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Rethinking Job Demands–Resources-Based Interventions for Evolving Work Environments: A Problematizing Review

Abstract

Purpose: The Job Demands–Resources (JD-R) theory is widely used for workplace interventions targeting well-being, satisfaction, and burnout reduction. However, shifting work contexts raise questions about the adaptability of its core constructs. This paper aims to critically examine how JD-R theory has been applied in intervention design, with particular attention to the assumptions that may limit responsiveness across diverse organizational and cultural settings.

Design/methodology/approach: Adopting a problematization review approach, we analyze 109 studies that employ JD-R theory in the design of workplace interventions. Our review identifies underlying assumptions, conceptual tensions, and the ways in which demands and resources have been interpreted across different contexts, roles, and cultures.

Findings: The review reveals that JD-R constructs are often treated as stable and universally applicable, which constrains adaptability. We highlight overlooked assumptions and tensions, proposing a taxonomy of interventions that emphasizes contextual sensitivity, design flexibility, and cross-level integration.

Practical implications: The proposed taxonomy offers organizations a framework for developing workplace interventions that better align with diverse employee needs and evolving work environments.

Originality/value: This paper applies problematization review to JD-R interventions, offering a novel critique that highlights contextual variation and adaptability, while providing a practical taxonomy for future applications.

Keywords: job crafting, job demands–resources theory, interventions, organizational development, problematization review

1. Introduction

The JD-R theory is a widely used model that explains how work conditions shape employee well-being, motivation, and performance by distinguishing between demands that require effort and resources that support growth and goal achievement (Demerouti et al., 2001; Bakker & Demerouti, 2007). Over the past two decades, JD-R has guided a variety of workplace interventions designed to enhance engagement (e.g. Grant & Parker, 2009; Parker et al., 2010), reduce burnout (e.g. Sonnentag & Fritz, 2015; Tims et al., 2013), and improve organizational effectiveness (e.g. Tregaskis et al., 2013; Tims et al., 2014). Although the JD-R framework is widely valued and applied, many interventions still treat job demands and resources as fixed inputs, rather than as context-dependent, lived experiences. Research often applies the model in a linear way, reducing demands or increasing resources to achieve specific outcomes without accounting for how these factors vary across roles, industries, and cultures. rise of digitalization, remote work, and new performance norms further highlights the need to reassess the assumptions behind JD-R-based intervention design (Demerouti et al., 2019; Bakker & Demerouti, 2007). To address these limitations and expand the knowledge in the extant literature, this study adopts a problematization review approach (Alvesson & Sandberg, 2020) to critically examine how JD-R theory has been mobilized in intervention research.

Existing JD-R reviews have primarily focused on (a) validating the dual-pathway model, (b) expanding resource typologies, or (c) evaluating intervention effectiveness through outcome aggregation (e.g., Lesener et al., 2019; Bakker & Demerouti, 2017; Bakker et al., 2023; Oprea et al., 2019; Schaufeli & Taris, 2014; Kwon & Kim, 2020). While valuable, these reviews largely treat JD-R as a stable intervention logic, assuming that demands and resources can be universally identified, manipulated, and optimized across contexts. This review challenges these assumptions by treating job demands and resources as relational, temporally fluid, and politically embedded, rather than as static design variables. Rather than asking whether JD-R interventions work, or which interventions work best on average, this review problematizes the foundational assumptions embedded in JD-R-based intervention design, particularly assumptions of stability, universality, and linear change. Rather than extending JD-R by adding new categories of demands or resources, the proposed classification replaces

the dominant balancing logic with a context-sensitive intervention logic grounded in alignment, adaptability, and integration.

This paper contributes to the extant literature in two keyways. First, it reconceptualizes the JD-R framework as a dynamic and context-responsive system, addressing limitations in its typical application as a linear and prescriptive model in intervention design. Second, it introduces a taxonomy that highlights the value of integrative, multi-level, and adaptive approaches. Accordingly, this study offers both a theoretical refinement of JD-R theory and practical guidance for HR professionals seeking to design more effective interventions in the complexities of diverse and contemporary work environments.

2. JD-R-based interventions

Building on earlier job design theories (e.g. Hackman & Oldman, 1976), the JD–R model has become a central framework for linking job characteristics to employee well-being and performance. Since its introduction by Demerouti et al. (2001), the JD-R model has become a cornerstone framework in organizational psychology, offering a dual-pathway structure in which job demands are associated with strain and job resources with motivation. This formulation has informed a wide range of interventions aimed at improving employee well-being, reducing burnout, and enhancing organizational outcomes.

Over time, JD-R has evolved from a diagnostic model into a practical tool for workplace intervention design. Scholars such as van Wingerden (2020) have advanced its application in both top-down (organizational-driven) and bottom-up (employee-initiated) formats to foster personal resources, optimize job characteristics, and sustain work engagement. Interventions grounded in the JD-R model such as job redesign, workload regulation, and stress management programs have demonstrated positive outcomes in terms of reduced burnout, improved job satisfaction, and enhanced performance (Bakker et al., 2023; Demerouti et al., 2011; Harju et al., 2021). Increasing key resources like autonomy, social support, and performance feedback has shown promise in simultaneously reducing strain and promoting engagement (Schaufeli & Bakker, 2004).

