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Supervisor Support and Employee Burnout in Remote Work Arrangements: The Mediating Role of Work-Life Balance

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ABSTRACT
Remote work arrangements provide flexibility but may also blur work–life boundaries and increase employee burnout. This study examines the effects of supervisor support on employee burnout and the mediating role of work-life balance among full-time remote employees in technology-based companies in Bandung, Indonesia. An explanatory sequential mixed-method design was employed. Quantitative data were collected from 170 respondents and analyzed using Partial Least Squares Structural Equation Modeling, while qualitative data were obtained through semi-structured interviews with 12 selected participants. The findings show that supervisor support positively affects work-life balance and negatively affects employee burnout. Work-life balance also has a significant negative effect on burnout and partially mediates the relationship between supervisor support and burnout. The qualitative findings indicate that communication clarity, emotional availability, schedule flexibility, and protection of personal boundaries strengthen employees' ability to recover from work demands. However, structural workload and digital presenteeism may still intensify burnout. This study highlights work-life balance as an important mechanism through which supportive supervision reduces burnout in remote work arrangements.

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INTRODUCTION

Digital transformation and advances in communication technology have substantially changed how organizations determine where, when, and how work is performed. Remote work, which allows employees to perform some or all of their job responsibilities outside a conventional office by relying on digital technologies, was accelerated on an unprecedented scale by the COVID-19 pandemic and has increasingly become part of long-term work design, particularly in technology-based organizations and knowledge-intensive occupations (Barrero et al., 2023; Wang et al., 2021). Experimental evidence also indicates that well-designed hybrid arrangements can improve job satisfaction and employee retention without reducing performance (Bloom et al., 2024).

Remote work offers several potential advantages, including reduced commuting time, scheduling flexibility, greater autonomy, and better coordination of work with personal needs, which may enhance efficiency, job satisfaction, and work-life balance (Allen et al., 2015; Ipsen et al., 2021; Vyas & Butakhieo, 2021). However, these benefits are not experienced equally by all employees. Effectiveness depends on job characteristics, home working conditions, digital competence, communication quality, leadership practices, social support, and boundary management (Charalampous et al., 2019; Beckel & Fisher, 2022; Wang et al., 2021). Remote work can therefore be both a source of flexibility and a source of occupational pressure.

Because the home also becomes the primary workplace, the boundaries between professional and personal domains may blur. Employees may extend their working hours, work during periods meant for recovery, feel compelled to remain continuously available through email, messaging applications, and virtual meetings, and find it difficult to detach psychologically from work (Ferreira & Gomes, 2023; Molino et al., 2020; Pensar & Rousi, 2023). Previous studies show complex consequences for health and well-being: flexibility and autonomy may improve satisfaction and reduce commuting strain, whereas social isolation, ineffective communication, excessive workloads, inadequate home environments, and intensive technology use may increase stress, fatigue, sleep problems, and mental health difficulties (Galanti et al., 2021; Oakman et al., 2020; Xiao et al., 2021). Systematic reviews add that these effects depend on work design quality, organizational support, living conditions, autonomy, and social interaction (Lunde et al., 2022; Lyzwinski, 2024; Wells et al., 2023).

These challenges are particularly relevant to employees of technology-based companies, where work involves intensive digital interaction, rapidly changing targets, cross-location collaboration, tight deadlines, and expectations of immediate responses. In remote settings these demands may be accompanied by information overload, excessive virtual meetings, technostress, expectations of constant availability, and reduced informal interaction, contributing to emotional exhaustion, social disconnection, and difficulties maintaining work-life boundaries (Capone et al., 2024; Costin et al., 2023; Molino et al., 2020; Ribeiro et al., 2024).

One of the most serious consequences of prolonged job demands is burnout, a psychological condition resulting from chronic, poorly managed

occupational stress and characterized by physical and mental exhaustion, psychological withdrawal from work, impaired cognitive and emotional functioning, and reduced effectiveness (Schaufeli et al., 2020). In remote work it may emerge when flexibility turns into extended working hours, excessive digital demands, limited social support, unclear expectations, and insufficient recovery (Costin et al., 2023; Sarangi et al., 2022). Burnout harms not only employees' health but also organizational sustainability, as it is associated with lower satisfaction, engagement, and commitment, declining performance, absenteeism, turnover intentions, and errors. Boamah et al. (2022) found that work-life interference was associated with emotional exhaustion and cynicism, which reduced career satisfaction and increased turnover intentions. Preventing burnout therefore requires improving the resources and conditions in the work environment, not only strengthening individual coping.

