



Facilitating Health-Oriented Leadership from a Leader's Perspective

Antecedents at the Organizational, Workplace, and Individual Level

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Abstract: Health-oriented leadership (HoL) is vital for the improvement of health and an essential part of psychological risk management. However, the relevance of different antecedent factors is unknown. We used data from a Germany-wide online survey with $N = 738$ leaders. Referring to the JD-R model, we analyzed leaders' demands and resources that facilitate or impede health-oriented leadership from a leader's perspective. Moreover, we examined the relevance of contextual factors like branch, company size, and management span. Whereas results show only small differences for contextual factors, we found positive relationships between leaders' resources, like autonomy and social support, and negative relationships with workplace demands (availability, multitasking) and HoL from a leader's perspective. At the organizational level, HoL is positively linked to high-performance work practices and health-oriented HRM strategies. From a leader's perspective, the findings provide evidence for the relevance of favorable working conditions and human resources practices for improving HoL as part of psychological risk management.

Keywords: job demands, resources, health-oriented leadership, high-performance work practices

Einflussfaktoren von gesundheitsorientierter Führung aus Sicht von Führungskräften. Organisation, Arbeitsplatz und Individuum

Zusammenfassung: Gesundheitsorientierte Führung ist wichtig für den Erhalt der Gesundheit und Bestandteil des psychologischen Risikomanagements. Es gibt jedoch nur wenige Studien zu relevanten Einflussfaktoren. Für die Studie wurden Daten aus einer deutschlandweiten Online-Umfrage mit $N = 738$ Führungskräften genutzt. In Anlehnung an das JD-R Modell wurden die Anforderungen und Ressourcen von Führungskräften analysiert, die eine gesundheitsorientierte Führung aus Sicht der Führungskräfte erleichtern oder erschweren. Zusätzlich wird die Relevanz weiterer Kontextfaktoren wie Branche, Unternehmensgröße und Führungsspanne untersucht. Während die Ergebnisse nur geringe Unterschiede bezüglich der Kontextfaktoren zeigen, zeigen sich aus Sicht der Führungskräfte positive Zusammenhänge zwischen Ressourcen wie Autonomie und sozialer Unterstützung sowie negative Zusammenhänge mit Stressoren am Arbeitsplatz (Erreichbarkeit, Multitasking) und gesundheitsorientierter Führung. Auf der Organisationsebene zeigen sich positive Zusammenhänge mit high-performance work practices und gesundheitsorientierten Personalmanagementstrategien. Die Befunde belegen aus Sicht der Führungskräfte die Relevanz günstiger Arbeitsbedingungen und personalwirtschaftlicher Praktiken für die Verbesserung gesundheitsorientierter Führung als Teil des psychologischen Risikomanagements.

Schlüsselwörter: Arbeitsanforderungen, Ressourcen, gesundheitsorientierte Führung, high-performance work practices

Ensuring positive and sustainable leadership is a crucial part of the psychological risk management in organizations since leaders are key to maintain and improve employees' health (Montano et al., 2017). However, leaders often lack resources and have to deal with several

demands and hindrance stressors that may impede health-promoting leadership. This, in turn, may not only increase the risks for followers' health, but also the health of leaders themselves (LePine et al., 2005).

To investigate positive and sustainable leadership as a component of psychological risk management, we utilized the framework of health-oriented leadership (HoL; Franke et al., 2014). HoL includes leaders' follower-directed behavior in terms of staff-care (i.e., the extent to which leaders value, are aware of, and protect their followers' health), but also covers leaders' self-care (i.e., the extent to which they value, are aware of, and protect their own health). Previous studies supported construct validity and provided evidence that HoL may reduce risks to followers' health (Arnold & Rigotti, 2020; Franke et al., 2014; Horstmann, 2018; Klug et al., 2019). In light of the crucial role HoL may play in the reduction of risks for followers' health, it is essential to know to what extent leaders display this kind of behavior. Furthermore, it is crucial to understand from the leaders' perspective which antecedents facilitate or impede HoL (Arnold & Rigotti, 2020; Klebe, Felfe, & Klug., 2021), since a better understanding of favorable and critical factors of HoL may help organizations to improve their psychological risk management. Since both of these issues have not been addressed in previous research, we analyze the levels and antecedents of HoL. As a theoretical framework, we refer to the established job demands-resources model (Bakker & Demerouti, 2007), which differentiates demands and resources to explain work experience and behavior. For a comprehensive picture, we consider factors on different levels: individual, workplace, and organization.

According to previous research, workplace characteristics like autonomy and social support are relevant resources which help to increase performance, motivation, commitment, and health (e.g., Bakker & Demerouti, 2007). We argue that these resources may also enable leaders to display more HoL. From an explorative perspective, we also examine whether the relationships between resources and HoL may be stronger for leaders who place higher value on health. On an organizational level, there is a growing interest in the relationships between human resource management (HRM) strategies, leadership, and health (Hauff et al., 2022). Specifically, organization-wide HRM strategies and policies that focus on employee well-being (Guest, 2017; Hauff et al., 2020) may serve as an important resource as they establish a supportive climate for health promotion. On the other hand, the job demands-resources model postulates that high demands negatively affect work experience and performance. As we outline below, high workload, multitasking, or permanent availability as demanding working conditions may hinder leaders to apply HoL. On the organizational level, HRM strategies that focus more on employee performance – i.e., high-performance work practices (HPWPs; Appelbaum et al., 2000) – may also pose a demand on leaders (Xi et al., 2022) and thus could

reduce HoL. Besides established demands and resources, other context variables (organizational size, private or public sector, management span, and home office) could be relevant and are considered from an explorative perspective. According to Franke et al. (2015), it is critical to develop a better understanding of which perceived characteristics of the work environment and the organizational culture are inhibiting factors or drivers for HoL. By addressing this research gap and answering to calls from recent research (i.e., Franke et al., 2015; Montano et al., 2017; Tuncdogan et al., 2017), we analyzed leaders' experienced job demands and resources as potential antecedents of their self-reported HoL from a leader's perspective. We analyzed data from a Germany-wide online survey with $N = 738$ leaders covering a wide range of branches. As relationships in cross-sectional studies may be upward biased, we conducted this study using two independent measurement times where antecedents were measured at t_1 and HoL 2 months later (t_2).