While earlier models of job design (e.g., Karasek, 1979; Parker et al., 2006) often assumed static relationships between job characteristics and outcomes, the JD-R framework improved upon these by acknowledging interactions between demands and resources. Nonetheless, many interventions based

on the JD-R model continue to overlook the contextual variability of work by relying on generalized assumptions (Roczniewska et al., 2023; Holman et al., 2024). This becomes particularly problematic in contemporary work contexts shaped by digital transformation, remote and hybrid work, and shifting occupational norms (Girardi et al., 2024). For instance, emotional labor or cognitive demands may differ based on cultural expectations, team dynamics, or individual coping strategies (Campion et al., 2011; Kwon & Kim, 2020), while resources such as autonomy or supervisory support may not have consistent effects across all settings (Morgeson et al., 2006; Shperling & Shirom, 2005; Sakuraya et al., 2020). Remote work further introduces challenges such as social isolation, blurred work-life boundaries and digital fatigue (Kossek & Lautsch, 2018; Wang et al., 2021).

To clarify the theoretical boundaries of JD–R-based interventions, it is useful to situate JD-R alongside complementary frameworks that also inform organizational intervention research. Conservation of Resources (COR) theory conceptualizes strain and well-being through processes of resource accumulation, loss, and protection, emphasizing resource spirals over time. Demand-induced strain compensation perspectives similarly focus on how individuals respond to demands by investing additional effort or alternative resources, often with downstream consequences for recovery and health. While JD-R shares an interest in demands and resources, intervention research grounded in JD-R has tended to operationalize these constructs as design variables for modifying work conditions. By contrast, the present problematization review moves beyond explaining strain or compensation processes to interrogate how intervention designs themselves embed assumptions about work, agency, and change across organizational contexts. This positioning highlights JD-R interventions not as competing explanations, but as a distinct intervention logic whose limitations and potential become visible only when contrasted with adjacent theoretical perspectives.

Overall, these developments highlight that JD–R-based interventions operate within a broader ecosystem of organizational interventions shaped by digital transformation, automation, and data-driven management practices. In AI-enabled and algorithmically managed work environments, demands such as cognitive load, constant availability, and performance visibility are intensified, while resources such as autonomy, feedback, and support are reconfigured rather than simply increased or reduced. Leonardi and Treem (2020) argue that the intensification of behavioural visibility through

digitalization and datafication reshapes organizing processes and employee dynamics within contemporary work systems. Furthermore, Marsh et al. (2022) identify how digital workplace technologies contribute to stress and overload in ways that align with the dark side of digital work, highlighting information overload and techno-strain as significant job demands in digitally mediated environments. By foregrounding these dynamics, this manuscript repositions JD-R theory not as a standalone balancing model, but as an intervention framework that must be understood in relation to evolving organizational systems, technological infrastructures, and governance logics.

A recurring limitation of these interventions is their tendency to apply uniform solutions that fail to reflect the dynamic nature of demands and resources. For example, workload reduction programs may alleviate strain in administrative roles but fall short in creative jobs where challenge is a key motivator (Schiller et al., 2018). Framing all demands as negative also neglects their potential to function as productive challenges when paired with appropriate resources (Hargrove et al., 2015). Similarly, the effects of high workload vary depending on contextual moderators such as perceived control, team norms, or leadership support (Ilies et al., 2010). Even resources commonly considered beneficial, such as managerial support or task autonomy, can be ineffective or even counterproductive when misaligned with organizational culture or employee expectations (Lopez-Martin & Topa, 2019). For example, the meaning and utility of autonomy may differ significantly between individualistic and collectivist cultures (Yates & De Oliveira, 2016). Employees with disabilities or chronic health conditions may experience job demands in qualitatively different ways, necessitating tailored interventions that go beyond generalizable solutions (den Kamp et al., 2024). Ignoring these nuances risks producing uneven outcomes or exacerbating workplace inequalities, particularly for underrepresented groups (Dwertmann & Boehm, 2016).

Another notable tension in the JD-R intervention literature is the often-fragmented relationship between top-down and bottom-up strategies. Organizationally driven initiatives such as flexible work policies or leadership training may overlook the nuanced time-related needs of specific groups, such as caregivers or working parents (Kossek & Ollier-Malaterre, 2020; Li et al., 2023). While bottom-up practices such as job crafting offer greater employee agency by enabling workers to align their tasks with personal strengths and values (Tims & Bakker, 2010; Kooij et al., 2017; van Wingerden et al.,

2016), they face challenges in highly structured environments and may increase pressure on employees if organizational support is lacking.

Comparative evidence from influential JD-R intervention studies highlights both shared mechanisms and important divergences in intervention effectiveness. Early job crafting research by Tims et al. (2013) demonstrates that proactively increasing structural and social job resources is associated with increases in work engagement and other well-being outcomes. Building on this foundation, subsequent intervention studies emphasize that such effects are contingent on contextual and structural conditions rather than universally generalizable. For example, van Wingerden et al. (2017b) demonstrate that job crafting interventions can generate sustained improvements in job crafting behaviours, job resources, and performance over time when implemented as structured, longitudinal interventions, whereas more isolated, short-term individual-level interventions reported elsewhere in the literature tend to show weaker or less durable effects. Evidence from the literature also highlights the inconsistent outcomes of interventions. While behaviors such as seeking resources and reducing demands have demonstrated promising effects (Dubbelt et al., 2019; van Wingerden et al., 2017b), other dimensions, such as seeking challenges, have produced more mixed results (Kosenkranius et al., 2023). These variations highlight the role of moderating factors such as workload intensity, leadership style, and intervention timing in shaping outcomes (Knight et al., 2021). Accordingly, interventions are more likely to succeed when organizational infrastructure supports employee agency and when practices are embedded within broader cultural and strategic frameworks (Nielsen & Randall, 2012; Oprea et al., 2019).

