful. Yet, organizational support theory also claims that PSS and PCS are able to drive POS (Eisenberger & Stinglhamber, 2011), ultimately resulting in positive outcomes notably for employees' psychological health. Furthermore, a series of studies by Shanock and Eisenberger (2006) found that trickle down effects of support exist within organizational support theory, such as supervisors who themselves perceive being more supported by the organization (POS) tend to generate more positive perceptions of supervisor support (PSS) among their subordinates, which in turn also increased subordinates' POS. Taken together, these studies suggest the existence of some sort of support culture in organizations, driven by POS, leading to normative expectations that supervisors and colleagues should provide levels of support that match those of the organization. In contrast, low POS may indicate that the organizational culture is not one of support, thus leading to lower PCS and PSS. In other words, each source of support might be able to drive other sources of support and help maximize their benefits, thus generating mutually reinforcing effects on psychological health. Supporting this proposition, Caesens et al. (2020) found that the most desirable outcomes (i.e., high job satisfaction, affective commitment, and performance) were linked to the "highly support profile", whereas the worst outcomes were associated with the "isolated" profile. These various considerations lead us to expect that:

Hypothesis 3. The most desirable levels of psychological health (lower levels of stress at work, sleep problems, psychosomatic complaints, and depression) will be found in the profiles exposed to highest levels of support across the three sources, whereas the least desirable levels of psychological health (lower levels of stress, sleep problems, psychosomatic complaints, and depression) will be found in the profiles exposed to the lowest levels of support across the three sources.

In addition, prior studies (e.g., Maertz et al., 2017) exploring compensatory effects of support highlighted the possibility that having access to one, relative to no, source of support should be more beneficial than the accumulation of additional sources of support beyond that first one. Supporting this hypothesis, Ciarrochi et al. (2017) showed that severe psychological difficulties were associated with their isolated profile, with important benefits related to having access to any source of support relative to this isolated profile, but more limited benefits related to being able to benefit from three sources of support relative to one or two. Furthermore, using a scenario-based experimental design, Shi and Gordon (2020) analyzed the combined impact of PSS and POS and the situations in which the levels of PSS and POS may vary. More precisely, they examined the effects of four scenarios on employees' levels of work engagement and of psychological contract perceptions: (a) high POS and high PSS, (b) low POS and low PSS, (c) high PSS and low POS, and (d) low PSS and high POS. Participants in the high POS and low PSS, low POS and high PSS, and low POS and low PSS scenarios reported higher levels of psychological contract breach and lower levels of work engagement than those in the high POS and high PSS scenarios. More importantly, levels of psychological contract breach and work engagement were respectively higher and lower in high POS and low PSS scenario than in the low POS and high PSS scenario. This results thus suggests that a lack of PSS might be more problematic than a lack of POS. Taken together, all of these results suggest that having access to one (e.g., PSS), relative to no, source of support might be more beneficial than the accumulation of additional sources of support beyond that first one. However, for the moment, it remains hard to pinpoint whether these compensatory effects might be more or less pronounced for some sources of support than others, leading us to propose that:

Hypothesis 4. The relations between employees' levels of psychological health and their support profiles will be defined by diminishing returns, with the most pronounced benefits related to having access to one source of support relative to none, moderate benefits related to having access to two sources of support relative to one, and the smallest benefits related to having access to three sources of support relative to two. Nevertheless, due to the absence of strong theoretical and empirical guidance, we leave it as an open question which sources of support might generate more benefits for employees' psychological health as compared to other sources of support.

Method

Participants and Procedure

Participants were invited to complete questionnaires twice over a period of eight months. Their recruitment was done via a UK crowdsourcing platform, Prolific Academic, and questionnaires were administered online at

both time points. A time lag of eight months was selected on the basis of previous studies revealing that POS ratings tended to be highly stable over shorter time lags of three to four months (r = .63 to .83; Caesens et al., 2016; Eisenberger et al., 2002), to become less stable for longer intervals of five to eight months (r =.52 to .57; Eisenberger et al., 2014; Kelley et al., 2014), before reducing further over even longer intervals of two to three years (r = .34 to .42; Chen, et al., 2009; Neves & Eisenberger, 2012). Before completing each questionnaire, participants were told that participation was voluntary and confidential, that they could freely withdraw from the project at any time and were provided information on the objectives of the research. They were also asked to provide a unique identifier to allow the research team to match their responses over time while maintaining confidentiality. At both time points, participants received £1.50 for the time it took to complete the measures (15 minutes). The University Research Ethics committee of the first author's institution reviewed and approved this project.

Recruitment was limited to participants who: (1) worked full time; (2) were native English speakers; (3) were not self-employed; and (4) had an approval rate of at least 90% on Prolific Academic (i.e., a measure of trustworthiness based on the completion of previous surveys). Furthermore, the survey included two questions assessing participants' attention (e.g., "It is important that you pay attention to our survey. Please tick strongly disagree"), and one final question verifying "for scientific reasons", if they really worked for an external company. Only respondents who successfully completed all of those verification questions were included in the study, leading to 729 participants at Time 1 (T1) and 396 at Time 2 (T2: eight months later). Of those participants, 51.99% were males and 46.50% held a bachelor degree. Participants had a mean age of 35.16 years (SD = 10.88) and a mean tenure in the organization of 6.04 years (SD = 6.28). Participants who completed both time points, when compared to those who only participated at T1, presented slightly lower levels of psychosomatic complaints (.2 SD; $p \leq .01$) and depression (.25 SD; $p \leq .01$). They also had slightly more tenure (1 year on average; $p \leq .05$) and were slightly older (3 years on average; $p \leq .01$).

Measures. All items were rated on a 7-point response scale ranging from "Strongly Disagree" to "Strongly Agree", unless otherwise indicated.

Perceived support. POS was measured using 6 items (e.g., "*My organization cares about my general satisfaction at work"*; α = .93 at T1 and .95 at T2) from Eisenberger et al.'s (1986) Survey of Perceived Organizational Support (SPOS). PSS (e.g., "*Even if I did the best job possible, my supervisor would fail to notice"*, reversed item; α = .94 at T1 and .96 at T2) and PCS (e.g., "*My colleagues really care about my well-being";* α = .90 at T1 and .91 at T2) were each assessed using an adaptation of the same 6 items. In accordance with previous studies, this adaptation was done by replacing "organization" by "supervisor" or "colleagues" (e.g., Eisenberger et al., 2002; Ladd & Henry, 2000).

Stress. Participants' levels of work-related stress were measured using six items from House and Rizzo (1972; e.g., *"I work under a great deal of tensions"*; α = .88 at T1 and .88 at T2).

Sleep Problems. Sleep problems were assessed using three items from Derogatis (1977) (e.g., *"I have difficulties to fall asleep*"; α = .69 at T1 and .74 at T2).

Psychosomatic Complaints. Psychosomatic complaints were assessed using 5 items from the Spector and Jex's (1998) Physical Strains Inventory (PSI; α = .81 at T1 and .80 at T2). Participants indicated the frequency at which they had been bothered by each symptom (e.g., *"headache", "loss of appetite", "fatigue"*) during the last month on a 1-to-7 response scale ranging from "Never" to "Always".

Depression. Depression was measured using nine items (α = .90 at T1 and .88 at T2) from the Patient Health Questionnaire (Spitzer et al., 1999). Following Hall et al.'s (2013) recommendation, we changed the time frame for reporting symptoms to focus on the past month rather than the past two weeks. Participants were asked to indicate the frequency at which they felt each symptom (e.g., *"Feeling down, depressed, or hopeless")* using a 4-point scale ranging from "Not at all" to "Nearly every day".

Control variables. Sex, age, and organizational tenure were measured and considered as control variables as they could potentially be related to POS, PSS, and PCS. Indeed, prior research suggested that women might feel a greater obligation to reciprocate for positive treatment received as compared to men (Kurtessis et al., 2017). Women might thus react more strongly to POS, PSS, and PCS and thus affecting the associations between the three sources of support and outcomes. Likewise, older workers (Kurtessis et al., 2017) and more tenured employees (Woznyj et al., 2017) have both been found to have more positive perceptions of their employing organization, thus making them more likely to entertain more positive perceptions of POS. In line with this, prior variable-centered research indicated that sex, age, and organizational tenure were correlated with POS (e.g., Miao & Kim, 2010), PSS (e.g., Sawang, 2012), and PCS (e.g., Caesens et al. 2014).

Analyses

Preliminary Analyses

The psychometric properties of all multi-item measures used in this research were first verified as part of preliminary factor analyses. Details on preliminary analyses, their invariance over time, composite reliability, and correlations are reported in the online supplements (Tables S1, S2, S3, and S4). The main analyses relied on factor scores taken from these preliminary analyses (Meyer & Morin, 2016; Morin, Meyer et al., 2016). To ensure comparability over time, factor scores were obtained from models specified as invariant longitudinally (Millsap, 2011), and estimated in standardized units (SD = 1; M = 0). Factor scores are able to achieve a partial control for unreliability (Skrondal & Laake, 2001) and to preserve the structure of the measurement model (e.g., invariance; Morin, Boudrias et al., 2016).

Model Estimation

Models estimation relied on the robust maximum likelihood estimator (MLR) implemented in Mplus 8 (Muthén & Muthén, 2017). Missing responses were handled using Full Information Maximum Likelihood procedures (FIML), allowing us to estimate longitudinal models using all participants who responded to at least one time point (N=729) and using all of the available information to estimate each model parameter (without relying on missing data replacement or imputation). It was thus not necessary to rely on a suboptimal listwise deletion strategy including only participants (N=396) who completed both measurements. FIML is recognized to be as efficient as multiple imputation, but less computationally demanding (Enders, 2010; Graham, 2009; Jeličič, et al., 2009). Latent profile analyses (LPA) are sensitive to the start values used in the model estimation process (Hipp & Bauer, 2006). For this reason, all models were estimated using 5000 sets of random start values allowed 1000 iterations each, and final stage optimization was conducted on the 200 best solutions. These numbers were changed to 10000, 1000, and 500 for the longitudinal analyses.

Latent Profile Analyses (LPA)

LPA models are designed to examine the multivariate distribution of scores on a set of profile indicators to summarize this distribution via the identification of a finite set of latent subpopulations, or profiles, of participants characterized by distinct configurations on this set of indicators, while allowing for within profile variability on all indicators (McLachlan, & Peel, 2000). These profiles are similar to prototypes, and called latent to reflect their probabilistic nature (Morin et al., 2018). More precisely, each participant is assigned a probability of membership in each of the latent profiles, which provide a way to assess the LPA model while controlling for classification errors. In this study, time-specific LPA models were first estimated using the three support factors as indicators. For each time point, solutions including 1 to 10 profiles were contrasted. In these solutions, the means of POS, PSS, and PCS were freely estimated in all profiles. Although there are advantages to also allowing for the free estimation of the indicators' variance across profiles (Morin, Maïano, et al., 2011), these alternative models were associated with convergence issues (e.g., nonconvergence, impossible parameter estimates). These convergence problems suggest that these models might have been overparameterized and support the value of our more parsimonious models (Chen et al., 2001).

Model Comparison and Selection

The decision of how many profiles to retain at each time point is predicated on a consideration of whether the profiles themselves are meaningful, aligned with theory, and statistically adequate (Marsh et al., 2009; Morin, 2016). Statistical indicators (McLachlan & Peel, 2000) can also be consulted. Thus, a lower value on the Akaïke Information Criterion (AIC), Consistent AIC (CAIC), Bayesian Information Criterion (BIC), and sample-size Adjusted BIC (ABIC) indicate better fitting models. Likewise, statistically significant p-values on the adjusted Lo, Mendell and Rubin's (2001) Likelihood Ratio Test (aLMR), and Bootstrap Likelihood Ratio Test (BLRT) suggest better fit relative to a model with one fewer profile.

Statistical research has shown the BIC, CAIC, ABIC, and BLRT, but not the AIC and aLMR, to be efficient at helping to identify the number of latent profiles (Diallo et al., 2016, 2017). For this reason, the AIC and aMLR will not be used for purposes of model comparison and selection but will still be reported for purposes of transparency. These tests all present a strong sample size dependency (Marsh et al., 2009). For this reason, they often fail to converge on a specific number of profiles. When this happens, it is usually recommended to rely on a graphical display of these indicators, referred to as an elbow plot, in which the observation of a plateau may help to pinpoint the optimal solution (Morin, Maïano et al., 2011). Finally, the classification accuracy (from 0 to 1) of the model is summarized by the entropy, which is not a reliable indicator of the optimal number of profiles present in a solution (Lubke & Muthén, 2007).

