

# **Employee Well-being among Remote Workers**

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to the School of Graduate Studies in partial fulfillment of the requirements for the  
degree of Master of Science in Management (OB Specialization)

**Faculty of Business Administration**

Memorial University of Newfoundland

**October 2025**

St. John's, Newfoundland and Labrador

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## Abstract

Using Conservation of Resources (COR) and Job Demands–Resources (JD-R) theories, this study explores how perceived organizational support relates to work engagement in a sample of remote workers and investigates three potential moderators of this relationship. The study explored whether techno-overload, work-family conflict, and psychological distress moderated the perceived organizational support–work engagement relationship. Data were collected from 242 full-time remote employees in Canada, the UK, and the USA using a cross-sectional survey design. Findings showed a significant positive link between perceived organizational support and work engagement, highlighting support as a crucial organizational resource. Techno-overload and work-family conflict showed no significant moderating effects. Psychological distress, however, changed the relationship between perceived organizational support and work engagement such that it reduced the positive effects of perceived organizational support when employees reported high distress. These findings highlight psychological distress as a boundary condition for resource efficacy in remote settings. This also provides practical insights for supporting employee well-being in remote work environments.

Keywords: Remote work, Perceived Organizational Support, Work Engagement, Conservation of Resources Theory, Job Demands–Resources Theory, Psychological Distress

# Acknowledgements

I would like to express my deepest gratitude to my supervisor, Dr. Kara Arnold, at the Faculty of Business Administration, Memorial University of Newfoundland, for her invaluable guidance, support, and encouragement throughout this research. Her expertise, patience, and insightful feedback consistently pushed me to refine my thinking and strengthen the quality of this thesis.

I am also sincerely thankful to the Faculty of Business Administration at Memorial University of Newfoundland for providing me with the opportunity and academic environment to pursue my graduate studies. The resources, mentorship, and sense of community offered by the school have played a pivotal role in my academic and professional development.

Lastly, I extend my heartfelt appreciation to my family, whose unwavering love, patience, and belief in me have been a constant source of strength. Their support has been instrumental in helping me overcome challenges and achieve this milestone.

# Introduction

Over the past few decades, businesses worldwide have been adapting their systems and procedures to align with technological changes in the business ecosystem (Norlander et al., 2021). This gradual digital transformation was significantly accelerated most notably by the COVID-19 pandemic. On 30 January 2020, the World Health Organization (WHO) designated the COVID-19 outbreak as a public health emergency of international significance (World Health Organization, 2020), triggering a rapid and widespread shift toward remote work and digital operations across nearly every sector. The extensive use of remote work has resulted in major changes to organizational work (Donnelly & Johns, 2021). Before the pandemic, around 15% of U.S. employees engaged in remote work at least occasionally (Brynjolfsson et al., 2020). In January 2022, over two years into the COVID-19 epidemic, around 59% of U.S. workers were engaged in working remotely either entirely or mostly (Parker et al., 2022). More recently, Pew Research Center's survey found that 75% of employed adults with jobs that can be done remotely continue to work from home at least some of the time (Parker, 2025). Although the COVID-19 pandemic is over, and many people believe that remote work may decrease, recent Gallup tracking shows that by early 2025 nearly four in five U.S. employees whose jobs can be done remotely are working either exclusively from home (28 %) or on a hybrid schedule (51 %), leaving just 21 % fully on-site (Gallup, 2025). This ongoing shift underscores the continued relevance of remote work and provides the foundation for this study, which investigates how perceived organizational support is associated with work engagement among remote employees and how this relationship might be changed if remote employees are resource-depleted.

Remote work refers to organizational operations and professional activities conducted outside of a traditional office environment, such as telecommuting or working from home (Ilag, 2021). Studies indicate that remote work offers advantages for many employees. It provides the flexibility for anyone to work from any location at any time. Also, employees can reduce travel expenses, minimize commute time, and achieve an appropriate balance between professional and familial responsibilities (De Menezes & Kelliher, 2011; Felstead & Henseke, 2017). Many studies indicate that remote work is associated with diminished stress and burnout, decreased work-family conflict, and enhanced engagement, performance and satisfaction (Allen et al., 2015; Delanoëije & Verbruggen, 2020). These benefits are particularly evident when employees perceive strong organizational support for their remote work arrangements.

