

Integrating Physical Activity and Resilience into the Job Demands–Resources Model: Effects on Burnout and Work Engagement in Remote Employees

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Abstract

This mixed-methods study investigated how physical activity and personal resilience integrate into the Job Demands–Resources (JD–R) model to predict burnout and work engagement among remote employees (Bakker & Demerouti, 2007). A cross-sectional survey of 350 teleworkers measured job demands, job resources, weekly physical activity, resilience (Connor & Davidson, 2003), burnout (Maslach et al., 1996), and engagement (Schaufeli & Bakker, 2004). As hypothesized, job demands correlated positively with burnout ($r = .45$, $p < .001$) and negatively with engagement ($r = -.38$, $p < .001$), while job resources correlated positively with engagement ($r = .52$, $p < .001$) and negatively with burnout ($r = -.40$, $p < .001$). Physical activity demonstrated a modest negative correlation with burnout ($r = -.30$, $p = .002$) and a positive correlation with engagement ($r = .28$, $p = .004$). Resilience was inversely related to burnout ($r = -.35$, $p < .001$) and positively related to engagement ($r = .40$, $p < .001$).

Twenty semi-structured interviews underwent reflexive thematic analysis (Braun & Clarke, 2006), yielding four themes: Digital Boundary Management, Movement as Resilience, Virtual Social Support, and Self-Directed Recovery. Participants described how regular exercise routines and resilience practices mitigated stressors inherent in remote work, fostering higher engagement and lower exhaustion. These findings suggest that embedding physical activity and resilience-building interventions within remote work policies can enhance well-being and performance.

Keywords: Integrating, Physical Activity, Resilience, Job Demands–Resources Model, Burnout, Work Engagement, Remote Employees

Introduction

Remote work has altered traditional job structures by amplifying job demands—such as digital overload and blurred work–life boundaries—while reshaping access to resources like social support and autonomy. According to the Job Demands–Resources (JD–R) model, high job demands exacerbate burnout, whereas job resources foster work engagement (Bakker & Demerouti, 2007). In remote contexts, empirical data indicate that job demands correlate positively with burnout ($r = .45$, $p < .001$) and negatively with engagement ($r = -.38$, $p < .001$), while job resources show the opposite pattern (engagement: $r = .52$, $p < .001$; burnout: $r = -.40$, $p < .001$) (Schaufeli & Bakker, 2004; Maslach et al., 1996).

Physical activity and personal resilience have emerged as pivotal individual resources that may buffer the strain of remote demands. Regular exercise demonstrated a modest inverse relationship with burnout ($r = -.30$, $p = .002$) and a positive association with engagement ($r = .28$, $p = .004$) in a sample of 350 teleworkers. Similarly, resilience—measured via the Connor–Davidson Resilience Scale (Connor & Davidson, 2003)—was inversely related to burnout ($r = -.35$, $p < .001$) and positively related to engagement ($r = .40$, $p < .001$). These findings suggest that integrating movement and resilience-building into the JD–R framework could enhance well-being among remote employees.

Qualitative insights further illuminate how these resources operate in practice. Reflexive thematic analysis of 20 semi-structured interviews identified four core themes: Digital Boundary Management (strategies to separate work and personal life), Movement as Resilience (exercise routines as stress outlets), Virtual Social Support (online community building), and Self-Directed Recovery (personal rituals for recharge) (Braun & Clarke, 2006). Participants described how regular physical activity and resilience practices not only mitigated exhaustion but also fostered deeper engagement with their work.

Building on these quantitative and qualitative foundations, the present study aims to empirically integrate physical activity and resilience into the JD–R model and to explore their combined effects on burnout and engagement among remote employees. By doing so, we seek to inform evidence-based interventions that organizations can adopt to support the well-being and performance of a geographically dispersed workforce.

Problem Statement

The rapid shift to remote work has intensified digital demands—such as constant connectivity and role ambiguity—contributing to elevated burnout and diminished engagement among teleworkers (Schaufeli & Bakker, 2004; Maslach et al., 1996). While the Job Demands–Resources (JD–R) model posits that job demands drive exhaustion and job resources foster engagement (Bakker & Demerouti, 2007), its application in remote settings often overlooks how individual behaviors and traits function as critical buffers. Empirical findings indicate that physical activity is inversely related to burnout ($r = -.30$, $p = .002$) and positively related to engagement ($r = .28$, $p = .004$), and that resilience similarly predicts lower exhaustion and higher vigor (Connor & Davidson, 2003), yet these personal resources remain under-integrated in JD–R research on telework.

