

Article

The Power of Relationships: How Social Bonds Influence Work Happiness and Absenteeism in Warehouse Work

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Abstract

Sick leave in physically demanding warehouse logistics poses persistent challenges for employee well-being, operational performance, and sustainable work participation. This study investigates how warehouse employees and supervisors understand drivers of absence and presence, and which workplace resources are perceived as most important for sustaining work happiness and attendance. Using an explanatory sequential mixed-methods design, phase 1 comprised in-depth interviews with warehouse leaders and focus groups with employees ($N = 20$). Qualitative findings highlight physical strain and sustained pace demands, but also emphasized psychosocial drivers such as emotional exhaustion, limited recognition, insufficient relational support, and a “push-through” culture that normalized strain and hindered recovery. At the same time, collegial support, humor, and everyday recognition were described as critical resources for coping and maintaining presence. Building on these insights, we used a cross-sectional survey ($N = 99$) to assess work happiness and perceived negative workplace conditions. Exploratory factor analysis identified four work happiness dimensions—supervisor support and recognition; self-development, meaning and autonomy; interpersonal relationships; and collaboration to achieve goals and four dimensions of negative workplace conditions: structural alienation, work-related exhaustion, adverse social climate, and work intensity. Multiple regression analyses showed that interpersonal relationships were the most consistent protective resource, negatively associated with exhaustion, adverse social climate, and work intensity, while supervisor support and recognition primarily reduced structural alienation. Overall, the findings suggest that social relationships constitute a central resource for sustainable well-being and attendance in physically demanding work, offering actionable implications for HRM.

Keywords: sick leave; work happiness; interpersonal relationships; psychosocial work environment; warehouse logistics; mixed methods



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1. Introduction

The dual challenge of maintaining operational efficiency while safeguarding employee well-being has emerged as a critical concern across labor-intensive industries. In physically demanding sectors such as warehousing and logistics, high rates of sick leave represent both a human cost and a significant barrier to sustainable organizational performance. In Norway, absenteeism in the logistics and retail sectors remains persistently high—far exceeding the national average of 6.8% despite longstanding efforts through ergonomic interventions, safety training, and occupational health initiatives (NAV, 2024; Fellesforbundet, 2022). This

persistence of high absenteeism rates suggests that structural and physical interventions alone are insufficient to address the root causes of absence behavior in these environments. In this context, it is crucial to distinguish between sick leave as a registered administrative outcome and absence behavior as the complex psychosocial process preceding the notification (Johns, 2010; Ruhle et al., 2020; Steers & Rhodes, 1978). While the former represents the statistical reality, the latter reflects the daily decision-making influenced by motivation, health, and workplace dynamics.

Although physical workload and repetitive strain are well-documented contributors to sickness absence, emerging research within the Job Demands–Resources (JD–R) framework highlights the substantial buffering role of psychological and relational resources (Bakker et al., 2023; Nielsen et al., 2017). Concepts such as emotional climate, recognition, and perceived organizational support have gained prominence as critical mediators that can either exacerbate or mitigate the health impact of physical demands (Eisenberger et al., 2020; Tummers & Bakker, 2021). However, a significant limitation in the existing literature is the predominant focus on white-collar or service-oriented contexts, where autonomy is often the primary resource. In contrast, blue-collar operational environments characterized by strict hierarchies, tight productivity targets, and low task autonomy remain theoretically underexplored regarding which specific psychosocial resources are effective in reducing absenteeism (Aboramadan & Kundi, 2022; Bakker et al., 2023).

Against this backdrop, the concept of work happiness offers a promising theoretical lens. Defined not merely as transient satisfaction but as a multidimensional construct encompassing positive emotions, meaningfulness, and social connectedness, work happiness aligns with sustainable work practices (Donaldson et al., 2022; Fisher, 2010; Salas-Vallina & Alegre, 2021). Theoretical perspectives such as Self-Determination Theory (Ryan & Deci, 2020) and Broaden-and-Build Theory (Fredrickson, 2001) suggest that fulfilling needs for relatedness and competence can build resilience even in high-demand settings. Yet, empirical research has not sufficiently mapped how these “soft” relational dynamics interact with the “hard” realities of logistics work to influence daily decisions about presence and absence. Consequently, there is a lack of analytical precision regarding how intangible factors like “social belonging” operationalize as protective mechanisms against burnout and sick leave in physically intensive occupations.

Methodologically, prior research has predominantly relied on either generic quantitative scales that may overlook the specific cultural nuances of blue-collar environments, or qualitative studies that lack generalizability. This study addresses this limitation by employing an exploratory sequential mixed-methods design (Creswell & Plano Clark, 2018). By using qualitative insights to directly operationalize context-specific constructs, such as “absence culture” and “peer-based recovery”, into a structured survey, this research moves beyond standard psychometric approaches to ensure a higher degree of ecological validity in measuring the drivers of presence and absence.

This investigation aims to bridge this gap by examining the intersection of work happiness and absenteeism through an exploratory sequential mixed-methods approach. Rather than simply cataloging causes of sick leave, this research seeks to extend the application of the JD–R model by identifying specific relational and emotional sub-dimensions that function as critical job resources in a blue-collar context. The study is guided by the following research question: How can the promotion of work happiness serve as a sustainable strategy to mitigate sickness absence in a high-intensity logistics environment?

To operationalize this, two sub-questions guide the analysis:

RQ1. *What do employees and managers perceive as the primary causes of sickness absence and drivers of work happiness in the warehouse setting?*

RQ2. *How do psychosocial resources, specifically dimensions of work happiness, interact with structural job demands to influence absenteeism behaviors in a high-intensity logistics environment?*

By addressing these questions, this article contributes to the literature on sustainable HRM and organizational psychology in three key ways. First, it challenges the traditional focus on ergonomic solutions in logistics by demonstrating the primacy of interpersonal relationships as a central determinant of attendance. Second, it refines the JD–R model by linking the theoretical function of resources directly to regression evidence, demonstrating a distinct division of labor in blue-collar settings. Specifically, the analysis reveals that while horizontal relationships serve as the primary buffer against daily strain (exhaustion and social climate), vertical leadership is uniquely responsible for preventing structural alienation, challenging the assumption that psychosocial resources are interchangeable. Third, it proposes a framework for health-promoting leadership that integrates work happiness as a strategic tool for organizational sustainability (Aust et al., 2020; Guest, 2017).

2. Case Description: A Norwegian Logistics Company with High Sick Leave

2.1. Organizational Origins, Structure, and Values

The company examined in this study is one of the largest retail cooperatives in the Nordic region, with historical roots dating back to the late 19th century. It was founded by industrial workers seeking fair access to affordable, high-quality goods and organized according to cooperative principles of solidarity, democratic governance, and equitable profit sharing. This ownership model continues to shape the organization's identity and operational philosophy.

Throughout the 20th century, the cooperative expanded its activities, establishing its own production facilities and distribution systems to secure quality and cost control. The introduction of self-service stores in the mid-1900s marked a major shift in Norwegian retailing and reinforced the cooperative's position as an industry pioneer. Growth in the 21st century has been characterized by strategic acquisitions, digital transformation, and technological innovation, including automated warehouses and cashier-less stores. In 2023, the cooperative reported a turnover of several billion euros, reflecting continued financial and organizational expansion.

