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How do leaders' perceptions of organizational health climate shape employee exhaustion and engagement? Toward a cascading-effects model

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Abstract

Although researchers and practitioners increasingly focus on health promotion in organizations, research has been mainly fragmented and fails to integrate different organizational levels in terms of their effects on employee health. Drawing on organizational climate and social identity research, we present a cascading model of organizational health climate and demonstrate how and when leaders' perceptions of organizational health climate are linked to employee well-being. We tested our model in two multisource studies ($N_{\text{Study 1}}$ = 65 leaders and 291 employees; $N_{\text{Study 2}}$ = 401 leader–employee dyads). Results showed that leaders' perceptions of organizational health climate were positively related to their health mindsets (i.e., their health awareness). These in turn were positively associated with their health-promoting leadership behavior, which ultimately went along with better employee well-being. Additionally, in Study 1, the relationship between perceived organizational health climate and leaders' health mindsets was moderated by their organizational identification. High leader identification strengthened the relationship between perceived organizational health climate and leaders' health mindsets. These findings have important implications for theory and practice as they show how the dynamics of an organizational health climate can unfold in organizations and how it is related to employee well-being via the novel concept of health-promoting leadership.

KEYWORDS
employee health, health mindset, health-promoting leadership, organizational health climate, organizational identification

1 | INTRODUCTION

Research has identified several key factors that affect employee well-being at work. These include variables at the individual level, such as personality traits (e.g., Soto, 2015; Strickhouser, Zell, & Krizan, 2017); task-related variables, such as time pressure and job control (e.g., Demerouti, Bakker, Nachreiner, & Schaufeli, 2001; Elovainio, Kivimäki, Steen, & Kalliomäki-Levanto, 2000); and aspects of the immediate work context,

such as leader behavior (e.g., Montano, Reeske, Franke, & Hüffmeier, 2017; Skakon, Nielsen, Borg, & Guzman, 2010). Understanding these factors is crucial because low levels of employee well-being not only lead to personal suffering but are also costly for organizations and society at large (Cooper & Dewe, 2008; Danna & Griffin, 1999). Indeed, the economic costs of work-related illness and accidents are estimated to equal 4% of the global GDP (US$2.8 trillion) annually (Takala et al., 2014, p. 329). The number of premature deaths related to work-related illness

may be as high as 2 million per year (Takala et al., 2014). As a result, the topic of well-being in the workplace has received significant attention in research and human resource management (e.g., Conway, Fu, Monks, Alfes, & Bailey, 2016).

However, work-related well-being and behavior do not occur in isolation. They are embedded in a larger context and influenced by conditions and perspectives within organizations, represented to some extent by organizational climate (Kuenzi & Schminke, 2009). Indeed, organizational climate has been shown to be significantly related to employee well-being (e.g., Parker et al., 2003). Surprisingly, however, *organizational health climate* has received little attention (Zweber, Henning, & Magley, 2016). Organizational health climate as one facet of organizational climate is defined as organizational practices and standards that are applied when addressing employee health issues (e.g., Ernsting, Schwarzer, Lippke, & Schneider, 2013; Ribisl & Reischl, 1993; Zweber et al., 2016). It thus describes how an organization deals with the health of its employees, what priority it attaches to employee well-being, and to what extent healthy work conditions are promoted.

Preliminary research exploring the novel concept of organizational health climate has suggested that there is a strong link with employee well-being (e.g., Zweber et al., 2016). However, the few existing studies have largely focused on the direct relationship between organizational health climate and employee health. There has been little research exploring the mechanisms that might explain how organizational health climate is related to employee well-being. This neglects a central insight of organizational climate theories: the organizational climate rarely has a direct effect on employee outcomes. Rather, its effects are transmitted through leaders' or employees' actions, as research on other climate facets has shown (e.g., D'Amato & Zijlstra, 2008; Tucker, Ogunfowora, & Ehr, 2016). As Schneider, Ehrhart, Mayer, Saltz, and Niles-Jolly (2005) pointed out, research on organizational climate often implicitly assumes mediating factors without explicitly testing them. Our review of the literature revealed that this applies to the study of organizational health climate. Hence, we lack knowledge about whether and how intermediate levels can transmit the effects of organizational health climate to employees.

Moreover, there has been an implicit assumption that organizational health climate generally has positive effects. However, this might not always be the case, because the influence of climate can be moderated by individual and contextual factors (e.g., Mayer, Ehrhart, & Schneider, 2009). To achieve a more complete understanding of organizational health climate, it is therefore important to identify conditions that can increase or reduce its effects. If organizations seek to benefit from organizational health climate, it is crucial to understand when and why organizational health climate is related to employee well-being, and when it is not.

To address these issues, we take an integrative approach and link health-related variables at several organizational levels. In doing so, we make several contributions to the literature. First, by drawing on current perspectives on organizational climate (Schneider, Ehrhart, & Macey, 2013), we argue that leaders' cognitions and behaviors are crucial for linking organizational health climate to improved employee well-being. The behavior of leaders is largely determined by their perceptions of implicit and explicit organizational policies and procedures, which identify desired and permitted behavior (Zohar & Luria, 2005). We propose that leaders' perceptions of organizational health norms and practices (i.e., the organizational health climate) serve as an important antecedent to their health-promoting leadership behavior by developing their health mindsets (i.e., their awareness of and sensitivity toward employees' health issues; Franke, Felfe, & Pundt, 2014).

Second, we focus on a novel, health-promoting form of leadership behavior. General leadership styles (such as transformational leadership) tend to be vague about the specific health-related actions leaders can adopt to enhance employee well-being (Franke et al., 2014). Accordingly, these leadership styles have only small to moderate relationships with employee health (e.g., Montano et al., 2017). Thus, to fully understand how leaders can promote employee health, it is crucial to examine specific leadership behaviors that explicitly focus on employee well-being, such as designing working conditions that are beneficial for employee well-being, and being a role model for health-sustaining behavior at work (Franke et al., 2014; Gurt, Schwennen, & Elke, 2011). Initial studies have suggested that health-specific leader behavior is a significantly stronger predictor of employee well-being than other general leadership styles (Franke et al., 2014; Vincent, 2011). However, surprisingly, relevant research is limited. The present study contributes to the novel concept of health-promoting leadership by expanding its nomological net through simultaneously examining its links to key antecedents (i.e., organizational health climate) and core outcomes (employee emotional exhaustion and work engagement).

Third, we argue that the relationship between leaders' perceived organizational health climate and their health mindsets is contingent on their organizational identification (i.e., their feelings of oneness with or belonging to the organization; Ashforth & Mael, 1989). By drawing on theories of social and organizational identification (Ashforth, Harrison, & Corley, 2008; Riketta, 2005), we propose that the relationship between organizational health climate and leaders' health mindsets depend on the degree to which leaders identify with their organizations. A central tenet of social identity theory is that individuals who strongly identify with a social group are particularly likely to internalize this group's norms, values, and practices (Ashforth & Mael, 1989). Hence, leaders who strongly identify with their organization may more readily adopt the organization's health climate. Examining the moderating impact of identification is important because it may help to explain why organizational health climate affects some leaders more than others.

Finally, our study has important practical implications. Identifying central dynamics and boundary conditions of organizational health climates can help organizations to promote a climate that supports employee well-being. In addition, by identifying the core antecedents of health-promoting leadership behavior, interventions and training can be developed to support leaders in displaying such behavior toward subordinates. In summary, we integrate insights from climate research and social identity theory and propose a multilevel cascading model of organizational health climate.

2 | THEORY AND HYPOTHESES

2.1 | Perceptions of organizational health climate

Interest in specific facets of organizational climate (such as safety and service climate; e.g., Guldenmund, 2000; Towler, Lezotte, & Burke, 2011; Zohar, 2000) has grown in recent years as general climate measures are seen as too unfocused and broad to predict specific outcomes of interest (Kuenzi & Schminke, 2009). The climate within an organization has been shown to be significantly related to employee well-being (e.g., Dollard & Bakker, 2010; Parker et al., 2003), and in debates on health promotion, organizational health climate has come to the fore (e.g., Ribisl & Reischl, 1993). Organizational health climate is a specific type of organizational climate that can be defined as perceptions of active support from upper management for employees' physical and psychological well-being (Ernsting et al., 2013; Zweber et al., 2016). Hence, it reflects organizations' priorities and standards regarding employee health (Mearns, Hope, Ford, & Tetrick, 2010). Organizations with a high level of health climate provide individuals with appropriate resources to remain healthy and encourage healthy lifestyles at work, such as by offering workplace health promotion programs. In contrast, organizations with a low level of health climate may not respond to health issues when they arise, such as when employees feel exhausted and overworked.