The contribution of this study is three-fold: First, we provide insights into the extent of HoL components and thus also descriptive benchmarks from a leaders' perspective. Second, drawing on the job demands-resources model, we examine whether perceived resources and demands at the individual, workplace, and organizational level are related to staff-care and self-care from a leader's perspective and thereby expand knowledge about drivers of HoL. From an explorative perspective, we also examine whether the enhancement of the HoL subdimensions awareness and behavior depends on the HoL subdimension value, providing deeper insight into the meaning of the value subdimension. Third, we provide insights on the relevance of different contextual factors (e.g., sector, size, management span, home office, branches) for HoL. Overall, our results provide important implications for psychological risk management since they show how organizations can actively support health-oriented leader behavior and therewith contribute to reduce physical and mental illness of leaders and their subordinates.

Health-Oriented Leadership

Positive leadership focuses on followers' motivation and performance and should also consider and promote their health. Because more general concepts of "positive" leadership may be too vague concerning leaders' health-specific actions, more health-specific leadership concepts have been developed (Franke et al., 2014). Studies have shown that these health-specific leadership concepts explain additional variance regarding follower health beyond transformational and other generally constructive/functional/positive leadership behaviors (Franke et

al., 2014; Kaluza et al., 2021). In this study, we focus on the HoL concept (Franke et al., 2014), which provides a comprehensive framework for health-specific leadership differentiating *staff-care* (i.e., how leaders deal with their followers' health), *leader self-care*, and *follower self-care* (i.e., how leaders and followers deal with their own health). Staff-care and self-care each consist of three components: value, awareness, and behavior relevant to health promotion.

According to the assumptions of the HoL concept, leader and follower self-care each positively influence one's own health by taking one's own health seriously (value), by recognizing own health-related warning signals at an early stage (awareness), and by thus actively promoting health by engaging in health-promoting behaviors (i.e., behavioral prevention activities, such as taking breaks, healthy sitting, and time management, but also improvements in the work environment, such as ergonomic work environment, work organization).

The leaders' own self-care promotes follower health by encouraging followers' self-care via role modeling and facilitates leaders' staff-care (consistent behavior). Leaders high in self-care are assumed to be more willing to care for their followers' health (staff-care). In turn, leaders' staff-care positively influences followers' health by giving high priority to their followers' health (value), by paying attention to their warning signals and signs of overload at an early stage (awareness), and by demonstrating specific health-promoting actions (behavior, providing healthy working conditions and appropriate resources [e.g., positive climate, work design], addressing health issues, motivating them to adopt health-promoting behavior [e.g., avoid presentism, avoid excessive overtime, etc.]). Staff-care directly influences followers' health as well as indirectly via followers' self-care by encouraging followers to take individual responsibility for their own health (Franke et al., 2014).

A growing number of studies support the relationships postulated in the HoL concept and its relevance to followers' general health, well-being, commitment, job satisfaction, and performance (Arnold & Rigotti, 2020; Franke et al., 2014; Klebe, Klug, & Felfe, 2021; Klebe, Felfe, & Klug, 2021; Klug et al., 2019; Santa Maria et al., 2019; Vonderlin et al., 2020).

Workplace Characteristics and Their Relationships with HoL

To date, only few studies have focused on situational factors or workplace characteristics as potential antecedents of leader behavior (e.g., Ng et al., 2021). The job demands-resources model (Bakker & Demerouti, 2007)

differentiates demands and resources to explain work experience and behavior. Although caring for oneself and caring for others are different entities, similar working conditions may facilitate (e.g., autonomy) or prevent caring (e.g., high workload). Leaders experiencing high demands may have difficulties caring for themselves and lack the capacity to care for others. While workplace conditions have less influence on attitudes such as the HoL subdimension value, these conditions should primarily affect concrete behavioral orientations (HoL subdimensions awareness and behavior). Because awareness and behavior are behavior-oriented, they are stronger correlated with each other than the value subdimensions (Franke et al., 2014; Vonderlin et al., 2020). Accordingly, we look at awareness and behavior together when developing our hypotheses.