Longitudinal Tests of Profile Similarity

Assuming that the same number of profiles would be extracted at both time points (Morin & Wang, 2016), the two time-specific LPA solutions will be combined into a longitudinal LPA for longitudinal tests of profile

similarity. Morin, Meyer et al.'s (2016) recommendations, optimized for the longitudinal context by Morin and Litalien (2017), were used to guide these tests. This sequential strategy starts by assessing if each measurement occasion results in the estimation of the same number of profiles (i.e., *configural* similarity). Equality constraints can then be imposed on the within-profile means (*structural* similarity), variances (*dispersion* similarity), and size (*distributional* similarity). The CAIC, BIC, and ABIC can be used to contrast these models so that each form of profile similarity can be considered to be supported as long as at least two of these indices decrease following the integration of equality constraints (Morin, Meyer et al., 2016).

Latent Transition Analyses (LTA)

The most similar longitudinal LPA solution will then be re-expressed as a LTA to investigate within-person stability (and transitions) (Collins & Lanza, 2010). This LTA solution, as well as all following analyses, were specified using the manual 3-step approach (Asparouhov & Muthén, 2014) following procedures outlined by Morin and Litalien (2017). Readers interested in a complete coverage of the technical and practical aspects involved in the estimation of LPA and LTA are referred to Morin and Litalien (2019).

Predictors and Outcomes of Profile Membership

Finally, we also assessed the extent to which the relations between profiles, predictors (*predictive* similarity), and outcomes (*explanatory* similarity) remained the same over time. Demographics (sex, age, and organizational tenure) were first considered and we examined whether associations between profile membership and these variables remained unchanged over time across a series of four models. First, we estimated a null effect model assuming no relations between these variables and the profiles. Second, the effects of these demographic controls were freely estimated, and allowed to vary over time and as a function of T1 profile membership (to assess the effects on specific profile transitions). Third, predictions were allowed to differ over time only. Finally, a model of *predictive* similarity was estimated by constraining these associations to be equal over time.

Finally, time-specific measures of the various outcomes (stress, sleep problems, psychosomatic complaints, and depression) were included to the model and allowed to vary as a function of participants' profile membership at the same time point. Importantly, Time 2 outcome measures can be considered to be controlled for what they share with their Time 1 counterparts (i.e., their stability) due to their joined inclusion in the model. *Explanatory* similarity was then assessed by constraining these associations to be equal over time. The multivariate delta method was used to test the statistical significance of differences in outcome levels across profiles (Raykov & Marcoulides, 2004). A final verification was conducted to verify whether these outcome associations would differ following the incorporation of the same demographic controls (i.e,, sex, age, and organizational tenure) in the model using McLarnon and O'Neill's (2018) ANCOVA-based approach to profile comparisons.

Results

Latent Profile Analyses (LPA)

The statistical indicators associated with each of the time-specific LPA solutions are reported in Table S5 of the online supplements, and graphically displayed in Figures S1 and S2 of the same online supplements. These indicators failed to pinpoint a clear dominant solution at both time points. However, the elbow plots reveal a plateau between four and six profiles at both time points. However, it is important to keep in mind that the decrease in the value of these indicators remains substantial in magnitude up until at least the seven-profile solution (Raftery, 1995). Solutions including four to seven profiles were thus carefully examined. This examination revealed that these solutions were highly similar across time points, and that addition of profiles added meaning to the model up to six profiles. Indeed, the six-profile solution resulted in the identification of the *supervisor supported* profile described below. However, adding a seventh profile simply resulted in the splitting of one profile into smaller ones presenting a comparable configuration. On the basis of this examination, we decided to retain the six-profile solution at both time points for further analyses.

The fit indices from all longitudinal models are reported in Table 1. Starting with a model of *configural* similarity including six profiles per time point, equality constraints were progressively integrated. The second model or *structural* similarity resulted in lower BIC, CAIC, and ABIC values, and was thus supported by the data. In contrast, the *dispersion* similarity of the model was not supported by the data, resulting in higher values on these information criteria. Next, starting from a model of *structural* similarity, the *distributional* similarity of the solution was also supported by the observation of lower values on these information criteria. The resulting model (*configural*, *structural*, and *distributional* similarity) is graphically represented in Figure 1 and was retained for interpretation. The parameter estimates from this solution can be consulted in Tables S6 and S7 of the online supplements. In practical terms, these results indicate that the same number of profiles, presenting

the same structure, and the same relative size, was identified at both time points. However, the level of within-profile dispersion (i.e., inter-individual variability, or differences, among members of the same profiles) appeared to be slightly lower at Time 2 (see Table S6). This result suggests increasing levels of similarity between profile members over time, but could also simply be due to the lower numbers of respondents at Time 2 which could have led to a reduction of within-profile variability. Furthermore, this solution is associated with a high level of classification accuracy, ranging from 82.2% to 93.0% across T1 profiles, from 81.1% to 95.4% at T2, and summarized in a high entropy value of .801.

Profile 1 displays a level of support from all sources (POS, PSS, and PCS) that is close to the sample average. This *moderately supported* profile characterizes 28.07% of the participants. Profile 2 includes participants reporting levels of POS, PSS, and PCS close to 1 *SD* below the sample mean. This *weakly supported* profile characterizes 16.05% of the participants. Profile 3 members report very low levels (close to 2 *SD* below the sample mean) of POS and PSS, coupled with low (close to 1 *SD* below the sample mean) levels of PCS. This *isolated* profile characterizes 6.12% of the participants. Profile 4 includes participants receiving moderately high levels of POS, PSS, and PCS (close to .5 *SD* above the sample mean). This *well-supported* profile characterizes 31.94% of the participants. Profile 5 presents moderately high levels of PSS (about .3 *SD* above the sample mean), moderate levels of PCS (close to the sample mean), and low levels of POS (more than 1 *SD* below the sample mean). This *supervisor supported* profile is the smallest and characterizes 4.79% of the participants. Finally, participants from Profile 6 report very high levels of POS, PSS, and PCS (close to 1 *SD* above the sample mean). This *highly supported* profile characterizes 13.04% of the participants. These results generally lend support to Hypothesis 1.

Latent Transitions Analyses (LTA)

The transition probabilities estimated as part of the LTA are reported in Table 2. Membership into Profiles 1 (*moderately supported*: stability of 95.4%) and 4 (*well-supported*: stability of 92.8%) are the most stable over time. Likewise, membership into Profiles 6 (*highly supported*: stability of 82.3%), 5 (*supervisor supported*: stability of 80.9%), and 2 (*weakly supported*: stability of 74.3%) are relatively stable. Conversely, membership into Profile 3 (*isolated*: stability of 59.2%) is not as stable. Thus, our results reveal a very high level of profile stability that appears to decrease slightly as the global level of support associated with each profile decreases. When coupled with the previously reported distributional similarity of the LPA solution, this relatively high within-person stability provides strong support to Hypothesis 2.

However, participants initially presenting a moderately high or high level of support across sources (Profiles 4 and 6), when they transition to another profile at T2, tend to retain a relatively high level of support: (a) 17.7% of the members of the *highly supported* profile at T1 transition to the *well-supported* profile at T2; (b) 5% of the members of the *well-supported* profile at T1 transition to the *highly supported* profile at T2. In contrast, members of the *moderately supported* at T1 mainly transition to the *weakly supported* profile at T2 (3.5%), although this transition remains rare. In contrast, when they transition to a new profile at T2, members of the *weakly supported* profile are equally likely to transition to the *moderately supported* profile (11.2%) and to the *isolated* profile (12.8%) at T2. Despite its stability, it is noteworthy that, when they transition to another profile at T2, initial members of the *supervisor supported* profile seem to be more likely to transition to the *isolated* profile (10%) than to the *highly supported* profile (4.7%). Finally, the most frequent transition for members of the *isolated* profile seems to be toward the *weakly supported* profile at T2 (21.3%). However, participants seem to be almost as likely to move to any of the other profiles (with the exception of the *supervisor supported*): 8.9% transition to the *moderately supported* profile, 3.9% to the *well-supported* profile, and 6.7% to the *highly supported* profile.

Demographic Predictors

As shown in Table 1, the lowest values on all information criteria were associated with the null effect model. This result supports the absence of relations between profile membership and the demographic controls. This interpretation was further supported by an examination of the parameter estimates associated with all these models, which support the lack of associations between these variables and the profiles.

Outcomes of Profile Membership

For both the initial models, as well as for the models including the demographic controls, the *explanatory similarity* solution resulted in the lowest values on the information criteria and was thus supported by the data (see Table 1). The mean levels of each outcome in each of the profiles are reported in Table 3 and graphically presented in Figure 2 for both types of solutions (excluding or including the controls).

Without Controls. For the initial model excluding the demographic controls, the results were fairly consistent across outcomes, and reveal clear differentiations across all profiles. The most desirable outcome

levels (i.e., lower levels of stress, sleep problems, psychosomatic complaints, and depression) were associated with Profile 4 (*well-supported*), followed in order by Profiles 1 (*moderately supported*), 6 (*highly supported*), 2 (*weakly supported*), 5 (*supervisor supported*), and finally by Profile 3 (*isolated*). Most of these comparisons were statistically significant, except for sleep problems which occurred equally in Profiles 2 (*weakly supported*) and 6 (*highly supported*), and for psychosomatic complaints which were equally frequent in Profiles 3 (*isolated*) and 5 (*supervisor supported*). These results thus only partially support Hypothesis 3 given the unexpected observation that more desirable outcome levels were associated with the *well-supported* relative to the *highly supported* profile and fail to support Hypothesis 4.

With Controls. For the second model including the demographic controls, the results were also fairly consistent across outcomes, but revealed a slightly different pattern of differences across profiles. Indeed, in this second model, the most desirable outcome levels (i.e., lower levels of stress, sleep problems, psychosomatic complaints, and depression) were associated with Profile 6 (*highly supported*), followed by Profiles 1 (*moderately supported*) and 4 (*well-supported*), which could not be differentiated form one another, and then by Profile 2 (*weakly supported*), followed by Profile 3 (*isolated*), and finally by Profile 5 (*supervisor supported*). The only exception to this pattern was that levels sleep problems did not differ between Profiles 2 (*weakly supported*) and Profile 3 (*isolated*). Although these results are more aligned with Hypothesis 3, they also deviate from it given the unexpected observation that least desirable outcome levels were associated with the *supervisor supported* profile. As before, these results fail to support Hypothesis 4.

Summary of Differences. Figure 2 summarizes the differences between these two solutions. First, differences in outcome levels were less marked when demographic controls are considered. Second, the differences between Profiles 1 (*moderately supported*) and 4 (*well-supported*) disappeared once controls were included in the model due to the fact that outcome levels increased (relative to their levels in the model excluding controls) to reach the sample average in Profile 4 (*well-supported*). Third, the incorporation of controls resulted in a marked decrease in the outcome levels (relative to the model excluding the controls) observed in Profile 6 (*highly supported*). Fourth, although both of these profiles remain characterized by the most undesirable outcome levels, the relative standing of Profiles 3 (*isolated*) and 5 (*supervisor supported*) was reversed in the model including the controls (5 > 3) relative to that excluding them (3 > 5). However, across models, Profiles 1 (*moderately supported*), 4 (*well-supported*) and 6 (*highly supported*) are associated with the most desirable outcome levels, whereas Profiles 5 (*supervisor supported*) and 3 (*isolated*) are characterized by the most undesirable outcome levels, with Profile 2 (*weakly supported*) falling in between.

Demographic Composition. Given the lack of predictive role played by the demographic variables in relation to the likelihood of profile membership, one can wonder what could explained these differences. However, the fact that demographic variables did not *predict* profile membership does not mean that the demographic *composition* of all profiles is identical. We report the demographic composition of the profiles in the bottom section of Table 3. As could be expected from our predictive results, these comparisons reveal few differences. However, these differences can still help to explain some of the differences in results. Thus, Profile 6 (*highly supported*) includes a greater proportion of women than all other profiles, suggesting that the higher prevalence of psychological difficulties often reported among working women (relative to working men; Lucia-Casademunt et al., 2018; Persson et al., 2012) could have explained the suboptimal outcomes associated with this profile when this demographic difference was not controlled for. In addition, Profiles 2 (*weakly supported*) and 3 (*isolated*) include slightly older and more tenured (although this last difference is not as marked) relative to the other profiles. This difference could possibly play a role in explaining the reversed standing of Profiles 3 (*isolated*) and 5 (*supervisor supported*) in the model including the controls (undesirable outcome levels 5 > 3) relative to that excluding them (3 > 5), suggesting that age and tenure could possibly be associated with lower levels of psychological difficulties (e.g., Ng & Feldman, 2010). However, as profile 1 and 4 did not differ in their demographic composition, their similarity in models including the controls could simply be an artefact of the greater complexity of the models including the controls.

Discussion

In this longitudinal research, we adopted a person-centered approach to investigate the combined effects of POS, PSS, and PSS, which were previously mainly studied in isolation (e.g., Ng & Sorensen, 2008). More precisely, this research sought to identify profiles of workplace support (POS, PSS, and PCS), to assess their stability over a time interval of eight months, and to examine the relative consequences of these profiles in terms of psychological health at work (i.e., depression, stress, psychosomatic strains, and sleep problems).

