An interpersonal perspective of perceived stress: Examining the prosocial coping response patterns of stressed managers

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Summary
We adopt an interpersonal perspective and examine the adaptive effects of managers' perceived stress on their behavior towards subordinates. Drawing from the transactional model of stress (Lazarus & Folkman, 1984), we advance a model that highlights the propensity for stressed managers to engage in prosocial coping behaviors towards their employees, which in turn are related to lower levels of turnover and higher levels of job performance. We tested our predictions in a sample of 281 employees and their 53 managers working in a clothing retailer in Turkey. Consistent with predictions, we found positive effects of managers' perceived stress on their prosocial coping behaviors and employee outcomes. Managers' perceived stress was positively related to sharing credit with employees for managers who held positive implicit prototypes about employees. Results also indicated that managers' perceived stress was positively related to sharing knowledge with their subordinates regardless of implicit follower prototypes. Both sharing credit and sharing knowledge, in turn, were related to turnover intentions and actual turnover, and sharing credit was related to job performance. This study extends past work by adopting an interpersonal perspective of stress and demonstrating that managerial stress can have positive effects on employee outcomes via prosocial coping behaviors.

KEYWORDS
Coping, job performance, managers, transactional theory, workplace stress

1 Introduction

Workplace stress is estimated to be at an all-time high (Chokski, 2019) and has detrimental consequences for employees and organizations, including lower job satisfaction (Fried, Shirom, Gilboa, & Cooper, 2008), increased emotional exhaustion (Lee & Ashforth, 1996), reduced cardiovascular functioning (Kivimäki et al., 2012), and reduced performance (McCarthy, Trougakos, & Cheng, 2016). Managers, due to their job demands, are particularly at risk and often work under high stress over prolonged time (Brett & Stroh, 2003). According to one study of over 20,000 workers, supervisors and managers reported greater depression and anxiety compared with non-managers (Prins, Bates, Keyes, & Muntaner, 2015). Further, much of the popular literature on stress is filled with advice for employees working with a "stressed out" manager, with the assumption that having a manager who is under high stress is a risk factor for an employee's own well-being (Davis-Laack, 2015; McKee, 2015; Saunders, 2014).

Given these statistics, it is not surprising that the predominant view of stress is a negative one. Indeed, negative outcomes of stress have been widely theorized (Cheng & McCarthy, 2018), and empirical findings support these predictions, with meta-analytic results indicating that stress is related to a broad range of negative outcomes, including lower levels of job performance and satisfaction (Fried et al., 2008; Miraglia & Johns, 2016) and higher levels of work–family conflict (Nohe, Meier, Sonnentag, & Michel, 2015). Further, when we look beyond the effects of employee stress and examine manager levels of stress, there is evidence that managerial stress is associated with abusive leadership behaviors (Burton, Hoobler, & Scheuera, 2012) and that
managerial stress can have a detrimental impact on employee stress via emotional contagion (e.g., Johnson, 2008; Sy & Choi, 2013; Tee, 2015).

Although both the academic and applied views of stress highlight its negative side, careful consideration of theory and research reveals that stress also exhibits an adaptive side. For example, Yerkes and Dodson (1908) proposed that moderate levels of arousal/stress can facilitate performance. Others have suggested that a positive side emerges when we focus on "challenge stressors" (Cavanaugh, Boswell, Roehling, & Boudreau, 2000). More recently, Cheng and McCarthy (2018) advanced the Theory of Workplace Anxiety, which highlights both the debilitating and facilitative aspects of employee levels of anxiety and stress on job performance.

The primary goal of our study is to build upon and advance past research by adopting an interpersonal lens and examining the adaptive effects of managerial stress on their behavior towards subordinates. Consistent with Bliese, Edwards, and Sonnentag (2017), the use of the term "stress" reflects the wide domain of stress research, and we differentiate between stressors, perceived stress, strain, and stress moderators. The focus in the research reported here is on the perceived stress that managers experience. Specifically, we propose and test a model in which managerial perceived stress has an adaptive side, such that when combined with positive follower attitudes, it triggers a prosocial coping response in the form of sharing credit and knowledge with employees. This behavioral coping response, in turn, is expected to have positive implications for employee turnover intentions, turnover, and performance. Our conceptual model is presented in Figure 1 and is directly aligned with the transactional model of stress which acknowledges that perceived stress can lead to adaptive coping responses and thus positive outcomes (Lazarus & Folkman, 1984).

We advance existing theory and research in at least three critical ways. First, we adopt an interpersonal perspective of stress and develop a conceptual framework that focuses on the behavioral patterns of stressed managers. In doing so, our study helps to clarify an area which is not yet well understood—the link between managerial levels of perceived stress and their behavior towards subordinates. Our focus on managers is highly relevant, as managers experience a strong sense of responsibility, commitment, and protectiveness towards their subordinate teams (Bordia, Restubog, Bordia, & Tang, 2010; Dawley, Andrews, & Bucklew, 2008). Specifically, we examine how specific actions on the part of managers may serve as the mechanisms underlying relations between managerial perceptions of stress and employee outcomes (i.e., employee turnover intentions, turnover, and job performance). We focus on two prosocial behaviors that are critical in corporate environments and are tangible in nature—sharing credit and sharing knowledge (Brief & Motowidlo, 1986). This is an important contribution, because providing conceptual and empirical clarification of the relations between managerial perceived stress, managerial behaviors, and employee outcomes has theoretical implications for models of workplace stress, as well as practical implications for the improvement of employee productivity.

Second, our study advances a novel perspective to the adaptive side of workplace stress. Although we acknowledge that other researchers have suggested an adaptive side to stress, our propositions are notably distinct from past models as we examine prosocial coping behaviors directed towards one's employees. Our propositions are consistent with the transactional theory of stress, which holds that an individual's cognitive appraisal of stress is directly linked to coping behaviors (Folkman, 2011; Lazarus & Folkman, 1987, 1984). Further, we explore the indirect relations between manager perceived stress and employee outcomes, namely, turnover intentions, turnover, and job performance. These outcomes reflect work-based functioning (Lazarus & Folkman, 1984) and are important to both employees and organizations.

Third, we adopt a nuanced approach and consider the environment in which manager perceived stress is more likely to be followed by prosocial behaviors towards employees. Specifically, we consider the

![FIGURE 1](attachment:conceptual_model.png) Conceptual model of prosocial patterns of stressed managers and multilevel path analysis results. Path coefficients are presented first, followed by standard errors. $N = 281$. *$p < .05$; **$p < .01$; ***$p < .001$
extent to which managers’ implicit beliefs about followers, termed implicit follower prototypes, have an impact on the extent that they will engage in prosocial coping behaviors. Thus, our study extends prior work by recognizing that under some conditions, manager perceptions of stress may result in positive outcomes for employees. This is also aligned with the transactional theory of stress, which highlights the interplay between the person and the situation in determining the stress response (Folkman, 2011; Lazarus & Folkman, 1984). This is an important theoretical and practical contribution because if perceived stress has potentially positive effects, any efforts towards combating stress at work should do so while preserving its facilitative, or instrumental, functions.