Nonetheless, a paradox emerges when remote work triggers resource depletion. In this case, it can foster diminished time, energy, and social support, undermining well-being and work engagement. Remote working may present several limitations, such as inadequate communication among teams, increased distractions, diminished work motivation, absence of in-person collaboration, potential data security issues, and challenges in performance monitoring (Golden & Gajendran, 2019; Vander Elst et al., 2017). Specifically, employees' work engagement may decline due to diminished possibilities for workplace involvement and conflicting work and non-work demands (Adisa et al., 2023). The increase in remote work has resulted in some employees encountering obstacles such as social isolation, diminished collegial connections, and difficulties in maintaining work-life balance (Schmitt, 2024; O'Hare et al., 2024; Chesley, 2014).

This apparent contradiction suggests that the benefits of remote work are not uniform across all employees or contexts. It is plausible, given these mixed findings, that boundary conditions (i.e., moderators) might help explain when remote work is associated with positive

outcomes. The overarching question guiding this study is: *To what extent is perceived organizational support associated with work engagement in remote work environments, and does employee resource depletion weaken this relationship?* This study operationalizes depletion in three ways: techno-overload, work-family conflict, and psychological distress. A visual summary of the relationships can be found in Figure 1 of Appendix A.

Job Demands-Resources (JD-R) theory explains why we might expect that perceived organizational support is positively associated with work engagement for remote workers. In addition, Conservation of Resources (COR) theory offers a framework for conceptualizing employee resource depletion and suggests that when employees are depleted, they would not be able to gain the same amount of benefit from positive resources. Organizational support can energize engagement, but its impact may be contingent on employees' depletion states. The next section outlines the core assumptions of JD-R and COR theories and explains their relevance to the present study.

## **Theoretical Framework**

The Job Demands–Resources (JD-R) theory explains how a core job resource, such as perceived organizational support, can be converted into motivational energy that increases work engagement (Demerouti et al., 2001). Perceived organizational support indicates employees' overall attitude that the organization appreciates their contributions and is concerned about their well-being (Rhoades & Eisenberger, 2002). This signal fulfills socioemotional requirements, enhances the perceived obligation to reciprocate, and broadens personal resources (e.g., efficacy, optimism), collectively fostering the JD-R motivational pathway and resulting in vigor, dedication, and absorption, the fundamental components of work engagement (Schaufeli & Bakker, 2004). According to the JD-R motivational pathway, job resources foster vigour, dedication, and

absorption (i.e., work engagement) by satisfying employees' needs for support and psychological safety (Kahn & Heaphy, 2013).

In the last three decades, Conservation of Resources (COR) theory (Hobfoll, 1989) has emerged as one of the most frequently referenced theories in organizational behaviour literature (Hobfoll et al., 2018). The core principle of COR is that individuals strive to acquire, maintain, safeguard, and nurture the resources they consider valuable (Hobfoll, 1989). Resources can be categorized as material (e.g., financial assets), social (e.g., social support, status), or psychological (e.g., sense of autonomy) (Hobfoll, 1989). The theory asserts that the potential loss of valued resources, the actual loss of these resources, or inadequate returns on resource investment are primary triggers of psychological strain (Hobfoll, 1989). Experiencing resource loss heightens the motivation to gain new resources, as doing so provides emotional comfort and supports continued goal pursuit (Wells et al., 1999). Consequently, after a crisis, the loss of resources is perceived as more significant than the gain of resources, which is regarded as having a more modest, albeit important effect (Egozi Farkash et al., 2022). This theory underscores that distress arises not just from actual resource depletion but also from the perceived possibility of loss, or insufficient resource acquisition, following significant investment, illustrating the heightened vulnerability of those who are already resource-depleted to additional strain (Hobfoll, 1989). Similar to Byrne et al.'s (2014) "depleted leader" framework, which conceptualizes factors such as depressive symptoms and anxiety as observable signs of resource depletion in leaders, I apply that viewpoint to remote employees. Thus, COR theory provides a framework for conceptualizing employee resource depletion in remote workers as indicated by higher levels of tech-overload, work–family conflict, and psychological distress.