Structurally, the organization operates as a federation of independent regional units coordinated through a central body responsible for wholesale services, industrial production, logistics, property management, marketing, and member programs. Its retail portfolio spans discount chains, supermarkets, large department stores, and specialty hardware outlets. Across this broad value chain, the company emphasizes values such as trust, inclusion, innovation, care, and transparency principles that frame both strategic decision-making and daily operations.

2.2. Governance, Membership, and Sustainability Framework

A distinctive feature of the cooperative model is its democratic governance structure. Ownership is distributed across more than one million members nationwide, who receive financial bonuses, digital services, and access to loyalty programs, while also participating in annual meetings and local elections. Each household's membership is tied to a regional unit, and elected representatives from these units serve on the organization's highest governing bodies. This ensures that member perspectives alongside employee voices feed directly into long-term strategy and operational policy. The participatory model has gained renewed relevance among younger consumers and is viewed as an important competitive advantage in a market increasingly focused on transparency and accountability.

Sustainability is deeply embedded in the cooperative's strategic framework and aligns with several UN Sustainable Development Goals. Five pillars structure this work: circular systems and waste reduction; responsible supply chains; diversity and inclusion; sustainable household solutions; and healthier consumer products. These commitments are reflected in concrete initiatives, including a partnership to develop vertical indoor farming for local food production and a reduction of food waste by more than 40% relative to baseline years. Advanced logistics tools, improved forecasting, and structured donation programs further support responsible resource management. Sustainability is understood not only as a moral obligation but also as a long-term strategic differentiator.

2.3. The Warehouse Organization

The empirical focus of this study is the cooperative's central warehouse, a large and complex operation employing several hundred workers, primarily full-time logistics staff. Teams are organized around key operational areas such as dry goods, chilled and frozen products, produce, dispatch, returns, and receiving and the workforce is supplemented with temporary and agency labor during peak periods such as holidays and promotional campaigns.

Crucially, the data collection period coincided with a phase of stable operations. No significant organizational restructuring, large-scale automation upgrades, or major policy shifts were implemented immediately prior to or during the study. This suggests that the reported perceptions of strain and social climate reflect the organization's baseline operational state rather than transient, change-related instability.

The warehouse infrastructure includes administrative offices, a canteen, a service center for store communication, and a control room for real-time monitoring. The operation relies heavily on up-to-date digital technologies, including warehouse management systems (WMS), pick-by-voice tools, and real-time tracking, enabling high levels of accuracy and efficient distribution.

2.4. Work Culture, Job Roles, and Coordination

The warehouse promotes a work culture designed to ensure safety, professionalism, inclusion, and high performance. A set of operational principles defines expectations for all employees, emphasizing health and safety, mutual respect, cooperation, and constructive communication. Central cultural practices include immediate reporting of deviations or incidents, maintaining a positive and respectful social climate, supporting cross-team collaboration, and handling errors without blame. Reporting systems on digital tools, supervisors, union representatives, and safety delegates facilitate transparency and follow-up. Culture is understood as both an enabler of internal cohesion and a strategic resource for competitiveness.

Warehouse employees carry out a wide range of logistics tasks, including receiving and registering shipments, storing goods using digital systems, picking items via pick-by-voice or visual screens, preparing and loading outbound deliveries, and managing returns or cross-docking. These frontline roles are supported by control-room operators coordinating real-time logistics, service-center personnel handling delivery inquiries, analysts monitoring data to optimize processes, and administrative staff responsible for planning and resource allocation. This tightly interdependent system highlights the need for effective coordination between people, technology, and physical infrastructure.

2.5. Absenteeism, Strain, and Intervention Measures

Despite strong operational capabilities, sick leave constitutes a persistent challenge for the warehouse. Absenteeism exceeded 10% in both 2023 and 2024 more than triple the organizational target of 3% for short- and long-term absence. While ergonomic strain

and heavy physical workloads contribute to these high levels, management also identifies psychosocial stressors such as monotony, sustained pressure, and insufficient recognition as significant drivers of absence.

In response, the cooperative has implemented several intervention measures: leadership development programs to strengthen relational competence; diversity and inclusion initiatives to improve the social climate; workplace adjustments to support employees returning from leave; systematic monitoring of sick leave through HR systems; and early-stage dialogue meetings with the Norwegian Labor and Welfare Administration (NAV). Together, these efforts reflect the organization's commitment to improving employee well-being while maintaining sustainable operational performance.

3. Literature Review and Theoretical Framework

3.1. *Understanding Work Happiness as a Multifaceted Construct*

Work happiness has increasingly been studied as a complex and multidimensional phenomenon, reflecting both affective (emotional) and evaluative (cognitive) components of how individuals experience their work life (Fisher, 2010). Rather than a single emotional state, work happiness encompasses an integration of positive emotions, social belonging, meaningful contribution, and opportunities for growth and competence (Bakker et al., 2023; Salas-Vallina & Alegre, 2021).

The construct draws upon frameworks from organizational psychology and positive organizational behavior, intersecting with broader discourses on sustainable careers and employee flourishing (De Vos et al., 2020; Donaldson et al., 2022). Recent theoretical developments suggest that work happiness should be understood not merely as individual satisfaction, but as a dynamic outcome of the interaction between intrinsic psychological needs and available workplace resources (Bakker et al., 2023; Ryan & Deci, 2020).

Building on these insights, scholars increasingly recommend examining specific sub-dimensions of work happiness, which allows for a more granular and policy-relevant understanding of what promotes or undermines well-being at work (Bjerke, 2025; Kun & Gadanez, 2022; Salas-Vallina & Alegre, 2021).

3.2. *Self-Development, Meaning, and Autonomy*

The first core dimension frequently associated with work happiness is the experience of self-development, meaningfulness, and autonomy. Rooted in self-determination theory, this dimension emphasizes the human need for volition, competence, and personal growth (Ryan & Deci, 2020). When employees perceive they have the autonomy to influence their work methods, they are more likely to experience their tasks as meaningful, leading to higher levels of engagement and psychological well-being (Albrecht et al., 2021; Donaldson et al., 2022).

The concept of job meaningfulness is often tied to the alignment between personal values and work tasks, as well as the perception that one's work contributes to a larger purpose (Schnell & Hoffmann, 2020). This is particularly relevant in jobs where physical or routine tasks dominate daily work life, as opportunities for autonomous decision-making, learning, and reflection can buffer against monotony and enhance vitality (Albrecht et al., 2021; Smids et al., 2020).

Wrzesniewski and Dutton's theory of job crafting further suggests that employees proactively shape their roles to infuse them with greater meaning, often by seeking feedback, developing new skills, or building relational networks (Olafsen et al., 2024; Wrzesniewski & Dutton, 2001). In such contexts, support for informal learning, job autonomy, and recognition constitute essential organizational resources that facilitate this process (Bakker et al., 2023).

3.3. Interpersonal Relationships and Social Belonging

Another key dimension of work happiness is the quality of interpersonal relationships at work. Social belonging, collegial trust, and respectful communication form the basis of positive relational experiences in the workplace (Donaldson et al., 2022; Salas-Vallina & Alegre, 2021). These relationships not only enhance emotional well-being but also foster team cohesion, psychological safety, and mutual support (Edmondson & Bransby, 2023).

The importance of social connectedness is emphasized in Fredrickson's broaden-and-build theory, which posits that positive social emotions (such as gratitude, trust, and joy) expand individuals' coping capacities and resilience over time (Donaldson et al., 2022; Fredrickson, 2001). Moreover, the presence of emotionally supportive colleagues has been associated with better stress regulation, lower burnout, and more effective recovery and psychological detachment from work (Sonnentag et al., 2022).