Organizational climate has been defined as an assessment of common and appropriate behaviors within an organization (Schneider et al., 2013). It is developed by perceiving and attaching meaning to organizational policies and practices, such as behavior that is rewarded, supported, and expected in the organization (Schneider, González-Romá, Ostroff, & West, 2017). Hence, the organizational climate is a subjective representation of the organizational environment (James, Hater, Gent, & Bruni, 1978). In this study, and in line with the definition of Zweber et al. (2016), we focus on climate as a subjective concept (i.e., on the psychological climate; Chan, 1998; Kopelman, Brief, & Guzzo, 1990) rather than on a more objective form of organizational climate (as often developed by aggregating the perceptions of various employees; Chan, 1998; James et al., 2008). Psychological or perceived climate refers to an individual's perception of the work environment (Chan, 1998). Previous research has shown that individuals' subjective perceptions and interpretations of contextual factors (e.g., health-promoting practices) significantly influence their behavior and attitudes (e.g., Carr, Schmidt, Ford, & DeShon, 2003; D'Amato & Zijlstra, 2008; Kang, Stewart, & Kim, 2011; Parker et al., 2003). Indeed, as scholars have identified, an organizational climate will only be linked to specific attitudes and behaviors if it is perceived by a particular employee (James et al., 1978). Thus, we follow the definition of Zweber et al. (2016) and focus on *leaders' perceptions* of the health climate in their organizations and how these perceptions are related to their health-related attitudes and their behaviors toward their employees.

2.2 | How perceived organizational health climate relates to health-promoting leadership

Although research has shown that organizational health climate is positively related to employee well-being (e.g., Sonnentag & Pundt, 2016; Zweber et al., 2016), we propose that conceptualizing this as a solely direct effect is insufficient. Organizations consist of different levels (Mathieu & Taylor, 2007) and processes are likely to trickle down from higher to lower organizational levels (Aryee, Chen, Sun, & Debrah, 2007). Climate research emphasizes that leaders play a key role in implementing and enforcing organizational policies and procedures (Burke, Sims, Lazzara, & Salas, 2007; Kozlowski & Doherty, 1989; Walter & Bruch, 2010). Thus, although the individual characteristics of leaders and their leadership behavior may influence the climate within an organization (Ehrhart, 2004; Mayer, Nishii, Schneider, & Goldstein, 2007; Zohar & Luria, 2004), we propose that leaders' behavior will largely be influenced by the health climate within their organizations. This view is in line with the argument that (health) policies and procedures are often formulated at the top of an organization (e.g., by top management teams or a central human resource function) and that these policies and procedures are then implemented by leaders at the middle and lower levels of the organization (Tucker et al., 2016; Zohar & Luria, 2005). Organizational health policies and rules define desired behavior, and complying with them will eventually lead to positive personal consequences, such as pay rises and positive feedback in their annual performance reviews (Zohar & Luria, 2005). Leaders should thus be motivated to implement them. Empirical evidence for this view can be found in research on safety climate, which has demonstrated that the organizational safety climate is considerably related to leaders' support for safety (Tucker et al., 2016).

The mindset of leaders regarding health-related issues at work is an important variable that may link the organizational health climate with health-promoting leadership behavior. A health mindset can be defined as individuals' awareness and conscientiousness related to health and is viewed as a key antecedent of health-related behavior (Franke et al., 2014; Franke & Felfe, 2011). For leaders, the health mindset involves being attentive and sensitive toward the stress and health signals of their employees (Franke, 2012). Leaders with a strong health mindset are highly aware of health issues and notice signals that their employees are overworked or that they need a break for recovery. In contrast, leaders with a weak health mindset may not consciously perceive such signals and may therefore fail to recognize when employees reach their personal health limits.

We propose that the perceived organizational health climate is a central factor that can shape leaders' health mindsets. By observing the organizational health climate, leaders can develop a particular mindset. Theories of organizational climate propose that individuals closely observe their organizational environment and tend to adopt mindsets that are deemed appropriate within the firm (James et al., 2008; Neal & Griffin, 2006), because developing a mindset and showing behavior that is consistent with the organizational climate are highly favored and rewarded within the organization (Zohar & Luria,

2005). Hence, when leaders perceive that the organization seeks to foster a high level of health climate, they are likely to develop an awareness and sense of responsibility for their employees' health (i.e., a stronger health mindset). Thus, if the perceived organizational health climate is high, leaders should be more likely to pay close attention to employees' health issues and be more aware of their stress signals, since this will be expected and supported. However, if the organization does not show particular concern for promoting a healthy work environment, leaders will be less likely to be particularly sensitive toward employee well-being. Some evidence for this view can be found in the field of safety climate, in which studies suggest that the perceived organizational climate for work safety is related to employees' motivation to focus on work safety issues and ultimately to their work safety performance (Neal & Griffin, 2006). In summary, we predict the following hypothesis:

Hypothesis 1 Perceived organizational health climate is positively related to leaders' health mindsets.

The mindsets of people significantly affect their subsequent behavior (e.g., Crum, Salovey, & Achor, 2013), as they are motivated to act in line with their cognitions (Festinger, 1957). Acting against one's cognition and mindset creates a state of discomfort—a situation that individuals seek to avoid (Elliot & Devine, 1994). This suggests that leaders who have developed a strong health mindset should be motivated to show leadership behavior that helps to sustain and promote positive employee health. As these leaders are likely to perceive signals of employee stress and care about their employees' well-being, they should be more prone to engage in health-promoting leadership behavior. According to Franke et al. (2014), this behavior can include reducing employees' demands and stress by optimizing working procedures and conditions, and providing a role model for health. Thus, leaders can act in line with their health mindsets. In contrast, a leader with a weak health mindset will pay less attention to employee health and, from his or her perspective, health-promoting leadership behavior may be less relevant. In summary, we therefore propose the following:

Hypothesis 2 Leaders' health mindsets are positively related to their health-promoting leadership behavior.

The previous two hypotheses suggest that organizational health climate (as perceived by leaders) should be positively related to the health mindsets of leaders (Hypothesis 1) and will consequently be related to health-promoting leadership behavior (Hypothesis 2). Considering these two hypotheses together suggests that a mediating process occurs, in which leaders' health mindsets are cognitive mechanisms through which the perceived organizational health climate relates to health-promoting leadership. As noted, this view is consistent with perceived organizational climate theories, which suggest that individuals' perceptions of the (work) environment guide their corresponding behavior and that these learning processes are cognitively mediated (Clarke, 2006; James et al., 1978). Hence, we propose the following:

Hypothesis 3 Perceived organizational health climate is indirectly related to health-promoting leadership behavior. This link is mediated through leaders' health mindsets.

2.3 | The role of leaders' organizational identification

Although an organizational health climate can be an important correlate of leaders' health mindsets, the strength of this relation may differ between leaders. Recent studies suggest that organizational climate can affect some individuals more strongly than others (e.g., Li, Liang, & Crant, 2010; Wang & Rode, 2010). In addition, the perception and interpretation of an organizational climate is interactively influenced by situational and individual factors (James et al., 1978; Li et al., 2010). Organizational identification should be a crucial factor in the adoption by leaders of (implicit) norms and values associated with the perceived organizational health climate (Dutton, Dukerich, & Harquail, 1994). Social identification describes individuals' perceptions of oneness with or belonging to a social group (Ashforth & Mael, 1989) and, in this case, the organization in which they work. Social identification is a root concept in organizational research because it defines the relationship that individuals have with their organization. According to the social identity approach (e.g., S. A. Haslam & Reicher, 2006; Turner, Hogg, Oakes, Reicher, & Wetherell, 1987), individuals who strongly identify with a group will align their thinking and actions with the norms and goals of their in-group. Hence, leaders and employees who strongly identify with their organizations will be greatly influenced by fellow in-group members and will show attitudes and behaviors that are congruent with organizational norms and goals.

We thus assume that the extent of leaders' identification with the organization moderates the relationship of the perceived organizational health climate with leaders' health mindsets. Strongly identified leaders will see their organizational membership as central to their self-view and may therefore be more sensitive to high and low levels of organizational health climates (Pratt, 1998). If these leaders recognize that their organizations are committed to employee health and take action to protect and promote health (high levels of health climate), they may consciously or unconsciously adjust their way of thinking and their attitudes (i.e., their health mindsets). Hence, they will be more sensitive toward health issues. However, where there is a low level of organizational health climate, strongly identified leaders may also align their attitudes and behaviors and thus form an equally weak health mindset. The cognition and behavior of leaders who do not identify very strongly with their organization are not as strongly related to organizational norms and practices, so they may develop a health mindset that is independent of the perceived organizational health climate. Thus, the relationship between perceived organizational health climate and health mindset will be more significant for strongly identified leaders. Therefore, we hypothesize the following:

Hypothesis 4 Leaders' organizational identification moderates the relationship between perceived organizational health climate and leaders' health mindsets such that the relationship is stronger for

leaders with high organizational identification than for those with low organizational identification.