3. Methodology

This study adopts a problematizing review approach (Alvesson & Sandberg, 2020) to examine the often-unquestioned assumptions underlying JD–R-based interventions. Unlike integrative or systematic reviews, which primarily aim to compile, synthesize, and evaluate empirical findings (Cronin & George, 2023), problematizing reviews are designed to challenge dominant theoretical ideas and open up alternative ways of understanding a field. This distinction is particularly relevant in JD-R research, where reviews have largely focused on model validation, outcome aggregation, or identifying moderators of effectiveness (e.g., Lesener et al., 2019; Kwon & Kim, 2020; Tummers & Bakker, 2021;

Bakker et al., 2023). Recent intervention-focused reviews, such as Oprea et al. (2019) and Roczniewska et al. (2023), provide valuable cumulative insights into what works, for whom, and under which conditions, but they largely operate within the established JD-R theoretical framework and treat its core assumptions as given. In contrast, the problematization review adopted here does not seek to summarize intervention outcomes or refine best practices. Instead, guided by Alvesson and Sandberg's (2020) principles of reflexivity, selective yet broad reading, critical engagement with core texts, and depth over quantity, this review interrogates foundational assumptions about the stability, universality, and linearity of job demands and resources in intervention design. Reflexivity was represented by continuously questioning whether dominant JD-R framings, such as the assumption that increasing resources is universally beneficial, were being reproduced rather than challenged. Selective yet broad reading guided the inclusion of studies that varied in context, sector, and intervention logic, allowing comparison between interventions that treated demands and resources as fixed versus context-dependent. Critical engagement with core texts involved revisiting foundational JD-R intervention studies to examine how assumptions about stability, agency, and change were embedded in intervention design rather than taken for granted. Finally, the principle of depth over quantity informed analytical decisions to prioritize theoretically revealing patterns and tensions across studies over exhaustive coverage, particularly where similar interventions produced divergent or short-lived outcomes.

3.1. Review process

JD-R For this review, we define intervention as any structured attempt, formal or informal, to adjust job demands or resources with the goal of improving well-being and performance. These include both experimental interventions (e.g. randomized-control studies, quasi-experimental designs) and practice-based initiatives formally evaluated in organizational settings.

3.1.1. Identification of dominant assumptions

An initial dataset of 143 studies retrieved from Scopus, Web of Science, and PsycINFO. Search terms included "job crafting intervention," "job design intervention," "job redesign intervention," "job demands–resources intervention," and "mindfulness intervention" to capture a range of interventions aligned with or relevant to JD-R constructs such as motivation, autonomy, stress, burnout, and work

engagement. The search emphasized studies that explicitly applied the JD-R model addressed its core dimensions, allowing for a conceptually inclusive yet targeted review of intervention approaches.

Inclusion criteria prioritized peer-reviewed empirical articles that evaluated workplace interventions aimed at modifying job demands or resources and reported outcomes linked to employee wellbeing or performance. Studies were selected based on conceptual relevance and theoretical contribution, rather than citation counts or journal ranking. This judgment was guided by a preliminary scoping review and consultation among the authors to ensure that the final dataset reflected both breadth of intervention types and depth of theoretical engagement with the JD-R model.

3.1.2. Categorization and problematization

Of the 143 studies identified, 34 were excluded: 30 did not report formal intervention processes, 4 involved non-workplace samples, and 1 had no accessible full text. This resulted in a final dataset of 109 studies. To structure our analysis, we grouped the 109 reviewed studies into three categories: (1) interventions explicitly based on the JD-R model, aiming to balance demands and resources; (2) organizational-level interventions grounded in other frameworks but targeting similar outcomes; and (3) individual-level interventions focusing on emotional or cognitive skills.

To strengthen reflexivity in the problematization review, category development was treated as an iterative and critical process rather than a purely descriptive classification. Throughout the analysis, we continuously questioned whether emerging categories merely reproduced dominant JD-R framings or genuinely surfaced alternative ways of conceptualizing intervention logic. Categories were refined through repeated comparison across studies and intervention types, deliberate searches for theoretical tensions and counterexamples, and reflexive discussion among the authors regarding implicit assumptions about work, agency, and change. Reflexivity was further maintained through reflexive memoing and regular analytical discussions, which were used to document emerging assumptions, critically assess alternative interpretations, and avoid premature theoretical closure. This process ensured that the resulting categories captured underlying intervention logics rather than surface-level similarities.

After categorization, we conducted an interpretive analysis to uncover the assumptions driving each intervention. Using a reflexive coding process inspired by Braun and Clarke's (2021) thematic

analysis and Alvesson and Sandberg's (2020) problematization approach, we avoided predefined codes and instead relied on iterative reading and memo-writing. Guided by questions like: *What drives strain or motivation? Whose perspective is emphasized? What context is overlooked?*, we identified recurring assumptions about job demands, resources, and change mechanisms. This process revealed conceptual blind spots across the three intervention types in our final sample of 109 studies.

JD–R-based interventions (n = 22) explicitly applied the logic of balancing job demands and resources to enhance well-being and performance. These included, for example, job crafting interventions aimed at increasing employee agency (Hulshof et al., 2020) and workload redistribution to reduce burnout (Simbula, 2010).

Organizational-level interventions (n = 63) targeted structural or motivational features of work such as task design, autonomy, or performance management but did not explicitly invoke the JD-R model. These were grounded in alternative frameworks such as Self-Determination Theory (Kuijpers et al., 2020) or Proactive Motivation Theory (de Jong et al., 2025), with examples including team redesign and job rotation strategies (Michalos et al., 2013).

Individual-level interventions (n = 24) sought to enhance personal resources through emotional or cognitive techniques, typically grounded in Mindfulness-Based Stress Reduction (Pang & Ruch, 2019), or Cognitive Behavioral Therapy (Sharma & Sharma, 2024). These did not address structural job features directly but aimed to strengthen inner capacities such as resilience or mindfulness.