First, our results revealed six identical support profiles across two measurement points taken over a period of eight months. In line with organizational support theory (e.g., Eisenberger et al., 2002; Eisenberger &

Stinglhamber, 2011), which proposes that employees generalize the treatment from supervisors and colleagues to the whole organization, four of those profiles were characterized by matching levels of support from the three sources. Indeed, the *moderately supported* (Profile 1) *weakly supported* (Profile 2), *well-supported* (Profile 4), and *highly supported* (Profile 6) profiles respectively reported receiving moderate, low, moderately high, and very high levels of support from all sources. Thus, the adoption of a person-centered approach made it possible to achieve an integrated perspective on the various configurations taken by three sources of support (POS, PSS, and PCS), revealing that perceptions of support seem to be characterized by converging levels across sources (POS, PSS, and PCS) for a majority of employees (89.10%). This result is consistent with Caesens et al.'s (2020) findings showing that, for a majority of employees, higher or lower levels of POS are generally related to higher or lower levels of PSS or PCS. Overall, these results seem to corroborate the idea that the three sources of support reinforce one another by creating a more or less supportive climate in organizations. By alluding to the presence of a supportive climate, our results suggest that organizational support theory might thus benefit from future studies adopting a multi-level perspective to better unpack how the effect of group- or organization-levels of POS, PSS, and PCS differs from the effects of inter-individual differences in perceptions of support. More importantly, as we did not find a profile characterized by high levels of POS coupled by low or moderate levels of PSS and PCS (i.e., POS-dominant), these findings contribute to organizational support theory in providing evidence that POS generally acts in association with PSS and PCS, rather than in isolation.

Second, our results also revealed two profiles presenting diverging levels of support across the three sources. More precisely, the *supervisor supported* profile (Profile 5) was characterized by moderately low POS, moderate PCS, and moderately high PSS, whereas the *isolated* (Profile 3) presented very low levels of POS and PSS, and moderately low levels of PCS. These profiles are very similar to the "supervisor support" and "isolated" profiles identified by Caesens et al. (2020). In revealing profiles presenting distinct levels of POS, PSS, and PCS, our results support the distinct nature of these three sources of workplace support and the assertion that workers can develop well-differentiated support perceptions in relation to distinct organizational entities (e.g., Eisenberger & Stinglhamber, 2011; Ng & Sorensen, 2008).

In and of itself, the identification of a *supervisor supported* profile is aligned with Eisenberger et al.'s (2020) recent suggestion that PSS might play a more pivotal role than POS in some specific types of work contexts, and is consistent with prior variable-centered studies supporting the importance of compensating effects between these three sources of support, notably between PSS and POS (e.g., Shi & Gordon, 2020). Furthermore, this profile is also aligned with research focusing on the supervisor's organizational embodiment construct (e.g., Stinglhamber et al., 2015). Indeed, the supervisor's organizational embodiment construct suggests that the magnitude of an association between a supervisor-related variable and a matching organizational variable should be dependent on the extent to which employees see their supervisor as the embodiment of the whole organization (e.g., Stinglhamber et al., 2015). When the supervisor organizational embodiment is low, the supervisors' actions are simply seen as reflecting the idiosyncratic characteristics of the supervisor, whereas when the supervisor organizational embodiment is high, the supervisors' actions are seen as reflecting the will of the organization (e.g., Stinglhamber et al., 2015). The identification of a *supervisor supported* profile in which high levels of PSS co-exist with low level of POS suggests that a lack of supervisor organizational embodiment phenomenon appears to happen for at least 5% of the employees.

No profile was found to be characterized by divergent levels of PCS (i.e., a colleagues-supported profile), apart from the otherwise *isolated* profile in which levels of PCS were found to be slightly higher (albeit still well under the sample average) than PSS and POS. This last observation suggests that high levels of PCS are the prerogative of employees already able to benefit from POS and PSS. This rather intriguing result is consistent with prior work from Bommer et al. (2003) on organizational citizenship behaviors (OCB) who found that "when employees engage in OCB, they foster the occurrence of OCB among coworker" (p. 193), thus reinforcing the idea that future research would likely benefits from the adoption of a multilevel perspective to better understand how the reality of workgroup differs from that of individual workers.

Stability of Profiles over Time

This research relied on an innovative person-centered longitudinal design, allowing us to assess the within-sample and within-person stability of the identified support profiles. In relation to within-sample stability, we found that the nature of the identified profiles remained essentially unchanged over a period of eight months. This high stability supports the generalizability of this solution over time, as well as the idea that person-centered results do not reflect ephemeral phenomena. In relation to within-person stability, we found that membership into six of the identified support profiles remained moderately to highly stable (74.3% to 95.4%) over a time period of eight months. However, membership into the *isolated* profile appeared to be less stable over time

(59.2%), suggesting that changing the support profiles of isolated employees might be easier than changing the other profiles. This result is particularly important from a practical perspective and for evidence-based management practices. Indeed, it suggests that it might be easier to help isolated employees to become more integrated to their workplace than to change profile membership for other employees. We can speculate that employees suffering from social isolation may naturally try to act in order to solve this issue. If this is the case, this would suggest that such efforts have either failed, or are impossible to be undertaken for the most isolated employees, as they did not change profile over time. At this stage, these explanations remain speculative, but strongly pinpoint the need for upcoming research to more carefully consider the reasons underpinning continuity and change in terms of membership into this profile.

Support Profiles and Psychological Health

Our results showed that the identified workplace support profiles shared well-differentiated relations with outcomes, and that these associations were replicated across time points. Across solutions, the *well-supported, moderately supported,* and *highly supported* profiles are associated with the most desirable outcome levels, whereas the *supervisor supported* and *isolated* profiles were associated with the least desirable outcome levels, with the *weakly supported* profile falling in between these two extremes. With few exceptions, these results show that the overall presence of support at work, rather than the presence of specific sources of support, acted as a key driver of psychological health. Moreover, our results show that undesirable outcomes have a tendency to accompany low levels of POS, PSS, and PCS, as shown by Caesens et al. (2020). Yet, the levels of psychological health observed in the *supervisor supported* profile were lower than those observed in the *weakly supported* profile in the model excluding the demographic controls. Although our results suggest that this specific difference might partly reflect the greater age and tenure of the *isolated* employees, our results (with or without the demographics) still suggest that a profile characterized by high levels of supervisor support can be harmful for employees when this high level of PSS is not accompanied by matching levels of POS and PCS. This observation provides an important new insight to organizational support theory in revealing that the presence of a single source of support (e.g., the supervisor) is not able to fully compensate for a lack of support from other sources (e.g., the organization and colleagues). This observation complements prior findings obtained by Shi and Gordon (2020), who demonstrated that low PSS was more harmful for employees than low POS, by adding the caveat that PSS should not be used on its own. Clearly, future research is warranted to better understand the exact role of PSS, especially when employees are facing low levels of support from colleagues and the organization.

In addition, the results from our analyses excluding the demographic controls unexpectedly indicated that *highly supported* profile appeared to be less desirable, from an outcomes perspective, than the *well-supported* and *moderately supported* profiles. Our results also suggest that this specific difference might result from the greater proportion of women included in the *highly supported* profile relative to all other profiles, and to the fact that working women tend to display higher levels of psychological health difficulties than their male counterparts. However, despite this important sex-difference, it remains concerning to note that employees exposed to the highest levels of support from all sources did not also report higher levels of psychological health than their colleagues exposed to lower levels of social support. In fact, this result is particularly interesting given that prior variable-centered research has unanimously positioned support as a positive driver of work-related outcomes in a "the more, the better" perspective (e.g., Caesens & Stinglhamber, 2020). Yet, Caesens and Stinglhamber (2020) suggested that more research should be conducted to better understand the potential negative side of excessive levels of POS in order to achieve a more nuanced perspective on organizational support theory. In this regard, although sex seems to play a role in this association, our findings still suggest that extremely high levels of support from all sources (a strong climate of support) might be detrimental.

This interpretation is also aligned with prior variable-centered results revealing curvilinear relations between POS and employees' affective organizational commitment, trust, in-role performance, extra-role performance, and deviance (e.g., Harris & Kacmar, 2018). Just like here, these studies reveal that the most desirable outcomes tend to be associated with moderately high levels of POS. In line with this perspective, Gillet et al. (2019) found that POS is negatively linked to specific levels of imbalance in the satisfaction of employees' need for competence. This suggests that very high levels of POS might lead employees, particularly female employees, to believe that their organization has doubts regarding their competence, ultimately leading to negative consequences. Interestingly, similar curvilinear relations have been reported regarding the relation between Leader–member exchange (i.e., a construct close to PSS) and stress (Harris & Kacmar, 2006). Our results show that these prior results can be generalized to a consideration of the combined effects of multiple sources of support, and to outcomes more directly related to psychological health.

An alternative interpretation could be that the most highly supported employees could be those presenting the greatest number of ill-being symptoms (i.e., the lowest levels of psychological health), a possibility that it was not possible to directly assess in this study. Likewise, our results suggest that sex plays a central role in explaining this complex association between extreme levels of support and psychological health, so that once the demographic composition of the profiles is controlled for in the analyses, this *highly supported* profile becomes associated with the most desirable outcome levels. To address this important issue, future research relying on longitudinal designs specifically developed to assess the directionality of such associations (i.e., autoregressive cross-lagged models, latent change models), and to explore the sex-based underpinning of these relations, would be needed to confirm this potential drawback of an excessive level of support.

Limitations and Future Perspectives

This research presents limitations that should be acknowledged. First, this study assessed stability and change over a single time interval of eight months, which was not characterized by any specific or systematic change or transition for members of our sample. Clearly, estimates of stability reported in this study could be reduced if longer time intervals were considered, or if continuity and change were assessed across more meaningful transitions (e.g., promotion, newcomers, changes of jobs, supervisors or workgroups) or interventions (e.g., organizational transformations). Thus, future research should examine whether these results would generalize to longer time intervals, and whether and how they would react to contextual changes occurring in the lives of employees or in relation to organizational functioning.

Second, although our study considered some demographic controls (age, sex, and tenure) of profile membership which appeared to play a relatively minor role in relation to the outcome variables considered here, it would be interesting for future research to consider a more extensive set of predictor variables expected to have an influence on employees' support perceptions, such as organizational justice, job security, positive and negative affectivity or organization size (e.g., Kurtessis et al., 2017). More importantly, other demographic correlates (e.g., ethnicity, religion, sexual orientation, marital status) could have played a role in the results. Future research may want to consider the role of these variables.

Third, this research relied on a convenience sample of highly educated workers, thus limiting the generalizability of our results. Future research is therefore needed to replicate our findings among diverse and more representative populations of workers. Fourth, this research relied on self-report measures. Even if our concepts are explicitly conceptualized as perceptual (de Vos et al., 2009), social desirability and other perceptual biases might still have played a role in this study. It would be interesting for upcoming research to rely on more objective data and on informant-reported measures. However, Meyer and Morin (2016) noted that shared method variance was not likely to play any role in our results given "a formal equation-based demonstration (Siemsen et al., 2010) that multivariate analyses, where effects are estimated from predictors' unique (i.e., not shared) contribution, are naturally protected against biases related to shared method variance"(p.602) and that "for similar reasons, mixture models are unlikely to be biased by shared method variance because they aim to explain covariances among a set of indicators through the extraction of profiles that are distinct from one another. As such, any uncontrolled source of shared influence is only likely to result in a slightly lower level of dispersion in the profile" (p.602).

Lastly, prior research has noted the relevance of additional sources of support from within (e.g., customers) or outside (e.g., family, partner, friends) of the work environment as determinants of psychological health (e.g., Greenglass et al., 1994). It would be interesting for upcoming research to examine employees' profiles anchored in a broader set of possible sources of support, and to contrast employees' reports of the support received from these sources, with informant reports of the support provided to the target employee. In particular, it might be informative to systematically assess the possible complementary, synergistic, or compensatory effects of support occurring within and outside of the workplace.

Practical Implications

The current results have implications for practice. First, our findings revealed that work remains to be done to increase support perceptions in the workplace. Thus, over 22% of employees reported receiving low to very low levels of support from all three sources. This *isolated* profile was also associated with some of the highest levels of stress, sleep problems, psychosomatic strains, and depression observed in the present study. Likewise, despite the desirability of workplace support, and the ability of supervisor to provide support to otherwise isolated workers, the current results reveal that the close to 5% of employees corresponding to a supervisor-supported profile (dominated only by PSS) did not really fare much better than their completely *isolated* colleagues. In fact, the differences observed between these two profiles seemed to mainly reflect differences in

age and tenure than differences in the actions of the various sources of support. This last result thus suggests that interventions seeking to mainly increase PSS will not be sufficient if they are not matched by efforts to globally increase the overarching support culture of the workplace.