Autonomy and social support have proved to be the most relevant resources in the workplace, resulting in higher motivation, engagement, satisfaction, health, and performance (e.g., Bakker & Demerouti, 2007; Humphrey et al., 2007). Whereas most research has examined the positive effects of resources on employees' work experience and behavior, little attention has been paid to the meaning of these resources for leadership behavior. The conservation of resources theory (COR; Hobfoll et al., 2018) provides further insight into the possible effects of resources on leadership behavior. This theory assumes that resources enable further resource gains (Hobfoll et al., 2018). Accordingly, it likely assumes that leaders with many resources are more prone to invest those resources and thus experience further resource gains. Generally, leaders must meet numerous requirements (task accomplishment, problem-solving, planning, controlling, delegating, etc.). Autonomy is an important precondition that enables leaders to set priorities, allows them to make decisions on their own, to react flexibly and effectively, and to be proactive. HoL requires capacities to pay attention to followers' health risks (awareness) and resources to take appropriate action in reducing risks by optimizing workflow, avoiding and overcoming obstacles, and encouraging followers to participate in occupational health programs (behavior) and show self-care. Leaders with higher autonomy may use their resources more effectively and therefore save capacity to monitor and consider their followers' needs. Moreover, they have more power to effectively reduce demands and foster their followers' health-oriented behavior, whereas leaders lacking in autonomy experience much more restriction and less responsibility. Autonomy is not only an important resource for perceiving potential risks and improving followers' working environment (staff-care awareness and behavior) but also for maintaining their own health, since autonomy may save time to invest in healthy

behavior and working conditions. While autonomy may have less influence on attitudes such as the HoL sub-dimension value, this resource should primarily affect concrete behavioral orientations (HoL subdimensions awareness and behavior).

H1: Autonomy is positively related to (a) staff-care and (b) self-care (awareness and behavior).

Besides decision latitude and authority, social support is another vital resource in the workplace (Nahum-Shani et al., 2011). Leaders who experience social support from peers and their leaders may find it much easier to ask for help and save capacity. They also experience more trust and confidence while conflicts are reduced. In a supportive environment, leaders may feel more encouraged to engage in HoL toward their followers and to themselves.

H2: Social support is positively related to (a) staff-care and (b) self-care (awareness and behavior).

Following a reviewer's suggestion, it is conceivable that the conducive effects of resources such as autonomy and social support also depend on leaders' positive attitudes toward their own and their followers' health. Resources may be more likely to enhance awareness and behavior when leaders have a positive attitude toward health (value). In this case, resources may be primarily used for staff-care and self-care (awareness and behavior) instead of other strivings. We considered this potential moderating effect of value from an explorative perspective.

At the workplace level, leaders are also confronted with various demands that can lead to a lack of resources and less capacity for staff-care and self-care. For example, complexity and high workload are well-known hindrance stressors (i.e., stressors that are appraised as thwarting goal attainment; Cavanaugh et al., 2000) that may reduce engagement, motivation, satisfaction, and health (Bakker & Demerouti, 2007). Because of increased demands, leaders are also likely to focus on goal orientation and task fulfillment (Hannah et al., 2009) rather than protecting followers' health. Leaders who experience high demands may reduce health-promoting behavior, such as reacting to follower strain or considering follower health, when making decisions. In the light of increasing demands, multitasking has become a widespread phenomenon (Baethge & Rigotti, 2010). Leaders who frequently perform multitasking often have to interrupt and reengage in tasks with additional effort. They have a higher risk of mistakes and experience mental overload. The increased digital communications allow for permanent availability in both directions, leaders and followers (Day et al., 2012). Leaders who are expected to be permanently available for communication with followers, customers, and their next-level leaders have less opportunity for recovery and work-life balance (Day et al., 2012). Moreover, according to COR Theory (Hobfoll et al., 2018), leaders enter a

defensive mode to preserve their own resources and withdraw from staff-care when their well-being is threatened (Kaluza et al., 2020).

H3: Workload is negatively related to (a) staff-care and (b) self-care (awareness and behavior).

H4: Multitasking is negatively related to (a) staff-care and (b) self-care (awareness and behavior).

H5: Permanent availability is negatively related to (a) staff-care and (b) self-care (awareness and behavior).

Individual Characteristics and HoL

On an individual level, there is already evidence that positive leadership and HoL are likely to decrease when leaders feel strained because, in these periods, leaders do not have enough resources and capacities to continuously engage in positive behavior (Harms et al., 2017; Kaluza et al., 2020; Klebe et al., 2022). Strain may result from high demands (Bakker & Demerouti, 2007) like the aforementioned workload, and multitasking but also from other stressors (e.g., job insecurity, conflict, etc.). Strain is related to negative affect and requires regulating one's own negative emotions. In these situations, the leader may have fewer cognitive resources (Girotti et al., 2018) and may be less open to their followers' concerns and negative emotions. Consequently, they are not willing to listen or to take action and avoid communication. Similarly, they forego balance and recreation. We, therefore, postulate that leaders display less staff-care and self-care when they experience strain and hypothesize the following:

H6: Strain is negatively related to (a) staff-care and (b) self-care (awareness and behavior).

Organizational Characteristics and Their Relationships with HoL

Organizational variables may also facilitate or hinder HoL. In the last decades, HRM literature and related disciplines have adopted a strategic perspective that firms use different sets or bundles of HRM practices, often referred to as HRM systems (Jackson et al., 2014). One approach that has drawn particular attention is the notion of HPWPs, a set of HRM practices that are supposed to increase employee and subsequently firm performance by targeting employees' abilities (knowledge, skills), motivations, and opportunities (Appelbaum et al., 2000). Mostly, selection and training practices are considered ability-enhancing HPWPs, performance management, compensation, and incentive practices as motivation-enhancing HPWPs, and job design, teamwork, and involvement

practices as opportunity-enhancing HPWPs (e.g., Jiang et al., 2012).

Numerous studies have provided evidence for positive relationships between HPWPs and different performance measures (for meta-analytical reviews, see, e.g., Jiang et al., 2012; Saridakis et al., 2017). More recently, research has also analyzed HPWPs' effects on employee well-being with somewhat mixed results, feeding a discussion on whether HPWPs are beneficial to employee well-being or whether HPWPs support performance at the expense of employee well-being (Ogbonnaya & Messersmith, 2019; Zhang et al., 2018). One reason for these inconsistent results could be that there is still no agreed conceptualization of HPWPs. Indeed, researchers use different sets of HRM practices they assume lead to higher performance (Posthuma et al., 2013).