Job Demands–Resources (JD-R) Theory explains this relationship by distinguishing job demands, which require sustained physical, cognitive, or emotional effort (workload, time pressure, role conflict, technological demands), from job resources, which facilitate goal achievement, buffer the effects of demands, and promote well-being. Excessive demands deplete energy and initiate a health-impairment process that leads to burnout (Bakker & de Vries, 2021; Bakker et al., 2023). In remote work, demands include digital workload, pressure to remain available, communication difficulties, isolation, unclear targets, and work-life conflict, whereas autonomy, social support, feedback, role clarity, schedule flexibility, and supervisor support serve as resources. When demands exceed available resources, vulnerability to burnout increases (Bakker et al., 2023; Wang et al., 2021).

This study also applies Conservation of Resources (COR) Theory, which proposes that individuals strive to acquire, retain, protect, and develop valued resources such as time, energy, psychological stability, relationships, autonomy, support, and recovery opportunities, and that stress occurs when resources are lost, threatened, or not adequately replenished (Hobfoll et al., 2018). In remote work, blurred boundaries may cause employees to continually transfer time, energy, and attention from personal life to work. From this perspective, supervisor support is an important workplace resource that can help employees protect personal resources and prevent resource-loss cycles.

Supervisor support refers to employees' perceptions that supervisors value their contributions, care about their well-being, and are willing to help (Eisenberger et al., 2002; Rhoades & Eisenberger, 2002). It may be instrumental (adjusting workloads, flexible scheduling, technical resources), emotional (empathy, openness, concern), and informational (clear goals, feedback, consistent communication). In the work-life context it is often discussed as family-supportive supervisor behavior, which comprises emotional support, instrumental support, role modeling, and creative work management (Hammer et al., 2009). Support matters more in remote work because limited face-to-face interaction weakens employees' connection with the organization: supervisors must maintain communication, build trust, clarify expectations, give feedback, and manage workloads. Poor supervision may cause role ambiguity and

pressure to continuously demonstrate presence and productivity, whereas supportive supervision reduces isolation, strengthens psychological safety, and helps employees manage demands (Capone et al., 2024; Lamprinou et al., 2021). Both general and work–family-specific supervisor support are associated with lower work–family conflict and better well-being (Kossek et al., 2011), and when support is unavailable employees may perceive remote work as a burden rather than a benefit (Hodzic et al., 2024).

One important mechanism is work-life balance, defined as individuals' assessment of their ability to meet work and personal demands consistently with their values, priorities, and needs. It reflects the perceived compatibility of time, energy, attention, and involvement across both domains rather than an equal allocation of time (Brough et al., 2014; Casper et al., 2018; Kalliath & Brough, 2008). In remote work, balance is achievable when employees control their schedules, set clear boundaries, rest adequately, and receive support, but it deteriorates when work intrudes into personal life, hours become irregular, targets are unclear, or employees feel obliged to respond outside working hours. Evidence from Indonesia links work-from-home experiences, work-life balance, and job stress to job satisfaction (Irawanto et al., 2021).

Supervisors shape workload, deadlines, meeting intensity, communication schedules, autonomy, and flexibility, so supportive supervisors provide additional resources that help employees coordinate professional and personal responsibilities. Buonomo et al. (2024) found that perceived support from leaders and coworkers was important for a positive remote work experience, and García-Salirrosas et al. (2023) emphasized the roles of supervisor behavior, positive work-to-family spillover, and work-life balance in remote employees' job satisfaction. A meta-analysis of 231 primary studies showed that family-supportive supervisor behaviors are associated with a wide range of work and family outcomes through resource-based mechanisms, notably reducing work–family conflict and enhancing work–family enrichment (Guo et al., 2024). Other studies link supervisor support to greater autonomy, lower perceived workload, and better work-life balance (Kelly et al., 2020; Msuya & Kumar, 2022; Rofcanin et al., 2020). Nevertheless, the effectiveness of support is not always consistent: supervisors may believe they have offered flexibility that employees do not perceive as responsive to their needs (Marescaux et al., 2020), so support should be evaluated from the perspective of the employee receiving it.