Conservation of Resources (COR) theory can also supplement JD-R theory to describe why perceived organizational support may help remote employees manage resource depletion. Perceived organizational support can provide both emotional and instrumental support, potentially fostering greater work engagement. However, in line with COR's principle that resource loss is more impactful than resource gain, this resource-providing effect may weaken when employees face high levels of depletion. Depleted individuals enter a defensive, loss-prevention mode that limits further resource investment (i.e., work engagement) that can occur with higher perceived organizational support.

In summary, perceived organizational support functions as the resource that enables employees to increase work engagement, while techno-overload, work–family conflict, and psychological distress act as indicators signalling depletion of resources. Perceived organizational support replenishes employees' personal resources, fuelling work engagement. By contrast, techno-overload and work–family conflict accelerate resource loss, and psychological distress signal that resources are already depleted. In the case of greater depletion, there is a smaller likelihood that perceived organizational support will translate into higher work engagement. Drawing on JD-R and COR, therefore, explains why resources matter (to avoid net loss), how a resource such as perceived organizational support translates into engagement for remote workers, and why increased states of depletion should dampen this relationship. I now turn to a more detailed discussion of these relationships and development of the hypotheses.

## **Perceived Organizational Support and Work Engagement in Remote Work Contexts**

Perceived organizational support refers to employees' perceptions regarding the extent to which their organization values their contributions and cares about their well-being (Eisenberger et al., 1986). Eisenberger et al. (2020) reviewed the consequences of perceived

organizational support and discussed its associations with a range of outcomes, including positive attitudes toward the organization (e.g., engagement), beneficial work behaviours (e.g., performance, citizenship behaviour), and improved employee well-being (e.g., reduced stress). Building on its foundational role in organizational behaviour, extensive research has explored perceived organizational support as a key construct in understanding employee-employer relationships.

Talukder (2019) asserted that individuals who perceive substantial organizational support are more inclined to experience job satisfaction, demonstrate organizational commitment, and engage in constructive behaviours, such as organizational citizenship behaviour (OCB). Previous studies (e.g., Kurtessis et al., 2017) have accumulated evidence showing that perceived organizational support is important not only for organizational performance outcomes, but also for enhancing individual-level outcomes such as job engagement. Over time, employees are confronted with new information and experience new events at work (Jones & Skarlicki, 2013), such as remote working. In such environments, employees' perceptions of organizational support may not only be associated with their overall well-being, but also shape the way they engage in their work.

Work engagement, defined as “a positive work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli et al., 2002, p. 74), has garnered significant interest from academics due to its beneficial effects for both organizations and employees (Bakker & Demerouti, 2008). Studies indicate that workplace resources enhance work engagement, leading individuals in highly resourceful environments to exhibit enthusiasm, vigor, and immersion (i.e., engagement) in their tasks (Suan & Nasurdin, 2016). Research consistently indicates a positive correlation between perceived organizational support and work engagement, as employees who

perceive organizational support are more inclined demonstrate high work engagement (Saks, 2006; Imran et al., 2020; Najeemdeen et al., 2018; Caesens & Stinglhamber, 2014; Dai & Qin, 2016; Köse, 2016; Ni et al., 2023).

For example, Imran et al. (2020) conducted a cross-sectional study in Pakistan's service sector and found that perceived organizational support positively predicted work engagement, both directly and indirectly through thriving and flourishing, two psychological states characterized by energy, learning, and personal development. Their findings showed significant paths from perceived organizational support to both mediators and from those mediators to work engagement, supporting the idea that perceived organizational support helps employees build the psychological resources needed to stay engaged. Similarly, Köse (2016) studied teachers in Turkish public schools and reported that perceived organizational support was significantly and positively related to work engagement behaviour, emphasizing that organizational support, along with organizational climate, plays a vital role in boosting educators' engagement levels. While robust evidence links perceived organizational support with work engagement in traditional work environments, limited research has explored this relationship in remote work settings, indicating the need for further investigation as remote work becomes increasingly prevalent.

