




Article

Transformational and Abusive Leaders and Their Influence on Employee Physical Ill-being: A Multilevel Longitudinal Study Exploring Negative Motivational-Affective Mechanisms

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Abstract

While research on leadership and employee physical ill-being is burgeoning, the short- and long-term mechanisms through which leadership influences employee physical ill-being remain underexplored. This research, grounded in leadership theories and the Job Demand-Resource (JD-R) theory, examines how transformational and abusive leadership behaviors influence employee physical ill-being through two conflict-related negative motivational mechanisms (negative work-home interactions and job role conflict) and two negative affective mechanisms representing short-term (negative affect) and long-term (burnout) mechanisms. Employing a three-wave longitudinal design over 6 months ($N = 234$), our findings from a multilevel path analysis revealed that transformational and abusive leadership had respectful, negative and positive effects on employee physical ill-being via conflict-related negative motivational mechanisms and short- and long-term affective mechanisms. Notably, the influence of leadership behaviors on employee physical ill-being was more pronounced through the short-term affective mechanism (negative affect) than the long-term affective mechanism (burnout). Our findings provide a nuanced understanding of how leadership behaviors affect employee physical ill-being over time, shedding light on the dynamic interplay of motivational and affective pathways in this relationship.

Keywords: burnout; employee physical ill-being; intra- and inter-role conflicts; leadership behavior; negative affect

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For decades, psychological research has consistently demonstrated that leaders play a crucial role in influencing employee well-being and ill-being (Inceoglu et al., 2018; Kaluza et al., 2021; Teetzen et al., 2022). Research has established that positive leadership behaviors, such as transformational leadership, tend to promote employee well-being and reduce employee ill-being (Arnold, 2017; Czakert & Berger, 2024; Das & Pattanayak, 2023; Wash & Arnold, 2020). In contrast, negative leadership behaviors, such as abusive leadership, adversely affect employee well-being and heighten employee ill-being (Bhattacharjee & Sarkar, 2022; Fischer et al., 2021; Gallegos et al., 2022; Goute et al., 2021).

Despite extensive research on the influence of leadership behaviors on employee well-being and ill-being, much remains unclear about the dynamic processes and specific underlying mechanisms involved (Berger et al., 2023; Czakert & Berger, 2023; Inceoglu et al., 2018; Kaluza et al., 2021; Teetzen et al., 2022). First, there is a dearth of studies that explore both short- and long-term mechanisms of how leaders influence employee well-being and ill-being (Czakert & Berger, 2023; Fischer et al., 2021; Sonnentag et al., 2022). This is

problematic as it limits our understanding of whether a leader's influence on employee well-being and ill-being in the short term may exert more stronger influence than in the long term or vice versa. Second, most studies often focus on single mediators rather than multiple mediators under diverse pathways (Fischer et al., 2021; Fischer et al., 2017; Inceoglu et al., 2018; Teetzen et al., 2022). According to Fischer et al. (2021) this is also problematic as it limits our understanding of which pathway (e.g., motivational, affective, relational, etc.) exerts stronger and more dominant effects, or whether these pathways can interconnect with one another to elucidate how leadership behaviors impact employee well-being and ill-being. In addition to the above, studies exploring work-home interactions as a mechanism linking leadership and well-being remain a black box (Czakert & Berger, 2023; Pradhan & Gupta, 2021; Zhou et al., 2018). Yet, there is a growing consensus among scholars that examining the spillover process in leadership-well-being studies is crucial for advancing our knowledge of how leaders can influence employee ill-being (Bakker & De Vries, 2021). Finally, most research utilized cross-sectional designs rather than longitudinal designs, making it difficult to draw causal inferences or conclusions of leaders' influence on employee well-being and ill-being (Czakert & Berger, 2023; Eisele, 2020; Fischer et al., 2021; Lindert et al., 2023; Montano et al., 2017).

In this study, we address these research gaps by focusing on how two contrasting leadership behaviors (transformational and

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abusive) influence employees' physical ill-being. Physical ill-being is a type of ill-being that encompasses adverse bodily health conditions and functioning (Grant et al., 2007). Research shows that employee physical ill-being is identified as among one of the top causes of absenteeism and poor employee performance causing significant organizational loss (Das & Pattanayak, 2023), yet it has received the least attention in leadership–well-being studies (Djourouva et al., 2020; Inceoglu et al., 2018). Building on Fischer et al. (2017) recommendations, we take the additive approach to explore how conflict-related negative motivational mechanisms such as negative work–home interactions (inter-role conflict) and job role conflict (intra-role conflict) may link up with negative affect (a short-term affective mechanism) and burnout (along-term affective mechanism) to explain how positive and negative leadership behaviors influence employee physical ill-being.

The decision to include two conflict-related negative motivational mechanisms in this study is driven by the increasing prevalence of remote work and technological advancements, which blur the boundaries between employees' work and nonwork roles while simultaneously intensifying and complicating job roles, including unclear instructions, conflicting job responsibilities, and overlapping role expectations (Czakert et al., 2024). Investigating these contemporary conflict-related motivational mechanisms is essential, as they represent significant demotivating factors that hinder successful work completion (Inceoglu et al., 2018) and have become increasingly relevant in modern workplaces (Dodanwala et al., 2021; Dodanwala et al., 2023). While research has established that leadership plays a crucial role in shaping employees' perceptions of working conditions, particularly task-related aspects that influence well-being and ill-being (Berger et al., 2023; Teetzen et al., 2022), it remains unclear whether this influence extends beyond the workplace to nonwork-related conflicts (Czakert & Berger, 2023). Specifically, does leadership shape employees' experiences of nonwork-related conflicts, such as negative work–home interactions, to the same extent that it affects work-related conflict, like job role conflict? Or is leadership's influence primarily confined to work-related contexts? Answering these questions is critical to advancing our understanding of the broader scope of leadership behaviors (including nonwork domains) and their implications for employee well-being and ill-being, especially as work–life boundaries continue to blur in contemporary organizational settings (Czakert & Berger, 2023; Kuriakose et al., 2020).

Additionally, given the limited understanding of short- and long-term mechanisms in the leadership–ill-being nexus (Czakert et al., 2024; Sonnentag et al., 2022), we included negative affect (a short-term affective mechanism) and burnout (a long-term affective mechanism) to provide insights into how leaders influence employee physical ill-being over time. Negative affect and burnout are well-established in the well-being literature as distinct affective responses: negative affect represents a short-term, immediate, and fluctuating emotional response to stressors (Fischer et al., 2017; Hetland et al., 2023), whereas burnout reflects a long-term, cumulative outcome of prolonged exposure to stress (Bakker & de Vries, 2021; Inceoglu et al., 2018). This theoretical differentiation underpins our categorization, positioning negative affect as a short-term mechanism and burnout as a long-term mechanism. Specifically, we sought to examine whether a leader's impact on conflict-related negative motivational mechanisms, such as negative work–home interactions and job role conflict, that affect employee physical ill-being is more pronounced via short-term mechanisms, such as negative affect, or through long-term mechanisms, such as burnout.

Our approach to specifically explore motivational and affective mechanisms as sequential mechanisms is consistent with the theoretical linkage of leadership and the Job Demand-Resource (JD-R) theory (Tummers & Bakker, 2021). Previous studies drawing on this approach have shown that leadership can be conceptualized as an upstream stable organizational factor that can directly impact negative motivational mechanisms in the form of work demands, such as role conflicts (Berger et al., 2023; Molino et al., 2019; Teetzen et al., 2022). This, according to the JD-R theory, may, in turn, influence affective mechanisms, which we categorize as short-term (e.g., negative affect) and long-term (e.g., burnout) following the suggestions of previous studies (Inceoglu et al., 2018). Consequently, these affective mechanisms influence employees' physical ill-being (Glandorf et al., 2023; Leger et al., 2018; Mostafa, 2020). Based on this, we contend in our study that a leader's influence on these conflict-related negative motivational mechanisms may impact employee physical ill-being via short- and long-term affective mechanisms.