2.4 | Cascading model of perceived organizational health climate: Employee emotional exhaustion and work engagement as outcomes

In this study, we follow previous research (e.g., Klusmann, Kunter, Trautwein, Lüdtke, & Baumert, 2008; Skaalvik & Skaalvik, 2014; Wirtz, Rigotti, Otto, & Loeb, 2017) and examine employee emotional exhaustion and work engagement as outcome variables. This is in line with research suggesting that burnout and work engagement can be seen as two separate concepts (e.g., Schaufeli & Bakker, 2004; Schaufeli, Salanova, González-Romá, & Bakker, 2002). This approach is based on the finding that positive and negative facets of well-being are largely independent (van Dick, Ketturat, Häusser, & Mojzisch, 2017). Indeed, even when some form of negative well-being is present (e.g., exhaustion), employees can still show positive indicators of well-being (e.g., work engagement; Diener & Diener, 1996; Howell et al., 2014). Hence, measuring positive and negative indicators simultaneously allows for a more comprehensive assessment of employee well-being. Work engagement is defined as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Emotional exhaustion captures a sense of being stressed and overextended and a lack of emotional and physical resources (Maslach & Jackson, 1981; Maslach, Schaufeli, & Leiter, 2001).

As noted previously, we expect that health-promoting leadership behavior, as a more proximal variable, is directly related to employee emotional exhaustion and work engagement, and that the association of leaders' perceptions of the organizational health climate with employee outcomes is (partially) mediated by leaders' health mindsets and health-promoting leadership behavior. If leaders engage in health-promoting leadership behavior, for example by providing healthy work conditions and motivating employees to engage in healthy work behaviors (e.g., encouraging them not to work overtime), this goes along with a reduction in employees' negative health outcomes and with enhanced well-being (Franke et al., 2014; Vincent, 2011). As Franke et al. (2014) proposed, health-promoting leadership behavior may reduce work-related demands and provide resources that directly support employee well-being. Additionally, in line with social learning arguments (Bandura, 1977), leaders may serve as role models and may (implicitly) reinforce health-promoting behaviors of their employees, which also eventually benefit their health (e.g., Franke et al., 2014; Kranabetter & Niessen, 2017). Hence, we hypothesize the following:

Hypothesis 5 Health-promoting leadership behavior is negatively related to employee emotional exhaustion (Hypothesis 5a) and positively related to employee work engagement (Hypothesis 5b).

To summarize the above, we propose a multilevel cascading model in which leaders' perceptions of organizational health climate are related

to their health-promoting leadership behavior via leaders' health mindsets, and health-promoting leadership behavior in turn relates to employee well-being. As testing individual paths in this model does not sufficiently test such multilevel relationships (Edwards & Lambert, 2007), we provide a final overall hypothesis that integrates all hypotheses and specifies the cross-level mediation predicted by our model:

Hypothesis 6 Perceived organizational health climate is related to employee emotional exhaustion and work engagement via serial indirect relations. Specifically, the relationships between perceived organizational health climate and employee emotional exhaustion (Hypothesis 6a) and work engagement (Hypothesis 6b) are mediated by leaders' health mindsets, and subsequently by their health-promoting leadership behavior.

3 | OVERVIEW OF STUDIES

We conducted two field studies to test the hypothesized model. These involved multisource data from leaders and their employees ($N_{Study\ 1}$ = 65 leaders and 291 employees; $N_{Study\ 2}$ = 401 leader–employee dyads). Conducting a second study allowed us to address several limitations of Study 1 and to constructively retest and replicate the proposed links—an important step in organizational research, as it can bolster the confidence in empirical findings (Chatman & Flynn, 2005).

4 | STUDY 1

4.1 | Method

4.1.1 | Participants and procedures

In the first study, we collected data from leaders and employees during an executive MBA program at a leading university in Eastern China. Before their course, the executives received an e-mail with an individual link to an online survey on "leadership at work." This online survey included all of the scales measured from the leaders. Additionally, the executives were asked to provide names and e-mail addresses of up to eight of their subordinates. We then contacted the subordinates by e-mail and invited them to take part in an online survey on "the behaviors of their leader at work." Participation was voluntary and the participants were assured that we would treat their responses confidentially. We matched leader and employee data using code numbers. We debriefed the executives during their course by presenting aggregated and anonymous results of the survey.

Our final sample consisted of 65 leaders and 291 employees working in various organizations and sectors in China. Each leader and team came from a particular organization. The leaders were 77% male with an average age of 38.89 years (SD = 4.54). They had been working in their current organization for 8.20 years on average (SD = 5.44). The employees were 55% male with an average age of 34.96 years (SD = 5.83). Overall, each leader provided data for 4.48 employees on

average (range 2–7). The leaders and employees had worked together for 5.16 years (SD = 3.88) on average.

4.1.2 | Measures

All of the measures were drawn from previous research. The original English items were translated into Chinese by two bilingual researchers using the procedure outlined by Brislin (1986). First, one researcher translated the items into Chinese. A second researcher then translated them back into English. Comparisons of the English versions indicated translation equivalence. Smaller discrepancies were solved through discussion. The Chinese versions of the scales used in our study are available upon request from the first author.

Unless noted otherwise, all items were presented with five-point scales from 1 = *strongly disagree* to 5 = *strongly agree*. The leaders completed the scales on perceived organizational health climate, leader health mindset, and leader organizational identification. The scales on leader health-promoting leadership behaviors, employee emotional exhaustion, and employee work engagement were answered by the subordinates. This approach allowed us to measure the antecedents (particularly leaders' perceptions of the organizational health climate) and the outcomes (particularly leader behavior and employee outcomes) from different sources.

Perceived organizational health climate

To measure leaders' perceptions of the organizational health climate, we used the four-item scale developed by Zweber et al. (2016). The leaders rated items such as "My organization is committed to employee health and well-being" and "My organization encourages me to speak about issues and priorities regarding employee health and well-being" (α = .89).

Leader health mindset

To measure this concept, we used a three-item scale based on Franke et al. (2014). The items were "I consciously pay attention to alarming health signals of my followers," "I realize when my followers arrive at their personal health limits," and "I notice in due time when my followers need a break for recovery." (α = .88).[1]

Leader organizational identification

We measured this concept using three items of the established scale developed by Doosje, Ellemers, and Spears (1995). Sample items were "I identify with my organization" and "I consider myself as part of my organization" (α = .88). In our survey, we did not include the item "I am glad to be part of my organization," as it assesses satisfaction with the organization rather than organizational identification.

Employee emotional exhaustion

The employees rated their emotional exhaustion on a five-item scale developed by Maslach, Jackson, and Leiter (MBI-GS; Maslach, Jackson, & Leiter, 1996). Sample items were "I feel burned out from my work" and "I feel emotionally drained from my work" (α = .92).

Employee work engagement

This concept was assessed using a three-item scale based on Schaufeli, Shimazu, Hakanen, Salanova, and Witte (UWES-3; Schaufeli, Shimazu, Hakanen, Salanova, & Witte, 2017). Sample items were "At work, I feel bursting with energy" and "I am immersed in my work" (α = .89).

Health-promoting leadership behavior

Employees' perceptions of the health-promoting behavior of their direct leaders were assessed using four items based on Franke et al. (2014). The items were "My supervisor tries to reduce my demands by optimizing my working procedures," "My supervisor regularly keeps us informed about safety rules and activities of the worksite health promotion," "My supervisor tries to reduce my demands by optimizing my work-life balance," and "My supervisor tries to reduce my demands by optimizing my working conditions" (α = .91). As multiple employees rated the same leader in Study 1, we inspected the aggregation statistics of the health-promoting leadership behavior scale. The median r_{wg} was 0.74. This score is greater than the generally recommended cutoff of 0.70 (e.g., Lance, Butts, & Michels, 2006; LeBreton & Senter, 2008). The intraclass correlations (ICCs) were 0.04 and 0.17 for ICC (1) and ICC (2), respectively. These ICC scores are comparable to those reported in previous field studies (e.g., Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009).