While JD-R theory conceptually spans both individual and organizational domains, this typology was used heuristically to highlight contrasting assumptions about how change occurs. The purpose of this grouping was not to reify categories but to surface the often-implicit universalism in JD–R-based interventions, the assumption that job demands and resources can be manipulated in standard ways across contexts. Following the logic of problematization, we treat the typology as a critical device rather than a fixed classification, enabling theoretical contrast and deeper interrogation of intervention logic.

In the second stage of the review, we engaged with interdisciplinary literature drawn from cultural studies, psychology, and organizational change to interrogate the dominant assumptions surfaced during the first stage. This stage involved theoretical triangulation, in which insights from

adjacent literatures were used to challenge the conceptual boundaries of JD–R-based intervention design. For instance, literature on intersectionality, power dynamics in job design, and adaptive systems thinking informed our critique of intervention generalizability.

As illustrated in Figure 1, the initial dataset comprised 143 studies identified through database searches. Following initial screening, 34 studies were excluded because they did not report a workplace intervention, were not situated in an organizational context, or did not meaningfully engage with job demands or resources. The remaining 109 studies met the inclusion criteria and were retained for categorization and problematization analysis.

In a subsequent phase, we employed snowballing techniques by tracing forward and backward citations from key intervention studies. This step was not used to expand the dataset beyond the 109 included studies, but to inform the theoretical reconstruction of JD–R-based intervention logic. Insights from this phase supported the development of a context-sensitive intervention taxonomy, presented in Figure 1, which highlights three core principles for future intervention design: contextual alignment, adaptability over time, and integration across individual and organizational levels.

Figure 1

4. Findings

4.1. Empirical Patterns Across JD–R-Based Interventions

A recurring paradox in the reviewed literature concerns the dual function of job demands. Interventions frequently target the reduction of job demands to mitigate burnout, while simultaneously seeking to enhance engagement by increasing challenging aspects of work. Although theoretical models distinguish between hindrance and challenge demands (Crawford et al., 2010; Nahrgang et al., 2011), this distinction is not consistently reflected in intervention design. For example, job crafting interventions targeting young construction managers in China enhanced engagement for employees who could proactively redesign their tasks. However, others reported frustration when externally imposed workload reductions conflicted with their professional identity (Yang et al., 2025). Similarly, interventions to limit emotional labor among healthcare workers were effective in lowering burnout but, in some cases, inadvertently diminished perceptions of job meaningfulness when emotional expression was suppressed (El-Gazar et al., 2023).

The success of interventions also depended heavily on organizational context (van Wingerden et al., 2017a). Programs that enhanced job resources, such as autonomy and supervisor support, were more effective when implemented in supportive organizational cultures (van Leeuwen et al., 2021; Thomas et al., 2020). In contrast, bureaucratic or hierarchical environments restricted employees' capacity to benefit from such initiatives, with rigid job structures often impeding change (Nylén et al., 2018). Individual-level interventions, including mindfulness and career development programs, produced mixed responses. While some participants reported improved emotional regulation, others perceived these initiatives as poorly aligned with their occupational realities (Pang & Ruch, 2019).

4.2 Empirical Basis of the Intervention Taxonomy

Building on the empirical patterns described above, this subsection synthesizes how recurring findings across studies informed the structure of the proposed taxonomy (Figure 2). Many interventions demonstrated positive short-term outcomes, particularly in job crafting programs that improved engagement, well-being, and satisfaction (Daniels et al., 2014; Seppälä et al., 2023; Zmijewski et al., 2023). However, their long-term sustainability was frequently undermined by the absence of structural integration. Without ongoing institutional support, improvements faded over time (Hulshof et al., 2020; van Wingerden et al., 2017b; Thomas et al., 2020). Mindfulness and self-efficacy programs followed a similar trajectory, showing initial success but declining in effectiveness when daily routines and managerial expectations remained unchanged (Kumprang & Suriyankietkaew, 2024; van den Heuvel et al., 2015; El-Gazar et al., 2023). In many cases, responsibility for sustaining change was placed disproportionately on individuals, leading to attrition and disengagement (Ceschi et al., 2022). Common sustainability challenges included limited leadership involvement, firm role definitions, and unrealistic expectations for individual motivation to drive long-term change (Bakker et al., 2023).

The heterogeneity of individual needs and perceptions emerged as another critical challenge. Interventions often empowered proactive employees but excluded or overwhelmed those with fewer resources or lower self-efficacy (Bakker et al., 2012; Plomp et al., 2016; Wanberg et al., 2024). Without structural safeguards, such as clear role definitions or supportive team norms, job crafting could lead to role ambiguity and intra-team conflict (Irfan et al., 2023). Strategic task assignments based on tenure were shown to mitigate some of these effects, particularly in multi-team environments (van de Brake et

al., 2020). Coaching, resource access, and constructive feedback emerged as essential features in interventions that successfully balanced individual autonomy with organizational alignment (Kapoutzis et al., 2023; Whitaker et al., 2007).

4.3 Summary of Key Inconsistencies Across Interventions

Despite its adaptability, the JD-R framework was frequently applied through generalized models that lacked inclusivity. Workload reduction programs, for instance, did not always consider the unique challenges faced by working parents, employees with chronic conditions, or those with disabilities (Ho et al., 2024; Moens et al., 2023). Interventions often ignored intersectional needs, limiting their effectiveness across diverse employee groups (Dwertmann & Boehm, 2016). Cultural context further influenced the reception of autonomy-enhancing strategies. Job crafting and flexible scheduling were well-suited to individualistic cultures but less effective in collectivist settings where team cohesion and hierarchical respect were prioritized (Wojtczuk-Turek et al., 2024). Interventions that failed to incorporate such cultural nuances produced inconsistent results (Dejene et al., 2024; Loucks et al., 2022).