Largely unaddressed and thus unclear is the question of how HRM strategies like HPWPs affect leadership behavior. Leaders play a crucial part in the effectiveness of HRM strategies (Kehoe & Han, 2020), but implementing these strategies might be a significant demand for them. Indeed, in one of the few studies on this topic, Xi et al. (2022) argued that HPWPs create new burdens for leaders and increase their performance pressure since HPWPs are focused on employees and require leaders to spend considerable time and energy, for example, ensuring that employees participate in training programs, conducting performance evaluations or compensation, and overseeing incentive practices. Following this argumentation, we propose that HPWPs may direct leadership behavior to goal accomplishment and performance while neglecting followers' health and their own health.

H7: HPWPs are negatively related to (a) staff-care and (b) self-care (awareness and behavior).

While HPWPs represent a dominant approach in the literature, it is not the only HRM strategy that organizations can apply. Indeed, in line with the growing interest in the relationship between HRM and employee well-being, research has recently started to analyze the influence of well-being-oriented HRM strategies (Hauff et al., 2020). The concept of well-being-oriented HRM stems from Guest (2017), who identified five sets of HRM practices designed to promote employee well-being: investing in employees (e.g., through training and career support), providing engaging work (e.g., through autonomy, work variety, the provision of feedback), providing a positive social and physical environment (e.g., by prioritizing employee safety and by avoiding harassment, bullying, and discrimination), ensuring voice (e.g., through employee representative or grievance procedures), and providing organizational support (e.g., through flexible and family-friendly work arrangements).

Even though Guest (2017) presents his approach as an alternative to performance-oriented HRM, there are several overlaps (e.g., training or job design). However, among these practices, a positive social and physical environment, and particularly health-oriented HRM practices that prioritize and support employee health and safety, represent a unique perspective. Indeed, these practices can create a climate in which leaders should feel encouraged and empowered to engage in HoL in terms of self-care and staff-care. While legislation often requires organizations to prevent accidents and health hazards, adopting health and safety measures is far from guaranteed (Guest, 2017). In addition, the organization can voluntarily provide multiple offers, like sports courses or fresh fruit, to actively support employee health. A strong commitment of an organization toward employee health should stimulate leaders to act similarly. We thus propose that health-oriented HRM strategies result in higher levels of staff-care and self-care.

H8: Health-oriented HRM strategies are positively related to (a) staff-care and (b) self-care (awareness and behavior).

Context

Besides well-established demands and resources, we examine other context variables that may facilitate or impede HoL. From an explorative perspective, organizational size, sector (private or public), management span, and home-office intensity will be analyzed. For example, with a higher management span or a higher home office intensity, it could be more difficult for leaders to show health-oriented behavior. Because of stronger regulation density, leaders in public organizations may feel less encouraged to show HoL than leaders in private organizations. In larger organizations, leadership training and health promotion could be more developed.

Method

Sample and Procedure

The study was conducted as an online survey. To capture antecedents of HoL and to reduce the risk for common method bias, we used two independent measurement times: The antecedents to predict HoL were assessed at t1 (end of March 2021 to mid-April 2021) and HoL 2 months later at t2 (mid-June to July 2021). The final sample consisted of $N = 738$ leaders. Participants were recruited

by a professional market research institute and stem from a wide range of branches (e.g., 8.9% = metal and electrical industry; 8.8% = logistics, transport, and traffic; 9.3% = trade; 8.1% = IT). The participants were incentivized with a small cash amount. The age of the participants was $M_{\text{age}} = 46.25$ ($SD = 12.73$), and most (60.7%) were male. About 50% of the leaders reported having a university degree (48.4%). The majority (51%) had a net income of more than 3800 €. Further descriptive data of the sample can be found in the electronic supplementary material (ESM; Table E1).

Measures

Autonomy was measured using the subscale “Decision-making autonomy” from the Work Design Questionnaire by Stegmann et al. (2010), consisting of three items such as “My job allows me to make a lot of decisions on my own.” Cronbach’s α was .89.

Social support was assessed using two items from the European Working Conditions Survey (EWCS; Eurofound, 2015). Items were “My colleagues help and support me” and “My leader helps and supports me.” Cronbach’s α was .71.

To assess the workload, we used a slightly modified version of the subscale “Work intensity” from the Psychosocial Risk Assessment instrument by Dettmers and Krause (2020) with 4 items. Sample items were: “Because of the high volume of work, there is high time pressure.” Cronbach’s α was .88.

To assess multitasking, we also used a 3-item subscale (i.e., “Workflow/Interruptions/Multitasking”) of the Psychosocial Risk Assessment instrument by Dettmers and Krause (2020). A sample item was: “I have several tasks going on at the same time, and I have to jump back and forth between them.” Cronbach’s α was .83.

For the assessment of permanent availability, we used the ICT Demands Scale by Day et al. (2012). We combined the subscales “Response expectations” and “24/7 availability” to create a scale consisting of 3 items such as “I am regularly contacted outside regular working hours on work-related issues.” Cronbach’s α was .90.

We measured leaders’ strain using the Irritation Scale by Mohr et al. (2005), including cognitive and emotional work-related strain symptoms. We used a shortened version with 5 items (e.g., “I get irritated easily, although I don’t want this to happen”). Cronbach’s α was .89.