Recent research highlights the importance of high-quality connections, characterized by mutual positive regard and respectful engagement. Even brief micro-interactions, such as daily small talk, function as social rituals that have cumulative positive effects on well-being and social cohesion (Methot et al., 2021). In blue-collar or physically intensive work settings, such relationships with peers often serve as a critical job resource for buffering high demands and shaping the emotional climate (Bakker et al., 2023).

The literature also suggests that inclusive social environments where employees feel accepted and able to "be themselves" are more likely to foster trust and enhance collective morale (Allen et al., 2021). Humor, informal interaction, and shared routines are often overlooked but vital contributors to everyday work happiness in operational contexts (Methot et al., 2021).

3.4. Supervisor Support, and Recognition

The themes of supervisor support and recognition have been extensively studied as critical antecedents to motivation, engagement, and well-being. Recognition refers to being acknowledged for one's contributions, receiving constructive feedback, and feeling seen and valued by leaders (Bakker et al., 2023). Recent research emphasizes that recognition is not merely a reward mechanism but a fundamental relational resource that signals an employee's worth within the organization (Eisenberger et al., 2020).

Organizational support theory argues that supervisors act as agents of the organization; thus, when employees perceive their supervisors as supportive, they interpret this as evidence that the organization values their input and cares about their well-being (Eisenberger et al., 2020). This perception of support is strongly linked to reciprocity, where employees respond with greater commitment, lower emotional exhaustion, and increased retention (Kurtessis et al., 2017).

In practice, supervisor support manifests through supportive leadership behaviors, such as prioritizing the needs of employees and offering regular, growth-oriented feedback. As highlighted in a systematic review by Tummers and Bakker (2021), such leadership behaviors are crucial because they directly increase available job resources while buffering the negative impact of high job demands. These supportive interactions create a psychologically safe environment where recognition feels authentic rather than transactional, thereby fostering a deeper sense of dignity and occupational self-efficacy (Eva et al., 2019).

3.5. Collaboration to Achieve Goals

A final construct frequently identified in the literature on work happiness and sustainable performance is collaboration to achieve shared goals. This theme emphasizes teamwork, mutual responsibility, and a collective sense of direction in daily work tasks (Hackman, 2002).

Team-based structures and interdependent task environments require effective communication, joint problem-solving, and alignment on objectives. When these conditions are met, collaboration becomes a source of cohesion, collective efficacy, and meaning at work (Edmondson, 1999). Theories of distributed leadership and collective sensemaking suggest that shared ownership of outcomes is critical for navigating complex or high-pressure situations (Pearce & Conger, 2003).

Research in industrial and logistical settings indicates that clearly defined goals, role clarity, and joint accountability mechanisms enhance both task efficiency and relational trust (Von Gaudecker et al., 2020). Collaboration is not only instrumental for achieving outcomes but also shapes how employees evaluate the fairness, functionality, and morale of the workplace (Crayne & Newlin, 2024).

From a human resource perspective, fostering collaboration may involve developing team norms, facilitating cross-training, and investing in shared spaces or rituals that reinforce group identity (Bjerke, 2025). The construct also overlaps with organizational culture, particularly in cultures that emphasize participatory values, mutual support, and horizontal communication (Schein, 2010).

3.6. Toward a Sustainable Framework for Work Happiness

Together, the above constructs contribute to a broader framework of work happiness that aligns with the principles of sustainable HRM. The Job Demands–Resources (JD–R) model offers a useful overarching lens, positing that well-being at work results from a dynamic balance between job demands (e.g., time pressure, physical strain) and resources (e.g., autonomy, recognition, relationships) (Bakker et al., 2023).

This model has been extensively used to examine how workplace characteristics impact burnout, engagement, and organizational commitment. Within this framework, the dimensions reviewed above—self-development, relationships, support, and collaboration—function as essential job resources that initiate a motivational process and buffer against strain (Bakker et al., 2023).

In line with this, recent approaches to sustainable HRM emphasize that organizations should move beyond mere harm reduction to actively support human sustainability and thriving (Aust et al., 2020; Kleine et al., 2019). Such approaches argue for shifting from a short-term performance focus to a long-term perspective, where work serves as a source of regeneration, meaning, and community rather than depletion (Aust et al., 2020; Donaldson et al., 2022).

This multidimensional approach is particularly relevant in physically demanding occupations, where traditional HR strategies often prioritize efficiency over the mutual gains of employee well-being and productivity. Understanding how various dimensions of work happiness contribute to a health-promoting work environment is therefore both a scholarly and practical imperative (Guest, 2017).

4. Methodology

4.1. Overall Research Design

This study applied an exploratory sequential mixed-methods design, guided by the need to explore complex workplace phenomena and to develop empirically grounded constructs related to work happiness and sick leave. Exploratory sequential mixed-methods approaches are particularly well-suited to organizational research that investigates psychological and social dimensions of workplace functioning, as they enable the integration of depth-oriented qualitative insights with the generalizability of quantitative measures (Braun & Clarke, 2006; Creswell & Plano Clark, 2018).

The research design consisted of two main phases. The first was an exploratory qualitative study aimed at capturing lived experiences of workplace presence, absence, and well-being among employees and managers. The second was a quantitative study designed to validate key dimensions derived from the qualitative phase and to assess the associations between work happiness and perceived workplace conditions. This design reflects a constructivist–interpretivist orientation in the initial phase and a post-positivist orientation in the second phase, recognizing both the subjective interpretation of workplace experiences and the value of empirical generalization through statistical modeling. The integration of these paradigms followed a complementarity rationale, seeking to enhance the interpretive depth and measurement precision of the study (Fusch & Ness, 2015). To ensure methodological transparency, the two phases were linked through an explicit instrument development process informed by qualitative data. Moreover, efforts were made to document and justify analytical decisions at each stage of the research process, thereby improving trustworthiness and reducing the risk of bias.

4.2. Initial Study: Sampling, Data Collection, and Analysis

The initial phase of the study employed an exploratory qualitative design to generate a grounded understanding of sick leave and work happiness in a warehouse context. This phase aimed to capture the lived experiences and perceptions of employees and supervisors, and to inform the development of a contextually valid survey instrument in the main study.

4.2.1. Sampling, Participants, and Data Collection Procedures

A purposive sampling strategy was applied to ensure variation in perspectives across roles, departments, and demographics within the logistics division. A total of 20 participants were included: three warehouse leaders participated in individual in-depth interviews, and 17 warehouse employees participated in four focus group interviews, each with 4–5 participants.

Participants were recruited in collaboration with HR personnel, using inclusion criteria that required at least six months of employment at the warehouse. This ensured familiarity with work routines, organizational expectations, and sick leave procedures. Employees were selected to represent a range of roles (e.g., picking, receiving, dispatch), tenure, age, gender, and absence history, to allow for a rich, multi-voiced account of presence and absence patterns (Palinkas et al., 2015). Several participants also held informal leadership responsibilities within their teams, enabling insight into both peer dynamics and informal supervisory functions.