By undertaking this study, we offer several significant contributions to address contemporary issues in leadership and employee ill-being research. First, this study seeks to enlighten us on the short- and long-term mechanisms of leadership behaviors on employee physical ill-being, an area that remains underexplored (Czakert & Berger, 2023; Fischer et al., 2017; Fischer et al., 2021; Sonnentag et al., 2022). Second, this study responds to calls from systematic reviews (Arnold, 2017; Inceoglu et al., 2018), scoping reviews (Czakert & Berger, 2023), and meta-analytic studies (Teetzen et al., 2022) for more studies to investigate the underlying multiple mechanisms and processes through which leadership behaviors influence employee well-being and ill-being. In addition, by examining how different pathways (motivational and affective) may sequentially be linked together to explain how positive and negative leadership behaviors influence employee physical ill-being, this study seeks to address challenges in multiple paths in the leadership–well-being process (Fischer et al., 2017; Fischer et al., 2021). Fourth, by including negative motivational mechanisms such as negative work–home interactions, this study contributes to the limited research investigating the influence of work–home domains in leadership–well-being literature (Czakert & Berger, 2023; Pradhan & Gupta, 2021; Zhou et al., 2018). Fifth, by employing a longitudinal design, this research aims to establish a stronger causality of the effect of leadership on employee ill-being, which has been lacking in leadership and well-being literature (Czakert & Berger, 2023; Eisele, 2020; Fischer et al., 2021; Lindert et al., 2023; Montano et al., 2017). Finally, this study adds to the limited research that has focused on the physical dimensions of ill-being in leadership studies (Inceoglu et al., 2018).

Theoretical Background and Hypothesis Development

Leadership and Employee Physical Ill-Being via Negative Work–Home Interactions and Negative Affect

As mentioned above, while some studies have demonstrated that leadership behavior influences employee physical ill-being, the underlying mechanisms driving this relationship remain insufficiently understood (Das & Pattanayak, 2023; Djourouva et al., 2020; Inceoglu et al., 2018). In this study, and consistent with prior research (Arnold, 2017; Czakert et al., 2024; Inceoglu et al., 2018; Lindert et al., 2023; Teetzen et al., 2022; Tummers & Bakker, 2021), we integrate leadership as an upstream stable organizational factor within the JD-R theory. This approach posits that leadership

behaviors, whether positive (e.g., transformational) or negative (e.g., abusive), can significantly shape employees' perceptions of job demands and resources.

Specifically, we propose that the type of leadership behavior (positive or negative) exhibited could either increase or decrease negative work-home interactions (a work-home-related negative motivational mechanism) that may influence employee physical ill-being via negative affect (a short-term negative affective mechanism).

In this study, we focus on two contrasting leadership behaviors—transformational and abusive leadership behaviors. Transformational leadership, one of the most well-researched positive leadership behaviors, has garnered recognition as a potent positive influence on employees (Decuyper & Schaufeli, 2020). As outlined by Bass and Avolio (1990), transformational leaders exhibit four distinctive behaviors, including the ability to articulate an inspiring vision (inspirational motivation), encourage critical thinking and challenge the status quo among followers (intellectual stimulation), provide personalized support and coaching (individualized consideration), and serve as role models, earning trust and respect from their followers (idealized influence). Research indicates that leaders who display transformational leadership behaviors can provide personalized support by attending to employees' needs and acting as coach that could help employees in dealing with negative work-home interactions (Hammond et al., 2015; Munir et al., 2012), a form of tensions and strains at work that impede one's active functioning at home (Demerouti et al., 2004). This coaching behavior, provided through personalized support, can empower employees to focus on specific areas in their lives that need improvement, refine their abilities, and become more proficient in their roles, subsequently reducing their negative work-home interactions. Besides providing support, Gomes et al. (2021) explained that transformational leaders are able to intellectually stimulate their employees to find solutions to deal with negative work-home interactions. Additionally, transformational leaders may create favorable practices such as providing autonomy to employees (Amankwa et al., 2019; Berger et al., 2019; Messmann et al., 2022), that support employees in managing their work and personal responsibilities (Haar & Brougham, 2022). Thus, we expect that transformational leaders may significantly diminish employees' negative work-home interactions.

On the other hand, abusive leadership defined as "subordinates' perception of the extent to which superiors engage in a sustained display of hostile verbal and nonverbal behavior, excluding physical contact" (Tepper, 2007, p. 178), has been known for its negative influence on employees. Abusive leaders exhibit diverse forms of hostile behaviors towards employees such as constant criticisms, belittling them, yelling, undermining, and invading their privacy (Tepper, 2007; Tepper et al., 2017). Abusive leaders can influence employee's negative work-home interactions in several ways. First, abusive leaders create a toxic work environment that imposes significant strain on employees, leaving them feeling drained and unable to emotionally invest in family interactions (Pradhan & Gupta, 2021). Second, abusive leaders may impose unreasonable work demands, causing employees to stay longer at the workplace to meet these increasing demands, which affects their time for other significant home activities (Gallegos et al., 2022; Ju et al., 2023; Pradhan & Gupta, 2021). Additionally, the stress and strain experienced by employees when dealing with abusive supervisors at work may cross over into their family role, causing employees to become short-tempered or withdrawn, thereby affecting the people around them (Ju et al., 2023; Liang et al., 2018). Some research even shows that employees with abusive leaders may transfer their aggressiveness to their family at home (Tepper et al., 2017; Wu

et al., 2012). In these ways, abusive leadership may have a positive impact on employees' negative work-home interactions.

According to the health impairment process of the JD-R model (Bakker & Demerouti, 2007), job demands such as negative work-home interactions (a work-home-related negative motivational mechanism) could lead to negative psychological states such as negative affect (a shorter-term affective mechanism), explained as a spectrum of negative emotions and mood states such as upset, nervousness, fear, ashamed and hostile (Thompson, 2007). Job demands refer to any aspects of the job such as physical, social-emotional, or organizational that require physical and/or psychological effort and are associated with psychophysiological cost (Bakker & Demerouti, 2007). Negative work-home interaction can be considered a job demand as it involves the stress and strain resulting from negative interactions between work and home responsibilities. Thus, drawing on the health impairment process of the JD-R theory, we argue that persistent negative work-home interactions experienced by employees may initiate a downward spiral that depletes personal and psychological resources leading to negative psychological states such as negative affect. For example, Bayhan Karapinar et al. (2020) found in their studies that work-family conflict was negatively associated to psychological well-being. Similarly, Zurlo et al. (2020) also reported that employees who experienced high work-family conflict reported experiencing psychological ill-being. Thus, we expect similar effects of negative work-home interactions on employees' negative affect since negative affect is a dimension of psychological ill-being.

Furthermore, the health impairment process of the JD-R theory suggests that these negative psychological states could have further negative consequences on employees (Bakker & Demerouti, 2017). We argue that one of such consequences is an increase in employee physical ill-being. Prior research has shown that negative affect experienced by employees could affect their physical ill-being through diverse ways (Arnold & Dupré, 2012; Mostafa, 2020). First, individuals experiencing negative emotions may be more prone to engaging in unhealthy coping mechanisms such as unhealthy eating habits, high substance abuse, and sedentary behavior, while also being less likely to engage in health-promoting activities like exercise and adequate sleep (Brytek-Matera, 2021; Deng et al., 2023; Leger et al., 2018). These unhealthy behaviors can further exacerbate the physiological effects of negative affect, contributing to the development and progression of various physical health problems (Leger et al., 2018). Also, the experience of negative affect could impair the physiological regulations of the body by causing dysregulation in the body's stress response system (Zoccola & Dickerson, 2012), which could result in systemic inflammation, immune system dysfunction, and disruption of various physiological processes (Leger et al., 2018), leading to poor physical health. Thus, we expect that employees' experience of negative affect will be associated with their physical ill-being.