4.1.3 | Data analysis

We tested our hypotheses using multilevel structural equation modeling (MSEM) in Mplus (Muthén & Muthén, 1998-2017), given the nested nature of the data. To control for multicollinearity, we grand-mean-centered the predictor variables (Hofmann & Gavin, 1998). Model fit was assessed using traditional indicators of fit, including χ^2 statistics, the Comparative Fit Index (CFI), and the Root Mean Square Error of Approximation (RMSEA). In line with recommendations by Bandalos (2002), we operationalized the latent concepts with four or more items using item parcels as indicators. Since we only had unidimensional constructs, we conducted all item parcels based on factor analytic results (Landis, Beal, & Tesluk, 2000). Items with high factor loadings were combined with items with low factor loadings. All of the reported results are based on one-tailed significance testing given the directional nature of our hypotheses, which is considered an adequate approach recommended by various methodologists (e.g., Field, 2009; Preacher, Zyphur, & Zhang, 2010).

Prior to testing the hypotheses, we performed confirmatory factory analyses (CFAs). The results for the constructs measured at the employee level showed that a model with three separate factors fitted the data well (factors: health-promoting leadership behavior, work engagement, and emotional exhaustion; χ^2[51] = 90.98, RMSEA = .05, and CFI = .98). This yielded a better fit to the data than all possible two-factor models or a one-factor model. The best-fitting alternative model was a two-factor model combining work engagement and health-promoting leadership to a single factor (χ^2[53] = 434.04, RMSEA = .16, and CFI = .80). These results provided evidence for the

construct validity of the employee scales in this study. For the constructs measured at the leader level, the hypothesized three-factor model showed an adequate fit to the data (factors: perceived organizational health climate, organizational identification, health mindset; χ^2[32] = 48.12, RMSEA = .04, and CFI = .96). It also fitted the data better than all two-factor models or a one-factor model. The best-fitting alternative model was a two-factor model combining perceived organizational health climate with organizational identification (χ^2[34] = 96.54, RMSEA = .08, CFI = .83). However, given that the sample size of leaders was rather small, these analyses may not be completely accurate (Wolf, Harrington, Clark, & Miller, 2013) and so we further verified the construct validity of the leader scales in Study 2.

4.2 | Results

Descriptive statistics, reliabilities, and correlations between the observed variables are presented in Table 1. The results of the hypothesis tests are shown in Tables 2 and 3. Figure 1 presents the multilevel structural equation model showing the moderated mediation model. The overall model showed a good fit to the data: χ^2(47) = 65.21, RMSEA = .04, and CFI = .99.

First, the results showed that perceived organizational health climate was significantly related to leaders' health mindsets. In organizations with high levels of health climate, leaders reported stronger health mindsets than in those with low levels of health climate (path a: b = 0.47, SE = 0.14, and p < .001). This finding provides support for Hypothesis 1. Next, we found that leaders' health mindsets were significantly and positively related to health-promoting leadership behavior, even when controlling for the perceived organizational health climate (path b: b = 0.29, SE = 0.12, and p = .009). This result supports Hypothesis 2. In addition,

the indirect relationship of the perceived organizational health climate with health-promoting leadership behavior via leaders' health mindsets was significant (indirect relationship b_{ind} = 0.14, SE = 0.08, p = .039, lower level of confidence interval [LLCI] = 0.01, and upper level of confidence interval [ULCI] = 0.27; see Table 3), providing evidence of mediation and supporting Hypothesis 3.

Hypothesis 4 predicted that leaders' organizational identification moderates the relationship between the perceived organizational health climate and leaders' health mindsets. To test this effect, we added an interaction term of leaders' organizational identification with the perceived organizational health climate in our model. The results revealed a significant interaction (b = 0.21, SE = 0.06, and p < .001; see Figure 2). To further examine the nature of this interaction, we conducted simple slope analysis. In line with our hypothesis, for strongly identified leaders, the relationship between perceived organizational health climate and health mindset was stronger (b = 0.67, SE = 0.14, and p < .001) than for leaders with low organizational identification (b = 0.26, SE = 0.16, and p = .048).

Hypotheses 5a and 5b predicted that health-promoting leadership behavior is negatively related to employee emotional exhaustion and positively related to employee work engagement. The results revealed significant relationships between health-promoting leadership behavior and emotional exhaustion and work engagement, in the expected directions (b = −0.33, SE = 0.07, and p < .001, and b = 0.46, SE = 0.06, and p < .001, respectively). Hypotheses 5a and 5b therefore found support in the data. Finally, Hypotheses 6a and 6b predicted an overall cascading model, in which perceived organizational health climate is related to employee emotional exhaustion and work engagement via serial indirect relationships. The indirect relationships of the perceived organizational health climate via leaders' health mindsets and health-promoting leadership behavior with employee emotional exhaustion

TABLE 1 Means, SDs, reliabilities, and correlations among the study variables in Study 1

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
Team level (level 2)												
1. Leader age	38.89	4.54	-									
2. Leader gender	-	-	.01	-								
3. Per. org. health climate	3.51	0.71	.04	−.02	(.89)							
4. Leader health mindset	3.78	0.64	.04	−.03	.52***	(.88)						
5. Leader OI	4.17	0.59	−.01	−.20	.57***	.18	(.88)					
Individual level (level 1)												
6. Employee age	34.96	5.83	.29***	−.11	−.04	−.13*	−.01	-				
7. Employee gender	-	-	.04	.14*	.04	.13*	−.03	−.08	-			
8. Health-promoting leadership behavior	3.85	0.80	−.06	.06	.04	.16**	−.09	−.12*	.02	(.91)		
9. Emotional exhaustion	2.15	0.75	.06	.09	−.08	−.07	−.10	.01	.00	−.33***	(.92)	
10. Work engagement	4.22	0.65	−.06	−.03	.09	.03	.06	−.07	−.06	.49***	−.34***	(.89)

Note: Correlations in the upper part represent team-level/leaders' scores (N = 65); correlations in the lower part represent individual level scores of employees (N = 291). Cronbach's alphas for each variable appear along the diagonal within parentheses. Gender: 1 = male, 2 = female.
Abbreviations: OI, organizational identification; Per. org. health climate, perceived organizational health climate.
***p < .001; **p < .01; *p < .05, + p < .10 (two-tailed).

TABLE 2 Multilevel structural equation modeling results in Study 1

Variable	Leader health mindset			Health-promoting leadership behavior		
	Estimate	SE	CI	Estimate	SE	CI
Team level (level 2)						
Per. org. health climate	0.47***	0.14	[0.24; 0.70]	−0.12*	0.06	[−0.21; −0.02]
Leader health mindset				0.29**	0.12	[0.09; 0.50]
Leader OI	−0.18+	0.13	[−.39; 0.02]			
Per. org. health climate × OI	0.21***	0.06	[0.10; 0.31]			
R^2	0.47***	0.15		0.42+	0.26	
	Emotional exhaustion			**Work engagement**		
Variable	Estimate	SE	CI	Estimate	SE	CI
Individual level (level 1)						
Health-promoting leadership behavior	−0.33***	0.07	[−0.45; −0.22]	0.46***	0.06	[0.37; 0.55]
R^2	0.12**	0.05		0.30***	0.07	

Note: Estimates are unstandardized coefficients, resulting from the overall multilevel model including all variables in one model.
Abbreviations: CI, 90% confidence interval; OI, organizational identification; Per. org. health climate, perceived organizational health climate.
***p < .001; **p < .01; *p < .05, + p < .10 (one-tailed).

and work engagement were significant (indirect relationship with emotional exhaustion: b_{ind} = −0.05, SE = 0.03, p = .047, LLCI = −0.09, and ULCI = −0.001, and indirect relationship with work engagement: b_{ind} = 0.06, SE = 0.04, p = .033, LLCI = 0.01, and ULCI = 0.12). These results provide support for Hypotheses 6a and 6b.

4.3 | Discussion of Study 1

The findings of Study 1 offer initial support for the hypothesized model of organizational health climate. Specifically, we found that the organizational health climate perceived by the leader was significantly

TABLE 3 Indirect effects of the multilevel structural equation model in Study 1

Indirect effect	Estimate	SE	CI
Hypothesis 3: Perceived org. health climate → leader health mindset → health-promoting leadership behavior	0.14*	0.08	[0.01; 0.27]
Hypothesis 6a: Perceived org. health climate → leader health mindset → health-promoting leadership behavior → emotional exhaustion	−0.05*	0.03	[−0.09; −0.001]
Hypothesis 6b: Perceived org. health climate → leader health mindset → health-promoting leadership behavior → work engagement	0.06*	0.04	[0.01; 0.12]

Note: Estimates are unstandardized coefficients, resulting from the overall multilevel model including all variables in one model.
Abbreviations: CI, 90% confidence interval; Perceived org. health climate, perceived organizational health climate.
***p < .001; **p < .01; *p < .05, + p < .10 (one-tailed).

related to the leader's health mindset, and that this, in turn, was associated with their health-promoting leadership behavior. However, as hypothesized and in line with the social identity approach (S. A. Haslam & Reicher, 2006; Turner et al., 1987), identification moderated the first path such that those leaders who strongly identified with their organization showed a stronger relationship between the perceived organizational health climate and their health mindsets. Our results also replicate the initial finding of Franke et al. (2014) that health-promoting leadership relates positively to employees' well-being.