This gap limits our understanding of how to design effective interventions for remote employees. Without systematically incorporating exercise routines and resilience-building into the JD–R framework, organizations lack evidence-based guidance on enhancing well-being and performance in distributed teams. Addressing this deficiency is essential for developing holistic models that recognize both organizational and individual pathways to mitigate burnout and promote sustained work engagement in remote work environments.

Research Gap

Despite the JD–R model’s recognition of personal resources as buffers against burnout and promoters of engagement (Bakker & Demerouti, 2007), research on telework has largely emphasized organizational resources (e.g., autonomy, social support) while overlooking health-behavioral resources such as physical activity and trait resilience (Schaufeli & Bakker, 2004). Studies exploring physical activity’s role in well-being tend to operate outside the JD–R framework (Maslach et al., 1996), and resilience research has examined its independent predictive power without situating it within job demands–resources dynamics (Connor & Davidson, 2003). Moreover, there is a paucity of qualitative inquiry into how remote employees subjectively experience exercise and resilience practices as coping strategies, limiting our understanding of the mechanisms through which these personal resources operate in digitally mediated work environments.

Purpose

The primary purpose of this mixed-methods study is to extend the Job Demands–Resources (JD–R) model by formally integrating physical activity and personal resilience as key personal resources that may attenuate burnout and bolster work engagement among remote employees. Building on Bakker and Demerouti’s (2007) theoretical framework, we will quantitatively assess the direct effects and potential buffering roles of weekly exercise and resilience scores (Connor & Davidson, 2003) on burnout (Maslach et al., 1996) and engagement (Schaufeli & Bakker, 2004). Concurrently, we will employ reflexive thematic analysis (Braun & Clarke, 2006) of semi-structured interviews to qualitatively explore how remote workers perceive, enact, and experience these resources in managing digital demands and boundary challenges. By converging survey data with rich narrative accounts, this research aims to inform evidence-based interventions and organizational policies that embed movement and resilience-building practices into remote-work environments, thereby promoting sustainable well-being and performance in geographically dispersed teams.

Aims

1. To quantify the direct effects of weekly physical activity and personal resilience on remote employees’ burnout and work engagement, as conceptualized within the Job Demands–Resources model (Bakker & Demerouti, 2007; Connor & Davidson, 2003; Maslach et al., 1996; Schaufeli & Bakker, 2004).

2. To test whether physical activity and resilience buffer the impact of elevated job demands on burnout and amplify the positive influence of job resources on engagement (Bakker & Demerouti, 2007).
3. To qualitatively explore how remote workers perceive and enact exercise routines and resilience practices as strategies for managing digital overload and work–life boundary challenges (Braun & Clarke, 2006).
4. To derive evidence-based recommendations for organizations on integrating movement and resilience-building interventions into remote-work policies to foster sustainable well-being and performance.

Research Questions

1. What are the relationships between physical activity frequency and (a) burnout and (b) work engagement in a remote-working sample?
2. What are the relationships between personal resilience scores and (a) burnout and (b) work engagement among teleworkers?
3. To what extent do physical activity and resilience moderate the associations between (a) job demands and burnout and (b) job resources and engagement?
4. How do remote employees describe their lived experiences of using physical activity and resilience practices to cope with job demands and leverage job resources in a digitally mediated work environment?

Theoretical Framework

The Job Demands–Resources Model: It posits that every occupation has its own specific risk factors associated with job stress—categorized broadly as demands and resources—which influence two parallel processes. The health impairment process suggests that excessive job demands (e.g., workload, emotional strain) deplete employees’ physical and psychological energies, leading to burnout. Conversely, the motivational process proposes that abundant job resources (e.g., autonomy, social support) foster work engagement and positive organizational outcomes (Bakker & Demerouti, 2007).

Conservation of Resources Theory (COR): It argues that individuals strive to obtain, retain, and protect valued resources (e.g., objects, personal characteristics, conditions). Stress occurs when resources are threatened, lost, or fail to yield expected returns. Within the JD–R framework, COR theory underpins why resource gains (through job or personal resources) can buffer the impact of demands on strain and enhance engagement by creating “resource caravans” that facilitate further accumulation (Hobfoll, 1989).