However, since negative affect is attributed to emotions and moods that are highly volatile and are subjected to frequent changes based on circumstances (Fischer et al., 2017; Hetland et al., 2023; Luhmann et al., 2012), we argue that the experience of negative work-home interactions may immediately trigger negative emotions such as frustrations, nervousness, guilt, and anger, that in turn, influences employee physical ill-being. Therefore, we contend that the type of exhibited leadership behavior could influence employee negative work-home interaction, which in turn, influence employee physical ill-being via negative affect. Specifically, we expect that transformational leaders would assist employees in dealing with negative work-home interaction, which may decrease

employee physical ill-being via diminishing their negative affect. Abusive leaders, may on the contrary, increase negative work-home interactions experienced by employees, which deteriorates employees' physical ill-being via increasing their negative affect. Thus, we proposed the following hypotheses:

H1: Transformational leadership negatively influences employee physical ill-being via decreasing negative work-home interactions, which in turn decreases negative affect.

H2: Abusive leadership positively influences employee physical ill-being via increasing negative work-home interactions, which in turn increases negative affect.

Leadership and Employee Physical Ill-Being via Job Role Conflict and Negative Affect

Following recommendations from previous studies (Fischer et al., 2021; Fischer et al., 2017; Inceoglu et al., 2018; Teetzen et al., 2022) to explore diverse mechanisms in leadership and well-being studies, we investigate job role conflict, as another conflict-related negative motivational mechanism (work-related) and compare it to negative work-home interactions (work-home related negative motivational mechanisms) to investigate which among the two conflict-related negative motivational mechanisms function as a stronger explanatory mechanism in the relationship between leadership behaviors and employee physical ill-being. Job role conflict occurs when employees face inconsistency or incongruity in the demands and expectations of two or more parties at work, which cannot be fulfilled simultaneously (Kahn et al., 1964). Prior research has demonstrated that employees' experiences of job role conflict (a form of intra-role conflict) have been largely attributed to the type of leadership behaviors exhibited by leaders. For instance, studies by Vullings et al. (2020) and Kalay et al. (2020) showed that positive leadership behaviors such as authentic and ethical leadership behaviors were negatively associated with job role conflict by providing employees with role clarity. On the contrary, negative leadership behaviors such, as passive and active destructive leadership were found to increase job role conflict experienced by employees (Wu et al., 2018; Vullings et al., 2020).

Drawing from our earliest viewpoint of the upstream role of leaders in the JD-R model, we posit that transformational leadership will significantly mitigate job role conflict experienced by employees (Berger et al., 2023; Czakert et al., 2024). This assertion stems from the fact that transformational leaders establish clear expectations for both their employees and the organization, enabling employees to understand what is required of them at work (Bass & Avolio, 1990; Diebig et al., 2017), thus reducing any experiences of job role conflict experienced by employees. Additionally, through individualized consideration, transformational leaders offer personalized support and coaching, which is particularly beneficial for employees experiencing job role conflict. By providing clear direction and assisting employees in prioritizing their work goals, transformational leaders help reduce job role conflict experienced by employees (Diebig et al., 2017; Nielsen & Daniels, 2012). Furthermore, Nielsen and Daniels (2012) explained that through intellectual stimulation, transformational leaders empower employees to think creatively and discover diverse methods of achieving their work goals. This empowerment can help employees identify multiple ways to handle job role conflict. Further empirical evidence supports this notion, with studies indicating that transformational leaders significantly decrease employee experiences

of job role conflict by increasing employee work engagement (Czakert et al., 2024). Therefore, we propose that transformational leaders, due to their positive attributes, will establish clearer expectations and communication channels, intellectually stimulate, and provide personalized support and coaching, ultimately aiding in reducing the job role conflict experienced by their employees.

Conversely, abusive leaders, known for their hostile work behaviors, are more likely to exacerbate job role conflict experienced by employees. Although there is relatively less research on abusive supervision and job role conflict, we argue that abusive leaders may set unclear expectations for their employees, leading to uncertainty about job roles and expectations. Also, employees may receive conflicting instructions or unclear guidance due to abusive leaders communicating in a hostile manner, leading to misunderstandings and a lack of necessary information for employees to perform their roles (Gallegos et al., 2022). Additionally, abusive leaders cultivate a hostile work environment characterized by fear, intimidation, and distrust (Tepper et al., 2017). In such environments, employees may be reluctant to seek clarification or support for their roles, leading to heightened role conflict. This assertion is supported by Wu et al. (2018), who found in their study that destructive leadership, such as abusive leadership, instilled fear and intimidation, resulting in employees being hesitant to voice their concerns. Consequently, employees are more likely to experience heightened job role conflict in such environments.

On the other hand, the JD-R theory categorizes job role conflict as job demands (work-related negative motivational mechanisms) that could lead to shorter-term negative psychological states such as negative affect based on the health impairment process. Consistent with the JD-R theory, prior studies show that role conflicts increase employees' stress and anxiety, making employees feel overwhelmed and unable to manage their responsibilities effectively (Dodanwala et al., 2023). This leads to the experiences of negative emotions such as distress, anger, sadness, nervousness, and fear. These assertions are further supported by empirical studies conducted by Zhang et al. (2022), who found a positive association between job role conflict and negative emotional experiences of employees. Additionally, drawing on a sample of 5965 social workers in China, Zhang and He (2022) found that job role conflict contributed positively to negative affect on employees. Thus, drawing on the health impairment process of the JD-R theory and empirical studies, we argue that job role conflict experienced by employees may increase their stress, leading to the experiences of negative affective states such as negative affect.

Building on the established relationship between negative affect and physical ill-being in our study, we proposed that the type of leadership behaviors exhibited by leaders could influence employee job role conflict, which could influence employee physical ill-being via short-term affective mechanisms like negative affect. Specifically, we expect that transformational leaders will significantly lessen job role conflict, which in turn, diminish employee physical ill-being via decreasing their negative affect. Conversely, abusive leaders are likely to exacerbate job role conflict, which may contribute to increasing employee physical ill-being via increasing negative affect among employees. Thus, we hypothesize the following:

H3: Transformational leadership negatively influences employee physical ill-being via decreasing job role conflict, which in turn decreases negative affect.

H4: Abusive leadership positively influences employee physical ill-being via increasing job role conflict, which in turn increases negative affect.

Leadership and Employee Physical Ill-Being via Negative Work–Home Interactions and Burnout

Burnout is defined as a state of exhaustion, cynicism, and inefficacy occurring as a consequence of long-term exposure to workplace stressors (Maslach et al., 2001). This condition develops gradually, often over weeks, months, or even years of accumulated work stress, making it a long-term process (Inceoglu et al., 2018; Sonnentag & Fritz, 2015). Previously, we argued that leaders' influence on employees' negative work–home interactions can impact physical ill-being through negative affect (a shorter-term affective pathway). We also propose that leaders' influence on these negative work–home interactions (negative motivational mechanism and inter-role conflict) may affect employee physical ill-being through burnout (a longer-term affective mechanism). Thus, we aim to compare whether a leader's influence on employee physical ill-being via negative affect (a short-term affective mechanism) is stronger than burnout (a long-term affective mechanism) and vice versa.

Drawing from the health-impaired process of the JD-R theory as discussed earlier, the experience of negative work–home interactions can significantly contribute to employee experiences of burnout. A Substantial number of empirical studies confirms this by revealing that negative work–home interactions significantly increase employees' levels of burnout (Barriga Medina et al., 2021; Jia et al., 2022; Simões et al., 2021). Studies such as those conducted by Baek et al. (2023) in South Korea, Ozduran et al. (2023) in Cyprus, and Verhoef et al. (2021) in the Netherlands have all demonstrated the detrimental impact of negative work–home interaction (inter-role conflict) on employee burnout levels. Allgood et al. (2022) opined that negative work–home interaction depletes employees' psychological resources as they struggle to manage and balance their work and home demands. This depletion occurs as employees invest significant mental and emotional energy in attempting to navigate conflicting responsibilities and expectations from both domains. Over time, the continual depletion of these psychological resources leaves employees feeling overwhelmed, and emotionally drained, leading to the experience of burnout (Allgood et al., 2022; Prentice et al., 2023).