Taken together, these findings are important because they shed first light onto the dynamics of when and how perceived organizational health climate is related to health-related variables at several organizational levels. However, the findings also need to be considered with caution given some limitations of Study 1. First, as noted previously, the sample size of leaders was rather small. Hence, we could not conduct thorough CFAs of the leader scales before testing our hypotheses. However, conducting CFAs would be important to examine the construct validity of these scales. Second, some of the hypothesis tests provided results rather close to the traditional significance level of p < .05. Again, this may be at least in part due to the sample size of leaders. Indeed, a set of post-hoc power analyses based on Monte Carlo simulation studies showed that the power for the indirect relationships proposed by Hypotheses 3, 6a, and 6b was below the often-recommended cutoff of 0.80 (for all other hypotheses, power was above 0.80; Muthén & Muthén, 2002).

Hence, to address these limitations and to provide further evidence for the proposed model, we conducted a second study. This second study allowed us to conduct CFAs to test the construct validity of all our scales, to conduct a priori power analyses to examine the appropriate sample size, and to provide a constructive retest of the findings from Study 1.
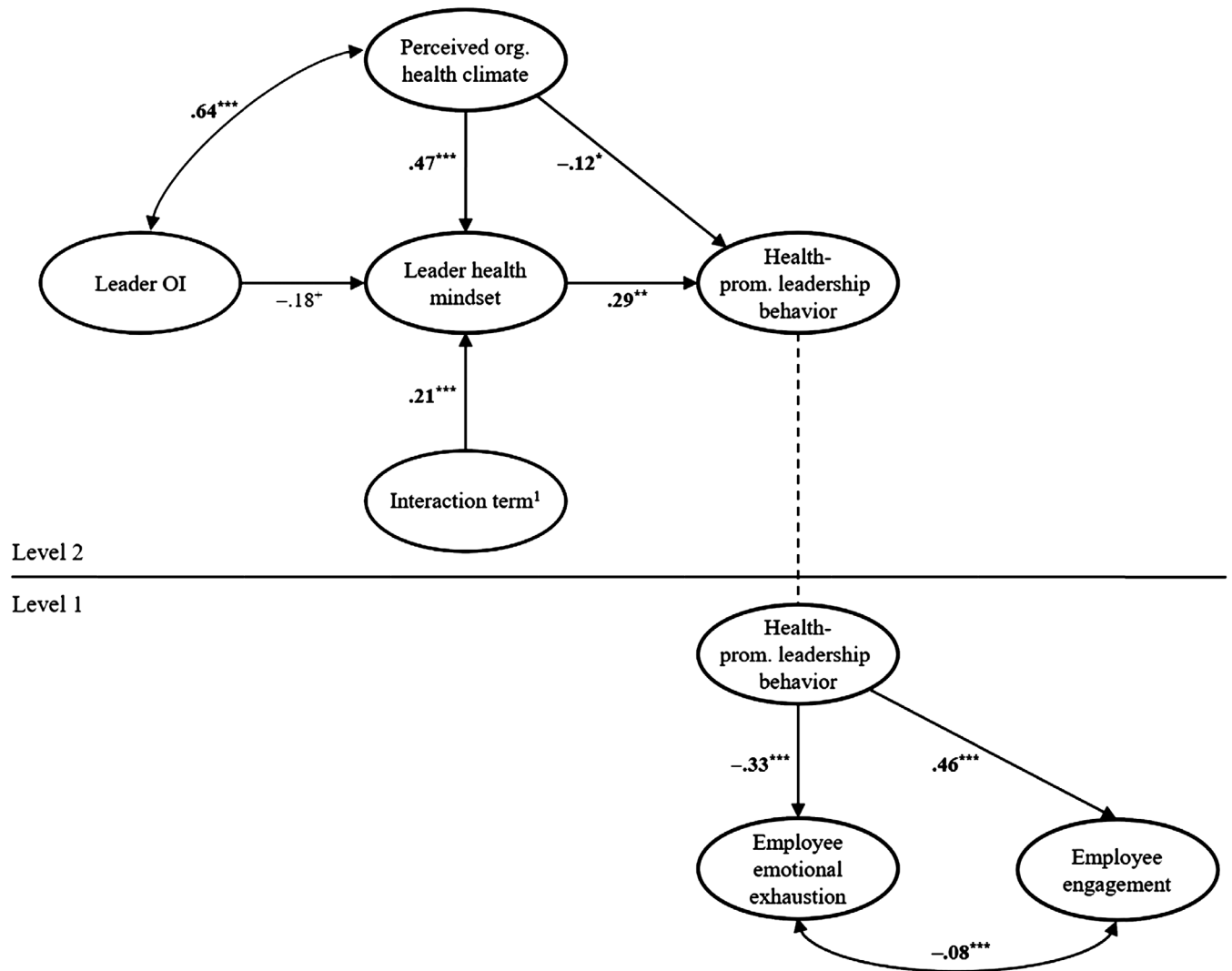
FIGURE 1 Multilevel structural equation model showing the moderated mediation model in Study 1. Note: Estimates are unstandardized coefficients. The measurement models are not shown. Abbreviations: Perceived org. health climate, perceived organizational health climate; OI, organizational identification; health-prom. leadership behavior, health-promoting leadership behavior.[1] Interaction term:Interaction of organizational health climate and leader organizational identification in predicting leader health mindset. ***$p < .001$; **$p < .01$; *$p < .05$, + $p < .10$ (one-tailed)
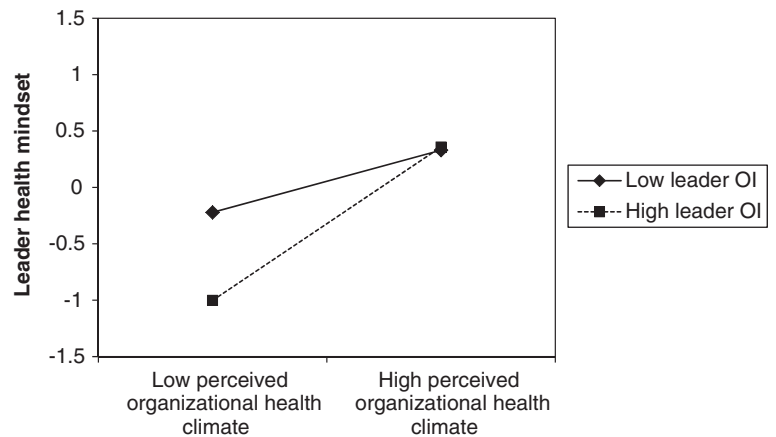

FIGURE 2 Illustration of simple slopes with values +/− 1 SD in Study 1. Note: Abbreviations: OI, organizational identification

5 | STUDY 2

5.1 | Method

5.1.1 | Participants and procedures

In the second study, we collected multisource data from leader and employee dyads. Prior to recruitment, we conducted a power analysis in Mplus using a Monte Carlo simulation approach (Muthén & Muthén, 2002). To estimate the number of participants required for a power of 80%, which is necessary to reliably detect significant relationships for our hypotheses, we simulated data based on the effect sizes found in Study 1 (following the recommendations by Brown, 2006; Hancock & Mueller, 2013). We set the associations among variables and all other parameters (e.g., factor loadings, correlations, regressive paths) based on the results obtained from Study 1 (shown in Tables 1 and 2). For example, for the path from perceived organizational health climate to leader health mindset, we fixed the estimate at $b = 0.47$. We then tested for which sample size the results met the criteria for acceptable precision of the relevant estimates. The results showed that a sample size of 350 participants would result in 80% power to detect significant effects for our hypotheses. To account for potential attrition, we recruited slightly more participants. Hence, the final sample consisted of 401 employees and leaders from various companies and industries.

To collect the data, we cooperated with Wei Diaocha, a professional Chinese research panel. Recent studies suggest that these types of panels provide reliable means of collecting data (e.g., Study Response in the U.S., WISO panel in Germany; Judge, Ilies, & Scott, 2006; Tepper et al., 2009; Thau & Mitchell, 2010). Employees who registered with the panel company were invited through an electronic message to participate in this study on "behaviors at work." The participants could enter the survey through a link in the message. The survey included all of the items in the employee survey. The employees were also asked to provide the names and contact details of their direct supervisors. The panel then sent an electronic message to the supervisors. This message included the link and a short introduction letter. A small compensation was paid for completing the survey (about US$1). Of the leaders, 84% were male and their average age was 38.00 years ($SD = 5.40$). They had been working in their current organization for 7.07 years ($SD = 4.00$). Of the employees, 50% were male and their average age was 28.49 years ($SD = 3.82$). The leaders and employees had worked together for 3.10 years ($SD = 2.58$) on average.