To measure HPWPs, we followed Jiang et al. (2012). As ability-enhancing HPWPs, we considered comprehensive selection and extensive investments in training. For motivation-enhancing HPWPs, we referred to formal appraisals, high salary, pay for performance, extensive

benefits, career advancement prospects, and job security. Under opportunity-enhancing HPWPs, we included organizational participation, teamwork, formal grievance procedures, and information sharing. The sum index included 13 items such as “My organization pays me a salary (including bonuses) that is above the industry average.” Cronbach’s α was .91.

To assess health-oriented HRM, we referred to Guest’s (2017) framework and computed a sum index including 4 items related to a positive physical and social environment, such as “My organization does everything possible to prevent accidents and health hazards in the workplace.” Cronbach’s α was .73

To analyze the organizational context, we considered the organizational size, sector, management span, and home office. To assess the organizational size, we used an item from the European Working Conditions Survey (EWCS; Eurofound, 2015), differentiating up to ten employees, 11–49 employees, 50–99 employees, 100–500 employees, and more than 500 employees. To measure the sector, we differentiated 0 = private and 1 = public sector. Management span was measured as follows: up to 5 employees, up to 10 employees, up to 20 employees, more than 20 employees. To assess home office intensity, we asked for the extent they worked from home in the last 4 weeks using a 6-point scale (*not at all, up to 1 day, 2 days, 3 days, 4 days, 5 or more days per week*).

To assess health-oriented leadership, we used shortened versions of the HoL instrument by Pundt and Felfe (2017) for reasons of parsimony and economy. To cover behavioral aspects of self-care and staff-care, we aggregated awareness and behavior items. Staff-care included 18 items, e.g., “I immediately notice when something is wrong with my followers’ health” (awareness), “I try to reduce my followers’ demands by optimizing their work routines (e.g., set priorities, allow for undisturbed work, daily planning)” (behavior). Cronbach’s α was .89. Leaders’ self-care was measured with 15 items, e.g., “I immediately notice when something is wrong with my health” (awareness), “I try to reduce my demands by optimizing my personal work routine (e.g., set priorities, care for undisturbed working, daily planning)” (behavior). Cronbach’s α was .88. Value was measured with one item (for staff care: “My followers’ health is important to me” and self-care: “My health is my first priority”).

All antecedents and values were measured at t1; the dependent variables self-care and staff-care (both awareness and behavior) were measured at t2. Autonomy, social support, permanent availability, HPWPs, health-oriented HRM, self-care, and staff-care were rated on a 5-point scale from 1 = *not at all true* to 5 = *completely true*. Multitasking, workload, and strain were rated on a 5-point scale from 1 = *never* to 5 = *almost*.

Statistical Analyses

To test our hypotheses, we conducted hierarchical linear regression analyses. In seven steps, we entered control variables and antecedents on different levels to predict leaders' self-care and staff-care. In step 1, we entered age in years, sex (0 = male, 1 = female), education, and net income as control variables to account for sex- and age-related differences in HoL (Felfe, 2015; Pundt & Felfe, 2017). In step 2, we entered characteristics of the organization (size, sector, management span, home office intensity, HPWPs, and health-oriented HRM). In steps 3 and 4, we entered work characteristics in terms of job resources (autonomy and social support) and job demands (permanent availability, workload, and multitasking). In step 5, we added leader's strain and value of health on the individual level. For the posthoc analyses, we added steps 6 and 7 by entering the interaction terms (value x autonomy; value x social support).

Before testing our hypotheses, we took several steps to check for the risk of common method variance, "i.e., variance that is attributable to the measurement method rather than the constructs the measures represent" (Podsakoff et al., 2003, p. 879). First, we conducted Harman's single-factor test. According to the rationale of this test, common method variance is present if the total variance of all manifest indicators extracted by one factor exceeds 50%. Accordingly, there is no problem with common method bias in our data since the total variance extracted by this single common factor is 22.1%. Second, we performed a CFA with and without a common latent factor and compared the loadings. On average, the loadings did not differ by more than .03. The differences in the loadings did not reach the cut-off value of .20 at any point. Third, we performed a marker variable analysis. Because no specific marker variable was included in the questionnaire, we looked at the smallest observed correlation among all the substantive variables as a proxy, as Lindell and Whitney (2001) suggested. The lowest correlations turned out to be below $r = .001$, so common method bias should not affect our results. In sum, we thus assume that common method variance is low in our data.

Results

Leader self-care t2 and staff-care t2 are positively related to autonomy t1 ($r = .22, p < .01$; $r = .25, p < .01$), social support t1 ($r = .28, p < .01$; $r = .25, p < .01$) and negatively related to permanent availability t1 ($r = -.11, p < .01$; $r = -.05, p = .20$), workload ($r = -.25, p < .01$; $r = -.13, p < .01$), and multitasking ($r = -.28, p < .01$; $r = -.20, p < .01$). Leaders self-care t2 and

staff-care t2 also show positive relationships with home office intensity t1 ($r = .12, p < .01$; $r = .10, p < .05$), HPWPs ($r = .43, p < .01$; $r = .37, p < .01$), and health-oriented HRM ($r = .42, p < .01$; $r = .39, p < .01$). Only leaders self-care t2 shows a positive relationship with management span t1 ($r = .08, p < .05$). Leaders' strain t1 is negatively related to leader self-care ($r = -.39, p < .01$) and staff-care ($r = -.22, p < .01$) at t2. The means, standard deviations, and intercorrelations for all variables can be found in the electronic supplementary material (ESM; Table E 2).

Testing the Hypotheses

The full model (Model 7) to predict staff-care and self-care t2 showed an overall R^2 of .31 and .43, respectively (Table 1). The coefficients for each subsequent step can be found in the ESM (Table E3 and Table E4).