More importantly, despite the fact that membership into most of the identified profiles proved to be quite stable over time, our results also revealed that change in profile membership was possible, thus reinforcing the value of interventions designed to promote support in the workplace. In particular, our results also suggest that such efforts are likely to pay off due to the benefits of the more desirable support profiles in relation to employees' psychological health. Nevertheless, our results also suggested that extremely high levels of support might be detrimental, although they also suggest that this observation could simply reflect the women-dominant composition of the *highly supported* profile. Still, pending further research designed to better unpack the reasons behind the unexpected finding that *highly supported* might not really fare better than their colleagues exposed to more moderate levels of support (i.e., the *moderately supported* and *well-supported* profiles), managers should be aware of the possible "too much of a good thing" effect. In practice, this means being careful in their provision of support, but also in their identification of employees who might be exposed to unnecessarily high levels of support across sources. For instance, managers might be coached to better communicate to what extent they value the contributions of their subordinates and by learning how to address employees' errors in a more supportive manner (Eisenberger et al., 2020). Simultaneously, they should also be trained to foster a climate of support among employees (i.e., to foster PCS) by communicating the meanings and importance of supportive norms to newcomers and by supporting the development of informal mentoring activities or social events. Finally, managers should be trained to nurture a climate where supportive interactions between colleagues and across organizational levels is the norm (Newman et al., 2012).

In general, the three sources of support seemed to be aligned with one another for a majority of employees. This suggests that initiatives aiming to increase any type of support (i.e., POS, PSS or PSS) might contribute to the development of an overall climate of support in the workplace. To achieve this objective, top management might promote a supportive culture within their organization (e.g., by promoting perceptions of procedural justice, offering personal development plans, reducing job insecurity; Eisenberger et al., 2020; Eisenberger & Stinglhamber, 2011). Top managers should also ensure that they communicate the voluntary nature of any favorable actions or promotion taken toward their employees (e.g., Eisenberger et al., 2020; Eisenberger & Stinglhamber, 2011). Positive treatments are, indeed, more strongly related to POS when they are perceived as discretionary rather than due to external constrains (Eisenberger et al., 1997).

References

Asparouhov, T., & Muthén, B.O. (2014). Auxiliary variables in mixture modeling: Three-step approaches using Mplus. *Structural Equation Modeling*, *21*(3), 1-13. https://doi.org/10.1080/10705511.2014.915181

Bommer, W.H., Miles, E.W., & Grover, S.L. (2003). Does one good turn deserve another? Coworker influences on employee citizenship. *Journal of Organizational Behavior*, *24*(2), 181-196. https://doi.org/10.1002/job.187

Caesens, G., Gillet, N., Morin, A.J.S., Houle, S.A., & Stinglhamber, F. (2020). A person-centered perspective on social support in the workplace. *Applied Psychology*, *69*(3), 686-714. https://doi.org/10.1111/apps.12196

Caesens, G., Marique, G., Hanin, D., & Stinglhamber, F. (2016). The relationship between perceived organizational support and proactive behaviour directed towards the organization. *European Journal of Work and Organizational Psychology*, *25*(3), 398-411. https://doi.org/10.1080/1359432X.2015.1092960

Caesens, G., & Stinglhamber, F. (2020). Toward a more nuanced view on organizational support theory. *Frontiers in Psychology*, *11*, 476. https://doi.org/10.3389/fpsyg.2020.00476

Caesens, G., Stinglhamber, F., Demoulin, S., & De Wilde, M. (2017). Perceived organizational support and employees' well-being: The mediating role of organizational dehumanization. *European Journal of Work and Organizational Psychology*, *26*(4), 527-540. https://doi.org/10.1080/1359432X.2017.1319817

Caesens, G., Stinglhamber, F., Demoulin, S., De Wilde, M., & Mierop, A. (2018). Perceived Organizational Support and Workplace Conflict: The Mediating Role of Failure-Related Trust. *Frontiers in Psychology*, *9*, 2704-2704. https://doi.org/10.3389/fpsyg.2018.02704

Caesens, G., Stinglhamber, F., & Luypaert, G. (2014). The impact of work engagement and workaholism on well-being: The role of work-related social support. *Career Development International*, *19*(7), 813-835. https://doi.org/10.1108/CDI-09-2013-0114

Chen, F., Bollen, K., Paxton, P., Curran, P., & Kirby, J. (2001). Improper solutions in structural question models: Causes, consequences, and strategies. *Sociological Methods & Research*, *29*(4), 468-508. https://doi.org/10.1177/0049124101029004003

Chen, Z., Eisenberger, R., Johnson, K.M., Sucharski, I.L., & Aselage, J. (2009). Perceived organizational support and

extra-role performance: Which leads to which? *Journal of Social Psychology*, *149*(1), 119-124. https://doi.org/10.3200/SOCP.149.1.119-124. PMID: 19245052.

Chisholm, D., Sweeny, K., Sheehan, P., Rasmussen, B., Smit, F., Cujipers, P., & Saxena, S. (2016). Scaling-up treatment of depression and anxiety: A global return on investment analysis. *The Lancet Psychiatry, 3*(5)415-424. https://doi.org/10.1016/S2215-0366(16)30024-4.

Ciarrochi, J., Morin, A.J.S., Sahdra, B., Litalien, D., & Parker, P.D. (2017). A longitudinal person-centered perspective on youth social support: Relations with psychological wellbeing. *Developmental Psychology, 53*(6), 1154-1169. https://doi.org/10.1037/dev0000315.

Collins, L.M., & Lanza, S.T. (2010). *Latent class and latent transition analysis: With applications in the social, behavioral, and health sciences*. Wiley.

Derogatis, L.R. (1977). *SCL90: Administration, scoring and procedure manual-I for the R(revised) version*. Johns Hopkins University School of Medicine, Baltimore, MD.

de Vos, A., de Stobbeleir, K., & Meganck, A. (2009). The relationship between career-related antecedents and graduates' anticipatory psychological contracts. *Journal of Business and Psychology, 24*, 289-298. https://doi.org/10.1007/s10869-009-9107-3

Diallo, T.M.O, Morin, A.J.S., & Lu, H. (2016). Impact of misspecifications of the latent variance-covariance and residual matrices on the class enumeration accuracy of growth mixture models. *Structural Equation Modeling, 23*(4), 507-531. https://doi.org/10.1080/10705511.2016.1169188

Diallo, T.M.O., Morin, A.J.S., & Lu, H. (2017). The impact of total and partial inclusion or exclusion of active and inactive time invariant covariates in growth mixture models. *Psychological Methods, 22*166-190. https://doi.org/10.1037/met0000084

Diener, E., Scollon, C.N., & Lucas, R.E (2003). The evolving concept of subjective well-being: The multifaceted nature of happiness. *Advances in Cell Aging and Gerontology, 15*, 187-219. https://doi.org/10.1007/978-90-481-2354-4_4

Diener, E., Suh, E.M., Lucas, R.E., & Smith, H.L. (1999). Subjective well-being: Three decades of progress. *Psychological Bulletin, 125*(2), 276-302. https://doi.org/10.1037/0033-2909.125.2.276

Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of Applied Psychology, 82*(5)812-820. https://doi.org/10.1037/0021-9010.82.5.812

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology, 71*(3) 500-507. https://doi.org/10.1037/0021-9010.71.3.500

Eisenberger, R., Rhoades Shanock, L., & Wen, X. (2020). Perceived organizational support: why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior*, *7*(1), 101-124. https://doi.org/10.1146/annurev-orgpsych-012119-044917

Eisenberger, R., Rockstuhl, T., Shoss, M.K., Wen, X., & Dulebohn, J. (2019). Is the employee–organization relationship dying or thriving? A temporal meta-analysis. *Journal of Applied Psychology, 104*(8) 1036 -1057.

Eisenberger, R., Shoss, M.K., Karagonlar, G., Gonzalez-Morales, M.G., Wickham, R., & Buffardi, L. (2014). The supervisor POS–LMX–subordinate POS chain: Moderation by reciprocation wariness and supervisor's organizational embodiment. *Journal of Organizational Behavior*, *35*(5), 635-656.doi:10.1002/job.1877

Eisenberger, R., & Stinglhamber, F. (2011*). Perceived organizational support: Fostering enthusiastic and productive employees*. APA Books.

Eisenberger, R., Stinglhamber, F., Vandenberghe, C., Sucharski, I., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*, *87*(3), 565-573. https://doi.org/10.1037/0021-9010.87.3.565

Enders, C.K. (2010). *Applied missing data analysis*. Guilford.

Erickson, R.A., & Roloff, M.E. (2007). Reducing attrition after downsizing: Analyzing the effects of organizational support, supervisor support, and gender on organizational commitment. *International Journal of Organizational Analysis, 15*(1) 35-55. https:// doi.org/10.1108/19348830710860147

Gillet, N., Morin, A.J.S., Huart, I., Colombat, P., & Fouquereau, E. (2019). The forest and the trees: Investigating the globality and specificity of employees' basic need satisfaction at work. *Journal of Personality Assessment, 102*(5), 702-713. https://doi.org/10.1080/00223891.2019.1591426

Gillet, N., Morin, A.J.S., & Reeve, J. (2017). Stability, change, and implications of student motivation profiles: A latent transition analysis. *Contemporary Educational Psychology, 51*, 222-239. https://doi.org/10.1016/j.cedpsych.2017.08.006

Gonzalez-Roma, V., Schaufeli, W., Bakker, A., & Lloret, S. (2006). Burnout and work engagement: Independent

factors or opposite poles. *Journal of Vocational Behavior, 68*(1), 165-174./doi.org/10.1016/j.jvb.2005.01.003
Graham, J.W. (2009). Missing data analysis: Making it work in the real world. *Annual Review of Psychology, 60*, 549-576. https://doi.org/10.1146/annurev.psych.58.110405.085530
Greenglass, E.R., Fiksenbaum, L., & Burke, R.J. (1994). The relationship between social support and burnout over time in teachers. *Journal of Social Behavior and Personality, 9*(2), 219-230.
Hall, G.B., Dollard, M.F., Winefield, A.H., Dormann, C., & Bakker, A.B. (2013). Psychosocial safety climate buffers effects of job demands on depression and positive organizational behaviors. *Anxiety, Stress, and Coping, 26*(4) 355-377. https://doi.org/10.1080/10615806.2012.700477.
Harris, K.J., & Kacmar, K.M. (2018). Is more always better? An examination of the nonlinear effects of perceived organizational support on individual outcomes. *Journal of Social Psychology*, *158*(2), 187-200. https://doi.org/10.1080/00224545.2017.1324394
Harris, K.J., & Kacmar, K.M. (2006). Too much of a good thing? The curvilinear effect of leader-member exchange on stress. *Journal of Social Psychology*, *146*(1), 65-84. https://doi.org/10.3200/SOCP.146.1.65-84
Hipp, J.R., & Bauer, D.J. (2006). Local solutions in the estimation of growth mixture models. *Psychological Methods, 11*(1) 36-53. https://doi.org/10.1037/1082-989X.11.1.36
House, R.J., & Rizzo, J.R. (1972). Toward the measurement of organizational practices: Scale development and validation. *Journal of Applied Psychology*, *56*(5) 388-396. https://doi.org/10.1037/h0033444
Howard, M. C., & Hoffman, M. E. (2018). Variable-centered, person-centered, and person-specific approaches: Where theory meets the method. *Organizational Research Methods*, *21*(4) 846-876. https://doi.org/10.1177/1094428117744021
Jeličić, H., Phelps, E., & Lerner, R. M. (2009). Use of missing data methods in longitudinal studies: The persistence of bad practices in developmental psychology. *Developmental Psychology, 45*(4), 1195–1199. https://doi.org/10.1037/a0015665
Kam, C., Morin, A.J.S., Meyer, J.P., & Topolnytsky, L. (2016). Are commitment profiles stable and predictable? A latent transition analysis. *Journal of Management, 42*(6), 1462-1490. doi.org/10.1177/0149206313503010
Kelley, C., Britt, T., Adler, A.B., & Bliese, P.D. (2014). Perceived organizational support, posttraumatic stress disorder symptoms, and stigma in soldiers returning from combat. *Psychological Services, 11*(2), 229-234. https://doi.org/10.1037/a0034892.
Kurtessis, J.N., Eisenberger, R., Ford, M.T., Buffardi, L.C., Stewart, K.A., & Adis, C.S. (2017). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management, 43*(6), 1854–1884. https://doi.org/10.1177/0149206315575554
Ladd, D., & Henry, R.A. (2000). Helping coworkers and helping the organization: The role of support perceptions, exchange ideology, and conscientiousness. *Journal of Applied Social Psychology, 30*(10), 2028-2049. https://doi.org/10.1111/j.1559-1816.2000.tb02422.x
Lubke, G., & Muthén, B.O. (2007). Performance of factor mixture models as a function of model size, covariate effects, and class-specific parameters. *Structural Equation Modeling, 14*(1), 26–47. https://doi.org/10.1207/s15328007sem1401_2
Lucia-Casademunt, A. M., García-Cabrera, A. M., Padilla-Angulo, L., & Cuéllar-Molina, D. (2018). Returning to work after childbirth in Europe: Well-being, work-life balance, and the interplay of supervisor support. *Frontiers in Psychology*, *9*(68). https://doi.org/10.3389/fpsyg.2018.00068
Maertz, C.P., Jr., Griffeth, R.W., Campbell, N.S., & Allen, D.G. (2007). The effects of perceived organizational support and perceived supervisor support on employee turnover. *Journal of Organizational Behavior, 28*(8), 1059–1075. https://doi.org/10.1002/job.472
Marsh, H.W., Lüdtke, O., Trautwein, U., & Morin, A.J.S. (2009). Classical latent profile analysis of academic self-concept dimensions: Synergy of person- and variable-centered approaches to theoretical models of self-concept. *Structural Equation Modeling*, *16*(2) 191-225. https://doi.org/10.1080/10705510902751010
McLachlan, G., & Peel, D. (2000). *Finite mixture models.* Wiley.
McLarnon, M.J.W. & O'Neill, T.A. (2018). Extensions of auxiliary variable approaches for the investigation of mediation, moderation, and conditional effects in mixture models. *Organizational Research Methods, 21*(4), 955-982. https://doi.org/10.1177/1094428118770731
Meyer, J.P., & Morin, A.J.S. (2016). A person-centered approach to commitment research: Theory, research, and methodology. *Journal of Organizational Behavior*, *37*(4), 584-612. https://doi.org/10.1002/job.2085
Miao, R., & Kim, H.G. (2010). Perceived organizational support, job satisfaction and employee performance: A Chinese empirical study. *Journal of Service Science and Management*, *3*(2), 257-264. https://doi.org/10.4236/jssm.2010.32032

Millsap, R.E. (2011). *Statistical approaches to measurement invariance*. Taylor & Francis.