5.1.2 | Measures

We used the same measures as in Study 1. Specifically, the leaders answered the scales on their perception of the organizational health climate ($\alpha = .84$), their health mindset ($\alpha = .72$), and their organizational identification ($\alpha = .77$). The employees completed the scales on leaders' health-promoting leadership behaviors ($\alpha = .78$), their emotional exhaustion ($\alpha = .90$), and their work engagement ($\alpha = .79$).

5.1.3 | Data analysis

We used the same approach as in Study 1 and tested our hypotheses using structural equation modeling (SEM) in Mplus (Muthén & Muthén, 1998-2017). Following the same procedures as in Study 1, item parcels were used as indicators for latent concepts with four or more items (Bandalos, 2002). Again, all reported results are one-tailed due to the directional nature of our hypotheses.

Prior to testing the hypotheses, we conducted CFAs to examine the construct validity of the scales. For employees, the hypothesized three-factor model fit the data well ($\chi^2[51] = 59.90$, RMSEA = .02, and CFI = .99). It also showed a better fit than all possible two-factor models or a one-factor model. The best-fitting alternative model was a two-factor model combining emotional exhaustion and work engagement ($\chi^2[53] = 388.02$, RMSEA = .13, and CFI = .83). For leaders, the hypothesized three-factor model yielded a good fit to the data ($\chi^2[32] = 32.97$, RMSEA = .01, and CFI = .99). Again, it fit the data better than all two-factor models or a one-factor model. The best-fitting alternative model was a two-factor model combining health climate and health mindset ($\chi^2[34] = 48.22$, RMSEA = .03, and CFI = .99). Taken together, these results provide evidence for construct validity of the employee and leader scales in this study.

5.2 | Results

Table 4 shows the descriptive statistics, reliabilities, and correlations between the observed variables. The results of the hypothesis tests are shown in Tables 5 and 6. Figure 3 presents the structural equation model showing the moderated mediation model. The overall model showed a good fit to the data: $\chi^2(85) = 116.38$, RMSEA = .03, and CFI = .99.

The results showed that leaders' perceptions of the organizational health climate were significantly related to their health mindsets (path a: $b = 0.58$, $SE = 0.08$, and $p < .001$). This finding supports Hypothesis 1. Next, we found that leaders' health mindsets were significantly and positively related to their health-promoting leadership behavior, as rated by employees (path b: $b = 0.78$, $SE = 0.29$, and $p = .004$). This finding is consistent with Hypothesis 2. The indirect relationship of the perceived organizational health climate with health-promoting leadership behavior via leaders' health mindsets was also significant (indirect relationship $b_{ind} = 0.46$, $SE = 0.19$, $p = .008$, LLCI = 0.15, and ULCI = 0.77; see Table 6). This finding provides support for Hypothesis 3.

Next, we added the interaction term of leaders' organizational identification with the perceived organizational health climate in our model. The results showed that the interaction term was not significant ($b = 0.01$, $SE = 0.02$, and $p = .396$). Thus, contrary to our expectations formulated in Hypothesis 4, organizational identification did not moderate the relationship between the perceived organizational health climate and leaders' health mindsets.

The results revealed that health-promoting leadership behavior was significantly related to employee emotional exhaustion and work engagement ($b = -0.52$, $SE = 0.08$, $p < .001$, and $b = 0.65$, $SE = 0.06$, $p < .001$, respectively). Hypotheses 5a and 5b were therefore

TABLE 4 Means, *SD*s, reliabilities, and correlations among the study variables in Study 2

Variable	Mean	SD	1	2	3	4	5	6	7	8	9	10
1. Leader age	38.00	5.40	-									
2. Leader gender	-	-	-.04	-								
3. Per. org. health climate	3.97	0.69	.01	-.06	(.84)							
4. Leader health mindset	3.83	0.68	.01	-.05	.70***	(.72)						
5. Leader OI	4.32	0.58	.07	-.13*	.63***	.50***	(.77)					
6. Employee age	28.49	3.82	.46***	-.06	-.00	.03	.02	-				
7. Employee gender	-	-	-.05	.26***	-.17**	-.12*	-.06	-.14**	-			
8. Health-promoting leadership behavior	3.55	0.77	.02	-.06	.56***	.56***	.36***	.03	-.17**	(.78)		
9. Emotional exhaustion	2.61	0.89	.00	.15**	-.26***	-.23***	-.22***	.03	.06	-.35***	(.90)	
10. Work engagement	3.52	0.74	.07	-.12*	.43***	.36***	.34***	.12*	-.15**	.54***	-.39***	(.79)

Note: N = 401 employees and leaders. Cronbach's alphas for each variable appear along the diagonal within parentheses. Gender: 1 = male, 2 = female.

Abbreviations: OI, organizational identification; Per. org. health climate, perceived organizational health climate.

***p < .001; **p < .01; *p < .05, + p < .10 (two-tailed).

supported. Finally, the indirect relationships of the perceived organizational health climate with emotional exhaustion and work engagement via leaders' health mindsets and health-promoting leadership behavior were significant (indirect relationship with emotional exhaustion: b_{ind} = −0.24, *SE* = 0.10, *p* = .012, LLCI = −0.41, and ULCI = −0.07, and indirect relationship with work engagement: b_{ind} = 0.29, *SE* = 0.12, *p* = .009, LLCI = 0.09, and ULCI = 0.50). These results support Hypotheses 6a and 6b.

5.3 | Discussion of Study 2

Our results provide further support for the indirect relationship between leaders' perceptions of organizational health climate and employees' health-related outcomes (emotional exhaustion and work engagement). Consistent with the findings of Study 1, leaders' health mindsets and health-promoting leadership behavior mediated the relationship between leaders' perceptions of organizational health climate and employee well-being. Hence, we could replicate the cascading model of organizational health climate found in Study 1. However, contrary to Study 1, the results of Study 2 did not show a moderating effect of leaders' organizational identification on the relationship between leaders' perceptions of organizational health climate and their health mindsets. This suggests that in Study 2, leaders' identification with their organization did not influence the relationship between perceived organizational health climate and leaders' health mindsets. In the following, we discuss the overall implications of our findings.

6 | GENERAL DISCUSSION

We developed and tested a multilevel cascading model of the organizational health climate. Specifically, we set out to examine (a) how leaders' perceptions of the organizational health climate are associated with employee health via leaders' health mindsets and health-promoting leadership behavior, (b) when perceived organizational health climate relates to leaders' health mindsets by proposing leaders' organizational identification as a moderator, and (c) whether health-promoting leadership behavior acts as a crucial mediator between organization-level health variables and employee outcomes.

We tested our theoretical model in two studies, both of which provided consistent support for the proposed cross-level mediation. Specifically, we found that leaders' perceptions of the health climate in their organization were positively related to their own health mindsets, which, in turn, were associated with employees' reports of leaders' health-promoting leadership behavior. This finding is consistent with the argument that organizational policies and procedures (i.e., the organizational health climate as perceived by the leader) set a tone for expected and desirable leader behavior, and thus influence leaders' actions (Tucker et al., 2016; Zohar & Luria, 2005). Our results also showed that leaders' health-promoting behavior was associated with lower employee emotional exhaustion and higher work engagement. This highlights the benefits of leadership behaviors targeted specifically at improving employee well-being. Indeed, health-promoting leadership is a novel concept and

TABLE 5 Structural equation modeling results in Study 2

Variable	Leader health mindset			Health-promoting leadership behavior		
	Estimate	SE	CI	Estimate	SE	CI
Per. org. health climate	0.58***	0.08	[0.45; 0.72]	0.08	0.16	[−0.18; 0.33]
Leader health mindset				0.78**	0.29	[0.30; 1.26]
Leader OI	−0.09	0.07	[−0.21; 0.04]			
Per. org. health climate × OI	0.01	0.02	[−0.03; 0.04]			
R^2	0.83***	0.07		0.56***	0.08	
	Emotional exhaustion			**Work engagement**		
Variable	Estimate	SE	CI	Estimate	SE	CI
Health-promoting leadership behavior	−0.52***	0.08	[−0.64; −0.39]	0.65***	0.06	[0.54; 0.75]
R^2	0.18***	0.05		0.47***	0.06	

Note: Estimates are unstandardized coefficients, resulting from the overall model including all variables in one model.
Abbreviations: CI, 90% confidence interval; OI, organizational identification; Per. org. health climate, perceived organizational health climate.
***$p < .001$; **$p < .01$; *$p < .05$, + $p < .10$ (one-tailed).