Furthermore, the health impairment process of the JD-R theory suggests that burnout can lead to health-related outcomes (Bakker & Demerouti, 2017; Bakker et al., 2023) such as employee physical ill-being (Archer & Alagaraja, 2021; Arrogante & Aparicio-Zaldivar, 2020; Jun et al., 2021). A systematic review by Yang and Hayes (2020), which included 44 studies from 2009 to 2020, concluded that burnout significantly increased a wide range of employees' physical ill-being, including bodily pains and sleep difficulties. Similarly, another systematic review by Salvagioni et al. (2017) highlighted the negative impact of burnout on employees' psychological and physical well-being. Williams et al. (2020) reviewed the consequences of burnout and found it was linked to increased physical ill-being, such as musculoskeletal pains. Most notably, a recent systematic review and meta-analysis by Glandorf et al. (2023) confirmed that burnout is linked to physical ill-being. Gustafsson et al. (2011) explained that experiencing burnout may impair immune function and cause chronic inflammation, leading to poor physical health. From an affective perspective, employees' experiences of burnout may result in adverse psychological states such as anxiety and depression, which can exacerbate physical ill-being (Glandorf et al., 2023).

Based on this and the above discussion, we argue that a leader's influence on negative work–home interactions as an inter-role conflict could influence employee physical ill-being via burnout, a long-term

affective mechanism. Specifically, we argue that transformational leaders will significantly reduce employees' experience of negative work–home interactions, which diminish employees' physical ill-being via decreasing burnout levels over time. On the contrary, abusive leaders may increase negative work–home interactions experienced by employees, which contribute to increasing employees' physical ill-being via increasing burnout levels over time. Thus, we proposed the following hypotheses:

H5: Transformational leadership negatively influences employee physical ill-being via decreasing negative work–home interactions, which in turn decreases burnout.

H6: Abusive leadership positively influences employee physical ill-being via increasing negative work–home interactions, which in turn increases burnout.

Leadership and Employee Physical Ill-Being via Job Role Conflict and Burnout

Similarly, we argue that leaders' influence on employees' job role conflict (negative motivational work-related pathway and intra-role conflict) may also influence on employee physical ill-being via burnout (a longer-term affective mechanism). Job role conflict creates a sense of uncertainty for employees as they struggle to prioritize competing demands from different work roles (Dodanwala et al., 2023). This conflict can lead to heightened levels of stress and anxiety as employees grapple with conflicting expectations and struggle to meet performance standards in various areas of their work (Barriga-Medina et al., 2021). As a result, prolonged exposure to job role conflict can deplete employees' psychological resources, making them more susceptible to burnout. Furthermore, job role conflict often requires individuals to allocate limited time and energy resources across multiple work responsibilities, leading to feelings of being overwhelmed and emotionally drained (Barriga-Medina et al., 2021). Employees may find themselves constantly switching between tasks, contexts, or priorities, which can disrupt their workflow, increase cognitive load, and contribute to feelings of exhaustion and inefficacy (Zhang & He, 2022). Over time, this chronic state of cognitive and emotional strain can erode employees' energy, ultimately contributing to burnout. Empirical studies support the assertion that job role conflict is positively associated with burnout (Zhang & He, 2022). For example, Tang and Li (2021) found in their study that job role conflict was positively linked with increased employee burnout. Park and Nam (2020) also found that employees' experience of role conflict had a positive influence on their burnout levels. Thus, we expect that job role conflict positively contributes to higher levels of burnout among employees.

Building on the established relationship between burnout and physical ill-being in our study, we argue that transformational leaders will significantly reduce employees' experience of job role conflict, which will diminish employee physical ill-being via decreasing employees' burnout levels. On the contrary, abusive leaders may increase job role conflict experienced by employees, which may influence employees physical ill-being via increasing employees' burnout levels. Thus, we proposed the following hypotheses:

H7: Transformational leadership negatively influences employee physical ill-being via decreasing role conflict, which in turn decrease burnout.

H8: Abusive leadership positively influences employee physical ill-being via increasing role conflict, which in turn increases burnout.

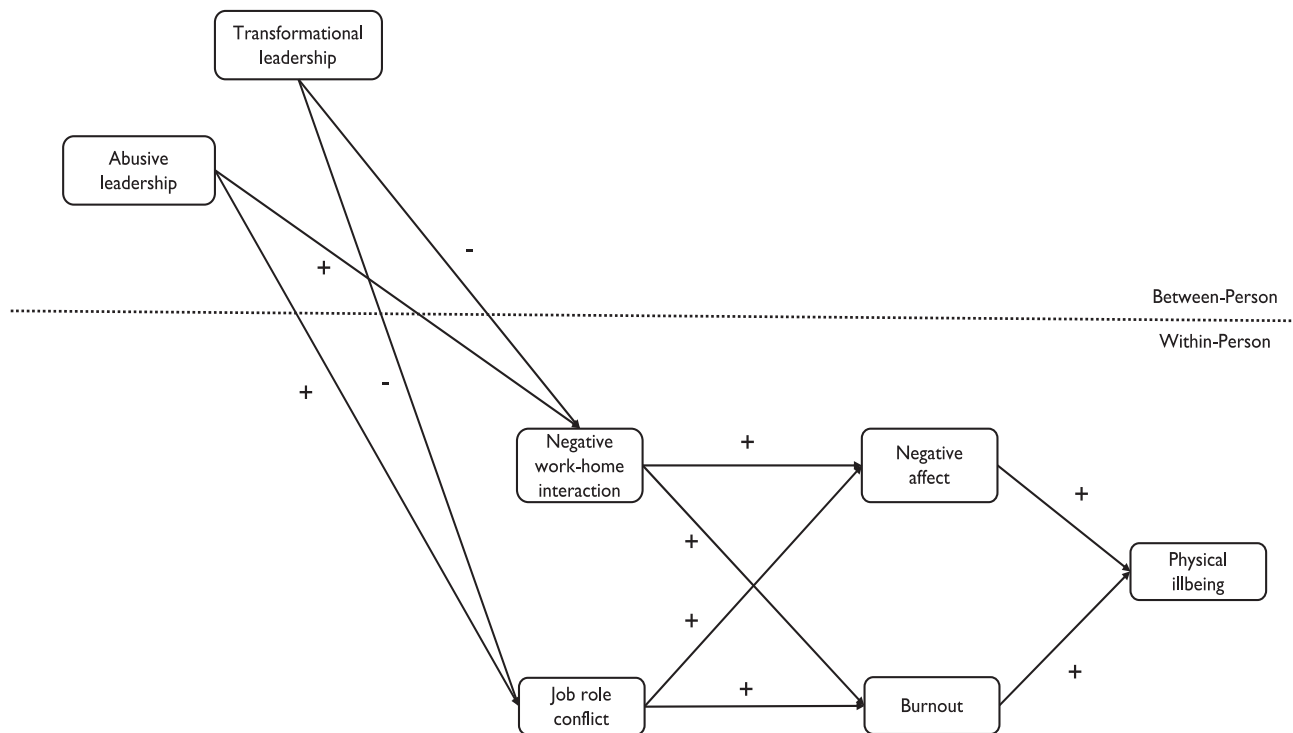


Figure 1. Conceptual framework for the study.

Figure 1 illustrates the conceptual framework of the study.

Methodology

Sample and Procedure

Following the acquisition of two ethical approvals from two institutions—the Bioethics Commission of the University of Barcelona, Spain (IRB00003099) and the Institutional Research Ethics Committee of the University of Professional Studies, Ghana (ECUPSA-FM-2023-01)—a longitudinal study was initiated. Data were collected from 234 participants employed across various sectors in Ghana such as education, banking, telecommunication, health, security, and information technology sector. These participants were all full-time workers concurrently enrolled in a professional development program at one university in Ghana, aimed at enhancing their careers. Recruitment occurred through announcements in class groups, accompanied by explanations of the study's objectives, emphasizing the importance of completing multiple surveys. Additionally, participants were provided with clear explanations of informed consent procedures and confidentiality protocols. Surveys were designed using Qualtrics, and participants completed each survey online via the Qualtrics platform.