Morin, A.J.S. (2016). Person-centered research strategies in commitment research. In J. P. Meyer (Ed.), *The handbook of employee commitment* (pp.490-508). Edward Elgar.

Morin, A.J.S., Boudrias, J.-S., Marsh, H.W., Madore, I., & Desrumaux, P. (2016). Further reflections on disentangling shape and level effects in person-centered analyses: An illustration exploring the dimensionality of psychological health. *Structural Equation Modeling, 23*(3), 438–454. https://doi.org/10.1080/10705511.2015.1116077

Morin, A.J.S., Bujacz, A., & Gagné, M. (2018). Person-centered methodologies in the organizational sciences: Introduction to the feature topic. *Organizational Research Methods, 21*(4) 803-813. https://doi.org/10.1177/1094428118773856

Morin, A.J.S., & Litalien, D. (2017). *Webnote: Longitudinal tests of profile similarity and latent transition analyses*. Montreal, QC: Substantive Methodological Synergy Research Laboratory.

Morin, A.J.S., & Litalien, D. (2019). Mixture modelling for lifespan developmental research. In *Oxford Research Encyclopedia of Psychology*. Oxford University Press.

Morin, A.J.S., Maïano, C., Nagengast, B., Marsh, H.W., Morizot, J., & Janosz, M. (2011). Growth mixture modeling of adolescents trajectories of anxiety: The impact of untested invariance assumptions on substantive interpretations. *Structural Equation Modeling, 18*(4), 613–648. Doi:10.1080/10705511.2011.607714

Morin, A.J.S., Meyer, J.P., Creusier, J., & Biétry, F. (2016). Multiple-group analysis of similarity in latent profile solutions. *Organizational Research Methods, 19*(2), 231–254. https://doi.org/10.1177/1094428115621148

Morin, A.J.S., & Wang, J.C.K. (2016). A gentle introduction to mixture modeling using physical fitness data. In N. Ntoumanis, & N. Myers (Eds.), *An introduction to intermediate and advanced statistical analyses for sport and exercise scientists* (pp.183-210). Wiley.

Muthén, L.K., & Muthén, B. (2017). *Mplus user's guide.* Muthén & Muthén.

Neves, P., & Eisenberger, R. (2012). Management communication and employee performance: The contribution of perceived organizational support. *Human Performanc*e, *25*(5), 452-464.doi:10.1080/08959285.2012.721834

Newman, A., Thanacoody, R., & Hui, W. (2012). The effects of perceived organizational support, perceived supervisor support and intra-organizational network resources on turnover intentions: A study of Chinese employees in multinational enterprises. *Personnel Review*, *41*(1), 56-72. doi:10.1108/00483481211189947

Ng, T. W. H., & Feldman, D. C. (2010). The relationships of age with job attitudes: A meta-analysis. Personnel Psychology, 63(3), 677–718. https://doi.org/10.1111/j.1744-6570.2010.01184.x

Ng, T.W., & Sorensen, K.L. (2008). Towards a further understanding of the relationships between perceptions of support and work attitudes a meta-analysis. *Group & Organization Management, 33*(3), 243-268. https://doi.org/10.1177/1059601107313307

OECD (2012). *Sick on the job? Myths and realities about mental health and work*. OECD.

Persson, R., Albertsen, K., Garde, A. H., & Rugulies, R. (2012). The relationship between performance-based self-esteem and self-reported work and health behaviors among Danish knowledge workers. *Scandinavian Journal of Psychology*, *53*(1), 71–79. https://doi.org/10.1111/j.1467-9450.2011.00906.x

Raftery, A. (1995). Bayesian model selection. *Sociological Methodology*, *25*, 111-164. doi:10.2307/271063

Raykov, T., & Marcoulides, G.A. (2004). Using the delta method for approximate interval estimation of parameter functions in SEM. *Structural Equation Modeling*, *11*(4), 621-637. doi.org/10.1207/s15328007sem1104_7

Sawang, S. (2012). Is there an inverted U-shape relationship between job demands and work engagement: the moderating role of social support, *International Journal of Manpower*, *33*(5),178-186. https://doi.org/10.1108/01437721211225426

Shanock, L.R., & Eisenberger, R. (2006). When supervisors feel supported: Relationships with subordinates' perceived supervisor support, perceived organizational support, and performance. *Journal of Applied Psychology*, *91*(3), 689-695. https://doi.org/10.1037/0021-9010.91.3.689

Shi, X.C., & Gordon, S. (2020). Organizational support versus supervisor support: The impact on hospitality managers' psychological contract and work engagement. *International Journal of Hospitality Management*, *87*, 102374. https://doi.org/10.1016/j.ijhm.2019.102374.

Siemsen, E., Roth, A., & Oliveira, P. (2010). Common method bias in regression models with linear, quadratic, and interaction effects. *Organizational Research Methods*, *13*, 456-476. doi:10.1177/1094428109351241

Simosi, M. (2012). Disentangling organizational support construct: The role of different sources of support to newcomers' training transfer and commitment. *Personnel Review*, *41*(3), 301-320. https://doi.org/10.1177/1094428109351241

Skrondal, A., & Laake, P. (2001). Regression among factor scores. *Psychometrika*, *66*(4), 563-576.

https://doi.org/10.1007/BF02296196

Spector, P.E., & Jex, S.M. (1998). Development of four self-report measures of job stressors and strain: Interpersonal conflict at work scale, organizational constraints scale, quantitative workload inventory, and physical symptoms. *Journal of Occupational Health Psychology*, *3*(4), 356-367. https://doi.org/10.1037/1076-8998.3.4.356

Spitzer, R.L., Kroenke, K., & Williams, J.B., & Patient Health Questionnaire Primary Care Study Group (1999). Validation and utility of a self-report version of PRIME-MD: The PHQ primary care study. *Journal of the American Medical Association*, *282*(18), 1737-1744. https://doi.org/10.1001/jama.282.18.1737

Stinglhamber, F., Bentein, K., & Vandenberghe, C. (2002). Extension of the three-component model of commitment to five foci: Development of measures and substantive test. *European Journal of Psychological Assessment, 18*(2), 123-138. https://doi.org/10.1027/1015-5759.18.2.123

Stinglhamber, F., & Caesens, G. (2020). Chapter 4: Perceived organizational support. In V.I. Sessa & N.A. Bowling (Eds.), *Essentials of Job Attitudes and Other Workplace Psychological Constructs*. Taylor and Francis.

Stinglhamber, F., Marique, G., Caesens, G., Hanin, D., & De Zanet, F. (2015). The influence of transformational leadership on followers' affective commitment: The role of perceived organizational support and supervisor's organizational embodiment. *Career Development Internationa*l, *20*(6), 583-603. https://doi.org/10.1108/CDI-12-2014-0158

Su, R., Tay, L., & Diener, E. (2014). The development and validation of the Comprehensive Inventory of Thriving and the Brief Inventory of Thriving. *Applied Psychology: Health and Well-Being*, *6*(3), 251-279. https://doi.org/10.1111/aphw.12027

Van Horn, J.E., Taris, T., Schaufeli, W.B., & Schreurs, P.J. (2004). The structure of occupational well-being: A study among Dutch teachers. *Journal of Occupational and Organizational Psychology*, *77*(3), 365-375. https://doi.org/10.1348/0963179041752718

Vardaman, J.M., Allen, D.G., Otondo, R.F., Hancock, J.I., Shore, L.M., & Rogers, B.L. (2016). Social comparisons and organizational support: Implications for commitment and retention. *Human Relations*, *69*, 1483-1505. https://doi.org/10.1177/0018726715619687

Warr, P. (1990). The measurement of well-being and other aspects of mental health. *Journal of Occupational Psychology*, *63*(3), 193-210. https://doi.org/10.1111/j.2044-8325.1990.tb00521.x

World Health Organization (2014). Mental health. www.who.int/features/factfiles/mental_health/en/.

Woznyj, H., Shanock, L., Heggestad, E., Ordóñez, Z., & Uhrich, B. (2017). How far can support go supported supervisors' performance and subordinate dedication. *Journal of Business and Psychology*,*32*(6), 627-639. https://doi.org/10.1007/s10869-016-9472-7

Zagenczyk, T.J., Scott, K.D., Gibney, R., Murrell, A.J., & Thatcher, J.B. (2010). Social influence and perceived organizational support: A social network analysis. *Organizational Behavior and Human Decision Processes*, *111*, 127-138. https://doi.org/10.1016/j.obhdp.2009.11.004