TABLE 6 Indirect effects of the structural equation model in Study 2

Indirect effect	Estimate	SE	CI
Hypothesis 3: Perceived org. health climate → leader health mindset → health-promoting leadership behavior	0.46**	0.19	[0.15; 0.77]
Hypothesis 6a: Perceived org. health climate → leader health mindset → health-promoting leadership behavior → emotional exhaustion	−0.24*	0.10	[−0.41; −0.07]
Hypothesis 6b: Perceived org. health climate → leader health mindset → health-promoting leadership behavior → work engagement	0.29**	0.12	[0.09; 0.50]

Note: Estimates are unstandardized coefficients, resulting from the overall model including all variables in one model.
Abbreviations: CI, 90% confidence interval; Perceived org. health climate, perceived organizational health climate.
***$p < .001$; **$p < .01$; *$p < .05$, + $p < .10$ (one-tailed).

evidence of its effectiveness is still scarce (e.g., Franke et al., 2014; Gurt et al., 2011).

Finally, the results of Study 1 suggest that the relationships of the perceived organizational health climate may not always be as straightforward as often assumed in the literature (Zweber et al., 2016; Zweber, Henning, Magley, & Faghri, 2015). We found significant variation between leaders. In line with the central arguments of social identity theory (Ashforth & Mael, 1989; S. A. Haslam & Reicher, 2006), our findings demonstrate that the association between perceived organizational health climate and a leader's health mindset depends on the leader's identification with the organization. This provides important insights into the potential boundary conditions of organizational (health) climate. While previous research has shown that contextual factors (e.g., routinization and the frequency of

customer contact) can limit or enhance the trickle-down effect of climate in organizations (e.g., service climate or safety climate; Mayer, Ehrhart et al., 2009; Zohar & Luria, 2005), our results highlight that individual characteristics of the leader might be equally important. Our findings suggest that leaders who perceive that they belong to their organization and strongly identify with it are more likely to internalize organizational health norms and practices (i.e., the health climate) and show a health mindset in line with the organizational health climate than those who do not identify with their organization. Hence, our study makes an important contribution to the literature on organizational climate by identifying leaders' sentiments toward the organization as a potential boundary condition for when and why organizational climate may relate to employee outcomes.

In summary, although our results are tentative and in need of further replication, they provide initial evidence for a cascading model of organizational health climate in organizations. We believe that they can offer an important basis for future studies, and we outline theoretical, research, and practical implications in the following.

6.1 | Theoretical and research implications

The findings extend our understanding of organizational health climates, health promotion by leaders, and employee health. First, they contribute to research on organizational health climates. In general, studies exploring this concept have not identified how such health climates may relate to employee well-being (Zweber et al., 2015; Zweber et al., 2016). Our study recognizes that leaders' health mindsets and health-promoting leadership behavior mediate the relationship between perceived organizational health climate and employee health. This corroborates a central assumption in climate theories, which is that climate dynamics may be transmitted through top-down processes within organizations (e.g., Dollard & Bakker, 2010). The finding is also in line with previous research suggesting that leaders
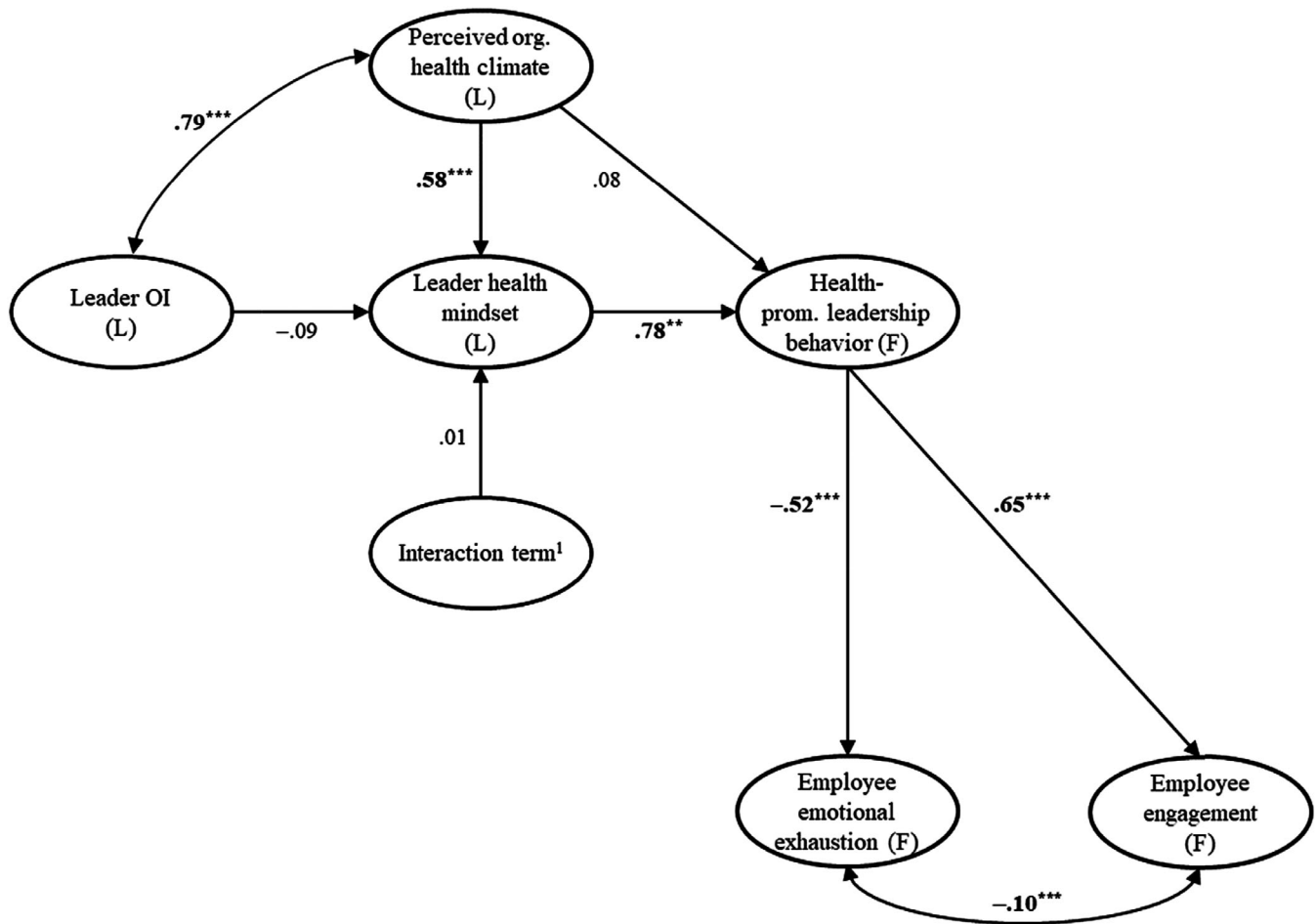
FIGURE 3 Structural equation model showing the moderated mediation model in Study 2. Note: Estimates are unstandardized coefficients. The measurement models are not shown. Perceived org. health climate, perceived organizational health climate; OI, organizational identification; health-prom. leadership behavior, health-promoting leadership behavior; L, rated by leaders; F, rated by followers.[1] Interaction term:Interaction of organizational health climate and leader organizational identification in predicting leader health mindset. ***$p < .001$; **$p < .01$; *$p < .05$, + $p < .10$ (one-tailed)

are an essential bridge between the organizational climate and employee outcomes (Tucker et al., 2016).

Although initial research has been conducted on the concepts of organizational health climate and health-promoting leadership behavior and their links with employee well-being (e.g., Basen-Engquist, Suchanek Hudmon, Tripp, & Chamberlain, 1998; Franke et al., 2014; Mazzola, 2010; Sonnentag & Pundt, 2016), no efforts have been made to integrate them into a larger model (for an exception, see Gurt et al., 2011; Gurt & Elke, 2009). In our study, we show how these concepts *together* relate to employee well-being. Hence, a central contribution of our study is to simultaneously test a full mediation model that spans various organizational levels (i.e., the level of perceived organizational climate, leader behaviors, and employee outcomes). Although such models can provide important insights into the dynamics of well-being at work, they are still rare.

Second, the inclusion of leaders' health mindsets also contributes to research on the health climate-health-promoting leadership link. We found that the relationship between perceived health climate and health-promoting leader behavior was largely indirect and relied on leaders' health mindsets. This extends previous research, which has

mainly focused on leaders' health-promoting behavior (e.g., Gurt et al., 2011) or on leaders' consciousness of their own health (Kranabetter & Niessen, 2017), but which has rarely addressed leaders' health mindsets, that is, their awareness of others' health signs (Franke et al., 2014). Importantly, the present finding highlights that without including the cognitive link between the perceived organizational health climate and health-promoting leadership behavior, models of organizational health may be essentially incomplete. Our finding is consistent with and supports results from the related safety climate field, which demonstrate that employees' safety knowledge and consciousness are crucial to understand when and how an organizational safety climate may relate to employees' safety performance (Barling, Loughlin, & Kelloway, 2002; Griffin & Neal, 2000).