Due to the longitudinal nature of our study, data were collected at multiple time points across three waves. Participants were made to self-generate their own codes to be used consistently throughout the study when completing surveys. Each wave consisted of data collection at 2–3 times, with a 1-week interval between each time point to mitigate common-method bias (Podsakoff et al., 2024). In the first wave, data collection occurred at three time points. At time 1, demographic information such as age, gender, type of work, marital status, and sector of work were collected, along with assessments of leadership behaviors exhibited by workplace supervisors. Time 2, which took place one week later, focused on surveying work demands, including negative work–home interactions and role

conflict. Time 3, occurring 2 weeks after time 1, involved collecting data on employee negative affect, burnout, and physical ill-being. Data collection for the first wave concluded after time 3. Two months later, the second wave of data collection began. As leadership behaviors were considered stable upstream contextual factors that impact volatile work demands (Bakker & De Vries, 2021; Czakert et al., 2024; ten Brummelhuis & Bakker, 2012), data collection on leadership was not repeated. Similar to the first wave, participants completed surveys on work demands (negative work–home interactions and job role conflict) at time 1, followed by surveys on employee negative affect, burnout, and physical ill-being 1 week later. The second wave concluded after the completion of data collection at time 2. Two months after the conclusion of the second wave (four months after wave one), the third wave of data collection commenced. Consistent with the second wave, surveys on work demands were distributed at time 1, followed by surveys on employee negative affect, burnout, and physical ill-being one week later. This marked the conclusion of data collection for the third wave.

Overall, our three-wave data collection occurred at seven different time points over a period of 6 months and one week. Initially, 342 participants were paired based on self-generated codes across all seven data collection instances. After data screening and listwise deletion, a final sample size of 234 participants was obtained, all of whom completed surveys across all seven time points. Among the 234 participants, 54.3% were employed in the private sector, while 45.7% worked in the public sector. Gender distribution was evenly split, with 117 males and 117 females, each constituting 50% of the participants. Most participants fell within the age range of 25–34 years, comprising 60.3% of the sample. In terms of educational background, 55% held bachelor's degrees, while 44.4% possessed master's degrees. Regarding the duration of employment with their current organizations, 53.4% of participants had worked for less than 3 years, 27.3% for 4–7 years, and the remaining 18.4% for more than 7 years.

Measurements

Transformational Leadership

Four items from the short version of the Human System Audit Transformational Leadership scale (HSA-TFL) by Berger et al. (2011) were used to measure transformational leadership behaviors among participants of the study. The items were rated on a seven-point Likert Scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes “My supervisor gets us to rely on reasoning and evidence to solve problems?”

Abusive Supervision

Employees' perception of abusive supervision was measured using four items of the Abusive Supervision scale developed by Tepper (2000). The items were rated on a seven-point Likert Scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes “My supervisor publicly belittles us”

Negative Work–Home Interaction

Negative work–home interaction was measured using three original items from the Survey Work–Home Interaction/NijmeGen (SWING) by Geurts et al. (2005). The items were rated on a seven-point Likert Scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes “How often does your work include working at high speed?”

Job Role Conflict

Employee role conflict was measured using three items from the role stress scale by Bowling et al. (2017). The scale consists of six items each for role conflict and role ambiguity. The items were rated on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes “I have conflicting demands at work.”

Negative Affect

Negative affect was assessed using the short form of international Positive and Negative Affect Scale Short-Form (I-PANAS-SF) by Thompson (2007). The scale consists of four items that were rated on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample item includes “How often have you been feeling sad.”

Burnout

Burnout was measured using the Copenhagen Psychosocial Questionnaires (COPSOQ III, Llorens-Serrano et al., 2020), consisting of 4 items. A sample item includes “How often have you felt worn out.” Responses were rated on a seven-point Likert Scale ranging from 1 (Never) to 7 (Always).

Physical Ill-Being

Physical ill-being was measured using four items from the psychosomatic complaints dimension of the secondary symptoms of the burnout assessment tool (BAT-S; Schaufeli et al., 2020). A sample item includes “I suffer from headaches.” Responses were rated on a seven-point Likert Scale ranging from 1 (Never) to 7 (Always).

Data Analysis

Given the nested structure of our data (repeated monthly measures nested within individuals), we conducted a multilevel analysis to examine our proposed model and hypotheses. Before testing our main hypothesis, a multilevel confirmatory factor analysis was conducted to ensure the robustness of our proposed multilevel

model. Thus, goodness of fit indices such as chi-square, comparative fit index (CFI), Tucker and Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR) were all examined to make sure they meet the recommended cut-off scores for respective indices. Also, following Bolger and Laurenceau (2013) recommendations, we examined the reliability of our measures R_C and a longitudinal intra-class coefficient (ICC). While R_C examines whether there are reliable within-person differences in changes over time, longitudinal ICC examines whether there are sufficient within and between-person variances appropriate for using a multilevel approach (Bolger & Laurenceau, 2013). In addition, descriptive statistics and correlations at the between and within levels were all examined. Finally, utilizing the open-source package lavaan in R statistical software (Rosseel, 2012), a multilevel path analysis was conducted. We considered transformational and abusive leadership as upper-level predictors at the between-person level that directly and indirectly influenced negative work–home interactions, job role conflict, negative affect, burnout, and physical ill-being at the within-person level. This technique is frequently utilized in leadership–well-being studies that adopt a multilevel approach (Czakert et al., 2024).

Results

Preliminary Analysis

Descriptive statistics was computed to show the minimum and maximum values for each study variable in addition to means and standard deviations (see Table 1). Furthermore, Table 2 and 3 presents the between-person and within-person correlations of our study variables demonstrating significant correlations between the study variables at both between-person and within-person levels.

Multilevel confirmatory factor analysis (MCFA) utilizing lavaan package in R statistical software was used to validate our within-person level measures (i.e., negative work–home interactions, job role conflict, negative affect, burnout, and physical ill-being). The MCFA results showed that our proposed model demonstrated a satisfactory fit ($\chi^2 = 428.52$; $df = 218$; CFI = 0.92; TLI = 0.90; RMSEA = 0.037; SRMR_{within} = 0.043, SRMR_{between} = 0.072) as compared to a four factor (combining negative affect and burnout into one factor) which yielded a poor model fit ($\chi^2 = 544.89$; $df = 226$; CFI = 0.88; TLI = 0.85; RMSEA = 0.045; SRMR_{within} = 0.049, SRMR_{between} = 0.083) and a three-factor model (combining negative work–home interactions and job role conflict as one factor and negative affect and burnout as another factor), which yielded a poorer model fit ($\chi^2 = 854$; $df = 232$; CFI = 0.76; TLI = 0.72; RMSEA = 0.062; SRMR_{within} =

Table 1. Descriptive statistics of study variables

Variables	Min	Max	Mean	SD
Transformational leadership	1.00	7.00	5.26	1.28
Abusive leadership	1.00	6.50	2.47	1.20
Negative work–home interactions	1.00	7.00	3.29	1.42
Job role conflicts	1.00	7.00	2.98	1.02
Negative affect	1.00	6.50	3.74	0.86
Burnout	1.00	7.00	4.11	1.13
Physical ill-being	1.00	6.00	3.18	0.95

Note: 1688 observations at Level 1; $N = 234$ individuals at Level 2

Table 2. Correlations at the between-person level of study variables

Variable	1	2	3	4	5	6
1. Transformational leadership	–					
2. Abusive leadership	–0.57**	–				
3. Negative work–home interactions	–0.25**	0.26**	–			
4. Job role conflicts	–0.28**	0.23**	0.17*	–		
5. Negative affect	–0.14**	0.13**	0.39**	0.15*	–	
6. Burnout	–0.26*	0.20*	0.49**	0.17**	0.58**	–
7. Physical ill-being	–0.15*	0.16*	0.40**	0.18**	0.59**	0.41**

Note: 1688 observations at Level 1; $N = 234$ individuals at Level 2; * $p < .05$; ** $p < .01$

Table 3. Correlations at the within-person level of study variables

Variable	1	2	3	4	5
1. Negative work–home interactions	–				
2. Job role conflicts	–0.11*	–			
3. Negative affect	0.07	0.13**	–		
4. Burnout	0.07	0.07	0.21**	–	
5. Physical ill-being	0.15*	–0.02	0.17**	0.13**	–

Note: 1688 observations at Level 1; $N = 234$ individuals at Level 2; * $p < .05$; ** $p < .01$.