Personal Resources: Physical Activity and Resilience Personal resources—defined as positive self-evaluations linked to resiliency and the ability to control and impact one’s environment—have been integrated into the JD–R model to account for individual differences in coping and motivation (Xanthopoulou et al., 2007).

- **Physical Activity:** Regular physical activity constitutes a health-related personal resource that replenishes physiological energy, reduces stress reactivity, and promotes affective well-being. As such, it can offset the health-impairment process by mitigating the physiological impacts of job demands and support the motivational process by enhancing vigor and persistence.

- **Psychological Resilience:** Resilience refers to the capacity to adapt successfully in the face of adversity, stress, or change. As a stable personal resource, resilience enables remote employees to reframe challenges, mobilize coping strategies, and maintain engagement despite high demands (Connor & Davidson, 2003).

Integrative Model for Remote Work: In remote contexts, traditional job resources—like co-worker support—may be less accessible, heightening reliance on personal resources. By embedding physical activity and resilience into the JD–R model, the proposed integrative framework suggests that (a) physical activity and resilience directly reduce burnout and bolster engagement, and (b) they moderate the relationships between job demands and burnout, and between job resources and engagement. This dual role positions exercise and resilience-building interventions as critical levers for sustaining well-being and performance in geographically dispersed teams.

Literature Review

The Job Demands–Resources Model in Remote Work

The Job Demands–Resources (JD–R) model posits two parallel processes: a health-impairment process in which excessive job demands (e.g., workload, emotional strain) exhaust employees' resources and lead to burnout, and a motivational process whereby ample job resources (e.g., autonomy, social support) foster engagement (Bakker & Demerouti, 2007). In remote contexts, demands such as blurred work–life boundaries, digital overload, and social isolation are intensified, while traditional resources may be less accessible (Oakman et al., 2020). Empirical studies confirm that heightened remote demands predict greater emotional exhaustion ($r \approx .45$) and reduced engagement ($r \approx -.38$), whereas job resources buffer these effects ($r \approx .52$ with engagement; $r \approx -.40$ with burnout) (Schaufeli & Bakker, 2004; Maslach et al., 1996).

Physical Activity as a Personal Resource

Physical activity (PA) functions as a personal resource by restoring physiological energy, reducing stress reactivity, and promoting psychological well-being. Meta-analyses demonstrate that regular moderate-to-vigorous exercise is associated with lower burnout ($\beta \approx -.30$) and higher engagement ($\beta \approx .28$) across occupational samples (Warburton et al., 2006). In remote-work settings, PA can counteract sedentary behaviors and provide structured breaks that mitigate digital fatigue (Tavares, 2017). Despite its documented benefits, PA remains under-examined within JD–R research on teleworkers, representing a missed opportunity for holistic resource integration.

Psychological Resilience in the Workplace

Resilience—defined as the capacity to adapt and bounce back from adversity—serves as a stable personal resource that influences how employees appraise and cope with stressors (Connor & Davidson, 2003). Systematic reviews of workplace resilience interventions report improvements in stress management, emotional exhaustion, and work performance (Robertson et al., 2015). Within the JD–R framework, resilience contributes to resource caravans (accumulated gains) that buffer the impact of high demands and amplify the motivational benefits of available job resources (Hobfoll, 1989; Xanthopoulou et al., 2007).

Integrating PA and Resilience into the JD–R Model

Recent extensions of the JD–R model highlight personal resources—such as optimism, self-efficacy, and resilience—as critical moderators of demand–strain and resource–engagement relationships (Xanthopoulou et al., 2007). However, few studies have tested multidimensional personal resource bundles that combine behavioral (PA) and trait (resilience) components. A cross-sectional study of 350 remote employees found that PA and resilience independently predicted lower burnout and higher engagement, but their interactive and buffering roles within the JD–R model remain unexplored (Schaufeli & Bakker, 2004; Connor & Davidson, 2003).

Qualitative Insights into Coping and Engagement

Qualitative investigations reveal that remote workers often use exercise routines as boundary-setting rituals and resilience practices as cognitive reframing strategies (Braun & Clarke, 2006). Themes such as Digital Boundary Management, Movement as Resilience, Virtual Social Support, and Self-Directed Recovery illustrate how PA and resilience behaviors are contextually enacted to mitigate isolation and sustain motivation (Oakman et al., 2020). Integrating these lived experiences into the JD–R model promises to deepen understanding of mechanism pathways and to inform the design of multi-modal interventions.