Third, our study contributes to recent efforts to identify central boundary conditions of a top-down influence in organizations, and expands this field of study to the organizational health climate (Ambrose, Schminke, & Mayer, 2013; Chen, Friedman, & Simons, 2014; Ling, Lin, & Wu, 2016; Mawritz, Mayer, Hoobler, Wayne, & Marinova, 2012). Specifically, in Study 1, we found that only some leaders showed a health mindset in line with the organizational health

climate, depending on their identification with the organization. Hence, our study is among the first to examine the effects of organizational identification on the dissemination of climate in organizations. This tests a central tenet of social identity theory—that organizational identification is an important prerequisite for internalizing organizational (health) norms (Ashforth & Mael, 1989).

Interestingly, the differences between strongly and lesser-identified leaders were particularly pronounced when leaders reported low levels of organizational health climates. Specifically, if leaders perceived that their organizations did not place much emphasis on health promotion, strongly identified leaders aligned more with the perceived organizational health climate and reported a weaker health mindset. While initially surprising, this finding contributes to recent efforts to understand the risks of social identification. For example, previous studies suggest that strongly identified individuals act like other in-group members and according to the social group norms, even if this involves less health-enhancing or even health-harming behavior (e.g., Oyserman, Fryberg, & Yoder, 2007). We show that this may also be the case in organizational settings.

However, given that this moderation was only supported in Study 1, more research is needed to examine when and under which circumstances leaders' organizational identification is relevant. The nonsignificant moderation in Study 2 suggests that other boundary conditions (personality or situational factors) may be relevant. For example, the organizational tenure of leaders in Study 2 was somewhat shorter than the tenure of leaders in Study 1, which may have affected the internalization of health norms and practices. Previous studies have in fact shown that organizational tenure significantly affects the dynamics of organizational identification (Barker & Tompkins, 1994; Riketta, 2005). Other boundary conditions could include organizational constraints such as routinization (Zohar & Luria, 2005) or, at the leader level, their self-efficacy beliefs. For example, high leader self-efficacy with regard to health topics may strengthen the link between health climate and leaders' health-promoting attitudes and behaviors (see research on health behavior; de Vries, Dijkstra, & Kuhlman, 1988).

6.2 | Practical implications

Although more studies are needed to examine the generalizability of our results, we will outline several steps that organizations can take to sustain and improve employee health. First, while previous research on employee well-being has mostly focused on employee variables or leaders' actions, our results offer another avenue through which organizations can address the issue of employee health: organizational health climate. As our results indicate, a high level of organizational health climate may start a cascading top-down dynamic that can ultimately result in improved employee health. Previous research suggests several methods for improving the health climate in an organization, for example by providing health checks and occupational health training courses for employees (e.g., general training on stress or specific training, such as antismoking programs), disseminating information about health issues at work and implementing health guidelines (Basen-Engquist et al., 1998; Mearns et al., 2010). This goes beyond mere health policies and may prevent leaders from feeling overloaded and frustrated by the additional work that health promotion might bring (Gugglberger, Flaschberger, & Teutsch, 2017).

Second, our study highlights the importance of leaders' health mindsets as a central correlate of health-promoting leadership behavior (see also Franke & Felfe, 2011). Health awareness might be fostered through a high level of health climate—as indicated by our results. Another approach would be to offer health-promoting leadership programs with opportunities for leaders to reflect upon health issues in the workplace and share their experiences with other leaders (Eriksson, Axelsson, & Axelsson, 2010), as this may raise their health awareness at the workplace. Another intervention could be to offer mindfulness training for leaders, as this may not only affect their ability to be aware of health issues at work (e.g., being sensitive to employees' stress signals) but also enhance their own well-being (Good et al., 2016; Hülsheger, Feinholdt, & Nübold, 2015; Maricuţoiu, Sava, & Butta, 2016).

Third, our findings also add an important contingency: the importance of leaders' organizational identification. The results of Study 1 suggest that leaders' perceptions of health policies and procedures may not be sufficient to encourage health-promoting leadership behavior. Organizations also need to manage organizational identification, as this might influence the adoption of (implicit and explicit) organizational health norms. Previous research suggests several methods that organizations can use to promote identification (Steffens et al., 2014), for example, by specifying the values and meaning of the group (identity entrepreneurship) or by making the organization as a group visible and meaningful (identity impresarioship). The organizational identification of the upper management itself is equally important, as employees with strongly identified supervisors report more identification (van Dick & Schuh, 2010). Social and organizational identification has also been shown to be positively related to well-being (e.g., Steffens, Haslam, Schuh, Jetten, & van Dick, 2017).

6.3 | Strengths, limitations, and avenues for future research

A methodological strength of our studies is the simultaneous test of the overall moderated mediation model, as testing the effects separately may lead to erroneous results (Edwards & Lambert, 2007). Additionally, we used (multilevel) SEM, which allowed us to account for measurement errors (Nachtigall, Kroehne, Funke, & Steyer, 2003). However, despite these strengths, several limitations can be addressed in future research. The cross-sectional design precludes us from testing causal dynamics. However, it is important to note that our theoretical model follows the general view that influence in organizations predominantly flows from the top to the bottom (Ambrose et al., 2013; Aryee et al., 2007; Masterson, 2001; Tucker et al., 2016). Nevertheless, future research should examine the proposed effects in designs that allow causality testing. While it may be difficult to examine the proposed macro-level effects of climate in experimental

studies, time-lagged panel studies may be promising methods for testing the implied causality.

Another promising avenue for future research would be to more closely examine the novel notion of the organizational health climate, as only a few studies have been conducted (Sonnentag & Pundt, 2016) and the assessed facets and scales of health climates vary (e.g., Basen-Enquist et al., 1998; Ribisl & Reischl, 1993). Zweber et al. (2016) provided important insights into this concept and inspired our study, but important questions remain open for further investigation, such as the dimensionality of the concept. Although largely operationalized as a one-dimensional concept (besides workgroup and supervisor health climate; Zweber et al., 2016), organizational health climate may have several subdimensions. Hence, to further understand the notion of health climate, it may be useful to examine such subdimensions, their interrelations, and potential differential effects. For example, when focusing on organizational eating and exercise climates, Sonnentag and Pundt (2016) identified three climate dimensions (i.e., the value placed by management on healthy eating and physical exercise, communication about these topics and organizational practices). It would be interesting to explore whether organizational health climate involves a similar pattern.

Furthermore, a health climate may occur and may actually differ at various levels within an organization, for example at the organizational level or the team level (e.g., Schulz, Zacher, & Lippke, 2017). This may create inconsistencies and conflicting effects. Even if the management continues to promote a high level of health climate (e.g., raising employees' awareness of health issues or providing health-promoting activities), if the practices of coworkers counter these messages (e.g., regularly conducting overtime or skipping breaks), the intended positive effects of an organizational health climate may be undermined.

6.4 | Conclusion

Overall, our findings provide initial support for a cascading model of organizational health climate. Given the tremendous cost of ill health, organizations increasingly invest in efforts that promote good employee health (C. Haslam, Jetten, Cruwys, Dingle, & Haslam, 2018). By adopting a multilevel view, our study shows that leaders' perceptions of a high level of organizational health climate might be an important starting point for health processes in organizations. Furthermore, the results highlight the crucial role of leaders, as their perceptions of organizational health norms and procedures (i.e., organizational health climate) were indirectly related to employee well-being via their health mindsets and health-promoting leadership behavior. We hope that our results will help practitioners to improve health promotion in organizations and encourage researchers to further investigate the novel but important concepts of organizational health climate and health-promoting leadership.

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ENDNOTE

[1] The original scales to assess health awareness (i.e., a leaders' health mindset) and health-promoting leadership behaviors are long (Franke, 2012; Franke et al., 2014). For this study, we sought to develop shorter, more parsimonious measures that still represent the core aspects of these concepts. Thus, we conducted pilot studies with $N = 130$ leaders and $N = 185$ employees and, for both scales, selected those items that showed high correlations with the overall scales (Price, 2016). This approach resulted in a three-item scale for leaders' health mindset and a four-item scale for health-promoting leadership behaviors. Both showed high correlations with the original scales ($r = .87$ for health mindset and $r = .91$ for health-promoting leadership behavior). Hence, the new scales effectively and parsimoniously capture the core of the original scales (Price, 2016). We report all items of the new scales in the method part of this article.

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