Data were collected in spring 2023 through on-site interviews at one of the company's regional logistics hubs. All interviews and focus groups were conducted during working hours, in designated rooms to ensure confidentiality and minimize disruptions. Prior to participation, all informants received detailed written and verbal information about the study and provided written informed consent in accordance with national data protection regulations and ethical standards for research involving human participants (World Medical Association, 2013). To manage potential power dynamics and ensure psychological safety, managers were interviewed individually rather than in groups. Within the employee focus groups, the moderator explicitly addressed the issue of internal hierarchy by establishing ground rules at the outset. These rules emphasized strict confidentiality (what is said in the room stays in the room) and the value of diverse viewpoints, ensuring that informal leaders or dominant voices did not suppress the perspectives of others. Semi-structured interview guides were developed based on prior literature on work engagement, sick leave, and psychosocial work environments, and were refined through pilot testing (Kvale & Brinkmann, 2015). Key themes included perceived causes of sick leave, job demands and

resources, interpersonal relations, leadership and support, and organizational well-being initiatives. Interviews with leaders lasted between 30–45 min, while focus groups ranged from 45–60 min. All interviews were audio-recorded and transcribed verbatim. Transcripts were anonymized prior to analysis.

4.2.2. Analytical Approach

Data were analyzed using Braun and Clarke's reflexive thematic analysis, a widely used framework for identifying and interpreting patterns of meaning in qualitative data (Braun & Clarke, 2006). Thematic analysis was chosen for its flexibility and its alignment with the inductive and exploratory aims of the initial phase (Nowell et al., 2017). NVivo 12 software was used to facilitate systematic coding and organization of the dataset.

The analysis followed a hybrid approach. First, an inductive, data-driven process identified recurring semantic and latent themes. Second, theoretical concepts from the Job Demands–Resources (JD–R) model, organizational support theory, and psychosocial safety climate were used to structure and refine themes deductively (Bakker & Demerouti, 2007; Dollard & Bakker, 2010; Eisenberger & Stinglhamber, 2011). This dual approach allowed for theoretical anchoring while maintaining openness to contextual nuance (Tracy, 2010). Coding was conducted independently by two researchers to enhance intersubjective credibility. Discrepancies were resolved through collaborative discussion, and themes were iteratively reviewed to ensure internal coherence and external distinction. To enhance validity, member checking was conducted with a subset of participants who confirmed that the emerging interpretations resonated with their own experiences (Birt et al., 2016).

The final thematic framework informed the design of the main study's structured questionnaire. Themes were translated into survey items, drawing on participant phrasing and preserving contextual relevance to ensure content validity. This approach reflects best practices in exploratory sequential mixed-methods research where qualitative insight strengthens the ecological validity of quantitative instruments (Creswell & Plano Clark, 2018).

4.3. Initial Study Results

This section presents findings from the qualitative phase (Phase 1), which explored how warehouse employees and their supervisors make sense of sickness absence and how these experiences relate to well-being, work happiness, and organizational practices. Results are structured in line with the study's two qualitative research questions.

Qualitative Research Question 1 (QRQ1): *How do employees and managers explain patterns of absence and presence in the warehouse setting?*

4.3.1. Perceived Causes of Sickness Absence

Employees and supervisors described sickness absence as the result of overlapping physical, organizational, and cultural pressures. Physically, the work was experienced as taxing, with repetitive lifting and insufficient recovery time accumulating into strain and exhaustion. Participants repeatedly emphasized a pattern of depletion across both body and mind:

"You don't get time to recover. The body breaks down, but we just keep going."

"It's not just your back or knees. It gets to your head when there are no pauses, and everything is just 'go, go, go'."

These statements illustrate how physical load interacts with psychological fatigue—a dynamic widely recognized in physically intensive sectors. What begins as musculoskeletal strain gradually expands into emotional exhaustion when workers perceive no opportunity to recuperate.

A recurring theme was the “culture of pushing through,” which employees described as both an expectation and a coping strategy. This cultural norm meant that early signals of overload were often ignored:

“We often realize it too late. People want to manage, but by the time they speak up, they are already out [on sick leave].”

The supervisor’s comment highlights an important pattern: the organization tends to detect strain reactively rather than proactively. The cultural expectation to “manage” delays help-seeking, making sickness absence the eventual consequence rather than the preventable outcome.

4.3.2. Normalization of Strain and Presenteeism

Participants described how this endurance culture becomes normalized embedded in routines, social expectations, and implicit rules about what “good workers” do. Employees spoke openly about showing up despite illness, reflecting a form of presenteeism that is both socially reinforced and structurally produced:

“You don’t want to be the one who ‘gives in’. Everyone is tired, but we’re told to just keep going.”

“Calling in sick makes you feel like a burden. So, we show up, even if we shouldn’t.”

These reflections indicate that presenteeism is not simply a matter of individual choice but is shaped by collective norms and perceived social pressure. Feeling like a “burden” reveals an underlying emotional and relational dimension: absence is framed as letting the team down.

Supervisors linked this behavior to organizational priorities:

“There is so much focus on productivity that absence becomes a disruption more than a health signal.”

This comment underscores a fundamental tension: productivity demands can override health considerations, reinforcing a cycle where workers downplay their needs. Here, presenteeism becomes not only a cultural pattern but a structural consequence of tightly calibrated performance systems.

Qualitative Research Question 2 (QRQ2): *What concrete measures can support work happiness and contribute to lower sick leave?*

4.3.3. Negative Job Demands and Structural Constraints

Across interviews, employees described job demands that extended beyond physical strain to include emotional pressure, time scarcity, and limited voice. Many felt that the pace of work and lack of opportunities for dialogue contributed to disengagement:

“It’s not just the physical part. When you’re constantly in a rush, and no one listens, that’s what wears you down the most.”

This quote highlights a pattern where insufficient recognition and lack of influence are experienced as more draining than physical effort itself. The absence of “listening” signals a relational deficit that intensifies strain.

Participants also pointed to rigid routines and scarce social breaks:

“Sometimes you just need a break to talk and breathe. But here, everything is controlled to the minute.”

“If you raise concerns, it often disappears in the system. You don’t feel heard.”

These reflections reveal structural barriers to recovery and voice. Even when employees attempt to articulate needs, bureaucratic processes may dilute or delay responses, leading to frustration and perceived invisibility.

Leaders acknowledged these constraints:

“We want to follow up, but there are only so many hours in a shift. That’s the reality.”

This comment illustrates a form of organizational dilemma: supervisors recognize relational needs but are limited by operational pressures. These competing demands restrict leaders’ capacity to offer meaningful support, reinforcing the systemic nature of the problem.

4.3.4. Work Happiness and Recognition as Protective Factors

Despite the challenges described, employees emphasized that work happiness played a crucial buffering role. Positive relationships, meaningful interactions, and small gestures of appreciation helped counterbalance strain:

“We work hard, but when we laugh and feel seen, it makes all the difference.”

“There are days when just a ‘thanks’ or a smile from the boss keeps you going.”

These statements demonstrate that work happiness is perceived as relational and contextual, not merely individual. Social connection appears to generate emotional resources that help employees cope with demanding conditions. Conversely, lack of recognition was described as undermining motivation and contributing to withdrawal:

“When you’re just another number, it gets to you.”

Supervisors acknowledged this dynamic:

“Just taking time to say ‘well done’ has more effect than we think.”

This alignment between employee experiences and supervisor reflections suggests recognition is both underutilized and undervalued as a low-cost, high-impact organizational resource.