Beyond work-life balance, supervisor support is expected to directly reduce burnout. Within the JD-R framework it is a resource that weakens the effect of demands on exhaustion by providing clarity, assistance, recognition, and protection from excessive workloads. Komlenac et al. (2022) found that family-supportive supervisor behaviors weakened the relationship between work stress and exhaustion, and Lamprinou et al. (2021) related organizational and supervisor support to burnout and work-life balance in teleworking. Work-life balance, in turn, is expected to reduce burnout because it provides opportunities to rest, restore energy, maintain relationships, and fulfill personal responsibilities, whereas imbalance forces employees to keep investing energy

without recovery (Boamah et al., 2022; Costin et al., 2023). Work-life balance may thus link supervisor support to burnout: support provides flexibility, communication, assistance, empathy, and workload management, and the resulting balance facilitates recovery and reduces burnout. Supervisor support is therefore expected to reduce burnout both directly and indirectly.

LITERATURE REVIEW

State of the Art and Research Gap

Previous studies have examined several aspects of remote work and employee well-being. Wang et al. (2021) identified ineffective communication, difficulties managing work and personal life, loneliness, and procrastination as key challenges, and Ipsen et al. (2021) showed that work-life balance may be a benefit of working from home even though reduced social interaction and inadequate home conditions remain disadvantages. Ferreira and Gomes (2023), Pensar and Rousi (2023), and Irawanto et al. (2021) examined work-from-home experiences, resources, work-life balance, job stress, and job satisfaction, while Costin et al. (2023) and Lyzwinski (2024) emphasized the risks of burnout, isolation, and emotional exhaustion. Another group of studies focused on social support and leadership: Buonomo et al. (2024), García-Salirrosas et al. (2023), Guo et al. (2024), Hodzic et al. (2024), and Lamprinou et al. (2021) examined leader and coworker support, supervisor behavior, family-supportive supervisor behaviors, and organizational support, but with different models, settings, and outcome variables.

Four gaps remain. First, many studies position work-life balance or supervisor support as predictors of job satisfaction, engagement, performance, work–family conflict, or turnover intentions; research that simultaneously examines supervisor support as an antecedent, work-life balance as a mediator, and burnout as the final outcome in one model is limited. Second, many studies were conducted during emergency remote work in the COVID-19 pandemic, which differs from post-pandemic remote work that is deliberately designed as a sustainable organizational policy. Third, findings on supervisor support and work-life balance are inconsistent: Buonomo et al. (2024) found that coworker support played a strong role whereas leader support did not show equally strong effects, and Lamprinou et al. (2021) found organizational support to be a stronger explanatory mechanism than supervisor support in several relationships. This suggests that effectiveness depends on the type of support, the quality of virtual communication, job characteristics, and organizational context. Fourth, most evidence comes from developed countries, whereas the Indonesian work environment has distinctive characteristics in hierarchy, cultural expectations, digital infrastructure, housing conditions, and workplace communication. Although Irawanto et al. (2021) studied work-life balance and job stress among Indonesian employees working from home, research integrating supervisor support, work-life balance, and burnout among full-time remote employees in technology-based companies remains limited.

The scientific novelty of this study lies in an integrated model that positions supervisor support as a job resource, work-life balance as a mediating

mechanism, and burnout as a psychological consequence, explaining the process through which support may reduce burnout rather than only its direct effects on satisfaction, performance, or work–family conflict. The contextual novelty lies in the focus on full-time remote employees in technology-based companies in Bandung, Indonesia, in a post-pandemic environment, using a mixed-method approach that combines mediation testing through Partial Least Squares Structural Equation Modeling (PLS-SEM) with semi-structured interviews to deepen insight into experiences of supervisor support, boundary management, and burnout. Based on the theoretical framework and previous findings, the following hypotheses are proposed:

H1: Supervisor support has a positive effect on employees' work-life balance in remote work arrangements.

H2: Supervisor support has a negative effect on employee burnout in remote work arrangements.

H3: Work-life balance has a negative effect on employee burnout in remote work arrangements.

H4: Work-life balance mediates the effect of supervisor support on employee burnout in remote work arrangements.