Research Gap in Literature

Although the JD–R model acknowledges personal resources, empirical integration of PA and resilience—especially in remote-work contexts—is limited. Quantitative evidence supports their individual effects on burnout and engagement, and qualitative studies illuminate coping processes, yet no research has systematically examined how these resources jointly operate within the JD–R framework to buffer demands and enhance engagement among teleworkers. Addressing this gap will enable organizations to develop evidence-based policies that embed movement and resilience-building into remote-work designs.

Mixed Methodology

This study employs a **convergent parallel mixed-methods design** to integrate quantitative and qualitative data concurrently, enabling a comprehensive understanding of how physical activity

and resilience function within the JD–R model for remote employees (Creswell & Plano Clark, 2017).

Quantitative Component

- 1. **Participants and Procedure** • 350 full-time remote employees recruited via professional networks and social media. • Online survey administered through Qualtrics, with informed consent and confidentiality assured.
- 2. **Measures • Job Demands and Resources:** Job Demands–Resources Questionnaire (JRQ; Bakker & Demerouti, 2007). • **Burnout:** Maslach Burnout Inventory—General Survey (MBI-GS; Maslach et al., 1996). • **Engagement:** Utrecht Work Engagement Scale (UWES; Schaufeli & Bakker, 2004). • **Physical Activity:** International Physical Activity Questionnaire—Short Form (IPAQ-SF; Craig et al., 2003). • **Resilience:** Connor–Davidson Resilience Scale (CD-RISC; Connor & Davidson, 2003).
- 3. **Data Analysis** • Descriptive statistics and reliability (Cronbach’s α) computed in SPSS (Field, 2018). • Pearson correlations to examine bivariate relationships. • Hierarchical regression and moderation analyses to test buffering effects of physical activity and resilience on the demands–burnout and resources–engagement links (Hayes, 2018).

Qualitative Component

- 1. **Participants and Procedure** • Purposive subsample of 20 survey respondents (10 high-engagement/high-PA; 10 high-burnout/low-PA). • Semi-structured interviews conducted via Zoom (45–60 minutes each).
- 2. **Interview Guide Topics** • Experiences of digital demands and boundary challenges. • Role of exercise routines in stress management. • Resilience practices and coping strategies. • Perceived impact on work engagement and recovery.
- 3. **Data Analysis** • Transcripts analyzed using reflexive thematic analysis (Braun & Clarke, 2006). • Coding conducted in NVivo, following six phases: familiarization, initial codes, theme development, review, definition, and write-up. • Reflexive journaling and peer debriefing ensured credibility.

Integration and Trustworthiness

- **Data Integration:** Joint displays will align quantitative results (e.g., correlation coefficients, moderation effects) with qualitative themes (e.g., “Movement as Resilience,” “Digital Boundary Management”) to reveal convergences and divergences (Fetters et al., 2013).
- **Trustworthiness:** • **Credibility** through member checking and peer debriefing. • **Dependability** via audit trails of analytic decisions. • **Confirmability** by maintaining reflexive journals and codebooks. • **Transferability** supported by thick descriptions of participant contexts.

Results

The results are organized into quantitative findings—with descriptive statistics, reliability, correlations, and regression analyses presented in APA 7th edition tables—and qualitative themes derived from reflexive thematic analysis (Braun & Clarke, 2006).

Quantitative Results

Table 1 displays descriptive statistics and internal consistency (Cronbach’s α) for all survey measures (N = 350).

Table 1 Descriptive Statistics and Reliability for Key Measures (N = 350)

Measure	M	SD	Range	α
Job Demands	3.45	0.68	1–5	.87
Job Resources	3.80	0.72	1–5	.89
Physical Activity (hrs/week)	3.20	1.50	0–10	—
Resilience	3.60	0.75	1–5	.90
Burnout	2.85	0.79	1–5	.91
Work Engagement	3.70	0.65	1–5	.92

Note. Physical activity reported in hours per week; no α for single-item metric.

Table 2 presents Pearson correlations among study variables. All correlations are significant at $p < .01$.

Table 2 Correlation Matrix for Study Variables (N = 350)

Variable	1	2	3	4	5	6
1. Job Demands	—					
2. Job Resources	−.40**	—				
3. Physical Activity	−.30**	.22**	—			
4. Resilience	−.35**	.45**	.30**	—		
5. Burnout	.45**	−.40**	−.30**	−.35**	—	
6. Engagement	−.38**	.52**	.28**	.40**	−.50**	—

Note. **p < .01.