Table 4. Reliability indices for variables

Variables	R_c	Longitudinal ICC
Negative work–home interactions	0.67	0.90
Job role conflict	0.75	0.88
Negative affect	0.76	0.88
Burnout	0.77	0.89
Physical ill-being	0.82	0.91

Note. 1688 observations at Level 1; $N = 234$ individuals at Level 2.

0.073, $SRMR_{\text{between}} = 0.120$) Thus, indicating that the validity of our measures is acceptable.

Also, following Bolger and Laurenceau (2013) recommendations, we examined reliability of our measures R_c and a longitudinal ICC. As shown in Table 4, the R_c values were 0.67 for negative work–home interactions, 0.75 for job role conflicts, 0.76 for negative affect, 0.77 for burnout, and 0.82 for physical ill-being. Likewise, the longitudinal ICC was 0.90 for negative work–home interactions, 0.88 for job role conflicts, 0.88 for negative affect, 0.89 for burnout, and 0.91 for physical ill-being. Both R_c and longitudinal ICC values were appropriate and good indicating that there exist significant reliability within-person differences in changes over time and sufficient within- and between-person variances, justifying the need for multilevel modeling (Bolger & Laurenceau, 2013).

Hypotheses Testing

The results presented in Table 5 and shown in Figure 2 illustrate a multilevel path modeling examining the influence of

transformational and abusive leadership on employee physical ill-being via negative motivational-affective mechanisms, revealing both direct and indirect pathways.

Hypothesis 1 and 2 postulated that transformational and abusive leaders influence employee physical ill-being via negative work–home interactions and negative affect. The results showed that while transformational leaders reduced negative work–home interactions experienced by employees ($\beta = -.16$, $p < .01$, 95% CI: -0.273 , -0.048), abusive leaders positively contributed to negative work–home interactions experienced by employees ($\beta = .20$, $p < .001$, 95% CI: 0.086 , 0.325). Negative work–home interactions, in turn, increased employee negative affect ($\beta = .47$, $p < .001$, 95% CI: 0.393 , 0.546), and negative affect increased employee physical ill-being ($\beta = .48$, $p < .001$, 95% CI: 0.403 , 0.564). The results suggest that transformational leaders negatively and indirectly influence employee physical ill-being by decreasing negative work–home interactions, which in turn decreases negative affect (Effect = $-.036$, $SE = .014$, 95% CI: -0.070 , -0.029). Hence, Hypothesis 1 was confirmed. On the contrary, abusive leaders positively influence employee physical ill-being by increasing negative work–home interactions, which in turn increases negative affect (Effect = $.046$, $SE = .015$, 95% CI: 0.039 , 0.083). Consequently, Hypothesis 2 was also supported.

According to Hypotheses 3 and 4, transformational and abusive leaders influence employee physical ill-being via job role conflict and negative affect. The results showed that while transformational leaders reduced job role conflict ($\beta = -.18$, $p < .001$, 95% CI: -0.264 , -0.087), abusive leaders increased job role conflict ($\beta = .15$, $p < .01$, 95% CI: 0.055 , 0.246). Job role conflict, in turn, had a positive influence on employee negative affect ($\beta = .38$, $p < .001$, 95% CI: 0.242 , 0.512). Negative affect, in turn, increased employee physical ill-being ($\beta = .48$, $p < .001$, 95% CI: 0.403 , 0.564). The results indicate that transformational leaders negatively and indirectly influence employee physical ill-being by decreasing job role conflict, which in turn decreases negative affect (Effect = $-.032$, $SE = .010$, 95% CI: -0.029 , -0.006). Consequently, Hypothesis 3 was confirmed. On the contrary, abusive leaders positively and indirectly influence employee physical ill-being by increasing job role conflict, which in turn increases negative affect (Effect = $.028$, $SE = .010$, 95% CI: 0.008 , 0.036). Thus, Hypothesis 4 was also supported.

Hypotheses 5 and 6 predict that transformational and abusive leadership will influence employee physical ill-being through negative work–home interactions and burnout. The results illustrated that while transformational leaders reduced negative work–home interactions ($\beta = -.16$, $p < .01$, 95% CI: -0.273 , -0.048), abusive leaders increased negative work–home interactions ($\beta = .20$, $p < .001$, 95% CI: 0.086 , 0.325). Negative work–home interactions positively

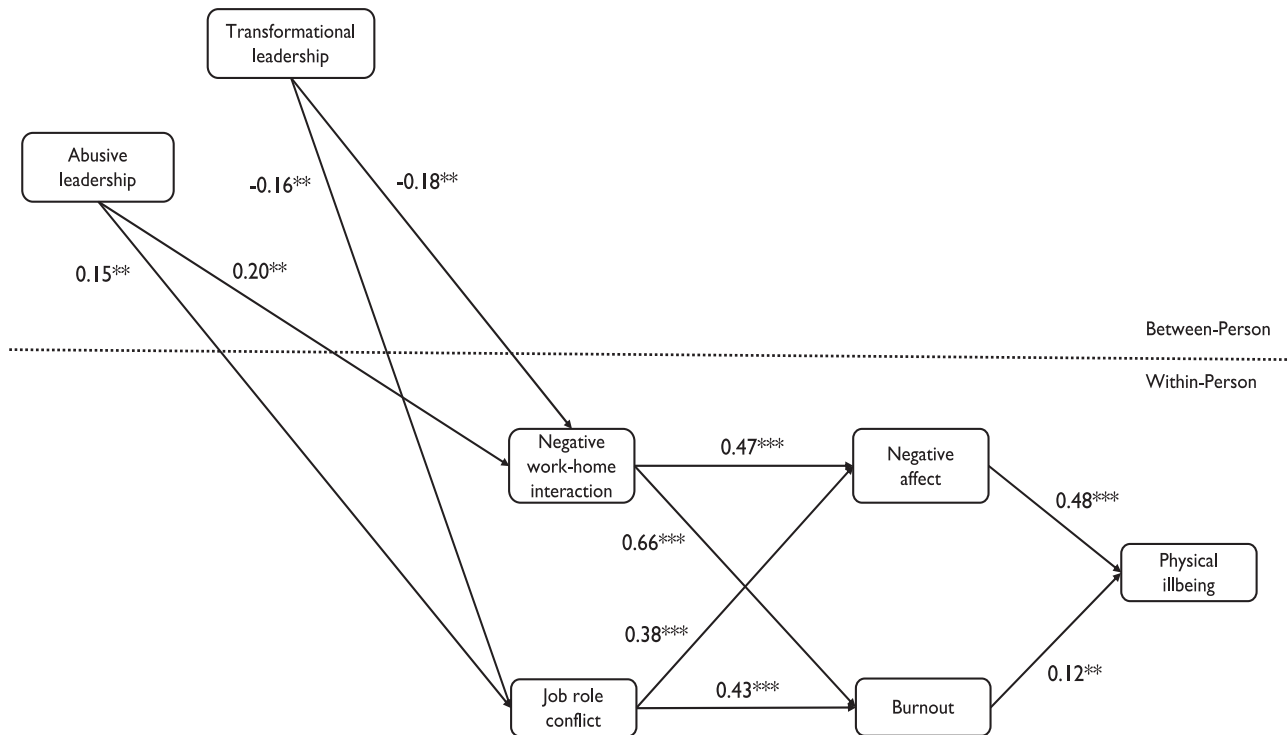


Figure 2. Results of multilevel path analysis showing how leadership influences employee physical ill-being.