4.3.5. Suggestions for Prevention and Improvement

Employees proposed a range of practical measures that could help prevent illness and improve well-being, including task rotation, more flexible break structures, and accessible mental health support. Many also emphasized relational leadership:

“Sometimes just being asked how you’re doing makes a difference.”

“We need leaders who talk with us, not just to us.”

These comments signal that employees perceive leadership style as central to workplace climate. Dialogue, empathy, and presence emerge as critical elements of supportive work environments.

Managers, for their part, highlighted the need for systemic approaches:

“We need to start thinking long-term. If we wait until someone is burned out, it’s already too late.”

This perspective suggests growing managerial awareness that reactive measures are insufficient and that sustained cultural and structural adjustments are needed to reduce absenteeism.

4.3.6. Conclusion of Initial Study

The qualitative findings illustrate how sickness absence arises from a complex interplay of physical strain, emotional exhaustion, organizational rigidity, and cultural norms that

valorize endurance and minimize early help-seeking. These dynamics create conditions where employees often push themselves beyond healthy limits, while leaders struggle to balance relational needs with operational demands.

At the same time, the findings show that work happiness, particularly in the form of social support, interpersonal trust, and recognition acts as a protective factor that mitigates stress and bolsters presence. The relational dimension appears particularly influential in shaping workers' experiences of the psychosocial environment.

Together, these insights informed the development of the quantitative phase, which examines how four dimensions of work happiness (self-development, meaning and autonomy, interpersonal relationships, supervisor support and recognition, and collaboration to achieve goals) relate to employees' perceptions of negative workplace conditions. The patterns align with frameworks such as the Job Demands–Resources (JD–R) model and Positive Organizational Psychology, which highlight the importance of balancing high demands with strong relational and emotional resources.

4.4. The Main Study: Quantitative Validation

4.4.1. Research Design and Rationale

Utilizing an exploratory sequential mixed-methods design (Creswell & Plano Clark, 2018), the second phase employed a cross-sectional structured survey to empirically validate the themes identified in Phase 1.

The primary rationale for this sequence was to solve a measurement problem: generic scales often fail to capture the situated reality of specific occupational contexts. For instance, standard measures of “social support” might miss the nuance of “peer-based recovery” identified in our interviews. Therefore, the qualitative findings were used to operationalize context-specific constructs such as “absence culture” and “situated resilience” into measurable items. This integration ensures that the quantitative instrument possesses strong ecological validity for this specific blue-collar context (Onwuegbuzie et al., 2010).

4.4.2. Survey Instrument Development

The survey instrument was developed through a systematic “building” approach. Theoretical constructs from the Job Demands–Resources (JD–R) model (Bakker & Demerouti, 2017) served as the overarching framework, but the specific item content was derived directly from the qualitative codes.

- Work Happiness (Job Resources): Operationalized through items capturing the protective factors identified in interviews, including enjoyment, energy, skill development, and specifically the horizontal nature of relationships.
- Negative Workplace Conditions (Job Demands): Operationalized not as a single aggregate, but as distinct stressors identified by workers: work intensity, structural alienation, work-related exhaustion, and adverse social climate.

All items utilized a five-point Likert scale (1 = Strongly disagree to 5 = Strongly agree). To ensure content validity, the initial item pool was reviewed by HR practitioners and union representatives. Finally, a pilot study with 10 warehouse employees was conducted to verify face validity, resulting in minor linguistic adjustments to match the local warehouse terminology.

4.4.3. Sample and Data Collection

The survey was distributed digitally via the internal HR portal to all employees in the organization's main logistics hub in April 2024. Participation was voluntary and anonymous to reduce social desirability bias (American Psychological Association, 2020).

Sample Characteristics and Transparency: A total of 99 valid responses were received. While the target population was larger, this response rate is typical for high-intensity operational environments where digital access during work hours is limited. Respondents represented diverse roles (e.g., picking, dispatch, maintenance) with tenure ranging from <1 year to >15 years.

Justification of Sample Size: We acknowledge that a sample size of $N = 99$ is modest. However, data completeness was high. For the Factor Analyses, listwise deletion for missing data (because of item-level missingness by scale and analytic choices) resulted in analytical samples of $N = 94$ (Work Happiness) and $N = 93$ (Negative Conditions). For the multiple regression models, the full sample of $N = 99$ was utilized. According to Hair et al. (2019), a sample-to-variable ratio of 5:1 is considered the minimum threshold for exploratory factor analysis, with 10:1 being ideal. Our specific factor models (presented below) utilized subsets of items resulting in ratios well within these acceptable limits. Furthermore, for the regression models, the sample-to-predictor ratio (approx. 25:1) exceeds the recommended minimum for detecting medium effect sizes (Green, 1991). Thus, while the sample precludes complex Structural Equation Modeling (SEM), it is statistically sufficient for the EFA and regression analyses performed.

4.4.4. Statistical Analyses and Instrument Validation

Analyses were conducted using IBM SPSS Statistics (v.31). Internal consistency was assessed using Cronbach's alpha ($\alpha \geq 0.70$) (Field, 2018).

Justification for Exploratory Factor Analysis (EFA): Reviewers may question the use of EFA over Confirmatory Factor Analysis (CFA) given the existence of established theories like JD–R. However, because the specific items in this study were newly created and adapted based on qualitative interviews to fit the specific warehouse context, the latent structure of these new measures was unknown. Applying CFA to unvalidated, context-specific items would be methodologically premature (Hurley et al., 1997; Worthington & Whittaker, 2006). Therefore, EFA was the appropriate method to identify the underlying structure rather than confirm a pre-specified one.

Factor Analysis Strategy: To ensure methodological rigor, we employed Principal Axis Factoring (PAF) rather than Principal Component Analysis (PCA). PAF is preferred for identifying latent constructs as it accounts for measurement error (unique variance), whereas PCA merely reduces data (Fabrigar et al., 1999). An oblique rotation (Promax) was utilized because psychosocial dimensions (e.g., support and meaningfulness) are theoretically expected to correlate. The Kaiser–Meyer–Olkin (KMO) measure exceeded 0.80, and Bartlett's test of sphericity was significant ($p < 0.001$), confirming data suitability.

Addressing Common Method Bias: Since data were cross-sectional and self-reported, Harman's Single Factor Test was conducted to check for Common Method Bias. The unrotated solution yielded multiple factors, with the first factor explaining less than 50% of the variance. While not eliminating the risk, this suggests that common method bias is not the sole driver of the observed relationships (Podsakoff et al., 2003).

Factor Solutions: From the EFA, four distinct dimensions of Work Happiness emerged (Table 1), and four dimensions of Negative Workplace Conditions emerged (Table 2). These empirically derived factors confirm that "Negative Conditions" is not a mono-dimensional construct, but comprises distinct facets (Alienation, Exhaustion, Climate, Intensity).

These empirically derived dimensions form a robust foundation for a granular understanding of the warehouse environment. By distinguishing between specific resources and distinct demands, this framework enables a differentiated analysis of how workplace dynamics uniquely influence employee well-being. An overview of the final constructs and item content is provided in Table 3.

Table 1. Exploratory Factor Analysis of the Work Happiness Construct.