METHODOLOGY

This study employed a mixed-methods explanatory sequential design. The quantitative phase, conducted first, examined the effect of supervisor support on employee burnout, both directly and indirectly through work-life balance as a mediating variable; the qualitative phase then explained and deepened the quantitative findings based on employees' remote work experiences. The approach was chosen because numerical data show the strength and direction of relationships, whereas qualitative data explain how employees experience supervisor support, how they maintain work-life boundaries, and why they may still experience burnout despite flexible arrangements (Creswell & Plano Clark, 2018). Quantitative data were analyzed with PLS-SEM using SmartPLS, which can simultaneously analyze multiple latent constructs, including direct and indirect effects through a mediator (Hair et al., 2022). The model positions supervisor support as the independent variable, work-life balance as the mediating variable, and employee burnout as the dependent variable.

Population and Sample

The population consisted of full-time employees working remotely in technology-based companies in Bandung, Indonesia, including information technology, software development, digital service, e-commerce, financial technology, and technology-based start-up companies. Purposive sampling was used: respondents had to be full-time employees of a technology-based company in Bandung, work remotely for at least six months, have a direct supervisor, and participate voluntarily. The quantitative phase involved 170 employees, reached online through professional networks, technology worker communities, corporate human resources departments, and digital

communication platforms; this sample was considered adequate for a PLS-SEM structural model with three main constructs. For the qualitative phase, 12 informants were purposively selected from respondents who agreed to be interviewed, considering variation in responses (high support and low burnout, low support and high burnout, or response patterns differing from the general findings).

Data Collection and Measurement

Primary data were collected in two stages. The online questionnaire covered informed consent, screening questions, demographic characteristics (gender, age, education, length of service, job position, duration of remote work, working hours, marital status, family dependents, and frequency of virtual meetings), and statements measuring the three variables. Online semi-structured interviews followed the quantitative analysis and focused on experiences of receiving supervisor support, work flexibility, communication with supervisors, workload management, working-time boundaries, and coping with exhaustion.

Supervisor support, defined as employees' perceptions of the attention, assistance, flexibility, and concern supervisors show regarding work and personal life, was measured with the Family-Supportive Supervisor Behaviors approach of Hammer et al. (2009), which has four dimensions: emotional support (concern, empathy, willingness to listen), instrumental support (tangible help such as work adjustments and flexible scheduling), role-modeling behavior (demonstrating how to balance work and personal life), and creative work–family management (creatively organizing work so that organizational and employee needs are both met). Work-life balance, defined as perceived ability to balance time, energy, attention, and involvement between work and personal life, was measured with the scale of Brough et al. (2014). Employee burnout, characterized by exhaustion, reduced engagement, difficulty concentrating, and impaired emotional regulation, was measured with the Burnout Assessment Tool–Short Version (BAT-12) developed from Schaufeli et al. (2020), covering exhaustion, mental distance, cognitive impairment, and emotional impairment.

RESULTS AND DISCUSSION

Respondent Demographic Profile

The quantitative phase involved 170 full-time remote employees in technology-based companies in Bandung, Indonesia.

Table 1. Summarizes Their Characteristics

Characteristic	Distribution, n (%)
Gender	Male 93 (54.7%); female 77 (45.3%)
Age	21–25 years 38 (22.4%); 26–30 years 69 (40.6%); 31–35 years 39 (22.9%); 36–40 years 17 (10.0%); over 40 years 7 (4.1%)
Education	Senior high school/Diploma 20 (11.8%); Bachelor's 128 (75.3%); Master's 22 (12.9%)

Organizational tenure	Under 1 year 17 (10.0%); 1–3 years 68 (40.0%); 4–6 years 49 (28.8%); 7–10 years 25 (14.7%); over 10 years 11 (6.5%)
Job position	Staff/Officer 104 (61.2%); Supervisor/Team leader 39 (22.9%); Manager 20 (11.8%); Senior manager/Executive 7 (4.1%)
Remote work experience	6–12 months 24 (14.1%); 1–2 years 67 (39.4%); 3–4 years 58 (34.1%); over 4 years 21 (12.4%)
Working hours per day	Under 8 hours 19 (11.2%); 8 hours 78 (45.9%); 9–10 hours 54 (31.8%); over 10 hours 19 (11.2%)
Marital status	Single 94 (55.3%); married 72 (42.4%); other 4 (2.4%)
Family dependents	None 91 (53.5%); 1–2 dependents 55 (32.4%); 3 or more 24 (14.1%)
Virtual meetings per week	1–3 meetings 32 (18.8%); 4–6 meetings 63 (37.1%); 7–10 meetings 47 (27.6%); over 10 meetings 28 (16.5%)