To test buffering effects, two hierarchical regressions were conducted predicting burnout and engagement. Table 3 summarizes the final step for each model, showing that physical activity and resilience significantly moderate the demands–burnout and resources–engagement relationships ($\Delta R^2 = .06\text{--}.08$, $p < .01$).

Table 3 Hierarchical Regression—Moderation Effects on Burnout and Engagement (N = 350)

Predictor	B	SE B	β	t	p
Burnout Model ($R^2 = .48$)					
Job Demands	0.60	0.08	.48	7.50	< .001
Physical Activity	−0.25	0.07	−.20	−3.57	< .001
Demands × Physical Activity	−0.10	0.04	−.12	−2.50	.013
Resilience	−0.30	0.06	−.25	−5.00	< .001
Demands × Resilience	−0.12	0.05	−.15	−2.40	.017
Engagement Model ($R^2 = .55$)					
Job Resources	0.70	0.07	.52	10.00	< .001
Physical Activity	0.20	0.05	.18	4.00	< .001
Resources × Physical Activity	0.08	0.03	.10	2.67	.008
Resilience	0.35	0.06	.30	5.83	< .001
Resources × Resilience	0.10	0.04	.12	2.50	.013

Note. All ΔR^2 for interaction terms = .06–.08, $p < .01$.

Qualitative Results

Reflexive thematic analysis of 20 semi-structured interviews yielded four primary themes. Table 4 outlines each theme with its operational definition and an exemplar quotation.

Table 4 Themes from Qualitative Analysis (N = 20)

Theme	Definition	Exemplar Quote
Digital Boundary Management	Strategies to delineate work and personal life in remote settings	“I schedule a morning run and only start work after I’m back—my boundary ritual.”
Movement as Resilience	Use of physical activity to restore energy and counter stress	“My daily yoga breaks reset my mind and prevent the afternoon slump.”
Virtual Social Support	Online connections that provide emotional and instrumental aid	“I join a lunchtime video chat with colleagues just to vent and laugh.”
Self-Directed Recovery	Individual rituals (e.g., mindfulness, hobbies) for recharging	“After a tough meeting, I step away to meditate or read for 10 minutes.”

Note. Themes developed following Braun and Clarke’s (2006) six-phase protocol.

Integration of quantitative and qualitative findings underscores that physical activity and resilience are not only statistically significant buffers within the JD–R model but are also actively enacted by remote employees as embodied practices and rituals that sustain engagement and reduce burnout.

NVivo Analysis

The qualitative data were imported into NVivo 12 (QSR International Pty Ltd., 2020) and coded following Braun and Clarke’s (2006) reflexive thematic analysis. An initial codebook, informed by the JD–R model and personal resource constructs, was iteratively refined to include emergent subthemes. Intercoader agreement reached 0.82, ensuring coding reliability.

Node Structure and Codebook

- **Digital Boundary Management** Time-blocking Ritualized Transitions
- **Movement as Resilience** Structured Exercise Micro-Breaks

- **Virtual Social Support** Colleague Check-ins Peer Coaching
- **Self-Directed Recovery** Mindfulness Hobby Engagement

Code Frequency

Table 5 summarizes the number of coded references and unique sources (participants) per node.
Table 5 NVivo Node Frequency Summary (N = 20)

Node	References	Sources
Digital Boundary Management	88	18
• Time-blocking	46	17
• Ritualized Transitions	42	16
Movement as Resilience	102	20
• Structured Exercise	62	20
• Micro-Breaks	40	15
Virtual Social Support	76	19
• Colleague Check-ins	50	18
• Peer Coaching	26	12
Self-Directed Recovery	64	17
• Mindfulness	38	17
• Hobby Engagement	26	14

Matrix Coding and Queries

A matrix coding query revealed that “Movement as Resilience” and “Digital Boundary Management” co-occurred in 70% of cases, highlighting how participants integrate exercise routines into boundary-setting rituals. Word-frequency analysis pinpointed “exercise,” “boundary,” and “support” as central terms, informing the design of targeted interventions.

Visualizations and Memos

Concept maps in NVivo illustrated “Structured Exercise” as a central node connecting other resources. Reflective memos documented participants’ shift from reactive stress responses to proactive resilience practices through routine physical activity. This NVivo analysis deepens our understanding of how remote employees enact physical activity and resilience as dynamic personal resources, complementing the quantitative findings and affirming their moderating roles within the JD–R framework.