Many JD–R-based interventions assumed universal applicability of resources, yet their effectiveness varied significantly depending on sectoral and organizational factors (Devotto & Wechsler, 2019; van Wingerden et al., 2016). Interventions in structured environments such as healthcare and manufacturing were constrained by limited autonomy, while those in academia or professional services saw greater benefits due to flexible work structures (Gordon et al., 2018; Thomas et al., 2020). The presence of managerial support and structural alignment was consistently associated with stronger outcomes. Interventions that combined individual-level strategies with organizational redesign, such as the Nurse–Manager Dualistic Intervention Program and public sector structural training programs, showed notable improvements in engagement and performance (Yue et al., 2024; van Wingerden et al., 2016).

Intervention strategies varied widely, from job crafting (van Wingerden et al., 2017b) to psychological resource building (Pérez-Marqués et al., 2023) and task redistribution (Ceschi et al., 2022). These examples reinforce that effectiveness hinges on sector-specific tailoring and structural integration (Clarke et al., 2024; Tummers & Bakker, 2021; Bakker et al., 2023; Demerouti & Bakker,

2023). Even well-intentioned top-down interventions, such as flexible work policies to reduce burnout and improve work-life balance (Gravador & Teng-Calleja, 2018), proved problematic when they clashed with the demands of client-facing roles or international teams (Schulze & Krumm, 2017; Howcroft et al., 2024).

5. Discussion

Building on the patterns identified in the review, this manuscript surfaces four key conceptual ruptures in how JD-R theory has traditionally been operationalized in intervention design. First, JD–R-based interventions often rely on a static understanding of job demands and resources, treating them as stable variables that can be adjusted in a linear manner. This overlooks how demands and resources are relational, temporally fluid, and continuously reshaped by role expectations, organizational dynamics, and broader socio-technical contexts. Second, many interventions assume the universal relevance and comparability of specific demands and resources (such as autonomy or supervisory support), despite evidence that their meaning and effectiveness vary substantially across occupations, cultures, and power structures. Third, intervention designs frequently privilege time-bounded or one-off initiatives, neglecting feedback loops, cumulative effects, and the organizational conditions required for sustaining change over time. Fourth, responsibility for adaptation and intervention success is disproportionately placed on individuals through bottom-up practices, while structural constraints, leadership infrastructures, and unequal access to resources remain insufficiently addressed.

In response to the conceptual limitations identified in prior intervention research, this study advances a revised framework for JD–R-based workplace interventions in Table 1. Rather than assuming the universal applicability of job demands and resources, the proposed model foregrounds the importance of contextual alignment, adaptability, and integration.

Table 1

These three interdependent dimensions, derived from a synthesis of 109 empirical studies, form the foundation of a context-sensitive intervention taxonomy. As illustrated in Figure 2, *Contextual Alignment* addresses the question of why interventions must be attuned to specific cultural, structural, and occupational settings; *Adaptability* answers how interventions can evolve over time to meet changing needs; and *Integration* clarifies what mechanisms can synchronize top-down and bottom-up

strategies to ensure sustainability. The model is further shaped by three cross-cutting themes: *Inclusion & Equity*, *Digital Transformation*, and *Measurement Innovation* which operate across all dimensions and influence how interventions are perceived, delivered, and evaluated in real-world environments. These themes emphasize that context sensitivity is not only a matter of fit, but also of justice, responsiveness, and evidence-informed design.

Figure 2

First, contextual alignment requires moving beyond superficial tailoring. Traditional interventions often treat resources such as autonomy or feedback as inherently beneficial, neglecting how their meaning and impact are shaped by local norms, organizational structures, and role expectations. For example, interventions promoting autonomy may be empowering in individualistic settings but generate anxiety in collectivist environments that value hierarchy and interdependence (Xanthopoulou et al., 2007; Yavuz Sercekman, 2024). Similarly, reducing workload may be helpful in some roles but diminish engagement or purpose in others. To ensure contextual relevance, interventions should include periodic assessments and recalibrations that account for dynamic variables such as role complexity, team structures, and organizational climate. This can be especially important in high-stress professions like healthcare, where fluctuating patient loads and emotional demands require flexible intervention mechanisms (Gagnon & Monties, 2023). Cross-cutting themes matter here: inclusion demands that tailoring reflects the lived realities of marginalized employees, while digital tools offer scalable ways to monitor local variance. Measurement innovation ensures these differences are not just acknowledged but actively tracked through context-sensitive tools.

Second, adaptability responds to the evolving nature of work. While JD-R theory acknowledges that demands and resources are dynamic, many interventions are delivered as one-off or short-term initiatives. For example, job crafting programs often show initial success but decline in effectiveness when not reinforced through long-term mechanisms (van Wingerden et al., 2017b). Adaptive interventions should be modular and iterative, with built-in feedback loops that allow for adjustments over time. This also includes recognizing and addressing differences in employee needs. While autonomy may be motivating for some, it may pose challenges for employees managing chronic illness or caregiving responsibilities (Moens et al., 2023). Leadership development also should similarly be

viewed as an ongoing process rather than a one-time skills-building exercise (Yue et al., 2024). Digital transformation can facilitate real-time adaptation, while inclusive design ensures interventions remain accessible across life stages. Embedding continuous monitoring mechanisms reflects the measurement imperative of adaptability.