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

contributed to employee burnout ($\beta = .66$, $p < .001$, 95% CI: 0.563, 0.757), and burnout increased employee physical ill-being ($\beta = .12$, $p < .01$, 95% CI: 0.057, 0.181). The results imply that transformational leaders negatively and indirectly influence employee physical ill-being by decreasing negative work-home interactions, which in turn decreases burnout (Effect = $-.013$, SE = $.006$, 95% CI: $-.068$, $-.015$). Hence, Hypothesis 5 was confirmed. On the contrary, abusive leaders positively influence employee physical ill-being by increasing negative work-home interactions, which in turn increases burnout (Effect = $.016$, SE = $.006$, 95% CI: 0.014, 0.061). Consequently, Hypothesis 6 was also supported.

According to Hypotheses 7 and 8, transformational and abusive leaders will influence employee physical ill-being via job role conflict and burnout. The results showed that while transformational leaders reduced job role conflict ($\beta = -.18$, $p < .001$, 95% CI: $-.264$, $-.087$), abusive leaders increased job role conflict ($\beta = .15$, $p < .01$, 95% CI: 0.055, 0.246). Job role conflict, in turn, had a positive influence on employee burnout ($\beta = .43$, $p < .001$, 95% CI: 0.228, 0.583), and burnout increased employee physical ill-being ($\beta = .12$, $p < .01$, 95% CI: 0.057, 0.181). The results propose that transformational leaders negatively and indirectly influence employee physical ill-being by decreasing job role conflict, which in turn decreases burnout (Effect = $-.008$, SE = $.004$, 95% CI: $-.019$, $-.002$). Hence, confirming Hypothesis 7. On the contrary, abusive leaders positively and indirectly influence employee physical ill-being by increasing job role conflict, which in turn increases burnout (Effect = $.008$, SE = $.003$, 95% CI: 0.002, 0.018). Therefore, Hypothesis 8 was also supported.

Discussion

This study, grounded in leadership theories and the JD-R theory, aimed to advance our understanding of how transformational and

abusive leadership behavior influence employee physical ill-being through two conflict-related negative motivational mechanisms (negative work-home interactions and job role conflict) and two negative short- and long-term affective mechanisms (negative affect and burnout). The findings demonstrate that when leaders display transformational leadership behaviors, they reduce negative work-home interactions (inter-role conflict), and job role conflicts (intra-role conflict) experienced by their employees. This, in turn, decreases employee physical ill-being via negative affect (a short-term affective mechanism) and burnout (a long-term affective mechanism). Conversely, leaders who exhibit abusive leadership behaviors increase negative work-home interactions (inter-role conflict) and job role conflicts (intra-role conflict) among employees. This escalation increases employees' physical ill-being via elevating their negative affect (a short-term affective mechanism) and burnout (a long-term affective mechanism). Moreover, the study highlights that the influence of leadership behaviors on employee physical ill-being is more pronounced through the short-term affective mechanism (negative affect) than through the long-term affective mechanism (burnout).

Theoretical Implications

First, our research illuminates the short- and long-term mechanisms linking leadership behaviors to employee physical ill-being, hinting on leaders' short- and long-term influence on employee physical ill-being. Prior studies have called for the need for more studies exploring both short- and long-term mechanisms in leadership and ill-being processes (Czakert et al., 2024; Inceoglu et al., 2018; Sonnentag et al., 2022). Our study advances our understanding of these mechanisms by demonstrating that leaders' influence on conflict-related negative motivational mechanisms i.e. negative work-home interactions and job role conflict, could in turn affect

Table 5. Results of multilevel path analysis

Regression paths	beta	SE	Boostrapp (95% CI)	
			LLCI	ULCI
<i>Direct Paths</i>				
TFL → NWHI	−.16**	.06	−.273	−.048
TFL → JRC	−.18***	.05	−.264	−.087
ABL → NWHI	.20***	.06	.086	.325
ABL → JRC	.15**	.05	.055	.246
NWHI → NA	.47***	.04	.393	.546
JRC → NA	.38***	.07	.242	.512
NWHI → BO	.66***	.05	.563	.757
JRC → BO	.43***	.09	.228	.583
NA → PI	.48***	.04	.403	.564
BO → PI	.12**	.12	.057	.181
<i>Indirect Paths</i>				
TFL → NWHI → NA → PI	−.036	.014	−.070	−.029
TFL → NWHI → BO → PI	−.013	.006	−.068	−.015
TFL → JRC → NA → PI	−.032	.010	−.029	−.006
TFL → JRC → BO → PI	−.008	.004	−.019	−.002
ABL → NWHI → NA → PI	.046	.015	.039	.083
ABL → NWHI → BO → PI	.016	.006	.014	.061
ABL → JRC → NA → PI	.028	.010	.008	.036
ABL → JRC → BO → PI	.008	.003	.002	.018

Note. 1688 observations at Level 1; N = 234 individuals at Level 2; TFL = transformational leadership; ABL = abusive leadership; NWHI = negative work-home interactions; JRC = job role conflict; NA = negative affect; PA = positive affect; PI = physical ill-being.

employee physical ill-being via negative affect (a short-term affective mechanism) and burnout (a long-term affective mechanism). Specifically, as negative affect is more volatile and is subject to frequent changes based on situational events (Fischer et al., 2017; Hetland et al., 2023; Luhman et al., 2012), our findings suggest that leaders' (e.g. abusive behaviors) influence on these conflict-related negative motivational mechanisms, may in the short term, influence employee physical ill-being via negative affect. Conversely, burnout, which develops through prolonged exposure to stressors, represents the long-term affective mechanism through which leadership behaviors influence employee physical ill-being.

More importantly, our findings revealed that the influence of leadership behaviors on employee physical ill-being via the short-term mechanism (negative affect) was more pronounced than through the long-term mechanism (burnout). This may suggest that certain leadership behaviors, such as those exhibited by abusive leaders, frequently trigger negative emotions like frustration, nervousness, sadness, guilt, and anger. These emotions could disrupt the physiological regulation of the body's stress response system, as suggested by Zoccola and Dickerson (2012), ultimately impairing employee physical health (Leger et al., 2018). Since negative affect is more likely to occur frequently under such leadership, we contend that leaders' influence on employee physical ill-being through negative affect may be more immediate and recurrent, which could explain why its impact appears stronger

and more pronounced compared to burnout, a long-term affective mechanism.

Second, our study contributes to deepening our understanding of the comparative and additive approaches in exploring the underlying mechanisms in the relationship between leadership and employee physical ill-being. These approaches have been largely underexplored in leadership and ill-being studies (Fischer et al., 2017; Fischer et al., 2021; Inceoglu et al., 2018), limiting insights into which mediators are more critical or how multiple mediators interconnect to advance understanding in this domain. Starting with the comparative approach, our findings reveal that among the two conflict-related negative motivational mechanisms examined (negative work-home interaction and job role conflict), negative work-home interaction played a more crucial role as an explanatory mechanism. This suggests that leadership behaviors not only affect employees within the workplace but also extend into their personal lives, with this spillover effect potentially being more pronounced than workplace-specific demands like job role conflict. This is particularly significant given the growing prevalence of remote and hybrid work, which has blurred boundaries between work and home life. Despite its contemporary relevance, the role of negative work-home interactions as a mediating mechanism in leadership-ill-being studies remains a black box (Czakert & Berger, 2023; Pradhan & Gupta, 2021). Thus, our study underscores the need for further research into the role of negative work-home interactions in the leadership-employee ill-being nexus. Most importantly, this study highlights the necessity of investigating the comparative impacts of different mediators in leadership studies to identify which mechanisms are more influential.

Third, moving beyond a comparative examination of mediators, our research underscores the interconnectedness of mediators across different categories or pathways, addressing a critical gap in leadership-ill-being studies. Our findings reveal that conflict-related negative motivational mechanisms (negative work-home interactions and job role conflict) and affective mechanisms (negative affect and burnout) sequentially mediate the relationship between leadership behaviors and employee physical ill-being. This sequential mediation highlights the importance of understanding how these pathways interact over time, contrasting with most leadership-ill-being studies that often treat mechanisms as isolated processes. Specifically, our findings suggest that conflict-related negative motivational mechanisms, such as negative work-home interactions and job role conflict influenced by leadership behaviors, can initiate immediate and long-term affective responses (negative affect and burnout), ultimately resulting in employee physical ill-being. This cascading interplay demonstrates how leadership behaviors contribute to ill-being through interconnected and evolving processes, advancing theoretical perspectives on leadership's dynamic and far-reaching impacts on employee physical ill-being. Adopting this additive approach, as advocated by Fischer et al. (2017, 2021), provides a more nuanced understanding of leadership-ill-being dynamics by addressing the interconnected nature of these pathways. By integrating multiple mediators, our research contributes to a richer and more comprehensive framework for understanding how leadership behaviors shape employee physical ill-being over time.