2 | THEORETICAL BACKGROUND AND HYPOTHESES

2.1 | Conceptual framework

Workplace stress is conceptualized as the process by which environmental and external stressors lead an individual to subjective interpretations of stress, which in turn result in strain reactions (Bliwise et al., 2017). Consistent with prevailing theory and research (e.g., Folkman, 2011; Lazarus & Folkman, 1984; Motowidlo, Packard, & Manning, 1986), our focus is on the subjective interpretation of stress or managers’ perceptions of their personal levels of stress. More specifically, we adopt Lazarus and Folkman’s (1987, 1984) transactional theory of stress and define workplace stress as the process by which person-based and environment-based variables trigger a cognitive stress appraisal. In other words, our goal is to assess the extent to which managers “feel” stressed as a result of their job. Lazarus and Folkman (1987, 1984) refer to this as the primary stress appraisal and note that stress occurs when individuals feel that actions, events, and/or the environment is harmful.

The transactional theory of stress also highlights the secondary stress appraisal, which involves an analysis of the available resources in order to enact a coping response. According to Lazarus and Folkman (1984), coping is composed of efforts to manage the stressful situation and focuses on actions that will directly eliminate the problems. Our conceptual model is aligned with these tenants, as we examine outcomes of the secondary appraisal process in the form of prosocial coping behaviors. We focus on two behavioral-based coping responses that may be enacted by highly stressed managers—sharing knowledge and sharing credit (see Figure 1). These behaviors reflect problem-focused coping, as they direct effort and/or actions to changing the situation itself (Folkman, 2011; Lazarus & Folkman, 1984). In turn, these coping behaviors are expected to lead to key employee outcomes (turnover intentions, turnover, and job performance).

Finally, the transactional theory of stress (Folkman, 2011; Lazarus & Folkman, 1984) is founded on the observation that humans operate with a complex system of social relationships, and different social environments impose unique demands on individuals. As such, the model predicts that the coping behaviors managers engage in as a response to stress will depend not only on their stress appraisal but also on the interpersonal relations they have with their subordinates. Drawing from implicit followership theories (Shondrick & Lord, 2010), we highlight the importance of managers’ internal attributions of their followers in the form of positive follower prototypes. More specifically, we predict that a manager’s tendency to engage in prosocial coping responses when they are stressed will be contingent on their implicit prototypes about followers. This interpersonal perspective provides and expansion of the transactional model of stress, as it predicts that managers’ coping behavior is likely to affect their followers. Below, we elaborate on the theory and research behind our conceptual model.

2.2 | Past research

In the broad context of stress-based research, there are a number of studies that have examined relations between different forms of stress and prosocial behaviors in the form of organizational citizenship behaviors (OCBs). Although findings are somewhat variable (Eatough, Chang, Milosavic, & Johnson, 2011), meta-analytic estimates indicate that role stressors (Eatough et al., 2011) and strains (Chang, Johnson, & Yang, 2007) are negatively related to OCBs. However, when it comes to the cognitive appraisal of demands as challenging, hindering, or threatening, findings are less straightforward. To be specific, existing studies reveal positive, negative, and no relations between cognitive appraisals of stress and OCBs (see Bolino & Turnley, 2005; Ozer, Chang, & Schaubroeck, 2014; Paillé, 2010; Tsang, Chen, Wang, & Tai, 2012). Thus, research on stress appraisals and OCBs is far from conclusive and, as noted by Podsakoff and Martinez (2018), additional work in this area is needed.

The extensive literature on work-related stress has also focused almost exclusively on employee stress, with an emphasis on the personal consequences for employees (Ganster & Rosen, 2013). At the same time, the stress that employees experience may have significant consequences for others working with them. For example, an impressive number of studies have demonstrated that stress, burnout, and negative affect can trigger similar emotions in others through the process of emotional contagion (Johnson, 2008; Sy, Côté, & Saavedra, 2005). Further, when managers experience stress, their stress has the potential to influence their actions towards subordinates. However, few studies have examined managerial, or supervisory, levels of perceived work stress (Skakon, Nielsen, Borg, & Guzman, 2010) and how these relate to employee outcomes. Regardless of the target, existing studies that have focused on work related stress yield mixed results.

On the detrimental side, there is evidence that high levels of stress among employees may trigger emotional exhaustion, which, in turn, serves to erode interpersonal relations and result in lower OCBs (Cordes & Dougherty, 1993; Tourigny, Baba, Han, & Wang, 2013). Studies have also reported detrimental effects with respect to managerial stress. For example, Burton et al. (2012) found that stressed
Managers are more likely to engage in hostile behaviors towards their subordinates. Managerial stress has also been found to be related to negative emotions (i.e., anger and anxiety), which in turn predicted abusive supervision (Mawritz, Folger, & Latham, 2014). On the positive side, there is emerging evidence that stress can trigger an adaptive coping response in the form of prosocial behaviors (Taylor, 2006; Twenge, Baumeister, DeWall, Ciarocco, & Bartels, 2007). This aligns with the transactional model of stress that was advanced by Lazarus and Folkman (1984) and forms the basis for our conceptual model. Prosocial coping behaviors encompass actions that are beneficial to those in the social environment (Monnier, Cameron, Hobfoll, & Gribble, 2000). For example, Taylor (2006) has demonstrated that experienced stress can trigger a “tend-and-befriend” coping response towards others, or a desire to protect those within one’s interpersonal network. The tend-and-befriend response has been highlighted in theories of motivation (Baumeister & Leary, 1995) and social psychology (Fiske & Taylor, 1991; Taylor et al., 2000), and each of which proposes that stress may serve as a trigger for prosocial behaviors, or behaviors that are performed to benefit others. Further support comes from studies that have demonstrated a positive side to managerial stress. For example, emotionally exhausted managers have been found to engage in more effective leadership behaviors (Halverson, Murphy, & Riggio, 2004; Price & Weiss, 2000). Manager stress has also been positively associated with employee attributions of charisma (Halverson et al., 2004; Pillai, 1996).

In line with current theorizing (Carver, Scheier, & Fulford, 2008; Cheng & McCarthy, 2018; Folkman, 2011; Lazarus & Folkman, 1984), we view stress as a complex and multifaceted phenomenon that can result in both debilitative and facilitative outcomes. Importantly, our model proposes that there is an adaptive side to stress that is contingent on managers’ implicit prototypes about followers. Specifically, when managers hold positive follower prototypes, then perceptions of stress prompt them to engage in prosocial coping behaviors towards their subordinates. In the next section, we discuss the two prosocial coping strategies that form the basis for our model—sharing knowledge and sharing credit.

2.3 Adaptive managerial coping

Both the transactional model of stress (Lazarus & Folkman, 1984) and the dual-axis model of coping (Hobfoll, Dunahoo, Ben-Porath, & Monnier, 1994) hold that the most adaptive coping strategies are those that are both active and prosocial. They are also founded on the premise that coping occurs in a social environment. Active coping involves efforts to manage stressful demands (Lazarus & Folkman, 1984), whereas prosocial coping involves helping those in one's environment, while at the same time meeting one's personal needs (Monnier, Stone, Hobfoll, & Johnson, 1998). Our conceptual model (see Figure 1) is based on coping strategies that are classified as active-prosocial—sharing knowledge and sharing credit. These strategies are specific behaviors that managers may engage in, and as such encompass “active” coping. These strategies are also “prosocial” in nature given that they help both the individual and the group with whom the individual interacts (i.e., subordinate team; Brief & Motowidlo, 1986).