Third, integration focuses on bridging organizational and individual strategies. While flexible work policies or leadership programs may exist, they often lack the personalization necessary to address unique employee needs. Conversely, bottom-up approaches such as job crafting risk failing without institutional endorsement. Integration enhances alignment between structural scaffolding and individual agency. For example, combining organization-wide role redesign with self-directed crafting can strengthen both fit and autonomy (Wang et al., 2023). Leadership support plays a crucial role, not only by modeling desired behaviors but also by reinforcing purpose and reducing ambiguity (Kim et al., 2014; Tummers & Bakker, 2021; Demerouti et al., 2024). Technology can help scale integration, while equity demands that access to both organizational and individual resources is distributed fairly. Measurement systems should assess whether integration genuinely benefits diverse employee groups.

5.1. Implications

The findings of this study offer theoretically informed and context-sensitive guidance for organizations, HR practitioners, and policymakers who design JD–R-based interventions. From a practical perspective, the implications highlight how interventions can be designed to align with context, adapt over time, and integrate individual and organizational practices. From a research standpoint, they underscore the need to move beyond static intervention models toward approaches that capture the dynamic nature of job demands and resources.

Reflecting the importance of adaptability, organizations should recognize that job demands and resources are dynamic and incorporate continuous feedback mechanisms, such as pulse surveys and workload audits, to monitor changes and adjust support accordingly (Bakker & Demerouti, 2017; Petrou et al., 2018). Interventions that adapt to evolving roles and contexts are more effective in sustaining well-being and performance. For instance, ergonomic improvements can reduce musculoskeletal discomfort and enhance productivity (Reis et al., 2015; Safarian et al., 2018), while flexible scheduling in healthcare or autonomy-promoting practices in creative sectors address sector-specific demands

through contextual alignment (Cohen et al., 2023; Burcharth et al., 2017). Empowerment strategies, such as access to information, decision-making authority, and recognition, improve individual performance when supported by training that fosters proactive behaviors like job crafting (Fernandez & Moldogaziev, 2013). These practices reflect job enrichment principles and enhance resource-building pathways within the JD-R framework.

Interventions should also target burnout by addressing both exhaustion and cynicism. Excessive workloads require early identification through monitoring tools, followed by redistributive strategies or stress-reduction programs to mitigate emotional strain (Chiaburu et al., 2013; Naseer et al., 2021; Vella & McIver, 2019). To reduce cynicism, organizations should maintain transparent communication and strengthen psychological contracts, especially during high-pressure periods (Coyle-Shapiro et al., 2019; Vantilborgh et al., 2016). Implementing flexible work arrangements can also mitigate work-home conflict, while providing supervisor support and team cohesion can buffer the impact of high work pressure on employee exhaustion (Saud and Rice, 2024).

Emphasizing integration, leadership and team climates function as key job resources. Such as supervisor support, team harmony, and autonomy play a dual role in mitigating the negative effects of demands and enhancing performance (Huynh et al., 2014). Structured development programs that cultivate coaching and feedback skills support learning and performance (Milner et al., 2018; Park et al., 2018; Kapoutzis et al., 2023), while participative team environments foster job crafting and collaboration (Mäkikangas et al., 2017; Khan et al., 2022).

Inclusive policies are essential to address the differentiated needs of underrepresented employees, such as those with chronic illness or caregiving roles. Practices that promote belonging and self-efficacy contribute to both well-being and equity (Dwertmann & Boehm, 2016; Li et al., 2017; Nishii, 2013; Adamovic et al., 2023). Bias-aware performance systems and standardized rubrics reduce subjectivity and increase fairness in career progression (Kossek et al., 2016; Milner et al., 2018). Finally, reflecting both adaptability and contextual alignment, digitalization introduces new cognitive and emotional demands that must be proactively managed. Offering asynchronous communication, setting boundaries around availability, and delivering digital skills training can help employees adapt and avoid overload (Marsh et al., 2022; Trenerry et al., 2021).

6. Future Research Avenues

Research avenue 1: Context in JD-R-based interventions

Although existing JD-R research has addressed cultural factors, such as the influence of collectivism versus individualism on job demands and resources (e.g., Jang et al., 2018), there remains a significant gap in studies exploring the role of organizational structures and sector-specific dynamics. For example, hierarchical organizations may require distinct interventions compared to flat, agile structures, where decision-making is decentralized. Similarly, the challenges faced by employees in high-stress sectors like healthcare such as emotional labor and workload intensity differ greatly from those in creative industries, which prioritize autonomy and innovation. Addressing these gaps through targeted research could provide actionable insights for tailoring JD-R interventions to diverse organizational and sectoral contexts.

Research avenue 2: Adaptability and iterative design in JD–R-based interventions

Despite the dynamic assumptions embedded within JD-R theory, most interventions are still implemented as static or one-off programs. Future research should examine the longitudinal effects of adaptive, modular interventions that adjust over time based on employee feedback and evolving job conditions. Special attention should be paid to how interventions can be personalized for distinct employee subgroups, such as caregivers or those managing chronic illness, whose needs may shift across life stages or seasons (Tims et al., 2022). Embedding continuous feedback mechanisms (e.g., pulse surveys, adaptive apps) and investigating their efficacy across different organizational contexts will be critical in evaluating the sustainability of adaptive approaches.

Research avenue 3: Integration of top-down and bottom-up approaches

Future research should also explore how organizational-driven strategies, such as flexible work policies, and employee-driven approaches, such as job crafting, can be effectively integrated to create synergistic effects. As Parker et al. (2017) emphasize, examining these trade-offs within a single study is critical for capturing the broader impacts of work design. Moreover, longitudinal studies with multiple measurement waves are necessary to test theories about temporal processes and understand the long-term effectiveness of these integrated strategies. Developing and testing models that align

organizational policies with individual agency could provide valuable insights into how such integration improves both employee well-being and organizational performance.