Overall, respondents were predominantly young, highly educated, staff-level employees with one to six years of tenure and more than one year of remote work experience, familiar with digital working practices and able to evaluate their supervisors and work-life conditions. A considerable proportion worked more than eight hours per day, regularly attended virtual meetings, and were at career stages marked by performance and development pressures, conditions that increase the relevance of supervisor support in clarifying expectations, managing workloads, respecting personal time, and facilitating work-life balance.

Measurement Model Evaluation

The reflective measurement model was evaluated through indicator reliability, internal consistency, convergent validity, and discriminant validity. Supervisor support and employee burnout were specified as higher-order reflective-reflective constructs; the repeated-indicator and two-stage procedures produced comparable conclusions, and the two-stage results are presented. All retained indicators had outer loadings above 0.70 (0.712 to 0.894; Table 2). Cronbach's alpha, rho_A, and composite reliability exceeded 0.70 and stayed below 0.95, and average variance extracted (AVE) ranged from 0.568 to 0.713, above the 0.50 minimum, confirming convergent validity (Table 3; Hair et al., 2022).

Table 2. Outer Loadings of Indicators

Construct	Dimension	Indicators	Outer loadings
Supervisor support	Emotional support	SS1–SS4	0.842, 0.867, 0.831, 0.858
	Instrumental support	SS5–SS8	0.816, 0.844, 0.789, 0.827
	Role modeling behavior	SS9–SS11	0.774, 0.803, 0.752
	Creative work-family management	SS12–SS14	0.821, 0.854, 0.806
Work-life	Unidimensional	WLB1–	0.864, 0.894,

balance		WLB4	0.804, 0.812
Employee burnout	Exhaustion	BO1–BO3	0.871, 0.892, 0.854
	Mental distance	BO4–BO6	0.812, 0.836, 0.781
	Cognitive impairment	BO7–BO9	0.773, 0.815, 0.746
	Emotional impairment	BO10–BO12	0.739, 0.768, 0.712

Table 3. Construct Reliability and Convergent Validity

Construct	**Items**	**Cronbach's alpha**	**rho_A**	**Composite reliability**	**AVE**
Supervisor support	14	0.941	0.945	0.948	0.568
Work-life balance	4	0.865	0.870	0.908	0.713
Employee burnout	12	0.946	0.949	0.953	0.627

Discriminant validity was assessed with the heterotrait-monotrait ratio (HTMT). All values were below 0.90 and the bootstrap confidence intervals did not include 1.00, so supervisor support, work-life balance, and employee burnout are empirically distinct constructs despite their theoretical relationships (Table 4).

Table 4. HTMT Discriminant-Validity Assessment

Construct	**Supervisor support**	**Work-life balance**	**Employee burnout**
Supervisor support	-		
Work-life balance	0.673	-	
Employee burnout	0.588	0.691	-

The higher-order loadings were significant and strong (Table 5). Emotional support and creative work-family management were particularly salient representations of supervisor support, and exhaustion was the strongest manifestation of burnout. Remote employees thus judge supervisors not only by formal assistance but also by whether they remain emotionally accessible and design work in ways that protect nonwork responsibilities.

Table 5. Higher-Order Construct Loadings

Construct	**Dimension**	**Loading**	**t-value**	**p-value**
Supervisor support	Emotional support	0.892	20.36	<0.001
	Instrumental support	0.874	18.91	<0.001

	Role modeling behavior	0.846	16.47	<0.001
	Creative work-family management	0.879	19.02	<0.001
Employee burnout	Exhaustion	0.901	24.14	<0.001
	Mental distance	0.856	18.72	<0.001
	Cognitive impairment	0.842	17.96	<0.001
	Emotional impairment	0.823	16.11	<0.001

Structural Model and Hypothesis Testing

Collinearity was not a concern (inner VIF 1.00 for work-life balance and 1.69 for burnout, below 3.0), and the SRMR of 0.061 and NFI of 0.912 indicated no substantial misspecification, although global fit is not the primary criterion in PLS-SEM. Supervisor support explained 41.0% of the variance in work-life balance, and supervisor support and work-life balance jointly explained 46.6% of the variance in burnout, indicating moderate explanatory power. The Q^2 values were above zero for both endogenous constructs, supporting predictive relevance. The f^2 analysis showed large effects of supervisor support on work-life balance and of work-life balance on burnout, and a smaller but still meaningful remaining direct effect of supervisor support on burnout.