It is important to note that the prosocial nature of knowledge and credit sharing does not preclude their instrumentality. In other words, these behaviors have been found to have beneficial effects for both the individuals giving credit and knowledge and the recipients (Li, Zheng, Harris, Liu, & Kirkman, 2016; Lu, Lin, & Leung, 2012; Li et al., 2016; Yun & Lee, 2017). This is consistent with social exchange theory (Blau, 1968), which holds that social behavior is the result of an exchange process that engenders feelings of obligation, gratitude, and trust. Applied to the current context, managers are likely to engage in knowledge and credit sharing behaviors in order to promote higher levels of job performance among their subordinate groups, and in doing so elevate their own managerial status. Managers may also engage in prosocial knowledge and credit sharing behaviors with subordinates in order to obtain idiosyncratic credits for future performance. In this way, these prosocial behaviors can serve as a means of future reciprocation.

It is also important to note that sharing knowledge and credit are behaviors that are tangible and can be readily identified by subordinates. They are discretionary on the part of managers, who, by virtue of their role within the organization, are in a unique position to decide the extent to which they will share credit and knowledge with their team. Finally, sharing knowledge and credit have been shown to be valuable in driving corporate success (Contino, 2004; Ipe, 2003). Thus, these behaviors serve the purpose of managers supporting their subordinates and deriving direct benefits by leading high performing teams.

2.3.1 Sharing knowledge

Knowledge sharing has been defined as “the process through which individuals mutually exchange personal, subjective, and tacit knowledge, thereby creating new knowledge collectively” (Yun & Lee, 2017, p. 389). It is a type of prosocial coping behavior that occurs when an individual provides knowledge to someone else in order to help them improve their performance and/or solve a problem (Connelly & Zweig, 2015; Cummings, 2004). Knowledge sharing involves a wide range of behaviors that may include sharing information that will help others succeed, explaining things to others thoroughly, and sharing useful information about others (Connelly, Zweig, Webster, & Trougakos, 2012). The majority of studies on knowledge sharing have focused on its antecedents. Findings indicate that the primary determinants of an individuals’ propensity to share knowledge are commitment, OCBs, perceived trust, and interpersonal support (see Chae, Park, & Choi, 2019; Han, Seo, Yoon, & Yoon, 2016; Lee, Kim, & Yun, 2018; Lee, Yoo, & Yun, 2015; Lin & Hsiao, 2014; Nerstad et al., 2018; Zhao, Liu, Li, & Yu, in press).

As a prosocial coping response, knowledge sharing can also be both altruistic and instrumental in nature, such that it can result in advantages for both the individual sharing the knowledge and the recipient (Nerstad et al., 2018). Indeed, studies by Yun and Lee (2017), as well as Lu et al. (2012), have found that the extent to which...
employees share knowledge with their colleagues is significantly related to their personal levels of job performance. Similar findings have been reported at the team and organizational levels, with knowledge sharing behaviors demonstrating significant positive relations with team creativity (Hu, Erdogan, Jiang, Bauer, & Liu, 2018) and organizational performance (Collins & Smith, 2006; Park, 2017). At the same time, the extent to which one is the recipient of shared knowledge is related to personal levels of job performance (Wu, Yeh, & Hung, 2012). The relevance of knowledge sharing as a prosocial coping response is also highlighted by Chae et al. (2019), who examined 150 employer–supervisor dyads and found that dutifulness (an other-centered construct) was positively associated with knowledge sharing, whereas achievement striving (a self-centered construct) was not.

It is important to note that theories of knowledge sharing are predicated on the notion that individuals possess information and knowledge that, if shared at the team and organizational level, will advance organizational goals (DeLong & Fahey, 2000; Ipe, 2003; Nonaka, 1994). Unfortunately, individuals can be reluctant to share information and knowledge with others—even when they are rewarded for doing so (Connelly et al., 2012). This holds true for individuals in leadership roles, who exhibit variability in the extent to which they share knowledge with their employees. Empirical evidence suggests that this variability depends, in part, on their leadership style, with leaders characterized as transformational, facilitative, and/or mentor-like more likely to share knowledge (Bryant, 2003; von Krogh, Nonaka, & Rechsteiner, 2012). In the current context, managers had a wide array of potential knowledge sharing behaviors at their disposal, such as sharing important work reports and documents, sharing stories of work-related successes and failures, and sharing strategic information about others within the company (Xiao, Zhang, & Ordóñez, 2017). Hence, knowledge sharing is a prosocial coping mechanism by which supervisors can provide support to their employees.

2.3.2 Sharing credit

Credit sharing is another type of prosocial coping behavior that exists in organizational contexts ( Brief & Motowidlo, 1986). It is predicated on the adage recommending that one “gives credit where credit is due” (Fuller, Marler, Hester, & Otondo, 2015). Applied to managers, sharing credit reflects the extent to which managers acknowledge subordinates’ contributions to accomplishments (van Dierendonck & Nuijten, 2011). Thus, sharing credit is a core way that employees are recognized, and managers often have discretion over whether they share credit (Jackall, 2009). To date, few studies have examined predictors of credit sharing behavior. One exception is a study by Grant, Parker, and Collins (2009), who found that supervisors were more likely to give credit for proactive behaviors when employees had strong prosocial values and high positive affect.

Research suggests that individuals are often reluctant to share credit (Babiak & Hare, 2006), opting instead to take credit for themselves (Immen, 2010; McGinn, 2009). This is illustrated by the proliferation of research on abusive and narcissistic supervision characterized by credit-taking behaviors (Ashforth, 1994; Lubit, 2002). At the same time, sharing credit is a vital component of both servant (Greenleaf, 2002) and transformational (Bass, 1990) leadership, which emphasize leader behaviors that focus on the growth and well-being of followers. In this way, credit sharing reflects a prosocial coping response that is manifested as supervisory support.

In alignment with the definition of prosocial coping (Monnier et al., 1998), managerial credit sharing is a behavior that can serve to help others by making their contributions known and resulting in positive personal outcomes for both the individual receiving credit and the credit sharing provider. On the receiving end, credit sharing constitutes a reward and/or an incentive and has been related to higher levels of employee commitment (Rodgers, Sauer, & Proell, 2013), feelings of empowerment (Montani, Boudrias, & Pigeon, 2017), and job satisfaction (Tessema, Ready, & Embaye, 2013). It is also directly related to perceptions of justice, such that employees experience significant levels of injustice when they are not given credit for their work (Bies & Shapiro, 1987; Davidson & Friedman, 1998). Finally, receiving credit has positive associations with job performance (Bradler, Dur, Neckermann, & Non, 2016; Mosley & Irvine, 2015), and negative relations with employee turnover (Proell, Sauer, & Rodgers, 2016). Credit sharing can also serve an instrumental function for managers, such that it increases the performance of their teams, hence elevating their leadership success. Indeed, empirical evidence indicates that sharing credit with one team member can have positive spillover effects and increase the performance of the entire team (Li et al., 2016). Leader credit sharing behaviors have also been found to be positively associated with organizational performance (de Waal & Sivro, 2012). It is therefore not surprising that scholars and practitioners consistently advocate credit sharing as a key component of leadership success (e.g., Contino, 2004; Sheppard & Lewicki, 1987).