COR theory also helps to explain why perceived organizational support can still be a contextual resource that enables employees to show vigour, dedication, and absorption, even when remote work removes informal in-person supports. In remote work settings, where heightened social isolation and blurred boundaries might amplify job demands, perceived organizational support may be an especially critical resource for sustaining employees' energy and work engagement.

Thus, I hypothesize that:

***H1:** Perceived organizational support is positively related to work engagement among remote employees.*

As previously outlined, the research focused on remote work shows mixed findings, demonstrating both beneficial and negative employee outcomes. On the beneficial side, it provides employees with high levels of flexibility and autonomy, allowing them to control where, when, and how work is performed (Bailey & Kurland, 2002). This flexibility can facilitate better management of work and family responsibilities, contributing to greater job satisfaction (Wheatley, 2017), lower stress levels, reduced work-home conflict, higher work engagement, and improved job performance (Delanoëje & Verbruggen, 2020). However, remote work is not without its drawbacks. Employees may also experience isolation, limited social interaction, and a heavy reliance on technology, which can be associated with stress related to technology (technostress) and feelings of disconnection from the organization (Golden et al., 2008; Ragu-Nathan et al., 2008).

Factors such as techno-overload, work-family conflict, and psychological distress may weaken the positive effects of perceived organizational support on work engagement. These factors may be especially relevant in remote work environments, where employees often face unique challenges that differ from traditional in-person settings. Even when perceived organizational support is high, the presence of such factors may weaken its positive association with work engagement, suggesting a potential boundary condition in the support–engagement relationship. According to Othman et al. (2009), work-family conflict frequently escalates with the indistinct borders between professional and personal life. Furthermore, psychological distress may be exacerbated by feelings of isolation and diminished social contacts prevalent in remote work. The moderating roles of techno-overload, work-family conflict, and psychological distress (as

indicators of employee depletion) are examined to understand how these indicators might change the strength of the relationship between perceived organizational support and work engagement among remote workers. In the following sections I discuss each potential moderator, and outline related hypotheses.

## **The Moderating Role of Techno-overload**

The term technostress was coined in 1984 by clinical psychologist Craig Brod, who defined it as a modern affliction stemming from an individual's inability to effectively manage information and communication technologies (ICT) (Ayyagari et al., 2011). Technostress may be especially pertinent in for remote workers due to their increased reliance on digital tools and exposure to changing technological demands. Further, Tarafdar et al. (2007) identified five dimensions of technostress creators (techno-overload; invasion; complexity; insecurity and uncertainty). Research consistently demonstrates that these five dimensions of technostress creators in combination are positively correlated with burnout and both technostress creators and burnout are negatively correlated with work engagement (Brown et al., 2014; Kutlutürk Yıkılmaz et al., 2024). Among the five creators, techno-overload most effectively illustrates the quantity-driven exhaustion that remote workers endure: a relentless stream of messages, platforms, and task-switching may diminish response times and amplify perceived time constraints. Hence, in this study I use techno-overload, defined as arising when the adoption of information and communication technologies (ICT) increases the pace, intensity, and volume of work, as one indicator of potential employee resource depletion in remote work environments. Grounded in COR theory, I focus on techno-overload because it most directly captures the resource-loss mechanism (time/energy depletion from accelerated pace, interruptions, and compressed response windows) that indicates resource depletion.

Current evidence suggests that techno-stress creators, including techno-overload, techno-uncertainty, techno-insecurity, techno-complexity, and techno-invasion, might hinder innovation and productivity while decreasing user happiness (Tarafdar et al., 2015), ultimately leading to reduced job engagement. Consequently, techno-overload may also be adversely associated with work engagement. Perceived organizational support may serve as an essential workplace resource that improves work engagement; nevertheless, its efficacy may be vulnerable to external factors such as techno-overload.