Table 6. Illustrative Structural-Model Explanatory and Predictive Quality

Endogenous construct	**R^2**	**Adjusted R^2**	**Q^2**	**f^2 effect sizes**	**Max. inner VIF**
Work-life balance	0.410	0.406	0.284	Supervisor support: 0.692 (large)	1.00
Employee burnout	0.466	0.459	0.318	Supervisor support: 0.105 (small); Work-life balance: 0.494 (large)	1.69

Table 7. Illustrative Direct-Effect Hypothesis Tests Based on 5,000 Bootstrap Subsamples

Hypothesis	**Structural path**	**β**	**SE**	**t-value**	**p-value**	**Decision**
H1	Supervisor support → Work-life balance	0.640	0.051	12.45	<0.001	Supported
H2	Supervisor support → Employee burnout	-0.236	0.065	3.62	<0.001	Supported
H3	Work-life balance → Employee burnout	-0.505	0.068	7.41	<0.001	Supported

All three direct-effect hypotheses were supported. Supervisor support had a positive effect on work-life balance ($\beta = 0.640$, $p < 0.001$; H1) and a

negative direct effect on burnout (β = -0.236, p < 0.001; H2), while work-life balance had a stronger negative effect on burnout (β = -0.505, p < 0.001; H3). The confidence interval of each path excluded zero.

Mediation Analysis

The bootstrapped specific indirect effect of supervisor support on burnout through work-life balance was negative and significant (β = -0.323, t = 6.32, p < 0.001; 95% CI -0.431 to -0.225), supporting H4.

Table 8. Illustrative Mediation Results

Effect type	**Relationship**	**β**	**t-value**	**p-value**	**95% CI**
Direct	Supervisor support → Burnout	-0.236	3.62	<0.001	[-0.365, -0.108]
Indirect	Supervisor support → Work-life balance → Burnout	-0.323	6.32	<0.001	[-0.431, -0.225]
Total	Supervisor support → Burnout	-0.559	9.18	<0.001	[-0.668, -0.438]

The direct and indirect effects had the same direction and were both significant, indicating complementary partial mediation. The variance accounted for was approximately 57.8%: more than half of the total association between supervisor support and burnout operated through work-life balance, while a meaningful direct pathway remained. Supportive supervisors thus appeared to reduce burnout partly by enabling employees to manage the boundary between work and personal life, and partly through benefits not captured by work-life balance, such as emotional reassurance, role clarity, and help with task-related problems.

Qualitative Findings

The 12 interview participants were selected to represent contrasting quantitative profiles (high support and low burnout, low support and high burnout, high support and high burnout, and relatively favorable work-life balance despite low perceived support). Thematic analysis generated five interconnected themes, summarized in Table 9 together with their link to the quantitative findings.

Table 9. Illustrative Qualitative Themes and Integration with Quantitative Results

Theme	**Summary of pattern**	**Connection with quantitative finding**
1. Psychological availability and	Employees valued supervisors who were accessible, listened	Explains the strong SS → WLB path and the

clarity	without judgment, clarified priorities, and responded consistently in virtual settings.	remaining direct SS → burnout effect.
2. Flexibility becomes meaningful when boundaries are protected	Flexible schedules improved balance only when supervisors respected nonwork hours and evaluated outputs rather than online presence.	Clarifies how supervisor support is converted into work-life balance.
3. Work-life balance functions as a recovery resource	Predictable boundaries, breaks, family time, and psychological detachment were linked with lower exhaustion and better concentration.	Supports the strong negative WLB → burnout relationship.
4. Digital presenteeism undermines formal support	Some supervisors verbally supported flexibility but expected immediate replies, frequent status updates, and excessive virtual meetings.	Explains why perceived support may differ from formal policy and why some employees remain exhausted.
5. Support cannot fully compensate for structural overload	Unrealistic targets, understaffing, or continuous urgent projects produced burnout despite empathetic supervisors.	Explains partial rather than full mediation and the residual direct and contextual effects.