Furthermore, our study contributes to extending the JD-R theory in two keyways. First, it reinforces the conceptualization of leadership as a stable macro-organizational factor that influences job demands and resources within the JD-R framework. Prior research has positioned leadership as a stable determinant shaping employees' perceptions of job demands and resources (Berger et al.,

2023; Teetzel et al., 2022; Tummers & Bakker, 2021). Our findings support this view by demonstrating that transformational and abusive leadership behaviors, conceptualized as stable macro-organizational factors at the between-person level, significantly influence variability in job demands, specifically intra-role conflict (job role conflict) and inter-role conflict (negative work-home interactions), at the within-person level. However, the relatively weak effect observed suggests that other contextual or individual factors, such as team dynamics or personal resilience, may also moderate the relationship between leadership and job demands. Second, while the JD-R theory emphasizes that job demands lead to burnout through the health impairment process (Bakker & Demerouti, 2017), it provides little insight into other affective mechanisms, particularly short-term mechanisms like negative affect, nor does it compare their relative contributions. Our study addresses this gap by incorporating both short-term affective mechanisms (negative affect) and long-term mechanisms (burnout) into the JD-R framework. This integration offers a more nuanced understanding of how job demands, influenced by leadership behaviors, impact employee physical ill-being through short- and long-term affective pathways. Our findings suggest that job demands may exert a stronger immediate impact via negative affect compared to burnout, highlighting the critical importance of addressing short-term affective responses to mitigate health risks. By accounting for the temporal variability and interplay between affective mechanisms, our study broadens the JD-R theory's applicability, providing a more comprehensive perspective on the pathways through which job demands impair employee health.

Practical Implications

Our research provides practical implications to organizational leaders, managers, supervisors and organizations.

First, organizations should prioritize the cultivation of transformational leadership behaviors while implementing stringent policies to curb abusive leadership. Transformational leaders, who offer personalized support, mentorship, and empowerment, help create a work environment conducive to balancing professional and personal responsibilities. To develop such leaders, organizations should invest in training programs focusing on personalized mentoring, empowerment techniques, and continuous feedback mechanisms. Conversely, addressing abusive leadership behaviors is equally crucial as they significantly impact employee physical ill-being. Organizations can develop leadership programs that highlight the importance of employee well-being, incorporating modules that educate leaders on the detrimental effects of abusive behaviors, creating more empathetic and effective leaders. Additionally, organizations can implement strict policies against such behaviors, promote a culture of respect and support, and provide avenues for employees to report abusive conduct without fear of retribution. These measures not only protect employees from the immediate impacts of negative leadership but also foster a long-term culture of respect and support within the workplace.

Second, organizations should actively support positive work-life integration and address job role conflicts to enhance employee well-being. With supporting positive work-life integration, organizations can implement policies that empower managers, supervisors, and leaders to offer flexible work arrangements, such as remote work options, flexible hours, and personal time off. These policies should be communicated effectively to ensure that employees feel empowered to take advantage of them without fear of negative repercussions. In addition to supporting work-life balance, clear

communication, and well-defined expectations are crucial in minimizing job role conflicts. Leaders should be trained to establish transparent communication channels, set clear goals, and provide regular feedback, helping employees understand their roles and responsibilities better. This clarity reduces conflicts and stress, enhancing overall well-being. Furthermore, programs aimed at helping employees manage their workload and personal responsibilities, such as time management workshops or stress reduction seminars, can significantly improve well-being by providing practical tools and techniques for managing stress.

Finally, organizations should invest in comprehensive well-being initiatives that address both short- and long-term well-being of employees. In the short term, wellness programs, mental health support services, and the creation of a positive and inclusive work environment are essential. Additionally, establishing feedback and support mechanisms allows employees to voice their concerns and seek help when needed, fostering an open and supportive workplace culture. It is also essential to recognize the long-term implications of burnout and prioritize strategies to prevent its onset. Organizations should focus on ongoing monitoring of factors contributing to burnout, such as prolonged work stress from negative work-home interactions and job role conflicts. Proactive interventions, such as regular check-ins, clear communication channels, and promoting healthy work-life integration, are critical in preventing burnout and supporting long-term employee well-being. By addressing both short-term and long-term aspects of leadership influence on physical ill-being, organizations can create a resilient and productive workforce.

Limitations and Future Research

Our research, like any other, has its limitations. First, despite our efforts to mitigate common-method bias by introducing a one-week lag between each wave of data collection, the reliance on self-reported measures may still pose a concern (Podsakoff et al., 2024). This issue is particularly pertinent for variables such as negative work-home interactions, negative affect, burnout, and physical ill-being, which are inherently subjective and rely on individual perceptions (Djourova et al., 2020). While self-reported measures are justified for these variables due to their personal and subjective nature, external ratings might not capture the true essence of these experiences. Nonetheless, future research should explore incorporating more objective measures for variables like job role conflict, where external observations might provide additional insights.

Second, although our study provides valuable insights into the short- and long-term dynamic processes through which leadership behaviors influence employee physical ill-being, we primarily relied on conceptual distinctions to classify negative affect as a short-term mechanism and burnout as a long-term mechanism. While these classifications are strongly supported by theoretical and empirical literature, the absence of separate temporal measurements of negative affect and long-term measurement of burnout in our data limits our ability to empirically validate these distinctions. Future research should adopt designs that explicitly measure these mechanisms at different time points to provide a more robust empirical basis for understanding the immediate and prolonged impacts of leadership on employee physical ill-being.

Further, our study did not investigate boundary conditions (moderating variables) that might explain how leadership behavior influences employee physical ill-being via motivational and affective mechanisms. A systematic review by Inceoglu et al. (2018)

confirms that individual differences can influence how leaders impact employee well-being and ill-being. Therefore, future studies should include boundary conditions such as personality traits or specific workplace factors like coworker support. Understanding these moderators could reveal why certain employees are more or less affected by leadership behaviors, providing a nuanced view of the leadership–well-being relationship. For example, personality traits such as resilience or optimism might buffer the negative effects of abusive leadership, while high levels of coworker support might mitigate job role conflict.

Conclusion

In a nutshell, our research explored how transformational and abusive leadership influence employee physical ill-being through a sequential examination of two negative motivational mechanisms (negative work–home interactions and job role conflict) and two negative affective mechanisms (negative affect and burnout). The findings demonstrate that when leaders display transformational leadership behaviors, they reduce negative work–home interactions and job role conflicts experienced by their employees. This, subsequently decreases employees' negative affect and burnout, leading to a decline in employees' physical ill-being. Conversely, leaders who exhibit abusive leadership behaviors escalate negative work–home interactions and job role conflicts among employees. This, in turn, increases employees' negative affect and burnout, subsequently heightening employee physical ill-being. In conclusion, our study advances the understanding of how positive and negative leadership behaviors impact employee physical ill-being in the short- and long-term, highlighting the necessity for organizations to foster transformational leadership and mitigate abusive behaviors to promote employee well-being. By addressing both short-term and long-term dynamics, our research provides a comprehensive framework for understanding and improving the dynamic of the leadership–ill-being nexus, ultimately contributing to healthier and more productive workplaces.

Data availability statement. The datasets generated during and/or analyzed during this study are available from the corresponding author upon reasonable request.

Author contribution. Erasmus Keli Swanzy: Conceptualization, methodology, writing—original draft preparation, writing—review & editing, formal analysis. David Leiva: Data curation, software, formal analysis, validation. Rita Gisela Berger: Supervision, conceptualization, writing—reviewing and editing.

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