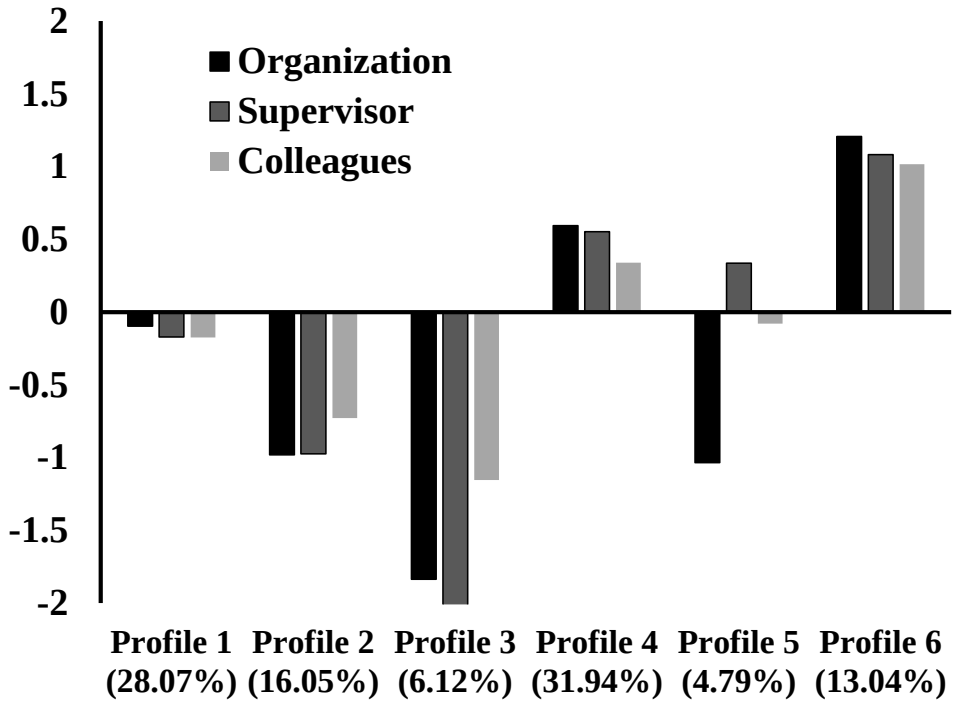
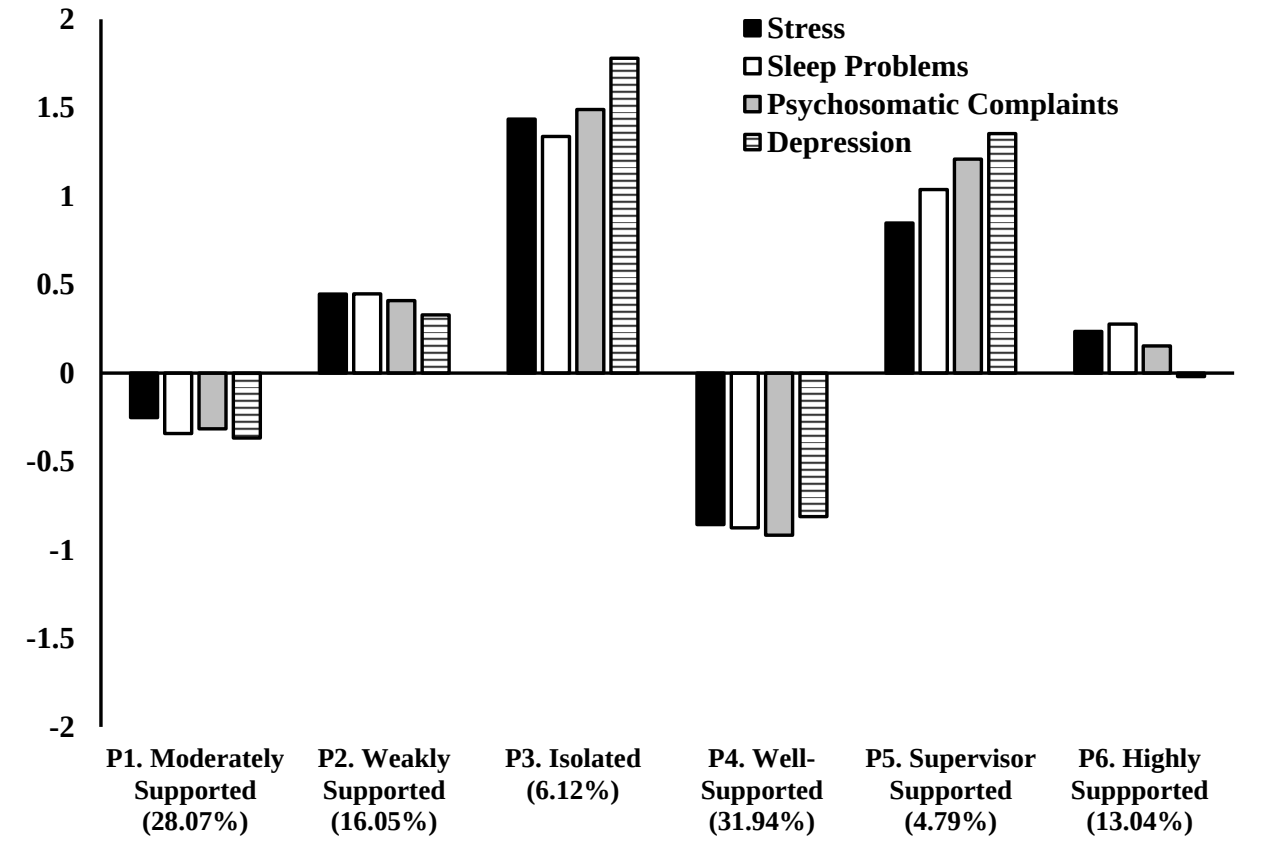
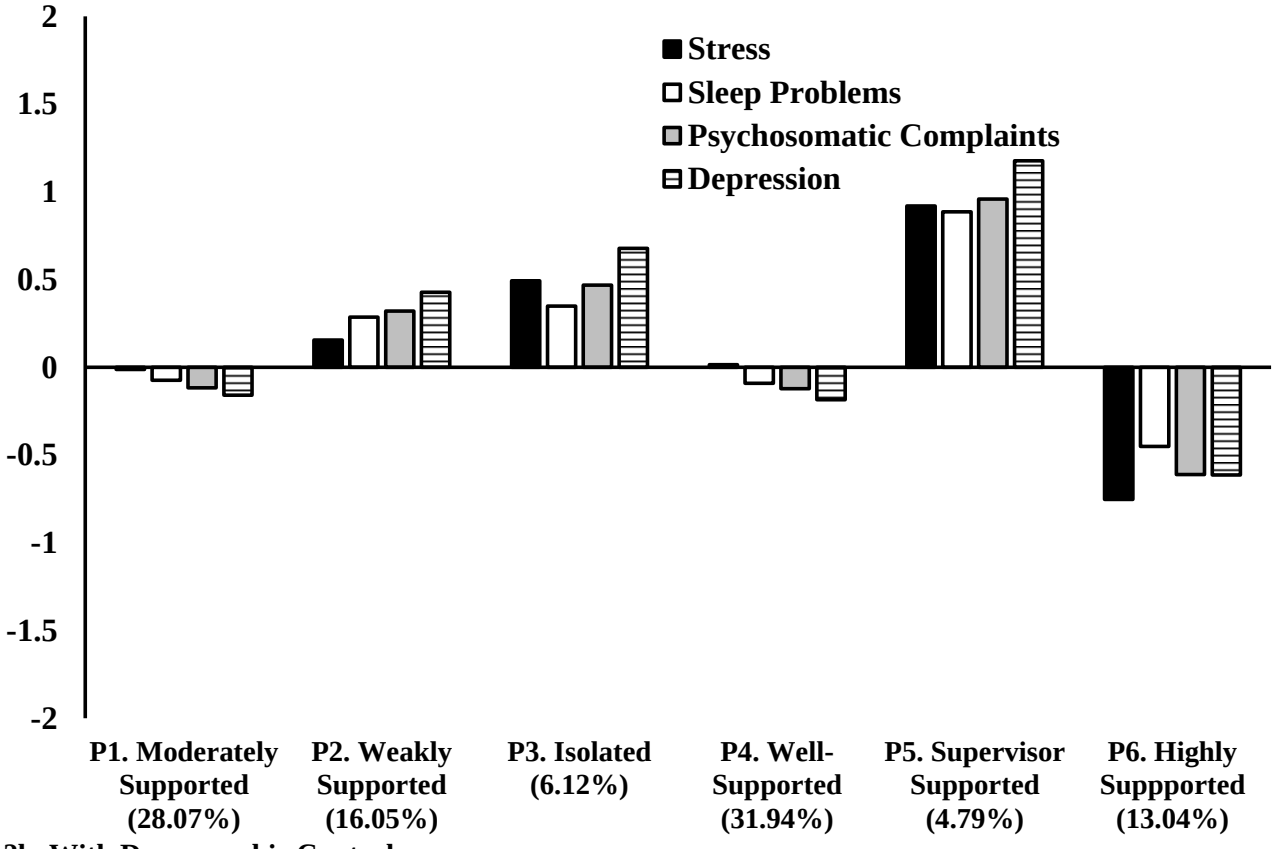


Figure 1. Final 6-Profile Solution

Note. Profile 1: moderately supported; Profile 2: weakly supported; Profile 3: isolated; Profile 4: well-supported; Profile 5: supervisor supported; Profile 6: highly supported.



2a. Without Demographic Controls



2b. With Demographic Controls

Figure 2. Outcome-Levels in Each Profile without (Figure 2a) and with (Figure 2B) the Demographic Controls. *Note.* Outcomes are factor scores with a standard deviation of 1 and a mean of 0.

Table 1

Results from the Time-Specific and Longitudinal Models

Model	LL	fp	Sc	AIC	CAIC	BIC	ABIC	Entropy
Time-Specific Latent Profile Analyses								
Time 1	-2356.145	26	1.430	4764.290	4909.673	4883.673	4801.115	.790
Time 2	-2093.525	26	1.421	4239.049	4384.433	4358.433	4275.875	.805
Longitudinal Latent Profile Analyses								
Configural	-4449.670	52	1.425	9003.339	9294.106	9242.106	9076.990	.798
Structural	-4463.566	34	1.657	8995.132	9185.248	9151.248	9043.288	.802
Dispersion	-4479.230	31	1.759	9020.460	9193.802	9162.802	9064.368	.801
Distributional (no Dispersion)	-4465.770	29	1.880	8989.541	9151.700	9122.700	9030.615	.801
Latent Transition Analysis	-1830.009	35	.657	3730.018	3925.726	3890.726	3779.590	.863
Demographic Predictors								
Null Effects	-4227.886	44	.642	8543.771	8789.805	8745.805	8606.091	.940
Free Relations with Predictors (Profile-Specific)	-4171.790	164	.498	8671.581	9588.615	9424.615	8903.864	.940
Free Relations with Predictors	-4195.175	74	.875	8538.350	8952.133	8878.133	8643.160	.942
Equal Relations with Predictors (Predictive Similarity)	-4207.615	59	.706	8533.229	8863.138	8804.138	8616.795	.941
Outcomes								
Free Relations with Outcomes	-8136.077	91	1.055	16454.154	16962.997	16871.997	16583.043	.925
Equal Relations with Outcomes (Explanatory Similarity)	-8191.492	67	1.335	16516.985	16891.627	16824.627	16611.881	.937
Outcomes with Demographic Controls								
Free Relations with Outcomes	-4966.885	131	1.2420	10195.769	10918.971	10787.971	10372.031	.909
Equal Relations with Outcomes (Explanatory Similarity)	-4997.260	107	1.1930	10208.521	10799.227	10692.227	10352.490	.904

Note. LL: loglikelihood; fp: free parameters; Sc: correction factor for robust maximum likelihood estimation; AIC: Akaïke information criteria; BIC: Bayesian information criteria; CAIC: constant AIC; ABIC: sample size adjusted BIC.

Table 2

Within-Person Transitions Probabilities

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6
Time 1						
Profile 1	.954	.035	.006	.000	.000	.005
Profile 2	.112	.743	.128	.000	.010	.007
Profile 3	.089	.213	.592	.039	.000	.067
Profile 4	.000	.007	.000	.928	.015	.050
Profile 5	.022	.010	.100	.011	.809	.047
Profile 6	.000	.000	.000	.177	.000	.823

Note. Profile 1: moderately supported; Profile 2: weakly supported; Profile 3: isolated; Profile 4: well-supported; Profile 5: supervisor supported; Profile 6: highly supported.

Table 3

Associations between the Outcomes and Profile Membership (Explanatory Similarity)

	Profile 1 M [CI]	Profile 2 M [CI]	Profile 3 M [CI]	Profile 4 M [CI]	Profile 5 M [CI]	Profile 6 M [CI]	Significant Differences
Without Controls							
Stress*	-.252 [-.407; -.097]	.446 [.301; .591]	1.435 [1.279; 1.621]	-.857 [-.996; -.718]	.848 [.666; 1.030]	.235 [.086; .384]	3 > 5 > 2 > 6 > 1 > 4
Sleep Prob.*	-.342 [-.511; -.173]	.447 [.290; .604]	1.337 [1.180; 1.494]	-.875 [-1.008; -.742]	1.037 [.866; 1.208]	.277 [.152; .402]	3 > 5 > 2 = 6 > 1 > 4
Psy. Comp.*	-.315 [-.484; -.146]	.409 [.264; .554]	1.490 [1.269; 1.711]	-.917 [-1.025; -.809]	1.209 [1.017; 1.401]	.153 [-.012; .318]	3 = 5 > 2 > 6 > 1 > 4
Depression*	-.367 [-.504; -.230]	.329 [.172; .486]	1.779 [1.463; 2.095]	-.812 [-.883; -.741]	1.353 [1.069; 1.637]	-.020 [-.192; .152]	3 > 5 >2 > 6 > 1 > 4
With Controls							
Stress*	-.012 [-.177; .153]	.156 [-.001; .313]	.494 [.251; .737]	.015 [-.138; .168]	.920 [.632; 1.208]	-.752 [-.944; -.560]	5 > 3 > 2 > 1 = 4 > 6
Sleep Prob.*	-.074 [-.260; .112]	.286 [.090; .482]	.349 [.128; .570]	-.091 [-.271; .089]	.886 [.559; 1.213]	-.451 [-.741; -.161]	5 > 2 = 3 > 1 = 4 > 6
Psy. Comp.*	-.116 [-.287; .055]	.321 [.147; .495]	.469 [.291; .647]	-.121 [-.297; .055]	.959 [.665; 1.253]	-.611 [-.836; -.386]	5 > 3 > 2 > 1 = 4 > 6
Depression*	-.159 [-.324; .006]	.428 [.230; .626]	.678 [.451; .905]	-.184 [-.345; -.023]	1.177 [.885; 1.469]	-.613 [-.836; -.390]	5 > 3 > 2 > 1 = 4 > 6
Demographic Composition							
Sex (% male)	61.2%	54.5%	52.0%	54.4%	36.6%	33.2%	1 = 2 = 3 = 4 = 5 > 6
Age (year)	33.799	37.523	40.958	32.783	33.502	37.012	2 = 3 > 1 = 4 = 5
Tenure (year)	5.702	6.806	9.942	4.598	5.590	7.210	3 > 1 = 5; 2 = 3 > 4

Note. M: mean; CI: 95% confidence interval; * Factor scores with a standard deviation of 1 and a mean of 0; Profile 1: moderately supported; Profile 2: weakly supported; Profile 3: isolated; Profile 4: well-supported; Profile 5: supervisor supported; Profile 6: highly supported.