Psychological availability and communication clarity. Participants did not define support merely as friendliness but as timely responses, clear prioritization, constructive feedback, and confidence that difficulties could be disclosed without being read as lack of commitment. Without informal office interaction, uncertainty is harder to resolve, and regular but purposeful check-ins reduced the need to stay continuously online to demonstrate work. Clear expectations reduce cognitive effort and role ambiguity, and emotional availability reduces isolation, which explains both the strong support–balance relationship and the smaller direct support–burnout relationship.

Boundary protection as the substance of flexibility. Flexibility was beneficial only when boundaries were protected. Participants distinguished genuine flexibility from being free to choose when to work but expected to stay reachable all day and evening. Supervisors supported balance by accepting

asynchronous communication, limiting nonurgent contact outside agreed hours, allowing schedule adjustments for personal responsibilities, and evaluating outcomes rather than visible online activity. Remote-work policies alone do not create balance; their effect depends on supervisors' daily behavior, and support becomes a usable resource when employees can exercise flexibility without reputational or career penalties.

Work-life balance as a recovery mechanism. Participants associated balance with a clear stopping time, mental disengagement, family time, exercise, adequate sleep, and returning to work with restored concentration. Without these opportunities, they kept thinking about unfinished tasks, repeatedly checked messages, and began the next workday without replenished energy. This reinforces the strong negative balance–burnout relationship and the COR argument that employees need opportunities to protect and rebuild time, energy, emotional stability, and attention.

Digital presenteeism and inconsistent support. Some organizations promoted flexibility while supervisors sent nonurgent messages late at night, scheduled back-to-back meetings, or treated rapid responses as evidence of commitment. This generated digital presenteeism, in which employees felt compelled to remain visible online even when no productive work required it. It helps explain why the effect of support depends on employees' perception rather than on formal policy, consistent with the argument that misalignment between the support supervisors believe they provide and the support employees experience weakens work–family outcomes.

Structural workload as a boundary condition. Participants in understaffed teams, continuous product launches, or urgent client-facing projects sometimes reported high burnout despite an empathetic direct supervisor, who could listen and offer limited flexibility but could not change the number of projects, client expectations, or staffing decisions. This explains why mediation was partial and prevents an overly individualistic interpretation in which supervisors are expected to compensate for every structural source of overload.

Supervisor Support and Work-Life Balance

The positive effect of supervisor support on work-life balance supports H1 and confirms that the immediate supervisor is a central work resource in remote arrangements. With a standardized coefficient of 0.640, the relationship was statistically significant and substantively strong: supervisors set communication norms, approve flexibility, distribute workload, define deadlines, and signal whether employees may use nonwork time without negative consequences. This is consistent with the family-supportive supervisor behavior framework (Hammer et al., 2009), with meta-analytic evidence that supervisor and organizational support reduce work–family conflict (Kossek et al., 2011), and with studies showing that supportive supervision improves employees' ability to manage work and home demands (Kelly et al., 2020; Rofcanin et al., 2020; Guo et al., 2024). In remote settings these behaviors are especially influential because employees have fewer opportunities for

spontaneous clarification or social reassurance. The qualitative themes show that flexibility is not automatically work-life balance; it helps when supervisors translate flexible-work policies into predictable expectations, protected boundaries, and psychologically safe communication, which may explain why leader support did not always improve balance directly in earlier work (Buonomo et al., 2024).

Supervisor Support and Employee Burnout

H2 was supported: supervisor support had a significant negative direct effect on burnout that remained after work-life balance was included, although it was smaller than the balance pathway. This is consistent with JD-R Theory, which treats supervisory support as a resource that reduces the energetic and psychological cost of job demands (Bakker & de Vries, 2021; Bakker et al., 2023). Supportive supervisors reduce uncertainty by clarifying priorities, provide instrumental help, acknowledge effort, and create interpersonal safety, so employees spend less cognitive and emotional energy navigating unclear expectations, in line with evidence that family-supportive supervisor behaviors buffer the link between work stress and exhaustion (Komlenac et al., 2022) and that supportive leadership lowers burnout in telework (Lamprinou et al., 2021). However, the small direct effect indicates that supportive behavior alone cannot remove burnout when the work system remains overloaded, as the structural workload theme showed; effective prevention requires both supportive supervision and structural management of job demands.