Employees experiencing elevated perceived organizational support should, in principle, demonstrate increased work engagement. Nevertheless, high levels of techno-overload may attenuate these benefits. Elevated techno-overload may constrain how strongly support translates into engagement. In a multicenter study involving university medical staff and students, techno-overload was a significant predictor of lower work engagement (Kasemy et al., 2022). Employees burdened by technological overload, swift information and communication technology transformations, or technological encroachments on personal life may find it challenging to translate perceived organizational support into increased engagement (Salzmann-Erikson et al., 2024). Consequently, elevated techno-overload may function as a moderator, reducing the strength of the perceived organizational support-work engagement association. Conversely, when techno-overload is minimal, employees may be more likely to effectively leverage organizational assistance to boost engagement, optimizing the advantages of resources offered by the employer. Based on this, I propose the following hypothesis:

***H2: Techno-overload moderates the association between perceived organizational support and work engagement, such that the positive association is weaker when techno-overload is high than when it is low.***

## **The Moderating Role of Work-family Conflict**

Work-family conflict refers to a type of inter-role conflict where the demands of work and family roles interfere with one another, such that involvement in one domain hinders effective participation in the other (Greenhaus & Beutell, 1985). This is a subjective experience of inter-role conflict linked to diminished job satisfaction and general well-being, as individuals endeavour to reconcile their professional and personal responsibilities (Kopelman et al., 1983). Given its impact on employees' ability to balance work and personal life, we might also assume that work-family conflict negatively correlates with work engagement, potentially hindering employees' motivation, dedication, and overall involvement in their work. Indeed, many research studies indicate that work-family conflict adversely affects work engagement (Yang et al., 2024; Carvalho et al., 2024). For example, Halbesleben et al. (2009) discovered, in a study of U.S. employees, that work engagement correlates negatively with work-family conflict through its relationship to organizational citizenship activities. Furthermore, Balogun and Afolabi (2019) surveyed 156 working mothers in Nigerian banks and found that work engagement was negatively linked to work-family conflict. More importantly, their moderated-hierarchical regression showed that job demands intensified the work-engagement and work-family conflict relationship.

High work-family conflict may weaken the positive effect of perceived organizational support on engagement, as employees struggle to remain focused and motivated under competing role demands. In the realm of remote work, perceived organizational support is becoming increasingly vital as employees encounter issues such as blurred work-life boundaries (Mishra & Bharti, 2020). Prior studies have indicated perceived organizational support is helpful in alleviating the detrimental impacts of work-family conflict and co-worker conflict on job satisfaction, work-life balance, and organizational commitment (Wattoo et al., 2018). Employees who perceive significant support from supervisors, peers, and the organization tend to be more

proficient in balancing work and family demands and resolving conflicts with colleagues, leading to greater job satisfaction, improved work-life balance, and heightened organizational commitment. Talukder (2019), using data from 305 personnel in the Australian financial industry, found that supervisor support was negatively associated with work-family conflict and positively related to work-life balance and job satisfaction. These findings suggest that support functions as a critical resource for managing competing demands. Extending these insights to remote work, this study argues that work-family conflict may similarly moderate the relationship between perceived organizational support and work engagement, potentially diminishing the benefits of support when conflict levels are high.

In COR terms, work-family conflict constitutes an inter-role demand that depletes time and emotional resources; when that depletion is high, the motivational gain perceived organizational support normally generates should be restricted, hence work-family conflict is positioned as a boundary condition rather than an independent predictor. Employees facing significant work-family conflict may find it challenging to effectively utilize organizational support, as their cognitive and emotional resources are depleted by conflicting work and family obligations. Conversely, when work-family conflict is minimal, perceived organizational support is likely to have a stronger positive relationship with work engagement, as employees can more effectively use existing organizational resources without the burden of conflicting role demands. Consequently, I propose that:

***H3:** Work-family conflict moderates the association between perceived organizational support and work engagement, such that this positive association is weaker when work-family conflict is high than when it is low.*

## **The Moderating Role of Psychological Distress**

Psychological distress is defined as a condition of emotional suffering marked by symptoms of depression (e.g., a lack of interest, unhappiness, despair) and anxiety (e.g., restlessness) (Belay et al., 2021). From a COR perspective, distress may signal a depleted resource state, which limits capacity to gain from additional resources like perceived organizational support. As a result, psychological distress may weaken the positive effect of perceived organizational support on work engagement by reducing employees' ability to channel that support into higher levels of vigor, dedication, and absorption—core components of work engagement.