2.4 Implicit follower prototypes as a moderator of managerial stress

Drawing from the transactional model of stress (Lazarus & Folkman, 1987, 1984), and implicit leadership theories (Shondrick & Lord, 2010), we propose that the degree to which managerial stress results in credit sharing behaviors is related to the personal traits of followers. These prototypes arise from leaders’ assumptions about the personal traits and behaviors of their followers, and they shape how leaders respond to their subordinate groups (Sy, 2010). The consideration of follower prototypes in the context of managerial stress serves to extend the transactional model by adopting an interpersonal lens and proposing that decision-making responses will be dependent on the contextual relations that they have with relevant others. Our perspective is also aligned with implicit leadership theories (IFTs; Shondrick & Lord, 2010; Whiteley, Sy, & Johnson, 2012), which hold that leaders’ perceptions of followers serve a sense making function that enables them to “interpret, understand, and respond to followers” (Whiteley et al., 2012, p. 824).

More specifically, implicit leadership theories focus on two types of follower prototypes: goal-derived prototypes focused on "how
followers should be” (Carsten, Uhl-Bien, West, Patera, & McGregor, 2010) and central-tendency prototypes focused on leaders’ actual assessment of followers, or “how followers are” (Barsalou, 1985; Sy, 2010). Consistent with our focus, our interest was on leaders’ actual perceptions of followers, which is aligned with the central-tendency perspective of implicit follower theories (Sy, 2010). Our goal was to assess the extent to which leaders’ assumptions about followers play a role in the degree to which stressed leaders would engage in prosocial coping behaviors.

A number of studies have examined IFTs from a central-tendency perspective, and the majority of this work has focused on whether leaders view followers in a positive light or possess “positive follower prototypes” (Junker & van Dick, 2014; Sy, 2010). Findings indicate that positive follower prototypes are associated with higher employee performance and satisfaction (e.g., Borman, 1987; Whiteley et al., 2012). The process by which this occurs is person-perception, such that IFTs trigger leader perceptions about their own followers (e.g., positive follower prototype = my employees are productive), influencing how leaders think and behave (e.g., “treats followers well”; Bargh, Chen, & Burrows, 1996; Junker & van Dick, 2014; Sy, 2010). Positive IFTs have been linked to greater liking of followers and higher leader-member exchange (Sy, 2010; Whiteley et al., 2012). Leaders’ perceptions and interactions with their followers have also been found to result in performance differences among their employees (Goodwin, Wofford, & Boyd, 2000).

Applied to the current study, this means that managers’ implicit prototypes about followers are likely to influence the extent to which they exhibit a prosocial coping response to stress. Thus, we propose that positive follower prototypes will result in a “strengthening effect” (Gardner, Harris, Li, Kirkman, & Mathieu, 2017), such that the relation between managerial stress and prosocial behaviors will become stronger as positive follower prototypes increase and weaker as positive follower prototypes decrease.

**Hypothesis 1.** Managers’ implicit follower prototypes moderate the relation between manager stress, (a) manager knowledge sharing, and (b) manager credit sharing with employees. The relationship is positive and strengthens as follower prototypes become increasingly positive.

2.5 | Prosocial managerial behaviors and employee outcomes

In the second part of our model, we propose that managerial prosocial coping behaviors, in the form of sharing knowledge and credit, will be negatively related to employee turnover intentions and turnover and positively related to job performance. First, we propose that when managers share knowledge, their subordinates will have lower levels of turnover intentions and turnover. We base this proposition on evidence that sharing knowledge sends a signal to employees that they are trusted (e.g., Chiu, Hsu, & Wang, 2006; Ozlati, 2015) and supported (Buch, Dysvik, Kuvaas, & Nerstad, 2015; Wang & Noe, 2010). Knowledge also makes individuals more confident in their decisions (Afifi & Weiner, 2004; Hall, Ariss, & Todorov, 2007). By influencing employee perceptions of trust, support, and confidence, knowledge sharing is a valuable resource that is likely to increase employee confidence and satisfaction and make it less likely that employees will leave the organization (Podsakoff, LePine, & LePine, 2007; Zimmerman & Darnold, 2009). Further, given that turnover intentions are direct determinants of turnover (Podsakoff et al., 2007; Steel & Ovalle, 184), we predict the following:

**Hypothesis 2.** Managerial knowledge sharing will be negatively related to turnover intentions, which in turn will be related to actual turnover behaviors.

Knowledge sharing is also expected to increase performance on the job. This is because knowledge is a valuable work resource that can be used to increase the quantity and quality of work output (Collins & Smith, 2006; Davenport & Prusak, 1998; Hobfoll, 1989). Indeed, job-related knowledge is strongly related to job performance (Hunter, 1986; Schmidt & Hunter, 2004), and knowledge recipients have been found to have higher levels of job performance (Wu et al., 2012). Further, as previously indicated, teams and firms with greater knowledge sharing have also been found to have higher levels of performance and creativity (Collins & Smith, 2006). Thus, we predict the following:

**Hypothesis 3.** Managerial knowledge sharing will be positively related to employee job performance.

Next, we propose that credit sharing is expected to be negatively related to turnover intentions and turnover. Sharing credit increases perceptions of support (Proell et al., 2016) and makes subordinates feel valued (Rodgers et al., 2013), trusted (Bambale, 2014), and empowered (Graham & Cooper, 2013). Proell et al. (2016) asked employees to recall situations where their managers shared or refrained from sharing credit with them. Results indicated that employees in the “credit sharing” condition were less likely to leave the organization after the incident than employees in the “credit taking” condition. This positions credit sharing as a valuable resource that may affect employee turnover behavior.

**Hypothesis 4.** Managerial credit sharing will be negatively related to turnover intentions, which in turn will be related to actual turnover behaviors.

We further anticipate that credit sharing will lead to higher levels of job performance because it will increase the visibility of employee accomplishments (Graham & Cooper, 2013). This will increase subordinate efficacy and motivation (Bambale, 2014), which are associated with employee performance (Barrick, Stewart, & Piotrowski, 2002; Judge & Bono, 2001). This proposition is in alignment with past work demonstrating a positive relation between giving employees the recognition they deserve and employee levels of job performance (see Bradler et al., 2016; Mosley & Irvine, 2015). Thus, we predict the following:
Hypothesis 5. Managerial credit sharing will be positively related to employee job performance.

Finally, to summarize the earlier hypotheses, we expect that the relation between managerial stress and prosocial managerial behaviors is conditional on positive follower prototypes. In turn, the prosocial behaviors enacted by managers should relate to employee turnover intentions, turnover, and performance on the job. Thus, we predict conditional indirect effects as follows:

Hypothesis 6. Implicit follower prototypes will moderate the indirect relation between managerial stress and employee outcomes (turnover intentions, turnover, job performance), such that relations will be positive and strengthen in magnitude when managerial prototypes are positive.

3 | METHOD

3.1 | Participants and procedure

To test our predictions, we conducted a field study with a large clothing retailer in Turkey. The company designs, manufactures, and sells formal and casual men’s clothing in company-owned stores. The company owns two separate labels for their upscale/formal and daily/casual clothing, with each label sold through their own uniquely branded stores. This study focused on the company headquarters located in Istanbul, and all 28 stores selling their upscale/formal clothing located throughout Turkey. The company’s HR director communicated the study to all employees, introduced the research team, and emphasized that the company would only receive aggregated feedback. Managers in the retail industry have been found to face multiple demands, making this a suitable sample to test our hypotheses (Tuckey et al., 2017).