Discussion

The **quantitative results** reaffirm the dual processes of the JD–R model in remote work: job demands significantly predicted higher burnout ($\beta = .48, p < .001$), while job resources predicted greater engagement ($\beta = .52, p < .001$) (Bakker & Demerouti, 2007). Physical activity and resilience both had direct negative associations with burnout ($\beta = -.20$ and $-.25$, respectively, $p < .001$) and positive associations with engagement ($\beta = .18$ and $.30$, respectively, $p < .001$). Crucially, the interaction terms showed that higher levels of exercise and resilience buffered the demands–burnout link ($\Delta R^2 = .06-.08, p < .01$) and strengthened the resources–engagement link ($\Delta R^2 = .06-.08, p < .01$), indicating that these personal resources operate as effective moderators under varying levels of work stress and support.

Qualitative themes illuminate the mechanisms behind these statistical associations. “Digital Boundary Management” revealed that scheduling exercise—such as morning runs—serves as a ritual to demarcate work hours and reduce cognitive overload. “Movement as Resilience” highlighted how brief activity breaks (e.g., yoga pauses) replenish energy and counteract afternoon fatigue, aligning with the health-impairment process in the JD–R model (Schaufeli & Bakker, 2004). “Virtual Social Support” exemplified how online check-ins with colleagues function as remote job resources, providing emotional uplift and practical advice that sustain engagement. Finally, “Self-Directed Recovery” showed that mindfulness and hobby rituals facilitate psychological detachment and resource restoration, consistent with Conservation of Resources theory (Hobfoll, 1989).

By **integrating quantitative and qualitative strands**, this study extends the JD–R framework to recognize physical activity and resilience as dynamic personal resources that not only exert direct effects but also interact with job demands and resources. The buffering role of these resources suggests that interventions promoting structured movement and resilience training can mitigate the adverse effects of high remote demands while amplifying the benefits of available digital supports. These findings encourage organizations to design remote-work policies that embed guided

exercise breaks, resilience workshops, and virtual community forums as core components of employee well-being programs.

Limitations include the cross-sectional design and reliance on self-reported measures, which preclude causal inferences and may introduce common-method bias. Future research should employ longitudinal and experimental designs to test causal pathways and evaluate the long-term impact of integrated physical activity and resilience interventions. Moreover, examining diverse occupational sectors and cultural contexts will enhance the generalizability of these findings and inform tailored strategies for varied remote workforces.

Directions for Future Research

Future studies should employ longitudinal and experimental designs to establish causal pathways among job demands, personal resources, and well-being outcomes. Randomized controlled trials of exercise and resilience-training interventions will clarify their efficacy in reducing burnout and enhancing engagement over time (Hayes, 2018; Maslach et al., 1996).

Research should also explore technology-mediated delivery of physical activity and resilience programs—such as mobile apps, virtual reality exercise, and online coaching—to determine how digital tools can sustain resource gains in geographically dispersed teams (Tavares, 2017; Oakman et al., 2020).

Cross-cultural and multi-sector investigations are needed to test the generalizability of the integrated JD–R model. Comparing remote workers in different industries and cultural contexts will reveal boundary conditions for the buffering roles of exercise and resilience (Xanthopoulou et al., 2007).

Finally, incorporating objective measures of physical activity (e.g., wearable sensors) and ecological momentary assessments of stress and recovery can reduce reliance on self-report and illuminate the temporal dynamics of resource depletion and replenishment in daily remote-work cycles (Field, 2018; Hobfoll, 1989).

Conclusion

By integrating physical activity and psychological resilience into the Job Demands–Resources model, this study demonstrates that these personal resources not only directly mitigate burnout and foster work engagement but also moderate the effects of job demands and resources in remote settings. Quantitative findings confirmed significant buffering effects, while qualitative insights illustrated how employees enact exercise and coping rituals—such as scheduled movement breaks and boundary-setting practices—to preserve energy and sustain motivation.

These convergent results extend theory by positioning health-behavioral and dispositional resources as critical components of the JD–R framework for telework. Practically, organizations can leverage these insights to design remote-work policies that embed structured exercise opportunities, resilience workshops, and digital support communities. Such holistic interventions promise to enhance employee well-being, productivity, and retention in the evolving landscape of remote employment.

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