Research avenue 4: Equity, diversity, and inclusion in JD–R-based interventions

Another future research avenue to focus is on how JD-R interventions can be tailored to address the unique needs of underrepresented or marginalized groups, considering the intersection of factors such as race, gender, disability, caregiving responsibilities, or chronic illnesses (den Kamp et al.,2024). For instance, individuals managing chronic conditions like endometriosis, arthritis, or diabetes may face fluctuating job demands that require flexible scheduling, workload adjustments, or access to supportive resources. Similarly, women in male-dominated industries often encounter biases and barriers to career advancement, necessitating targeted mentorship programs and implicit bias training for managers. Employees with disabilities may benefit from interventions that prioritize workplace accessibility and adaptive technologies (Moens et al., 2023), while racially or ethnically diverse employees may thrive in organizations that foster climates of inclusion through equitable promotion practices and proactive diversity initiatives.

Research avenue 5: Digital transformation and JD-R

The digital transformation reshapes the dynamics of JD-R, particularly by introducing challenges like constant connectivity, cognitive overload, and algorithm-driven management. For instance, in digital labor platforms, interactions are often managed by algorithms designed to optimize efficiency (Walsh, 2020), which can lead to feelings of isolation and a lack of meaningful human connection for gig workers (Möhlmann & Henfridsson, 2019). These conditions impose unfavorable work environments, reduce opportunities for social collaboration, and contribute to emotional pressures. Such pressures are positively associated with burnout, particularly when workers perceive inadequate organizational support (Hsu et al., 2024). While digital tools enhance work efficiency, they also contribute to cognitive overload, constant connectivity, and boundary-blurring (Howcroft et al., 2024; Leonardi & Treem, 2020). Moreover, potential research should investigate how digital tools can not only address these challenges but also enhance resources, such as fostering collaboration and flexibility, while minimizing demands like information overload and emotional strain. (Uglanova & Dettmers, 2023).

Research Avenue 6: Measurement and methodology innovation in JD-R-based interventions

An important step in advancing the measurement of JD–R-based interventions involve the use of tailored monitoring instruments, as highlighted in healthcare settings (Boskma et al., 2024; van Wingerden, et al., 2017a). Organizations should first identify the specific domains of interest, such as employee well-being or team performance. Broader instruments can be used initially to screen for red flags, followed by more targeted tools to explore specific issues in greater depth.

Overall, these research avenues indicate that advancing context-sensitive and adaptive JD-R interventions represents a foundational priority, while subsequent work on integration, equity, digital transformation, and measurement innovation offers complementary and exploratory directions for extending the framework.

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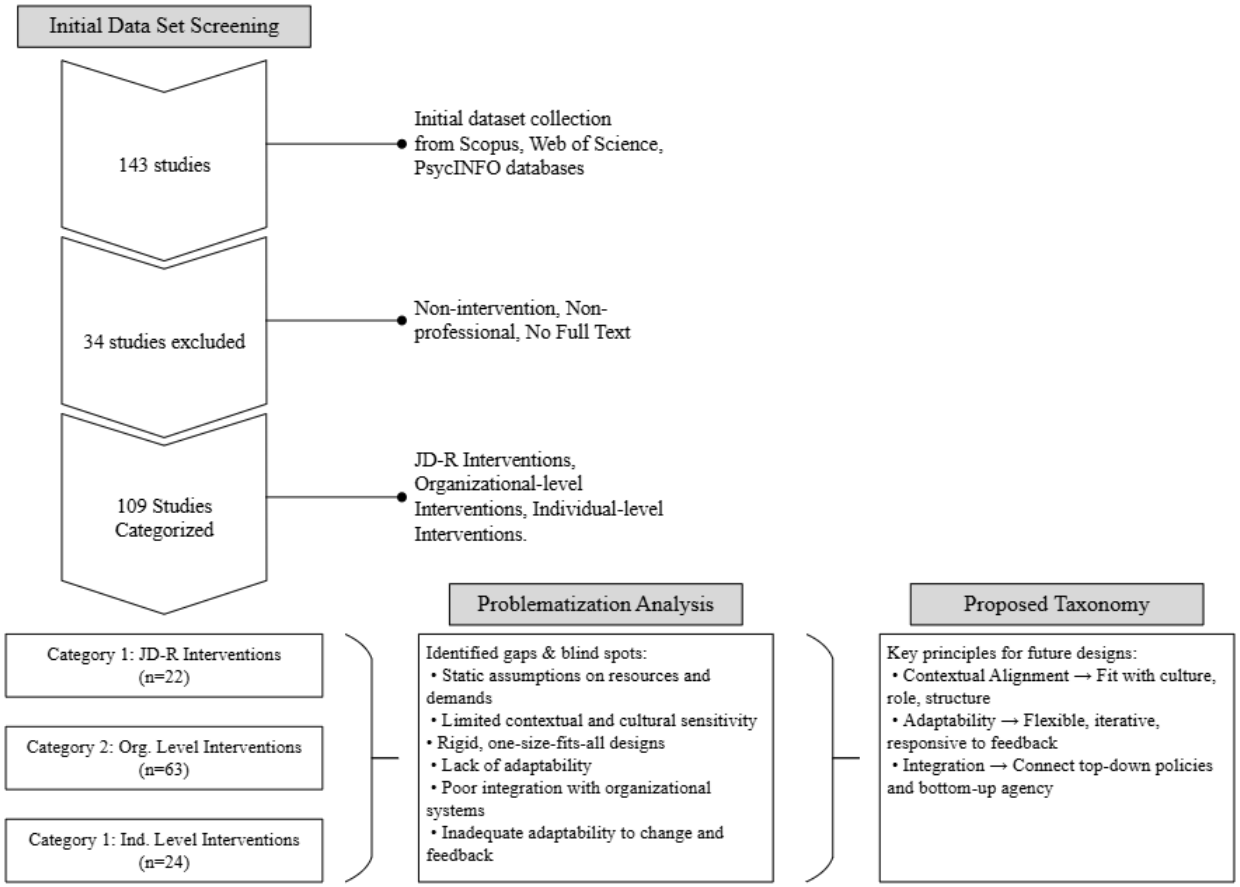