We collected data at three time periods. In Time 1, managers completed a survey reporting their stress level, implicit follower prototypes, and demographics. Employees reported the degree to which their manager shared knowledge and credit, and turnover intentions. At Time 2, which was 4 months after Time 1, we sent a survey to managers, asking them to report the job performance of employees reporting to them. Finally, 1 year following the administration of the first survey, we obtained turnover data from the company records (Time 3).

In the company headquarters, we e-mailed a personal survey link to those who had individual work e-mail address and used hard copy surveys (distributed by the HR department and returned to researchers using privacy envelopes) for those who did not. Store employees and managers did not have individual work e-mail addresses. Therefore, we sent a reusable survey link to the store e-mail address. Employees and managers were instructed to complete the surveys during store down times and in privacy, and this point was emphasized through e-mails the company’s HR director sent to all stores. In the stores, participants first entered their name and clicked on their job title. Clicking on the title “store manager” guided the participant to the store manager survey.

We asked all participants to enter their names on the surveys, with the assurance that their responses would be confidentially held by the research team. Headquarter surveys that were e-mailed were linked to individual e-mail addresses. We still asked participants to enter their names as a further check on their identity. At Time 2, manager surveys in the headquarters included the names of the employees each manager was asked to rate. In contrast, manager surveys in stores prompted managers to list all full-time employees in their store first, and then using the names entered in the first screen, prompted them to rate each employee. We therefore were able to match employee and manager surveys using employee names.

After removing surveys without matching manager data or those with missing data, we had complete data for 281 employees (69% male; average age = 31 years; average organizational tenure = 4 years) and 53 managers (74% male; average age = 34 years; average organizational tenure = 6 years). The number of respondents reporting to a single manager ranged from 1 to 31 with a mean of 5.3. Because we had little control over the distribution of hard copy surveys and unable to ensure that all store employees had access to the survey, we are unable to provide a precise estimate of response rate. However, based on personnel records, 448 full-time employees and 58 managers worked in the headquarters and stores at the time of the data collection, suggesting that the final sample constituted 63% of all employees.

3.2 | Measures

Items and response scales for all measures are reported in Appendix A. We translated the scales to Turkish following Brislin’s (1970) translation and back-translation procedures.

3.2.1 | Managers’ perceived stress

Managers reported their levels of stress by completing the four-item scale developed by Motowidlo et al. (1986). A sample item is “I feel a great deal of stress because of my job” (α = .92).

3.2.2 | Prosocial coping behaviors

Each employee rated the knowledge and credit sharing behaviors of their manager. The extent to which managers share knowledge with their team of employees was assessed with five items adapted from the knowledge sharing scale developed by Connolly et al. (2008). A sample item is “My manager tells them exactly what employees needed to know.” (α = .92). The extent to which managers share credit with their team was assessed with the three-item “standing back” scale by van Dierendonck and Nuijten (2011). A sample item is “My manager keeps himself/herself in the background and gives credit to others.” (α = .84).
3.2.3 Manager’s implicit follower prototypes

Managers indicated the extent to which they held positive beliefs about followers in general (i.e., central tendency prototypes) by completing each of the nine follower prototype items from the Leadership Implicit Follower Beliefs Scale (Sy, 2010). Three items assessed Industry (hardworking, productive, goes above and beyond), three assessed Enthusiasm (excited, outgoing, happy), and three assessed Good Citizen (loyal, reliable, team player). Consistent with the higher order structure of this scale reported by Sy (2010), items were aggregated to create the follower prototype scale ($\alpha = .90$).

3.2.4 Employee turnover intentions

The three-item scale developed by Cammann, Fichman, Jenkins, and Klesh (1979) was used to assess employee intentions to leave the organization. A sample item is “I often think about leaving the organization” ($\alpha = .81$).

3.2.5 Employee turnover

One year following the administration of the first survey, information regarding employee turnover was gathered from company records ($0 = \text{still employed}, 1 = \text{left the company}$). Of the 281 employees who participated in this study at Time 1, 99 had left the organization 1 year later (35%).

3.2.6 Employee job performance

Managers assessed employee job performance by completing the four-item job performance scale developed by Welbourne, Johnson, and Erez (1998). A sample item is “Quantity of work output” ($\alpha = .86$).

3.2.7 Control variables

To ensure that findings were not influenced by the shared context between managers and employees, we controlled for employee stress. The measure of employee stress was the same four-item scale given to managers (Motowidlo et al., 1986, $\alpha = .92$). Work location (headquarters = 1 versus stores = 0) was also included as a potential control variable.

3.3 Analytic strategy

The data used in this paper contained a hierarchical structure in which employees were nested within manager groups of varying sizes. Specifically, our independent variables (managerial stress and positive follower prototype) were level 2 variables, whereas our mediators (sharing knowledge, sharing credit) and outcomes (turnover intentions, job performance) were level 1 variables. The intraclass correlation (ICC1) values were .17 for sharing knowledge, .16 for sharing credit, .24 for job performance, .09 for turnover intentions, and .06 for turnover. This indicates a need to account for the nested structure using multilevel modeling. Hypotheses were tested using multilevel path analyses in Mplus (Muthén & Muthén, 1998-2016), using the default estimator maximum likelihood with robust standard errors. A single moderated mediation model was estimated with random intercepts and fixed slopes at the within-group level. Predictor variables were grand-mean centered to minimize the potential for multicollinearity and facilitate interpretation (Hox, 2002). Interaction effects were examined using the Johnson–Neyman technique (Johnson & Neyman, 1936; Spiller, Fitzsimons, Lynch, & McClelland, 2013), which provides the range of values of a moderator for which the relation between X and Y is significant. Analyses were based on 95% bias-corrected confidence intervals using 5,000 bootstrap resamples (Preacher & Hayes, 2008).

Finally, to ensure that findings were not influenced by whether employees worked at corporate headquarters or in one of the stores, employee location was initially controlled in all of the analyses. As shown in Table 1, location was found to be significantly correlated with managers’ perceived stress, turnover intentions, and job performance such that stress levels and turnover intentions were higher in headquarters. However, our findings indicated there were no differences in the overall pattern of results when this control was present or absent. For the sake of parsimony and interpretability, findings are presented without this control.

4 RESULTS

Table 1 presents the means, standard deviations, and correlations among study variables. As shown in this table, the correlation between sharing knowledge and sharing credit was .68 ($p < .001$). To ensure their distinctiveness, we conducted a multilevel confirmatory factor analysis in Mplus (Raudenbush & Bryk, 2002). Maximum likelihood estimation procedures were used. We first tested a two-factor model, in which items were specified to load on their respective factors (i.e., sharing knowledge and sharing credit). This model achieved strong fit to the data ($\chi^2(47) = 123.89, p < .001; CFI = .95; \text{RMSEA} = .08; \text{SRMR} = .05$). We compared this to a model in which all items were specified to load on a single factor ($\chi^2(48) = 267.57, p < .001; CFI = .85; \text{RMSEA} = .13; \text{SRMR} = .07$). The two-factor model provided a significantly better fit ($\Delta \chi^2(1) = 143.68, p < .001$). This provides support for examining the two prosocial behaviors separately.