In H1, we hypothesized that autonomy is positively associated with staff-care (1a) and self-care (1b). Results showed that autonomy was positively related to staff-care ($\beta = .10, p < .01$) but not to self-care ($\beta = .05, p = .12$). H1a was supported, H1b was not. Supporting H2a and H2b, social support positively predicts leader staff-care ($\beta = .07, p < .05$) and self-care ($\beta = .08, p < .05$).

Contrary to our assumption, workload was not related to leader staff-care ($\beta = .04, p = .42$) and self-care ($\beta = .02, p = .62$). H3a and H3b were not supported. As expected, multitasking showed a negative relation to leader staff-care ($\beta = -.12, p < .01$) and self-care ($\beta = -.09, p < .05$). H4a and H4b were supported. Contrary to our expectation, there was no significant relationship between permanent availability and staff-care ($\beta = -.05, p = .18$), thus not supporting H5a. In line with H5b, permanent availability showed a negative relation to self-care ($\beta = -.10, p < .01$).

In support of H6a and H6b, the results showed that strain is negatively related to leader staff-care ($\beta = -.08, p < .05$) and self-care ($\beta = -.21, p < .001$).

In contrast to H7, we found HPWPs to positively predict leader staff-care ($\beta = .14, p < .01$) and self-care ($\beta = .20, p < .001$). H7a and H7b were not supported. In H8, we expected that health-oriented HRM is positively associated with HoL. Health-oriented HRM is positively related to leader staff-care ($\beta = .14, p < .01$). Health-oriented HRM is not a significant predictor for self-care ($\beta = .02, p = .64$). H8a was supported, H8b was not.

Posthoc Analyses

From an explorative perspective, we additionally considered value as a potential moderator on the relationship between resources and HoL (awareness and behavior). Results

Table 1. Regression analyses (Model 7)

Step	Predictors	Staff-care t2		Self-care t2	
		β	SE	β	SE
1	Age	-.04	.00	-.01	.00
	Gender	.15***	.04	.03	.03
	Education	-.03	.02	.01	.01
	Net income	.00	.02	.01	.02
2	Organiz. size	-.09*	.02	-.02	.01
	Sector	.08*	.05	.01	.04
	Management span	.01	.02	.00	.02
	Home office intensity	.07†	.01	.06*	.01
	HPWPs	.14**	.00	.20***	.00
3	HoHRM	.14**	.01	.02	.01
	Autonomy	.10**	.03	.05	.02
4	Social support	.07*	.02	.08*	.02
	Workload	.04	.03	.02	.02
5	Permanent availability	-.05	.02	-.10**	.02
	Multitasking	-.12**	.03	-.09*	.02
	Leader's strain	-.08*	.02	-.21***	.02
6	Value of health ^a	.25***	.02	.35***	.02
	Value x Autonomy	.01	.02	.08**	.02
7	Value x Social support	.09**	.02	-.01	.02
R²		.31		.43	
N		659		737	

Note. HPWPs = High-performance work practices, HoHRM = health-oriented human resource management. ^ain cases of staff-care = value of followers' health, in cases of self-care = value of leader's own health. † $p < .10$, * $p < .05$, ** $p < .01$, *** $p < .001$.

showed that the relationship between autonomy and self-care was higher for leaders who highly valued their own health ($\beta = .08, p < .01$). The relationship between autonomy and staff-care was not moderated by leaders' value ($\beta = .01, p = .81$). The relationship between social support and staff-care was higher for leaders who highly value their followers' health ($\beta = .09, p < .01$). Leaders' value of their own health did not moderate the relationship between social support and self-care ($\beta = -.01, p = .67$).

Finally, we analyzed other context variables that may facilitate or impede HoL from an explorative perspective. Staff-care is stronger in smaller organizations ($\beta = -.09, p < .05$). Home-office intensity is positively associated with self-care ($\beta = .06, p < .05$) and just missed the 5% significance level for staff-care ($\beta = .07, p = .06$). Leaders working in the public sector show more staff-care ($\beta = .08, p < .05$). There were no effects for management span.

Additional Descriptive Analyses

With an exploratory approach, we also aimed to analyze the relevance of contextual factors and provide descrip-

tive benchmarks for self-care and staff-care. Overall, 27.1% of the leaders reported moderate levels (around 3.0) for staff-care, whereas 11.5% indicated low levels and 61.4% moderate high and high levels. Regarding self-care, 25.7% reported moderate levels (around 3.0), whereas 18.4% showed low levels and 55.8% reported high levels. Leaders reported a mean value of $M = 3.50$ ($SD = 0.56$) for staff-care and $M = 3.41$ ($SD = 0.59$) for self-care.

Means for staff-care differed slightly between branches. Higher values were found in the metal and electro industries ($M = 3.56, SD = 0.59$) as well as in IT and telecommunication companies ($M = 3.56, SD = 0.56$; 63% reporting higher levels), whereas the means were lower in the trading ($M = 3.45, SD = 0.58$; 57% reporting higher levels) and finance sectors ($M = 3.39, SD = 0.57$; 49% reporting higher levels). Means for self-care also differed slightly between branches. Higher values were again found for IT and telecommunication ($M = 3.51, SD = 0.60$) but also for education ($M = 3.52, SD = 0.64$) and finance ($M = 3.51, SD = 0.62$), whereas means were also lower in trading ($M = 3.30, SD = 0.62$) and in health jobs ($M = 3.37, SD = 0.49$). Using univariate ANOVAs, results

showed no significant differences of self-care and staff-care between different branches.