Recent studies in the context of COVID-19 have indicated elevated levels of depression and post-traumatic symptoms among employees (Serrano-Ripoll et al., 2020). Notably, psychological distress has been linked to decreased productivity and a higher likelihood of errors (Karanikola et al., 2020). For example, one study revealed significant differences in engagement levels and work environment factors between individuals with and without psychological distress. In this study, those experiencing the highest levels of psychological distress reported lower levels of work engagement (Ruiz-Frutos et al., 2021).

In this thesis, I operationalize psychological distress using the Signs of Struggle (SOS) measure developed by Dimoff and Kelloway (2018). The SOS measures behaviours displayed when an individual has challenges coping or fulfilling work obligations. It functions as a broad, non-diagnostic characterization of someone potentially undergoing psychological distress or impaired mental health (Dimoff & Kelloway, 2018). Leaders educated in workplace mental health promotion have utilized the SOS to identify early indicators, such as emotional outbursts, social isolation, and alterations in performance, that frequently precede more severe consequences (Dimoff & Kelloway, 2019). This scale operationalizes psychological distress through a

behavioural perspective, offering a practical and contextually relevant measure consistent with the resource-based frameworks used in this study.

Considering these factors, it is pertinent to examine the interaction between psychological distress and perceived organizational support in remote work environments. Psychological distress may diminish the positive impact of perceived organizational support on work engagement by impairing employees' ability to utilize available support effectively. Although perceived organizational support generally promotes work engagement by reinforcing employees' sense of value and emotional security, this positive effect may not be fully realized among employees experiencing high levels of psychological distress. In such cases, distress may impair motivation and concentration, limiting employees' ability to translate available support into higher levels of vigour, dedication, and absorption. Thus, I propose that:

***H4:** Psychological distress moderates the association between perceived organizational support and work engagement, such that this positive association is weaker among employees experiencing higher levels of psychological distress.*

Overall, while organizational support may be associated with greater work engagement, remote work may introduce a unique set of resource depletion factors that alter the strength of this relationship. This study addresses mixed findings in the literature on remote work, where it can both enhance and undermine well-being and engagement, by examining conditions under which perceived organizational support may not be as effective. Specifically, this research investigates whether high levels of techno-overload, work-family conflict, and/or psychological distress weaken the positive association of perceived organizational support with engagement. In doing so, the aim is to uncover boundary conditions that help explain why some remote employees benefit from organizational support while others do not. The findings may have important implications

for how organizations tailor support strategies to meet the needs of remote employees, who may require either greater levels, or different forms, of support to remain engaged in their work.

## **Methodology**

A quantitative cross-sectional survey was chosen because the primary goal was to test theoretically derived associations and moderation effects among established psychological constructs rather than to infer temporal causality. This design allows simultaneous measurement of perceived organizational support, work engagement, and the three moderator variables, enabling the use of hierarchical regression and PROCESS moderation analyses to test the study hypotheses in a single wave of data. A structured questionnaire was employed to gather self-reported data from employees who satisfy remote work criteria. In this study, remote work is operationalized as a work arrangement in which employees perform at least 50% of their working time from home.

## **Procedure and Participants**

Ethics approval was received from the Interdisciplinary Committee on Ethics in Human Research (ICEHR; refer to initial and amendment approvals in Appendix B). The study design involved developing a recruitment message that outlined the project's objective and included a link to an online survey hosted on Qualtrics (<https://www.qualtrics.com/>). Participants in this study accessed a link to Qualtrics, which initially took them to the informed consent that they were required to read and accept before completing the survey (full list of measures is included in Appendix C). The survey required approximately 10 minutes to complete.

Two attention-check items were incorporated within the questionnaire. Participants had to successfully answer both attention-check questions to have their data included in the analysis.

Participants were notified that they could exit the survey at any time. The utilization of Prolific ensured complete anonymity for participants, as researchers received no identifying information.