Fig 1. Problematizing review process

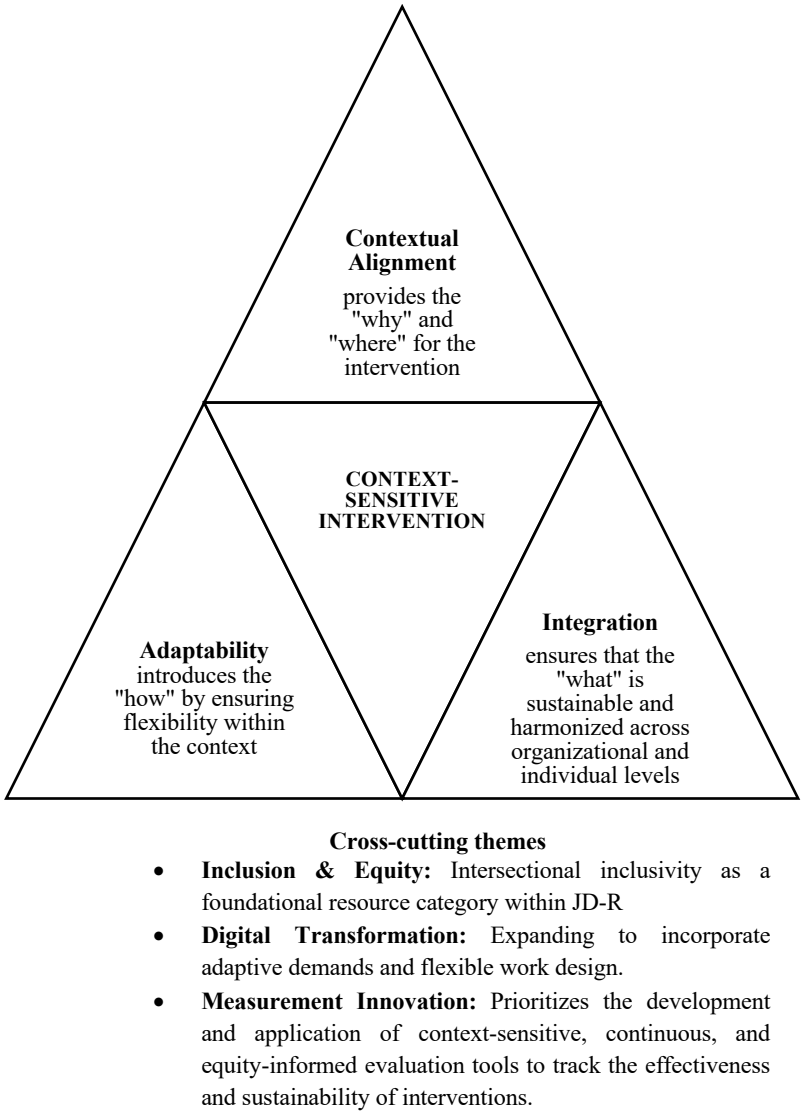

Fig. 2. A context-sensitive JD–R intervention model illustrating how intervention design principles emerge from the problematization review

Table 1. Key dimensions and future research agenda for JD–R-based interventions

Dimension	Theoretical Extension	Practical Implications	Future Research Directions	Cross-Cutting Themes
Contextual Alignment	Extends JD–R by emphasizing that job demands and resources are not universally effective across settings.	Use periodic assessments (e.g., pulse surveys, climate scans); tailor interventions to sectoral and cultural demands (e.g., autonomy in creative vs. healthcare sectors).	Examine how organizational structures (e.g., hierarchy vs. agility) and sector-specific roles influence the perceived relevance of job resources and demands.	*Inclusion & Equity*: Tailor interventions to marginalized groups within each context. *Digital Transformation*: Use digital tools to track local variance. *Measurement Innovation*: Develop culturally and sectoral sensitive tools.
Adaptability	Reinforces JD–R's dynamic assumption by promoting iterative, modular interventions that adjust over time.	Design flexible programs with feedback loops (e.g., iterative job crafting or modular leadership development). Adjust based on changing employee needs.	Study longitudinal effects of adaptive interventions; test personalization for subgroups like caregivers or employees with chronic illness.	*Digital Transformation*: Enable real-time recalibration and personalization. *Inclusion & Equity*: Ensure adaptability addresses shifting needs across life stages and identities. *Measurement Innovation*: Embed continuous monitoring mechanisms.
Integration	Expands JD–R by emphasizing the synergy between top-down (organizational) and bottom-up (individual) approaches.	Align leadership training, flexible policies, and job crafting. Encourage consistent messaging and role clarity. Avoid overload by coordinating interventions.	Explore how organizational-level supports interact with individual strategies. Use multi-wave designs to capture long-term alignment outcomes.	*Inclusion & Equity*: Promote equitable access to top-down resources and support bottom-up voice. *Digital Transformation*: Use tech to scale integration and communication. *Measurement Innovation*: Evaluate how well integration supports diverse needs.

Note: Table 1 translates the proposed taxonomy into actionable design logics, linking theoretical extensions to practical intervention choices and future research priorities.