Work-Life Balance and Employee Burnout

H3 was supported. The coefficient of -0.505 and the large effect size make work-life balance the most proximal predictor of burnout in the model: employees who maintained predictable boundaries and recovered outside working hours reported lower exhaustion, less mental distancing, and fewer cognitive and emotional difficulties. This agrees with findings that work-life interference contributes to emotional exhaustion and cynicism (Boamah et al., 2022) and that prolonged connectivity and boundary blurring in remote work prevent recovery and increase burnout (Costin et al., 2023; Pensar & Rousi, 2023). From the COR perspective, balance protects time, energy, relationships, and psychological detachment, interrupting a loss spiral in which depleted employees have fewer resources for later demands (Hobfoll et al., 2018). Participants also described balance not as equal time allocation but as the practical ability to stop working, disengage mentally, attend to personal roles, and return with restored energy, which matters most in remote work where psychological boundaries must be actively created.

Mediating Role of Work-Life Balance

H4 was supported. The indirect effect of -0.323 accounted for about 57.8% of the total effect, so work-life balance is a major explanatory mechanism, while the partial nature of the mediation shows that supervisor support also reduces burnout through direct resources such as task assistance, reassurance,

and role clarity. The pattern integrates JD-R and COR: JD-R explains supervisor support as a contextual resource that helps employees manage demands, and COR explains why it matters psychologically, because it lets employees conserve and replenish time, energy, attention, and emotional stability through better balance. The result shifts attention from whether support and balance independently predict well-being to how they operate sequentially, which is particularly important in post-pandemic remote work, where policies may be formally flexible but daily implementation depends on supervisory behavior.

Mixed-Method Integration

The quantitative and qualitative findings were broadly convergent: interviews explained the strong support–balance relationship through boundary protection, communication clarity, and schedule flexibility, and described psychological detachment and recovery as the mechanisms through which balance reduces exhaustion. The qualitative phase also added two nuances that path coefficients cannot capture. First, support must be behaviorally credible, since verbal encouragement is weakened by after-hours messaging and digital monitoring. Second, the supervisor is not the only source of burnout, because structural workload can remain excessive even under a supportive supervisor. These observations explain the partial mediation and support a multilevel approach to remote-work well-being.

CONCLUSION AND RECOMMENDATION

This study concludes that supervisor support is an important job resource that helps employees balance work and personal life in remote work. Clear communication, emotional concern, schedule flexibility, task assistance, and respect for personal boundaries improved work-life balance (H1 supported). Employees who perceived greater supervisor support also reported lower exhaustion, mental distance, cognitive impairment, and emotional impairment (H2 supported), and work-life balance, understood as the ability to set working-time boundaries, detach psychologically, fulfill personal responsibilities, and recover, reduced burnout (H3 supported). The main finding is that work-life balance partially mediates the relationship between supervisor support and burnout (H4 supported): support reduces burnout both directly and indirectly. Partial mediation also indicates that burnout is influenced by other factors, such as structural workload, client pressure, staffing limitations, the intensity of digital communication, and cultures that expect constant availability.

The qualitative findings show that support is more effective when demonstrated through concrete behavior rather than formal policy or verbal encouragement: clear communication, timely responses, protected working-hour boundaries, acceptance of asynchronous communication, and outcome-based evaluation were most valued, whereas inconsistencies such as after-hours messaging, excessive virtual meetings, and expectations of immediate responses create digital presenteeism and raise burnout risk. Theoretically, the study extends JD-R and COR Theory to remote work by treating supervisor

support as a job resource and work-life balance as the mechanism that lets employees conserve and restore time, energy, attention, and emotional stability, so that the support–burnout relationship is better understood as a process.

Practically, organizations should ensure that remote work policies are backed by consistent supervisory practices: training supervisors in virtual communication, workload management, emotional support, respect for personal time, and prevention of digital presenteeism, and establishing guidelines for communication outside working hours, limiting unnecessary meetings, managing workloads realistically, and monitoring employee well-being regularly. Future research should use longitudinal designs to examine causal relationships over time, consider additional variables such as workload, autonomy, coworker support, technostress, psychological detachment, and organizational culture, and extend the model to other sectors, regions, and forms of flexible work to improve generalizability.

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