Self-care was slightly stronger in companies with 100–500 employees ($M = 3.52$, $SD = 0.68$) and with a leadership span between 10 and 20 employees ($M = 3.54$, $SD = 0.63$), but lower in smaller and bigger companies and leadership spans, respectively. Whereas self-care significantly differed between leaders with different management spans ($F[3, 734] = 2.86$, $p < .05$) and organization size ($F[4, 733] = 2.72$, $p < .05$), there were no such differences in staff-care. Home-office intensity is positively related to HoL. Whereas staff-care and self-care are lowest with no home office ($M = 3.31$, $SD = 0.67$ and $M = 3.20$, $SD = 0.73$, respectively), highest means are found with all day home office ($M = 3.55$, $SD = 0.56$ and $M = 3.45$, $SD = 0.57$, respectively). Regarding home office intensity, both self-care and staff-care showed significant differences (self-care: $F[5, 732] = 5.23$, $p < .001$; staff care: $F[5, 654] = 2.31$, $p < .05$).

Discussion

This study examined the relevance of different antecedent factors that impede or facilitate HoL from a leader's perspective since supporting HoL can be a key element for psychological risk management. With an exploratory approach, we also aimed to analyze the relevance of contextual factors and provide descriptive benchmarks for self-care and staff-care.

According to the job demands-resources model, resources in the working place help strengthen motivation and enable positive work behaviors such as HoL. Confirming our hypotheses and in line with Arnold and Rigotti (2020), autonomy and social support positively relate to staff-care and self-care. We provide evidence that the availability of job resources enhances self-care and staff-care and support the COR theory that the availability of resources enables the investment of resources and further resource gains such as self-care and staff-care (Hobfoll et al., 2018). We could further show that the relationship between perceived resources and HoL awareness and behavior partly depends on leaders' attitudes toward their own and their followers' health (HoL value). Specifically, value is important for the relationship between social support and staff-care as well as for the relationship between autonomy and self-care. Leaders who highly value their followers' health are better able to translate their social resources into staff-care. Leaders with a more positive attitude toward their health are better able to use their autonomy to care for themselves. By analyzing these

moderating effects, we provide a deeper insight into the meaning of the value subdimension.

In contrast, demands or stressors may impede motivation and effective behavior (Bakker & Demerouti, 2007). As expected, multitasking and permanent availability are negatively related to self-care, and multitasking is negatively related to staff-care. In line with the COR theory, we showed that leaders who have exhausted and outstretched resources because of high job demands tend to be more cautious in investing further resources, take a more defensive mode, and exhibit less resource-draining behavior to protect their remaining resources (e.g., Hobfoll et al., 2018; Kaluza et al., 2020). Unexpectedly, there was no effect for perceived workload in the regression analysis. However, correlations between workload and staff-care and self-care were negative. Because workload is correlated with other demands, its unique effect may be covered, when controlling for other demands.

Regarding individual characteristics, previous research showed that leaders' strain may also impede HoL (Klebe et al., 2022). The experience of strain primarily results from stressors. However, other stressors not considered in our study may induce strain, e.g., conflict or private problems. Therefore, we considered individual strain in our model. As expected, strain was negatively related to staff-care and self-care. Comparing the models in the hierarchical regression analyses reveals that a substantial amount of strain can be explained by stressors and resources in our model. However, our results showed that, beyond the effects of resources and stressors, leaders' strain hinders self-care and staff-care. The COR theory and the job demands-resources model explain the mechanisms underlying the effects of strain: Leaders experiencing high job demands are more likely to feel exhausted and strained (Bakker & Demerouti, 2007), so leaders' resources are more likely to get depleted and they lack the cognitive and emotional capacities (Girotti et al., 2018) to engage in HoL. This finding supports the assumption of loss spirals in COR theory in light of demanding situations (Hobfoll et al., 2018) and agrees with studies examining the effects of stress (e.g., Kaluza et al., 2020; Klebe et al., 2022; Klebe, Klug, & Felfe, 2021) and crisis (Klebe et al., 2022; Klebe, Klug, & Felfe, 2021) on leadership behavior. We extend previous research by providing more evidence for the negative effects of leader strain on HoL.

Furthermore, we analyzed whether organizational variables facilitate or hinder HoL. Building on Xi et al. (2022), we argued that HPWPs should decrease HoL. However, in contrast to this assumption, we found a positive relationship between HPWPs and HoL. A possible explanation is that HPWPs are not necessarily a burden for leaders, but relieve the burden of leaders instead. For

example, by helping employees develop and provide autonomy and a more stimulating work environment, leaders might not need to focus on employee performance. Instead, they can focus on employee support, which also includes HoL. This is in line with Leroy and colleagues' (2018) complementary fit perspective on HRM and leadership: While HRM focus on performance, leaders can address different goals, like employee health. Besides this complementary fit, HRM and leadership can also be aligned and follow the same goals. Indeed, our results also show that HRM practices related to employee health show a positive relationship with HoL. Following our theoretical argumentation, this indicates that a general climate or culture of concern for employees' and leaders' health can provide a resource for leaders that helps them engage in HoL.