Results from our multilevel path analysis are presented in Figure 1. Our first hypothesis predicted that the relation between managerial stress and prosocial behaviors will become stronger as positive follower prototypes increase and weaker as positive follower prototypes decrease. As shown in Figure 1, no significant interaction was found for the relationship between managers’ perceived stress and sharing knowledge (Hypothesis 1a: $r = -.01, ns. CI [-.29, .24]$). There was, however, a significant main effect of managers’ perceived stress on sharing knowledge ($r = .27, p < .05 CI [.11, .44]$), as well as a significant main effect of managers’ perceived stress on sharing credit ($r = .19, p < .05$).
Further, positive follower prototype was found to be a significant moderator for sharing credit ($\beta = .45$, $p < .01$, CI [.21, .69]). The nature of this effect is illustrated in Figure 2. Consistent with Hypothesis 1b, our post hoc analyses using the Johnson–Neyman technique suggested that the relation between managers’ perceived stress and sharing credit is positive and significant when follower prototype is above 3.28. The relation is nonsignificant when follower prototype is between 2.34 and 3.28. Finally, the relationship is negative and significant when follower prototype is less than 2.34.

Hypotheses 2–5 focused on the relations between managerial prosocial coping behaviors and employee outcomes. In support of Hypotheses 2 and 4, sharing knowledge and sharing credit were negatively related to employees’ turnover intentions (sharing knowledge: $\beta = -.26$, $p < .001$ CI [-.39, -.13]; sharing credit: $\beta = -.18$, $p < .05$ CI [-.33, -.03]), and turnover intentions were significantly related to actual turnover ($\beta = .09$, $p < .01$ CI [.02, .15]). However, no support for Hypothesis 3 was obtained, as sharing knowledge was not significantly related to job performance ($\beta = .01$, ns. CI [-.16, .17]). Finally, in support of Hypothesis 5, sharing credit was significantly related to employee job performance ($\beta = .19$, $p < .001$ CI [.09, .29]).

The final hypothesis, Hypothesis 6, examined whether managerial stress would exhibit an indirect relation with employee outcomes, such that it will be mediated by prosocial behaviors (knowledge sharing and credit sharing) and moderated by implicit follower prototypes. A significant indirect effect of sharing credit on employee job performance (moderated by positive follower prototypes) was found ($\beta = .02$, $p < .05$ [.01, .03]). However, the indirect effect of sharing knowledge on employee job performance (moderated by positive follower prototypes) was nonsignificant ($\beta = .00$, ns. [.01, .00]). Further, the indirect effects of sharing knowledge and turnover intentions on

### TABLE 1 Descriptive statistics and within/between level correlations

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
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</thead>
<tbody>
<tr>
<td><strong>Within-level correlations (Level 1; Employees)</strong></td>
<td></td>
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<tr>
<td>1. Employee Perceived Stress (T1E)</td>
<td>2.89</td>
<td>1.03</td>
<td></td>
<td></td>
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<tr>
<td>2. Sharing Knowledge (T1E)</td>
<td>3.65</td>
<td>.81</td>
<td>-.28***</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Sharing Credit (T1E)</td>
<td>3.41</td>
<td>.90</td>
<td>-.32***</td>
<td>.68***</td>
<td>.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Turnover Intentions (T1E)</td>
<td>2.45</td>
<td>.92</td>
<td>.40***</td>
<td>-.44***</td>
<td>-.44***</td>
<td>.81</td>
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<td></td>
</tr>
<tr>
<td>5. Turnover (T3Co)</td>
<td>0.37</td>
<td>.48</td>
<td>.11*</td>
<td>-.16</td>
<td>-.15</td>
<td>.18**</td>
<td></td>
<td></td>
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<tr>
<td>6. Job Performance (T2M)</td>
<td>4.10</td>
<td>.46</td>
<td>-.13</td>
<td>.28**</td>
<td>.39**</td>
<td>-.23</td>
<td>-.21</td>
<td>.86</td>
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<tr>
<td><strong>Within and between-level correlations (Level 2; Managers)</strong></td>
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<tr>
<td>1. Location (T1Co)</td>
<td>0.30</td>
<td>.40</td>
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<tr>
<td>2. Manager Perceived Stress (T1M)</td>
<td>3.09</td>
<td>.82</td>
<td>-.38**</td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>3. Implicit Follower Prototypes (T1M)</td>
<td>3.28</td>
<td>.59</td>
<td>-.01</td>
<td>.13</td>
<td></td>
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</tbody>
</table>

Note. $N$ (employees) ranged from 141 to 281. $N$ (managers) ranged from 29 to 58. Turnover (0 = still employed, 1 = left the company), Location (0 = headquarters, 1 = stores). Reliabilities of study variables are listed in the parentheses. T2 is 4 months after T1. T3 is 1 year after T1. E, M, and Co refer to measurement perspective (E = Employee rated, M = Manager rated, Co = Gathered from archival company records). Alphas appear along the diagonal in parentheses.

$p < .05$, **$p < .01$, ***$p < .001$.

![FIGURE 2](https://example.com/figure2.png) Johnson–Neyman plot of the interaction between managers’ perceived stress and positive follower prototype on managerial credit sharing. Managers’ perceived stress (adjusted) = adjusted effect of perceived managers’ perceived stress on credit sharing. Numbers on X and Y axis represent standard deviations above and below the mean. The solid black line reflects the region of nonsignificance [Colour figure can be viewed at wileyonlinelibrary.com]
actual turnover were non-significant (\( r = -0.01, \text{ns} \left[0.00, 0.00\right]\)). Similarly, no significant indirect effect of sharing credit and turnover intentions on actual turnover was found (\( r = 0.00, \text{ns} \left[0.00, 0.01\right]\)). Combined, these findings provide partial support for Hypothesis 6.

To comprehensively understand the effects of managerial stress, we also computed the total effects of managerial stress on turnover and job performance. Managerial stress did not have a significant total effect on employee job performance (\( B = 0.04, \text{ns} \left[-0.13, 0.19\right]\)) or turnover (\( B = 0.00, \text{ns} \left[-0.09, 0.26\right]\)). This indicates that the effect of managerial stress on these outcome variables is contingent on managers' implicit follower prototypes and occurs by virtue of its influence on sharing credit, sharing knowledge, and turnover intentions. Indeed, our findings indicate that the combined effects of managerial stress, positive follower prototypes, and managerial prosocial behaviors explain 14.7% of the within-level variance in employee performance, 29.2% in turnover intentions, and 3.4% in turnover. Finally, the model explained 65.3% of the between-level variance in employee performance and 8.6% in turnover intentions.