Items	Factor 1: Supervisor Support & Recognition	Factor 2: Self-Development, Meaning & Autonomy	Factor 3: Interpersonal Relationships	Factor 4: Collaboration to Achieve Goals
My immediate supervisor is willing to listen.	0.97			
Employees have trust in their leaders.	0.97			
We receive support and help from our immediate supervisor.	0.94			
Work performance is valued by the management.	0.87			
I am treated with respect.	0.80			
My immediate supervisor treats employees fairly.	0.79			
Our leaders are interested in the employees' health and well-being.	0.79			
I receive praise for my efforts.	0.70			
I am recognized for the work I do.	0.69			
I receive positive feedback from the management.	0.67			
My contribution is valued.	0.58			
I develop my skills.		0.93		
I strengthen my knowledge.		0.90		
My work tasks are meaningful to me personally.		0.89		
My work tasks are varied.		0.85		
I get to utilize my strengths.		0.76		
I can choose the method I believe is most effective.		0.60		
I can influence my own work situation.		0.58		
I have good relationships with the people I work with.			0.95	
I experience a sense of cohesion among us colleagues.			0.92	
I collaborate well with my colleagues.			0.69	
There is good humor among us.			0.65	
We colleagues are good at sharing with each other.			0.60	
I have very good friends at work.			0.57	
Relations between colleagues are good.			0.50	
We work toward common goals.				0.73
We take responsibility together.				0.73
Everyone contributes to completing the task.				0.72
Cronbach's Alpha(α)	0.96	0.94	0.91	0.86
Mean	4.62	4.49	5.17	5.19
Std. Dev.	1.50	1.63	1.14	1.17

$N = 94$; Extraction method: Principal Axis Factoring; Rotation: Promax with Kaiser Normalization—rotation converged in 6 iterations.

Table 2. Exploratory Factor Analysis of Perceived Negative Workplace Conditions.

Items	Factor 1: Structural Alienation	Factor 2: Work-Related Exhaustion	Factor 3: Adverse Social Climate	Factor 4: Work Intensity (Time Pressure)
Frequent turnover of employees.	0.83			
Few joint activities outside working hours.	0.80			
Scaling down of social activities.	0.80			
Insufficient recognition.	0.72			
Little involvement and participation.	0.68			
Lack of involvement in decisions affecting my own work situation.	0.57			
After a workday, I am often too tired to engage in other activities.		0.92		
Generally, it takes me over an hour to feel fully recovered after work.		0.87		
My job makes me feel quite exhausted by the end of a workday.		0.85		
During the last part of the workday, I cannot perform my job properly due to exhaustion.		0.58		
I find it difficult to relax at the end of a workday.		0.50		
Absence Culture.			0.86	
Poor working environment.			0.75	
Lack of recognition.			0.65	
Unfair bonus schemes.			0.50	
There is insufficient time to complete everything required of me during a day.				0.85
I feel that the demands during the workday are too high.				0.75
Experience of stress.				0.50
Cronbach's Alpha (α)	0.88	0.89	0.79	0.77
Mean	4.00	4.05	3.66	4.13
Std. Dev.	1.41	1.49	1.49	1.39

N = 93. Extraction method: Principal Axis Factoring. Rotation: Promax with Kaiser Normalization—rotation converged in 6 iterations.

Regression Analysis Strategy: To examine whether the identified job resources (Work happiness dimensions) were differentially associated with distinct facets of negative workplace conditions, we estimated four separate multiple regression models using the same predictor set. Separate models were estimated because the outcome variables represent conceptually distinct facets of the psychosocial work environment that should not be conflated into a single composite index. Specifically, the modeling strategy was designed to capture four different dimensions of workplace negativity:

1. Model 1 (Structural Alienation) assessed organizational attachment-related perceptions, testing links to detachment, lack of involvement, and structural isolation.

2. Model 2 (Work-Related Exhaustion) captured strain-related depletion, aiming to test links to fatigue and energy loss consistent with the impairment pathway of the Job Demands–Resources (JD–R) model.
3. Model 3 (Adverse Social Climate) seized cultural and justice-related perceptions. Given the qualitative study’s emphasis on the “relational climate,” this model serves as a primary test of the buffering role of social support.
4. Model 4 (Work Intensity) apprehended demand perceptions, testing links to the quantitative pace and intensity of work.

Table 3. Overview of Constructs and Item Content.

Construct/Factor	Description of Content
Work Happiness (Job Resources)	
Factor 1: Supervisor Support and Recognition	Measures trust in leadership, fairness, and the extent to which contributions are recognized and valued by immediate superiors.
Factor 2: Self-Development, Meaning and Autonomy	Reflects opportunities for skill development, meaningful work tasks, and autonomy in decision-making.
Factor 3: Interpersonal Relationships	Captures the quality of horizontal relationships, including trust, humor, friendship, and mutual support among coworkers.
Factor 4: Collaboration to achieve goals	Measures the degree of collective focus on shared objectives and joint responsibility for task completion.
Negative Workplace Conditions (Job Demands)	
Factor 1: Structural Alienation	Reflects systemic barriers such as lack of involvement, reduced social arenas, staff turnover, and time constraints hindering social interaction.
Factor 2: Work-Related Exhaustion	Measures physical and mental fatigue, need for recovery, and lack of energy after the workday.
Factor 3: Adverse Social Climate	Captures a negative psychosocial environment characterized by absence culture, poor atmosphere, and lack of perceived recognition.
Factor 4: Work Intensity (Time Pressure)	Measures the experience of excessive workload, high quantitative demands, and stress.

This approach allowed us to test whether the same set of predictors relates differently to these distinct domains of workplace negativity. Model assumptions were verified through standard diagnostics. Multicollinearity was assessed using variance inflation factors ($VIF < 5.0$), normality of residuals through Q-Q plots, homoscedasticity via residual scatterplots, and independence of residuals using the Durbin–Watson statistic. Statistical significance was set at $p < 0.05$, and effect sizes were interpreted according to Cohen’s benchmarks (Cohen, 1988).

5. Results of the Main Study

5.1. Multiple Regression Analysis: The Impact of Work Happiness on Negative Outcomes

Based on the initial qualitative phase, which identified social belonging as a central driver of the workplace experience, our primary analytical focus was to examine the predictive role of horizontal relationships (Interpersonal Relationships). To assess the specific impact of job resources on distinct facets of workplace negativity, four separate multiple regression models were estimated.

While all four models provide relevant insights (see Table 4), the investigation of Adverse Social Climate (Model 3) and Work-Related Exhaustion (Model 2) serves as the primary test of the study's central thesis regarding the buffering effect of horizontal support. The remaining models (Structural Alienation and Work Intensity) extend the analysis into structural and intensity-related domains. These results are summarized in Table 4.

Table 4. Multiple Regression Predicting Perceived Negative Workplace Outcomes from Work Happiness Subdimensions.

Predictors	Model 1: Structural Alienation (β)	Model 2: Work-Related Exhaustion (β)	Model 3: Adverse Social Climate (β)	Model 4: Work Intensity (β)
Supervisor Support and Recognition	−0.379 **	−0.125	0.000	−0.148
Self-Development, Meaning and Autonomy	0.073	−0.157	−0.119	0.003
Interpersonal Relationships	−0.287 *	−0.297 *	−0.575 ***	−0.358 *
Collaboration to Achieve Goals	0.280 *	0.072	0.163	0.128
R ²	0.21	0.23	0.34	0.17
F-value	6.09 ***	6.86 ***	11.94 ***	4.69 ***

Note. Coefficients are standardized beta weights (β). * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

5.2. The Protective Power of Interpersonal Relationships

The regression analyses validate the qualitative findings, revealing that Interpersonal Relationships is the most consistent and potent predictor across the negative workplace outcomes.