Online Supplements for:

Perceived Support Profiles in the Workplace: A Longitudinal Perspective

Preliminary Measurement Models

Due to the complexity of the longitudinal models underlying all constructs assessed in the present study, preliminary analyses were conducted separately for the social support variables and the outcomes (stress, sleep problems, psychosomatic complaints, and depression). These longitudinal measurement models were estimated using Mplus 8 (Muthén & Muthén, 2017) using the robust Maximum Likelihood (MLR) estimator, which provides parameter estimates, standard errors, and goodness-of-fit that are robust to the non-normality of the response scales used in the present study. These models were estimated in conjunction with Full Information Maximum Likelihood (FIML; Enders, 2010) to handle the limited amount of missing responses present at the item level (.01% for participants who completed Time 1 measures; 0% for participants who completed Time 2 measures), as well as to be able to rely on the full sample of participants who completed at least one measurement point (for additional details on missing data, see the main manuscript).

Two-wave longitudinal confirmatory factor analytic models were estimated and included a total of 6 factors (perceived organizational, supervisor, and colleagues support factor x 2 time waves) for social support measures, and 8 factors for the outcome measures (4 factors for stress, sleep problems, psychosomatic complaints, and depression x 2 time waves). All factors were freely allowed to correlate within and across time-points. A priori correlated uniquenesses between matching indicators of the factors utilized at the different time-points were included in these longitudinal models to avoid inflated stability estimates (e.g., Marsh, 2007). In addition, the social support model included one orthogonal method factor to control for the methodological artefact related to the negative wording of six of the items (Marsh, Scalas, & Nagengast, 2010), and a priori correlated uniquenesses to account for the strictly parallel wording of the items forming the three subscales (Marsh et al., 2013; see also Stinglhamber & Vandenberghe, 2004). In the outcome model, one cross-loading was incorporated a priori between one of the depression item assessing sleep related difficulties and the sleep problems factor in order to maximize our ability to assess these two factors using all of the relevant information present at the item level and limiting the risk of upwardly biased factor correlations (Asparouhov, Muthén, & Morin, 2015). One correlated uniqueneness was also included to account for the parallel wording of one depression item and one psychosomatic complaints item both focusing on tiredness or fatigue. In contrast to the cross-loading approach, this correlated uniqueness was simply included to account for the fact that these two items shared something that was not relevant to the constructs being assessed (Morin, Arens, & Marsh, 2016).

Before saving the factor scores for our main analyses, we verified that the measurement models operated in the same manner across time waves, through sequential tests of measurement invariance (Millsap, 2011). For both models, we assessed: (1) Configural invariance; (2) weak invariance (loadings); (3) strong invariance (loadings and intercepts); (4) strict invariance (loadings, intercepts, and uniquenesses); (5) invariance of the correlated uniquenesses (loadings, intercepts, uniquenesses, and correlated uniquenesses); (6) invariance of the latent variance-covariance matrix (loadings, intercepts, uniquenesses, correlated uniquenesses, and latent variances-covariances); and (7) latent means invariance (loadings, intercepts, uniquenesses, correlated uniquenesses, latent variances-covariances, and latent means).

Given the known oversensitivity of the chi-square test of exact fit (χ^2) to sample size and minor model misspecifications (e.g., Marsh, Hau, & Grayson, 2005), we relied on sample-size independent goodness-of-fit indices to describe the fit of the alternative models (Hu & Bentler, 1999): The comparative fit index (CFI), the Tucker-Lewis index (TLI), as well as the root mean square error of approximation (RMSEA) and its 90% confidence interval. Values greater than .90 for the CFI and TLI indicate adequate model fit, although values greater than .95 are preferable. Values smaller than .08 or .06 for the RMSEA respectively support acceptable and excellent model fit. Like the chi square, chi square difference tests present a known sensitivity to sample size and minor model misspecifications so that recent studies suggest complementing this information with changes in CFI and RMSEA (Chen, 2007; Cheung & Rensvold, 2002) in the context of tests of measurement invariance. A ΔCFI/TLI of .010 or less and a ΔRMSEA of .015 or less between a more restricted model and the previous one support the invariance hypothesis. Composite reliability coefficients associated with each of the a priori factors are calculated from the model standardized parameters using McDonald (1970) omega (ω) coefficient:

$$\omega = \frac{(\sum|\lambda_i|)^2}{[(\sum|\lambda_i|)^2 + \sum \delta_i]}$$

where $|\lambda_i|$ are the standardized factor loadings associated with a factor in absolute values, and δi, the item uniquenesses.

The goodness-of-fit results for these models are reported in Table S1. These results support the adequacy of the a priori model (with all CFI/TLI ≥ .95 and all RMSEA ≤ .06 for the social support model, and all CFI/TLI ≥ .92 and all RMSEA ≤ .06 for the outcomes model). The results also support the configural, weak, strong, strict invariance of this model across time points, as well as the invariance of the correlated uniquenesses, latent variances-covariances, and latent means (ΔCFI ≤ .010; ΔTLI ≤ .010; and ΔRMSEA ≤ .015). These results show that the parameter estimates obtained at both time waves can be considered to be fully equivalent. The parameter estimates and composite reliability scores obtained from the most invariant measurement models (latent means invariance) are reported in Table S2 for the social support model, and in Table S3 for the outcomes models. These results show that all factors are well-defined through satisfactory factor loadings (λ = .522 to .903), resulting in satisfactory model-based composite reliability coefficients, ranging from ω = .777 to .954. Factor scores were saved from this most invariant measurement model and used as profile indicators in the main research. The correlations between all variables (i.e., these factor scores and the demographic controls) are reported in Table S4.

References used in this supplement

Asparouhov, T., Muthén, B.O., & Morin, A.J.S. (2015). Bayesian Structural equation modeling with cross-loadings and residual covariances. *Journal of Management, 41*, 1561-1577.

Chen, F.F. (2007). Sensitivity of goodness of fit indexes to lack of measurement. *Structural Equation Modeling, 14*, 464-504.

Cheung, G.W., & Rensvold, R.B. (2002). Evaluating goodness-of fit indexes for testing measurement invariance. *Structural Equation Modeling, 9*, 233-255.

Enders, C.K. (2010). *Applied missing data analysis*. New York, NY: Guilford.

Hu, L.-T., & Bentler, P.M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling, 6*, 1-55.

Marsh, H.W. (2007). Application of confirmatory factor analysis and structural equation modeling in sport/exercise psychology. In G. Tenenbaum & R.C. Eklund (Eds.), *Handbook of sport psychology* (3rd ed., pp. 774-798). New York, NY: Wiley.

Marsh, H.W., Abduljabbar, A.S., Abu-Hilal, M., Morin, A.J.S., Abdelfattah, F., Leung, K.C., Xu, M.K., Nagengast, B., & Parker, P. (2013). Factor structure, discriminant and convergent validity of TIMSS math and science motivation measures: A comparison of USA and Saudi Arabia. *Journal of Educational Psychology, 105*, 108-128.

Marsh, H.W., Hau, K., & Grayson, D. (2005). Goodness of fit in structural equation models. In A. Maydeu-Olivares & J.J. McArdle (Eds.), *Contemporary psychometrics: A festschrift for Roderick P. McDonald* (pp. 275-340). Mahwah, NJ: Erlbaum.

Marsh, H.W., Scalas, L.F., & Nagengast, B. (2010). Longitudinal tests of competing factor structures for the Rosenberg self-esteem scale: Traits, ephemeral artifacts, and stable response styles. *Psychological Assessment, 22*, 366-381.

McDonald, R. (1970). Theoretical foundations of principal factor analysis, canonical factor analysis, and alpha factor analysis. *British Journal of Mathematical & Statistical Psychology, 23*, 1-21.

Millsap, R. (2011). *Statistical approaches to measurement invariance*. New York, NY: Taylor & Francis.

Morin, A.J.S., Arens, A.K., & Marsh, H.W. (2016). A bifactor exploratory structural equation modeling framework for the tdentification of distinct sources of construct-relevant psychometric multidimensionality. *Structural Equation Modeling, 23*, 116-139.

Muthén, L.K., & Muthén, B.O. (2017). *Mplus user's guide*. Los Angeles, CA: Muthén & Muthén.

Stinglhamber, F., & Vandenberghe, C. (2003) Organizations and supervisors as sources of support and targets of commitment. *Journal of Organizational Behavior, 24*, 251-270.

Table S1

Goodness-of-Fit Statistics for the Estimated Models

Description	χ^2 (*df*)	CFI	TLI	RMSEA	90% CI	CM	$\Delta\chi^2$ (*df*)	ΔCFI	ΔTLI	ΔRMSEA
Perceived Support										
M1. Configural invariance	912.092 (506)*	.972	.965	.033	[.030; .037]	-	-	-	-	-
M2. Weak invariance	933.436(526)*	.972	.966	.033	[.029; .036]	M1	20.877 (20)	.000	+.001	.000
M3. Strong invariance	970.877 (540)*	.970	.965	.033	[.030; .036]	M2	39.728 (14)*	-.002	-.001	.000
M4. Strict invariance	1004.927 (558)*	.969	.965	.033	[.030; .036]	M3	33.232 (18)	-.001	.000	.000
M5. Invariance of the CUs	1029.543 (576)*	.969	.966	.033	[.030; .036]	M4	26.306 (18)	.000	+.001	.000
M6. Var-Cov invariance	1042.727 (583)*	.968	.966	.033	[.030; .036]	M5	13.281 (7)	-.001	.000	.000
M7. Latent means invariance	1046.456 (587)*	.968	.966	.033	[.030; .036]	M6	2.919 (4)	.000	.000	.000
Outcomes										
M8. Configural invariance	1827.252(934)*	.933	.926	.036	[.034; .039]	-	-	-	-	-
M9. Weak invariance	1866.228(954)*	.932	.926	.036	[.034; .039]	M8	39.066 (20)*	-.001	.000	.000
M10. Strong invariance	1901.779(973)*	.930	.926	.036	[.034; .039]	M9	35.159 (19)	-.002	.000	.000
M11. Strict invariance	1984.338(996)*	.926	.923	.037	[.035; .039]	M10	79.169 (23)*	-.004	-.003	+.001
M12. Invariance of the CUs	1985.293(997)*	.926	.923	.037	[.035; .039]	M11	.999 (1)	.000	.000	.000
M13. Var-Cov invariance	2006.067(1007)*	.925	.923	.037	[.035; .039]	M12	20.815 (10)	-.001	.000	.000
M14. Latent means invariance	2030.560(1011)*	.923	.922	.037	[.035; .040]	M13	26.172 (4)*	-.002	-.001	.000

Note. * $p < .01$; χ^2: scaled 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; CUs: correlated uniquenesses; Var-Cov: variance-covariance; CM: comparison model; Δ: change in fit relative to the CM.

Table S2

Standardized Factor Loadings (λ) and Uniquenesses (δ) for the M7 solution (Latent Means Invariance)

Items	POS λ	PSS λ	PCS λ	δ
Perceived Organizational Support				
Item 1	.875*			.235*
Item 2	.862*			.257*
Item 3	.770*			.291*
Item 4	.856*			.267*
Item 5	.790*			.279*
Item 6	.851*			.275*
Perceived Supervisor Support				
Item 1		.880*		.226*
Item 2		.903*		.185*
Item 3		.825*		.189*
Item 4		.870*		.243*
Item 5		.811*		.217*
Item 6		.878*		.230*
Perceived Colleagues Support				
Item 1			.811*	.342*
Item 2			.858*	.264*
Item 3			.693*	.335*
Item 4			.813*	.339*
Item 5			.663*	.404*
Item 6			.822*	.324*
ω	.940	.954	.915	

Factor Correlations	Organizational	Supervisor	Colleagues
Organizational			
Supervisor	.777*		
Colleagues	.565*	.558*	

Note. * $p < .01$. λ: factor loading; δ: item uniqueness; ω: omega coefficient of composite reliability; POS = perceived organizational support; PSS = perceived supervisor support; PCS = perceived colleagues support.

Table S3

Standardized Factor Loadings (λ) and Uniquenesses (δ) for the M14 solution (Latent Means Invariance)

Items	Stress λ	Sleep problems Λ	Psychosomatic complaints λ	Depression λ	δ
Stress					
Item 1	.688*				.527*
Item 2	.737*				.457*
Item 3	.719*				.483*
Item 4	.728*				.470*
Item 5	.828*				.315*
Item 6	.736*				.458*
Sleep problems					
Item 1		.806*			.513*
Item 2		.522*			.350*
Item 3		.698*			.728*
Psychosomatic complaints					
Item 1			.668*		.554*
Item 2			.654*		.572*
Item 3			.607*		.631*
Item 4			.676*		.544*
Item 5			.748*		.441*
Depression					
Item 1				.802*	.357*
Item 2				.839*	.296*
Item 3		.581*		.306*	.360*
Item 4				.699*	.512*
Item 5				.709*	.498*
Item 6				.799*	.362*
Item 7				.721*	.480*
Item 8				.561*	.685*
Item 9				.609*	.629*
ω	.879	.777	.804	.897	

Factor Correlations	Stress	Sleep problems	Psychosomatic complaints	Depression
Stress				
Sleep problems	.578*			
Psychosomatic complaints	.601*	.626*		
Depression	.483*	.587*	.775*	

Note. * $p < .01$. λ: factor loading; δ: item uniqueness; ω: omega coefficient of composite reliability; POS = perceived organizational support; PSS = perceived supervisor support; PCS = perceived colleagues support.