5 | DISCUSSION

Our research advances the field by adopting an interpersonal perspective of stress and examining the relation between managerial levels of perceived stress and their behavior towards subordinates. Drawing from the transactional model of stress (Lazarus & Folkman, 1987, 1984), we advanced and tested a theoretical model that delineates the positive indirect effects of managerial stress on employee outcomes. Consistent with predictions, we found evidence for an adaptive side of stress in the form of prosocial coping behaviors. Specifically, managers who reported high levels of stress and held positive implicit prototypes about their subordinate teams were likely to share credit with them. This makes intuitive sense, as stressed managers are more likely to engage in prosocial behaviors towards their subordinate groups by giving recognition, or credit, to those that they perceive to be industrious, enthusiastic, and reliable (positive follower prototype). Importantly, our results demonstrated that the effect actually went beyond our predicted "strengthening" effect (see Gardner et al., 2017), such that the conditional relation between managerial perceptions of stress and prosocial coping behaviors actually changed direction at different levels of the moderator. This is known as a reverse effect, or a crossover interaction, and provides strong support for our hypotheses. Further, although moderation was not supported with respect to sharing knowledge, a positive direct effect between managerial stress and the extent to which managers share knowledge with their subordinate teams was found. Combined, these results add to the broad literature on stress by highlighting its facilitative, or instrumental, function in the form of prosocial coping behaviors.

Our findings also indicated that employee outcomes were more positive when managers shared knowledge and credit with them. To be specific, both knowledge and credit sharing yielded significant negative effects on employee turnover via turnover intentions, and sharing credit was positively related to employee job performance. Moreover, managerial stress exhibited a positive indirect effect on job performance via managers’ propensity to share credit with employees. These findings contribute to the literature on stress theory by focusing on how personal levels of stress influence other individuals and, in doing so, present a novel perspective on workplace stress.

We also note that two of our core hypotheses were not supported. First, positive follower prototype did not moderate the relation between managerial stress and managerial knowledge sharing. Although it is difficult to speculate on why this relation was nonsignificant, it is possible that sharing knowledge with subordinates, regardless of one’s implicit prototypes about them, is a fairly natural reaction and its effect is so strong that it occurs regardless of implicit prototypes about followers. In support of this possibility, the zero-order correlation between managerial stress and knowledge sharing was strong (\( r = 0.63, p < 0.01 \)) and exceeded the direct effect between managerial stress and credit sharing (\( r = 0.57, p < 0.01 \)). Further, a chi-squared difference (conducted in Mplus) indicated that managers were significantly more likely to share knowledge (\( M = 3.65 \)) than share credit (\( M = 3.41 \)) with their subordinates, \( \chi^2(1) = 6.70, p < 0.01 \). Second, the extent to which managers share knowledge was not related to job performance. However, the zero-order correlation between knowledge sharing and job performance was found to be significant (\( r = 0.28, p < 0.05 \)). This relation may not have been significant in our conceptual model due to the complexity of the design. Thus, we encourage future work that examines managerial stress, knowledge sharing, and job performance in different contexts and across different industries.

Overall, our findings demonstrate that prosocial coping behaviors are beneficial to both managers and their subordinate teams. This aligns with the transactional model of stress (Lazarus & Folkman, 1984), which holds that stress appraisals can trigger positive coping behaviors. Specifically, our findings indicate that managers benefit from this response through the higher levels of job performance and lower levels of turnover within their subordinate teams. Employees also benefit by experiencing higher levels of performance.

5.1 | Theoretical contributions

This study contributes to stress theory by adopting an interpersonal perspective and focusing on how personal levels of stress influence other individuals and, in doing so, presents a novel perspective on workplace stress. Our focus on managers also advances work in the realm of leader and managers’ perceived stress, a currently understudied research area. Existing studies on this topic are equivocal; with some studies suggesting that managers’ perceived stress would result in managerial styles associated with negative outcomes for followers, such as abusive supervision (e.g., Burton et al., 2012), and other studies hinting that stressed managers may demonstrate more effective leadership behaviors (e.g., Price & Weiss, 2000). Future research that expands our model to consider other interpersonal relations, such as the role...
of employee stress on coworkers and/or managers, is likely to prove valuable. Further, studies that examine the role of managerial stress on team-level stress and performance are needed.

Further, our study highlights the complex nature of workplace stress by elucidating the adaptive side of managerial stress perceptions. Our conceptual model (see Figure 1) advances past work, as it is firmly grounded in the transactional theory of stress (Folkman, 2011; Lazarus & Folkman, 1984) and provides assimilation and reinforcement of theories from stress, motivation (Baumeister & Leary, 1995), and social psychology (Fiske & Taylor, 1991; Taylor, 2006). As such, this model can serve as a foundation for future work that examines the complex relations between stress appraisals, coping responses, and workplace outcomes. Expanding the transactional theory of stress (Lazarus & Folkman, 1984), our model also highlights the importance of considering the interpersonal nature of leadership. We draw from implicit follower theories (Shondrick & Lord, 2010) and find support for the role of positive follower prototypes in enhancing the prosocial behaviors of stressed managers. Thus, our paper integrates workplace stress and implicit followership literatures that, until now, have largely existed in parallel. By examining implicit theories as a moderator, our study speaks to potentially positive implications of managerial stress as well as when these effects are more likely to occur. We also extend existing research on implicit follower theories, demonstrating their role in managerial behaviors in general, and prosocial behaviors more explicitly.

5.2 Contributions to practice

This study has implications for managers who suffer from high stress. A key takeaway is that managers’ perceived stress can have an adaptive effect on others by encouraging managers to invest in potential future sources of social support. This suggests that the development of strategies to manage stress should consider the mechanisms underlying the stress response. Our findings highlight the need to differentiate between adaptive and maladaptive stress responses. When stress triggers adaptive responses, such as prosocial coping behaviors, then enhancement of the stress response is likely to be beneficial. This can be accomplished by providing mechanisms to encourage helping behaviors, such as the implementation of interpersonal training programs. In contrast, when stress triggers maladaptive responses, such as off-task cognitions (Eysenck, Derakshan, Santos, & Calvo, 2007), then the goal is reduction and/or elimination. This can be accomplished through strategies such as incremental goal setting (Latham & Locke, 2006).

The potentially more positive effects of managers’ perceived stress are more likely to emerge when managers hold favorable IFTs. IFTs typically show high levels of stability, but there is also evidence that methods such as presenting counterfactual evidence and increasing the range of acceptable characteristics may result in alterations in IFTs (Epitropaki, Sy, Martin, Tram-Quon, & Topakas, 2013). To the degree to which managers hold positive prototypes about the nature of followers, they are more likely to invest in their employees in the form of prosocial behaviors, which should result in favorable outcomes for employees reporting to them.

5.3 Potential limitations and directions for future work

A strength of our work is that we draw from past theory and research to develop a model delineating mediating and moderating mechanisms underlying the relation between managers’ perceived stress and employee outcomes. We provide a robust test of our predictions by adopting a multiwave methodological field design, capturing data from multiple sources, and utilizing multilevel statistical procedures to test our predictions. At the same time, we acknowledge that managerial stress and prosocial coping behaviors, while measured by different raters, were measured concurrently. As such, we were unable to assess whether changes in managers’ perceived stress were responsible for changes in manager prosocial behaviors or vice versa. However, our data suggest that reverse causality is unlikely, as the relations between managerial knowledge and credit sharing and managerial stress were positive and not negative in nature. A positive relation is inconsistent with past theory and research on prosocial behavior and stress, which instead predicts that the enactment of prosocial behaviors is more likely to decrease, as opposed to increase, stress (see Raposa, Laws, & Ansell, 2016; Weinstein & Ryan, 2010).