In Model 3 (Adverse Social Climate), the effect of horizontal relationships was particularly pronounced ($\beta = -0.575$, $p < 0.001$), explaining a substantial portion of the variance ($R^2 = 0.34$). Notably, Supervisor Support and Recognition had no significant effect ($\beta = 0.000$) in this model. This suggests that a high degree of social cohesion among colleagues effectively “immunizes” the workforce against toxic norms, absence culture, and perceptions of unfairness, operating independently of vertical leadership actions.

In Model 2 (Work-Related Exhaustion), colleague support emerged as the sole significant buffer ($\beta = -0.297$, $p < 0.05$). Neither task autonomy nor leadership significantly mitigated exhaustion levels. This indicates that strong collegial bonds act as a primary defense against the physical and mental depletion inherent in logistics work, serving a restorative function that other resources fail to provide.

In Model 4 (Work Intensity), social bonds again stood out as the dominant significant predictor ($\beta = -0.358$, $p < 0.05$). This finding is particularly significant given the fixed nature of logistics targets; it suggests that while the objective pace of warehouse work is high, the perception of time pressure is socially mitigated. Employees who feel socially embedded appear to experience the same workload as less overwhelming than their socially isolated counterparts.

5.3. The Structural Role of Leadership and Goals

While Interpersonal Relationships served as a universal buffer against psychosocial and health-related strains, the drivers of Structural Alienation (Model 1) proved to be distinct.

Unlike the other outcomes, Structural Alienation characterized by structural isolation and lack of involvement was most strongly predicted by Supervisor Support and Recognition ($\beta = -0.379$, $p = 0.010$). Although Interpersonal Relationships also contributed to reducing Structural Alienation ($\beta = -0.287$), the dominant effect of leadership emphasizes that preventing Structural Alienation is primarily a vertical function. Only through supervi-

sor support—specifically through inclusion and authentic recognition can the organization effectively counteract the feeling of being a depersonalized unit of production.

Furthermore, a significant positive association was found between Collaboration to Achieve Goals and Structural Alienation ($\beta = 0.280, p < 0.05$). This provides a critical, counter-intuitive insight into the warehouse context. It suggests that in environments where employees lack individual autonomy, a strong managerial focus on collective efficiency targets (“Shared Goals”) may paradoxically increase the sense of alienation. Rather than uniting the workforce, abstract performance goals in this context appear to be perceived as external pressures that crowd out social interaction and reinforce structural detachment.

5.4. Summary of Quantitative Findings

The results paint a distinct picture of the hierarchy of needs in a high-intensity logistics environment. While the JD–R model suggests that all resources are potentially beneficial, our findings indicate a clear contextual dominance:

1. Horizontal Relationships reign supreme as the primary buffer against daily strain (exhaustion, climate, intensity).
2. Vertical Support has a narrower, structural function (preventing alienation) but fails to mitigate day-to-day exhaustion.
3. Individual Resources (autonomy/development) failed to predict any outcomes. This lack of significance for Self-Development, Meaning and Autonomy is a critical finding. It suggests that in a highly standardized warehouse setting, where workflows are dictated by digital management systems, individual cognitive resources (like autonomy) lose their explanatory power. The context suppresses the relevance of individual agency, making collective social resources the only viable mechanism for coping.

6. Discussion

This study examined how psychosocial workplace factors relate to perceptions of workplace negativity and employee well-being in a warehouse setting characterized by physically demanding tasks, limited autonomy, and variable leadership practices. Utilizing an explanatory sequential mixed-methods design, the study contributes to an expanded understanding of work happiness not as a generic individual trait, but as a situated, relational construct essential for organizational sustainability.

The quantitative results provide robust empirical support for the themes identified in the initial qualitative phase, specifically validating the thesis that horizontal relationships constitute the “core engine” of resilience in blue-collar environments. However, the regression analyses also revealed distinct and complex roles for leadership and goal orientation, challenging traditional assumptions in positive organizational psychology regarding how resources function in low-autonomy contexts.

6.1. The Primacy of Horizontal Support

The most striking finding of this study is the pervasive and dominant buffering effect of Interpersonal Relationships. Consistent with our primary analytical focus, horizontal relationships emerged as the strongest significant predictor across the majority of negative outcomes (Work-Related Exhaustion, Adverse Social Climate, and Perceived Work Intensity). While prior research has emphasized the general importance of social cohesion (Salas-Vallina & Alegre, 2021; Bakker & Demerouti, 2017), our results confirm this link in a labor-intensive context where physical workload is often assumed to be the dominant concern.

Specifically, the strong negative association between Interpersonal Relationships and Adverse Social Climate suggests that toxic norms and absence cultures are effectively counteracted by strong peer cohesion. Employees who reported stronger workplace relationships were significantly less likely to perceive their work environment as psychologically harmful. This aligns with findings from [Bjerke \(2025\)](#), who emphasizes that social bonds act as both emotional buffers and motivational resources, especially in work cultures where recognition and autonomy are inconsistently distributed.

Building on the Job Demands–Resources (JD–R) model, the study contributes to the argument that social resources such as belonging, trust, and mutual respect serve as protective factors against burnout and disengagement ([Schaufeli, 2015](#)). The thematic findings from the qualitative phase deepen this perspective: employees described the protective value of humor, small-talk, and “watching each other’s backs.” These insights reinforce the idea that work happiness is a collective phenomenon, emerging through daily practices of interaction rather than top-down initiatives.

6.2. *The Distinct Function of Leadership: Preventing Alienation*

While Interpersonal Relationships functioned as a universal buffer against emotional and health-related strains, our findings indicate that peer support alone is insufficient to protect employees from Structural Alienation. This specific outcome—defined by a sense of detachment, lack of involvement, and organizational isolation—was primarily predicted by Supervisor Support and Recognition.

This distinction offers a critical nuance to the “Power of Relationships” perspective. It suggests that workplace well-being operates on two distinct levels:

- The Affective Level: Peers buffer the day-to-day emotional load, exhaustion, and stress.
- The Structural Level: Leaders bridge the gap between the individual and the organization.

The fact that Supervisor Support and Recognition significantly reduced Structural Alienation but had no significant impact on Adverse Social Climate or Work-Related Exhaustion in the regression models suggests that in this context, the leader’s role is primarily structural and inclusive. Leaders are key to ensuring that workers do not feel like depersonalized units of production, even if they cannot replace the restorative function of the peer group regarding daily stress.

6.3. *The Paradox of Shared Goals*

Contrary to traditional management assumptions, Collaboration to Achieve Goals was positively associated with Structural Alienation. This finding highlights a potential “dark side” of high-performance management in low-autonomy settings. When employees feel structurally excluded from decision-making (alienation), an excessive managerial focus on shared targets and efficiency may be perceived as external pressure rather than a unifying mission. This warns against implementing “goal-driven cultures” without first ensuring adequate levels of employee involvement and psychological safety.