Table S4

Correlations between Variables

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
1. Gender	-																
2. Age	-.080*	-															
3. Organizational tenure	-.012	.520**	-														
4. POS (T1)†	-.058	-.087*	-.075	-													
5. PSS (T1)†	-.067	-.092*	-.091*	.790**	-												
6. PCS (T1)†	-.107**	-.024	-.003	.581**	.571**	-											
7. Stress (T1)†	-.113**	.166**	.155**	-.353**	-.310**	-.192**	-										
8. Sleep problems (T1)†	-.105**	.090*	.088*	-.351**	-.309**	-.212**	.656**	-									
9. Psychosomatic complaints (T1)†	-.173**	-.053	.021	-.361**	-.316**	-.252**	.665**	.723**	-								
10. Depression (T1)†	-.120**	-.081*	-.026	-.380**	-.319**	-.262**	.525**	.667**	.848**	-							
11. POS (T2)†	-.056	-.104**	-.108**	.848**	.673**	.525**	-.297**	-.304**	-.325**	-.328**	-						
12. PSS (T2)†	-.051	-.130**	-.141**	.658**	.792**	.491**	-.266**	-.268**	-.282**	-.275**	.825**	-					
13. PCS (T2)†	-.100**	-.068	-.064	.541**	.531**	.774**	-.205**	-.200**	-.238**	-.244**	.648**	.634**	-				
14. Stress (T2)†	-.135**	.113**	.152**	-.348**	-.314**	-.206**	.876**	.674**	.690**	.542**	-.356**	-.327**	-.243**	-			
15. Sleep problems (T2)†	-.119**	.046	.068	-.322**	-.274**	-.233**	.567**	.902**	.695**	.642**	-.311**	-.272**	-.217**	.686**	-		
16. Psychosomatic complaints (T2)†	-.158**	-.047	.021	-.336**	-.284**	-.257**	.635**	.702**	.899**	.792**	-.338**	-.293**	-.259**	.729**	.762**	-	
17. Depression (T2)†	-.098*	-.081*	-.025	-.368**	-.300**	-.281**	.470**	.619**	.778**	.906**	-.385**	-.321**	-.302**	.570**	.696**	.852**	-

Note. * $p < .05$; ** $p < .01$; *** $p < .001$; † variables estimated from factor scores with mean of 0 and a standard deviation of 1; gender was coded 0 for women and 1 for men.

Table S5

Results from the Latent Profile Analysis Models at Time 1 and 2

Model	LL	#fp	Scaling	AIC	CAIC	BIC	ABIC	Entropy	aLMR	BLRT
Time 1										
1 Profile	-2972.395	6	1.009	5956.790	5990.341	5984.341	5965.289	Na	Na	Na
2 Profiles	-2602.982	10	1.279	5225.964	5281.881	5271.881	5240.128	.823	< .001	< .001
3 Profiles	-2467.303	14	1.313	4962.605	5040.889	5026.889	4982.435	.810	< .001	< .001
4 Profiles	-2413.931	18	1.406	4863.863	4964.513	4946.513	4889.357	.798	.021	< .001
5 Profiles	-2383.512	22	1.485	4811.024	4924.041	4912.041	4842.184	.790	.229	< .001
6 Profiles	-2356.145	26	1.430	4764.290	4909.673	4883.673	4801.115	.790	.183	< .001
7 Profiles	-2328.535	30	1.419	4717.071	4884.821	4854.821	4759.561	.812	.163	< .001
8 Profiles	-2310.519	34	1.715	4689.038	4879.154	4845.154	4737.194	.799	.686	< .001
9 Profiles	-2294.603	38	1.402	4665.206	4877.690	4839.690	4719.028	.813	.183	< .001
10 Profiles	-2273.596	42	1.416	4631.192	4866.042	4824.042	4690.679	.830	.320	< .001
Time 2										
1 Profile	-2810.795	6	1.090	5633.590	5667.140	5661.140	5642.088	Na	Na	Na
2 Profiles	-2439.494	10	1.454	4898.989	4954.906	4944.906	4913.153	.810	< .001	< .001
3 Profiles	-2244.839	14	1.444	4517.678	4595.962	4581.962	4537.507	.837	< .001	< .001
4 Profiles	-2167.527	18	1.448	4371.054	4471.704	4453.704	4396.549	.823	.030	< .001
5 Profiles	-2127.497	22	1.382	4298.994	4422.011	4400.011	4330.154	.835	.017	< .001
6 Profiles	-2093.525	26	1.421	4239.049	4384.433	4358.433	4275.875	.805	.070	< .001
7 Profiles	-2059.707	30	1.526	4179.415	4347.165	4317.165	4221.906	.834	.204	< .001
8 Profiles	-2041.260	34	1.370	4150.519	4340.636	4306.636	4198.676	.851	.073	< .001
9 Profiles	-2024.952	38	1.508	4125.904	4338.388	4300.388	4179.726	.827	.614	< .001
10 Profiles	-2007.579	42	1.542	4099.158	4334.008	4292.008	4158.645	.827	.456	< .001

Note. LL: model loglikelihood; #fp: number of free parameters; scaling: scaling correction factor associated with robust maximum likelihood estimates; AIC: Akaïke information criteria; CAIC: constant AIC; BIC: Bayesian information criteria; ABIC: sample size adjusted BIC; aLMR: adjusted Lo-Mendel-Rubin likelihood ratio test; BLRT: bootstrap likelihood ratio test.

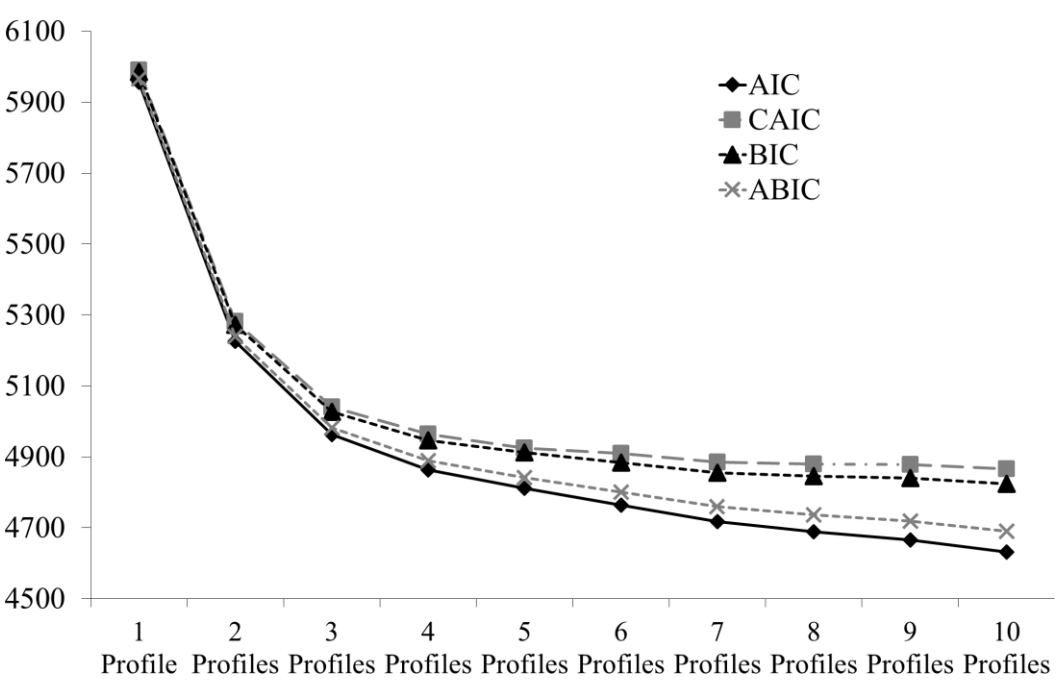


Figure S1
Elbow Plot of the Value of the Information Criteria for Solutions Including Different Numbers of Latent Profiles at Time 1

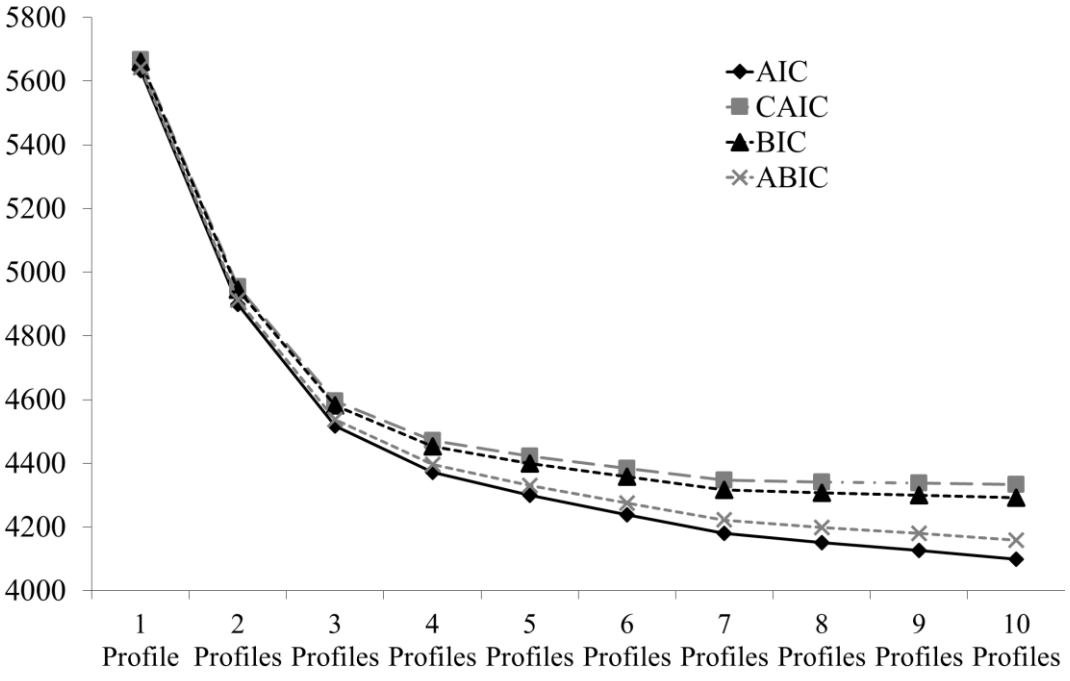


Figure S2
Elbow Plot of the Value of the Information Criteria for Solutions Including Different Numbers of Latent Profiles at Time 2

Table S6

Detailed Parameter Estimates from the Final LPA Solution (Configural, Structural, and Distributional Similarity)

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6	Time 1	Time 2
	Mean [CI]	Mean [CI]	Mean [CI]	Mean [CI]	Mean [CI]	Mean [CI]	Variance [CI]	Variance [CI]
Organizational support	-.096 [-.049; .049]	-.982 [-1.111; -.853]	-1.837 [-1.978; -1.696]	.593 [.442; .744]	-1.035 [-1.329; -.741]	1.207 [1.074; 1.340]	.137 [.106;.168]	.116 [.094; .138]
Supervisor support	-.171 [-.306; -.0360]	-.974 [-1.174; -.774]	-2.136 [-2.330; -1.942]	.553 [.435; .671]	.336 [.030; .642]	1.082 [.962; 1.202]	0.163 [.134; .192]	.114 [.096; .132]
Colleagues support	-.175 [-.297; -.053]	-.729 [-.886; -.572]	-1.154 [-1.542; -.766]	.340 [.201; .479]	-.079 [-.516; .358]	1.017 [.747; 1.287]	.518 [.455; .581]	.386 [.333; .439]

Note. CI = 95% confidence interval; the profile indicators are estimated from factor scores with mean of 0 and a standard deviation of 1; Profile 1: moderately supported; Profile 2: weakly supported; Profile 3: isolated; Profile 4: well-supported; Profile 5: supervisor supported; Profile 6: highly supported.

Table S7

Classification Accuracy: Average Probability of Membership into Each Latent Profile (Column) as a Function of the Most Likely Profile Membership (Row)

	Profile 1	Profile 2	Profile 3	Profile 4	Profile 5	Profile 6
Time 1						
Profile 1	.822	.027	0	.109	.041	0
Profile 2	.061	.883	.034	0	.021	0
Profile 3	0	.070	.930	0	0	0
Profile 4	.083	0	0	.826	.003	.087
Profile 5	.068	.107	0	.002	.823	0
Profile 6	0	0	0	.165	0	.835
Time 2						
Profile 1	.855	.035	0	0.080	.029	0
Profile 2	.068	.898	.019	0	.016	0
Profile 3	0	.046	.954	0	0	0
Profile 4	.065	0	0	.849	.001	.085
Profile 5	.128	.041	0	.020	.811	0
Profile 6	0	0	0	.122	0	.878

Note. Profile 1: moderately supported; Profile 2: weakly supported; Profile 3: isolated; Profile 4: well-supported; Profile 5: supervisor supported; Profile 6: highly supported.