We examined the meaning of context variables from an explorative perspective. Although we found that leaders in some branches reported higher levels of HoL, e.g., IT and telecommunication, the differences were rather small. It is interesting to note that HoL was stronger in traditional branches like the metal and electro industries, whereas HoL was lower in the finance sector. One may speculate that high demands for goal achievement and more traditional leadership cultures may explain a lower level of staff-care in the finance sector. Instead, a tight job market in the metal and electro industries may facilitate a more employee-centered leadership. Moreover, other contextual factors such as sector, organization size, and leader span did not have systematic effects on staff-care but slightly on self-care. We also found that HoL differed across different home office intensities. Our results show that working from home seems to favor self-care and staff-care and thus represents a supportive condition of HoL. Future research may identify the relevant reasons. For example, higher flexibility and better work-life balance offer more opportunities for self and staff-care when working from home. Moreover, leaders may feel more responsible for their followers' health because of a lack of direct contact. However, it may be more difficult to act from the distance.

To provide a benchmark, we were interested in the degree to which leaders display HoL. First, it is interesting to note that leaders rated their staff-care slightly better than their self-care. The scores give us important indications of the amount of HoL from a leader's perspective.

To sum up, this study provided noteworthy findings that extend previous knowledge about possible antecedents of HoL. Against this background, important implications for leadership research can be derived. To date, studies have focused mainly on the effectiveness of HoL on follower health (Franke et al., 2014; Santa Maria et al., 2019). In addition to the direct effects of staff-care and

self-care, the buffering role of staff-care on the effects of job demands (Krick et al., 2022) and consistent and inconsistent patterns of HoL (Klug et al., 2019) have also been investigated. So far, however, little is known about the influencing factors promoting or even preventing HoL. The results suggest that workplace and organizational variables are relevant to HoL. Obviously, the quality of leadership behavior depends not only on the leaders' individual characteristics (competencies, personality, motives; Tuncdogan et al., 2017), but also on situational factors (Geier, 2016). By supporting the notion that leadership also depends on organizational factors, the present study follows the call for identifying situational influences on leadership (Franke et al., 2015; Geier, 2016). Identifying antecedents of self-care and staff-care by combining the job demands-resources model (Bakker & Demerouti, 2007) with assumptions of the COR theory (Hobfoll et al., 2018) deepens our understanding of HoL and provides knowledge about when and why leaders care for their own and their followers' health. By considering multiple levels, this study adds important predictors to the framework of HoL (see Rudolph et al., 2020) and contributes to previous leadership research by deepening our understanding of drivers and barriers of HoL. With this study, we provide answers to calls from recent research (i.e., Franke et al., 2015; Montano et al., 2017; Tuncdogan et al., 2017) and show initial evidence for individual, workplace, and organizational aspects as antecedents of health-specific leadership.

Limitations and Recommendations for Future Research

The present study has some limitations that lead to suggestions for future research. First, the data were based on leaders' self-reported ratings increasing the risk of common method variance and single-source bias (Podsakoff et al., 2003). Regarding the risk of common method bias, Podsakoff et al. (2003) discussed seven research settings, e.g., measuring predictor and criterion variables in different contexts (points in time, as we did), and estimating the potential method bias. According to their recommendations, we applied three statistical procedures (Harman's single factor test, modeling of a common latent factor in CFA, marker test) and could rule out the risk of common method bias as far as possible. Regarding the remaining risk, a common method bias should lead to overestimating the relationships between study variables and a reduced probability of detecting moderation effects. The moderation effects found thus can be a strong indication that these relationships exist. In addition, subjective perceptions of work characteristics

and organizational aspects may be more relevant for HoL than objective measures of these antecedents or ratings by followers or neutral observers. This is in line with stress theories highlighting the importance of subjective appraisal (Lazarus & Folkman, 1984). The perspective of leaders provides important insights into when and under what conditions HoL occurs as well as complementing previous studies that have predominantly examined followers' perspective. Moreover, followers may have difficulties assessing leaders' self-care.

Second, as noted by Holstad et al. (2016), HoL is not a one-way road. It is also conceivable that it depends on the characteristics of followers and the team. Therefore, future studies should consider reciprocal relationships and crossover effects and include followers' characteristics and team aspects to predict HoL.

Third, although self-care and staff-care are highly related, Klug et al. (2019) showed there are some exceptions, i.e., inconsistent patterns (self-sacrifice and other-sacrifice). Future studies could identify factors that predict if and why leaders prefer self-care to staff-care or vice versa.

Practical Implications

The findings suggest that organizations interested in increasing HoL as part of their psychological risk management should invest in enhancing job resources and decrease the job stressors of leaders. Our results showed that the promotion of leaders' job resources and the reduction of job demands facilitate staff-care and self-care. Knowledge of individual, workplace, and organizational antecedents of HoL could be used in leadership interventions (1) to make leaders aware of these facilitating and hindering factors and (2) to support them in creating favorable conditions and reducing barriers. These interventions make up a promising strategy for improving mental health in the workplace (Elprana et al., 2016; Krick et al., 2021; Stuber et al., 2021). By investing in leaders' stress management, health awareness, favorable working conditions, and HPWP and health-oriented HRM, organizations can enable their leaders to maintain and improve their HoL and thus contribute to a psychological risk management.

Conclusion

This study contributes to a better understanding of the perceived individual, workplace, and organizational drivers and barriers to health-oriented leadership. From a leader's perspective, job resources facilitate HoL, whereas

the demands and signs of strain impede self-care and staff-care. Moreover, HPWPs and health-oriented HRM enhance HoL. Context factors hardly influenced HoL. The findings suggest that organizations should invest in interventions that improve leaders' job resources to promote leaders' self-care and staff-care and positively influence employee health to contribute to organizational risk management.

Electronic Supplementary Material

The electronic supplementary material is available with the online version of the article at <https://doi.org/10.1026/0012-1924/a000397>

ESM 1. Table E1.

ESM 2. Table E2.

ESM 3. Table E3.

ESM 4. Table E4.

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