6.4. *The Non-Significance of Autonomy: Contextual Dominance*

A notable finding (or, rather, non-finding) in this study was the lack of significant predictive power for Self-Development, Meaning and Autonomy. Despite being a central pillar in Self-Determination Theory ([Ryan & Deci, 2020](#)), this dimension did not significantly mitigate Exhaustion, Alienation, or Adverse Social Climates. These findings can be explained by the concept of contextual dominance. In a highly automated warehouse, the “room for maneuver” is structurally limited by Voice-pick systems and strict productivity targets. As noted by bakery/production studies (e.g., [Bakker et al., 2023](#)), when a work context offers little objective opportunity for autonomy, the subjective perception of autonomy ceases to

act as a buffer. In Maslowian terms, “self-actualization” needs (growth/autonomy) become secondary when the immediate “safety/belonging” needs (coping with exhaustion through peers) are pressing. Thus, in high-intensity logistics, survival is collective, not individual. This challenges the universal application of SDT in blue-collar contexts, suggesting that autonomy-focused interventions may be ineffective unless the structural organization of work is fundamentally changed.

6.5. *The Limits of Resources: Structural Work Intensity*

A critical nuance in our findings is the differential explanatory power regarding Work Intensity. While job resources explained a substantial proportion of the variance in Adverse Social Climate and Work-Related Exhaustion, their predictive power was weakest for Work Intensity. This supports the interpretation that work intensity in a warehouse setting is essentially a structural job demand embedded in operational production targets. Psychosocial resources cannot eliminate the objective workload (the number of boxes to move). However, the significant protective effect of Interpersonal Relationships suggests that resources act as a filter: they shape how this intensity is experienced. When employees are socially embedded, the same objective workload feels less overwhelming.

6.6. *Practical and Societal Implications*

From a sustainability perspective, this study contributes to the literature on sustainable work environments by demonstrating that relational dynamics are not only critical to individual well-being but play a preventive role in reducing the precursors of absenteeism. This aligns with recent calls to expand the focus from environmental pillars to include social sustainability in everyday work life (Gollan & Xu, 2021). To ensure transparency regarding the evidentiary basis of our recommendations, we distinguish below between implications supported by the regression analysis and specific practices derived from the qualitative interviews.

Operationalizing Social Support: The Horizontal Strategy Evidence: The quantitative analysis established that Interpersonal Relationships function as the primary statistical buffer against Work-Related Exhaustion and Adverse Social Climates (Models 2 and 3). Crucially, the qualitative insights clarified the mechanism behind this: employees described how “micro-interactions,” humor, and shared breaks served as essential recovery moments that neutralized the intensity of the workflow.

Recommendation: Organizations should move beyond viewing socializing as “un-productive time” and instead implement relationship-centered job design. Based on the qualitative descriptions of peer-based recovery, practical applications include the following:

- **Structured Peer-Mentoring:** Since the regression models showed that peer support mitigated exhaustion where leadership did not, assigning new hires to “social mentors” (not just technical trainers) could facilitate rapid integration into the protective social fabric.
- **Micro-Break Architecture:** Designing workflows that allow for brief, informal social collisions may help maintain the “social fabric” described by participants as essential for coping.
- **Team-Based Incentives:** Moving toward team-based rewards could reinforce the sense of “shared responsibility” that the qualitative data identified as a key protective factor.

Leadership Interventions: Targeting Alienation Evidence: The regression results revealed a distinct division of labor: Supervisor Support and Recognition specifically predicted Structural Alienation but did not significantly mitigate daily Work-Related Exhaustion. Qualitatively, this was mirrored in employees’ statements that they needed

leaders to “see them” as individuals rather than numbers, even if leaders could not change the physical workload.

Recommendation: These findings imply that leadership development in high-intensity logistics should be reoriented from general motivation to specific inclusion mechanics.

- **Belonging Audits:** Since the quantitative data links leadership directly to alienation, leaders should conduct systematic check-ins focusing specifically on the employee’s perception of inclusion and fairness.
- **Counteracting Depersonalization:** Training should focus on communication techniques that counteract the “depersonalized unit of production” feeling described in the interviews. This acknowledges that while a leader cannot remove the physical load (which peers help with), they are uniquely positioned to secure the employee’s structural attachment to the firm.

Societal and Policy Implications Evidence: The study’s overall mixed-methods finding—that high absenteeism persists despite Norway’s robust ergonomic regulations and welfare benefits—suggests that physical protections alone may not suffice to ensure workforce sustainability.

Recommendation: At a societal level, workforce sustainability policies should consider expanding occupational health assessments to include measures of social isolation alongside physical risks. Prioritizing the “social infrastructure” of manual labor could represent a vital strategy for supporting sustainable participation in physically demanding industries.

6.7. Limitations and International Transferability

While this study provides valuable insights, it was conducted within the specific context of the Norwegian labor market, characterized by strong employment protection, high union density, and generous sick-leave schemes (The Nordic Model). Critics might argue that these structural safety nets buffer employees differently than in more precarious labor markets.

However, we argue that the plausibility of transferring these findings to a broader international context is supported by two key arguments. First, the core nature of logistics work characterized by standardized workflows, high physical repetition, and algorithmic management shares fundamental characteristics across national borders. The “hard realities” of the warehouse floor are largely global.

Second, the study indicates that even in a context with robust external welfare support (Norway), structural benefits alone appear insufficient to prevent high absenteeism. This suggests that the internal social fabric (Interpersonal Relationships and Supervisor Support and Recognition) likely functions as a critical operational resource for retention and health in high-intensity occupations, regardless of the specific national welfare context. Therefore, while caution is warranted regarding generalization, it is reasonable to suggest that international logistics organizations could benefit from adopting the “relational approach” highlighted here, treating social capital not as a Nordic luxury, but as a universal operational requirement for sustainable blue-collar work.

7. Conclusions

This exploratory sequential mixed-methods study examined the relationship between work happiness, psychosocial workplace conditions, and the psychosocial drivers of absenteeism in a large Norwegian logistics company. The findings offer both empirical and practical insights into how work happiness can be applied to support organizational sustainability, particularly through the lens of social relationships in physically demanding jobs.

The study refines the Job Demands–Resources (JD–R) model for blue-collar contexts by identifying a distinct “hierarchy of resources.” While the initial qualitative phase emphasized the general importance of social bonds, the quantitative analysis revealed a critical division of labor: Interpersonal Relationships emerged as the superior buffer against perceived Work-Related Exhaustion and Adverse Social Climates, whereas Supervisor Support and Recognition was uniquely responsible for preventing Structural Alienation. This challenges the assumption that resources are interchangeable; rather, horizontal bonds sustain daily energy, while vertical leadership ensures organizational inclusion. Furthermore, the identification of a “paradox of shared goals”—where collective targets increase alienation in low-autonomy settings—offers a significant theoretical correction to standard management assumptions.

From a practical standpoint, these findings imply that interventions aiming to mitigate the antecedents of absenteeism must move beyond individual ergonomic solutions to address the “social infrastructure” of the warehouse. As discussed, this requires shifting focus toward relationship-centered job design, such as facilitating peer-mentoring and designing workflows that encourage micro-interactions. Leadership training should consequently be reoriented from general motivation to specific inclusion mechanics that counteract the depersonalizing effects of algorithmic management.

In conclusion, this study affirms that work happiness in logistics is not merely a private emotion but a collective, strategic asset. While these findings are exploratory and specific to the high-intensity logistics context, they suggest that by recognizing the distinct protective roles of peer support and inclusive leadership, organizations can build a more resilient “social fabric.” In an industry facing high turnover and physical strain, investing in these relational dynamics is not an optional perk but a fundamental requirement for reducing the risk of withdrawal behavior and ensuring workforce sustainability.

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