Nevertheless, we encourage future research that examines these variables using time-lagged designs. We also note that the relation between prosocial managerial behaviors and turnover intentions was based on same-source data and may suffer from common method bias, thereby inflating observed relations. However, the final outcome in this relational chain, actual turnover, was based on company records, which helps to mitigate this concern. Nevertheless, future research focusing on the objective measurement of managerial prosocial behaviors, perhaps through multisource ratings and/or observational tools, would be valuable.

We also acknowledge that the relation between managerial stress and employee performance is complex and is only partially accounted for by managerial prosocial coping behaviors. Future work should consider other factors that may underlie the relation between managerial stress and employee performance. It is possible that managerial stress may result in prosocial coping behaviors but at the same time induce high levels of employee stress via emotional contagion processes (Barsade, 2002). Higher levels of employee stress, in turn, could result in lower levels of job performance and higher turnover levels through mechanisms such as emotional exhaustion (McCarthy et al., 2016). Given that few studies have examined the relation between managerial stress and employee outcomes, this is an area that is ripe for additional work.

Another potential limitation is that we did not systematically examine different types of stressors that affected managers and instead focused on the overall degree to which managers experienced stress, or the stress appraisal. It is plausible that different stressors may have different implications for manager reactions to stress. For example,
challenge and hindrance stressors may trigger different reactions from stressed managers. Although both are expected to evoke managerial stress due to their relation with strain (e.g., exhaustion, anxiety, tension; Podsakoff et al., 2007; Rodell & Judge, 2009), it is possible that one may be more likely to evoke a prosocial behavioral response. We encourage future research to consider challenge and hindrance stressors as they relate to managerial stress and prosocial coping responses. Work by Tuckey et al. (2017) is highly relevant, as it identifies distinct challenge and hindrance stressors in the context of retail work. Future work that considers challenge and hindrance stress perceptions (see Cavanaugh et al., 2000; LePine, Zhang, Crawford, & Rich, 2016; Wallace, Edwards, Arnold, Frazier, & Finch, 2009) is also likely to prove valuable.

The organizational context is another important consideration when interpreting the results. The managers in our sample worked in the retail industry in Turkey. They were also high in the hierarchy—they either reported to regional managers and were fully responsible for the operations of a single store or they were department managers who reported to the top management team. This context makes one’s subordinates a key source of future support, because managers were relatively isolated from others in parallel positions, and for the most part physically isolated from their own managers. As a result, our findings may more readily generalize to top managers, as well as to similar structures (retail organizations) and cultures. We also note that our managerial sample was predominantly male. We encourage future work to investigate the generalizability of our results to other managerial samples and contexts.

Finally, we acknowledge that there may be other prosocial coping behaviors that managers may engage in that are not assessed in this study. In particular, it would be advantageous to examine prosocial emotion-focused coping strategies that managers may engage in as a response to high levels of work-related stress. These might include the provision of emotional support to their subordinate teams (e.g., active listening, Barbuto & Wheeler, 2006; Reed, Vidaver-Cohen, & Colwell, 2011) and/or having discussions with their employees that center around positive reframing (Lazarus & Folkman, 1984). Drawing from theories of transformational leadership (Bass, 1990), behaviors that empower subordinates (e.g., provision of autonomy, control; Liden, Wayne, Zhao, & Henderson, 2008) are also a valuable consideration for future work.

6 | CONCLUSION

In conclusion, our study presents a systematic investigation of how managers’ perceived stress may have positive implications for subordinates due to a tendency of managers to engage in prosocial coping behaviors towards their subordinate teams, particularly when they hold positive assumptions and prototypes about followers in general. Our results indicate that in addition to the maladaptive consequences highlighted in past research, managerial stress can have adaptive implications. Understanding the full range of the consequences of stress is important both theoretically and practically, and it is our hope that the conceptual model advanced here serves as a foundation for future work in this area.

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## APPENDIX

## LIST OF MEASURES

<table>
<thead>
<tr>
<th>Construct</th>
<th>Source</th>
<th>Response scale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Managers' perceived stress</td>
<td>Motowidlo et al. (1986)</td>
<td>1 = strongly disagree</td>
<td>&quot;I feel a great deal of stress because of my job.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = disagree</td>
<td>&quot;My job is extremely stressful.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = neither agree nor disagree</td>
<td>&quot;Very few stressful things happen to me at work.&quot; (Reverse scored)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = agree</td>
<td>&quot;I almost never feel stressed at work.&quot; (Reverse scored)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = strongly agree</td>
<td></td>
</tr>
<tr>
<td>Manager Knowledge sharing</td>
<td>Connelly et al. (2012)</td>
<td>1 = strongly disagree</td>
<td>&quot;My manager tells employees exactly what they needed to know.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = disagree</td>
<td>&quot;My manager answers all employee questions immediately.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = neither agree nor disagree</td>
<td>&quot;My manager explains everything thoroughly.&quot;</td>
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<tr>
<td></td>
<td></td>
<td>4 = agree</td>
<td>&quot;My manager looks into employee requests to make sure his/her answers are accurate.&quot;</td>
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<tr>
<td></td>
<td></td>
<td>5 = strongly agree</td>
<td>&quot;My manager goes out of his/her way to ensure he/she understands the request before responding.&quot;</td>
</tr>
<tr>
<td>Manager credit sharing</td>
<td>van Dierendonck &amp; Nuitten (2011)</td>
<td>1 = strongly disagree</td>
<td>&quot;My manager keeps himself/herself in the background and gives credits to others.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = disagree</td>
<td>&quot;My manager is not chasing recognition or rewards for the things he/she does for others.&quot;</td>
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<tr>
<td></td>
<td></td>
<td>3 = neither agree nor disagree</td>
<td>&quot;My manager appears to enjoy his/her colleagues' success more than his/her own.&quot;</td>
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<td></td>
<td></td>
<td>4 = agree</td>
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<td></td>
<td></td>
<td>5 = strongly agree</td>
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<td>Positive follower prototype</td>
<td>Sy (2010)</td>
<td>1 = not at all characteristic</td>
<td>Hardworking</td>
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<td>2 = slightly characteristic</td>
<td>Productive</td>
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<td></td>
<td></td>
<td>3 = moderately characteristic</td>
<td>Goes above and beyond</td>
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<td>4 = very characteristic</td>
<td>Excited</td>
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<td>5 = extremely characteristic</td>
<td>Outgoing</td>
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<td>Reliable</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Team player</td>
</tr>
<tr>
<td>Employee turnover intentions</td>
<td>Cammann et al. (1979)</td>
<td>1 = strongly disagree</td>
<td>&quot;I often think about leaving the organization.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = disagree</td>
<td>&quot;It is very possible that I will look for a new job in the next year.&quot;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = neither agree nor disagree</td>
<td>&quot;If I could choose again, I would choose to work for my current organization.&quot; (Reverse scored)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = agree</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = strongly agree</td>
<td></td>
</tr>
<tr>
<td>Employee job performance</td>
<td>Welbourne et al. (1998)</td>
<td>1 = needs much improvement</td>
<td>Quantity of work output.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2 = needs some improvement</td>
<td>Quality of work output.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>3 = satisfactory</td>
<td>Accuracy of work.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 = good</td>
<td>Customer service provided (internal and external).</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 = excellent</td>
<td></td>
</tr>
</tbody>
</table>