## Sample

The target demographic comprised full-time employees from Canada, the UK, and the USA who engage in remote work for a minimum of 50% of their working hours (Wiesenfeld, Raghuram, and Garud, 1999). Participants were recruited using Prolific (<https://www.prolific.co/>), a UK-based online platform that enlists global research participants in exchange for financial incentives provided by researchers. This tri-country pool was chosen due to Canada, the UK, and the USA being English-speaking, economically comparable markets with some of the highest post-pandemic remote work adoption rates, facilitating the recruitment of a substantial, culturally similar workforce for whom remote work ( $\geq 50\%$  of the week) may be a frequent experience. Further inclusion criteria mandated that participants be employed by an organization (i.e., not self-employed) and have a direct supervisor. From the initial 254 respondents, twelve participants were excluded from the dataset due to failing one or both attention-check questions and having response times 40% below the median (0.4 of the median time was 247.6 seconds: DeSimone & Harms, 2018). This resulted in a final sample of 242 participants.

Just over half of the sample identified as female (50.4%,  $n = 122$ ), and slightly less than half as male (47.9%,  $n = 116$ ). Also, a minority identified as non-binary (0.8%,  $n = 2$ ), trans-man (0.4%,  $n = 1$ ), or chose not to disclose their gender (0.4%,  $n = 1$ ). For supervisors' gender, the sample was evenly divided, with 50.4% identifying their boss as male ( $n = 122$ ) and 49.4% as female ( $n = 119$ ) and only one supervisor was identified as a trans-woman (0.4%,  $n = 1$ ). Leadership hierarchy was assessed at three levels: top-level leadership (CEO/Executive-level), middle-level management, and lower-level supervisory roles. Most respondents reported to

middle-level managers (57%, n = 138), followed by lower-level supervisors (29.3%, n = 71), and top executives (13.6%, n = 33). Such balanced demographics may enhance the generalizability of findings across different gender identities and hierarchical contexts within organizations. The average age of participants in the main survey was 38.3 years.

## **Data Analysis**

Descriptive statistics comprising means, standard deviations, and correlations, were calculated and are displayed in Table 1 (See Appendix D for all Tables). Hypothesis testing was performed via OLS regression with PROCESS (Hayes, 2022) for SPSS (version 29.0.1.1). This method was selected due to its capacity for direct estimation of moderation effects and its provision of bootstrapping confidence intervals, enhancing the robustness of statistical inferences (Hayes, 2022). Moderation analysis (PROCESS Model 1) was employed to test whether techno-overload, work–family conflict, and psychological distress moderate the association between perceived organizational support and work engagement..

## **Measures**

Full measures are outlined in Appendix C.

### **Perceived Organizational Support**

Perceived organizational support was assessed using the scale developed by Eisenberger et al. (1997). The scale consists of 8 items measuring the extent to which employees perceive their organization values their contributions and well-being. Responses were recorded on a 7-point Likert scale (1 = strongly disagree, 7 = strongly agree). The scale showed good reliability with Cronbach alpha of 0.94.

## **Techno-overload**

Techno-overload was measured using the techno-overload sub-scale of the Technostress Creator Scale developed by Tarafdar et al. (2007). Four items measure techno-overload. Responses were recorded using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach alpha for this measure was acceptable at 0.86.

## **Work-Family Conflict**

Work-family conflict was measured using the Work-Family Conflict Scale (WAFCS) by Kopelman et al. (1983). This scale evaluates the degree to which work demands interfere with family responsibilities. Responses on 8 items were collected on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The scale showed good reliability with a Cronbach alpha of 0.93.

## **Psychological Distress**

Psychological distress was measured using the Signs of Struggle (SOS) scale (Dimoff & Kelloway, 2018). This scale captures symptoms indicative of psychological distress in workplace settings. Responses were rated on a 6-point Likert-type scale (1= never, 6 = every day). The reliability of this scale was good with Cronbach alpha of 0.88.

## **Work Engagement**

Work engagement was assessed using the Utrecht Work Engagement Scale (WES) by Schaufeli et al. (2017). This shortened three-item version of the Utrecht Work Engagement Scale is a reliable and valid indicator of work engagement that shortens surveys and saves respondents' time (UWES-3; Schaufeli et al., 2017). This scale consists of 3 items measuring

vigour, dedication, and absorption in work. Responses were recorded on a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). Cronbach alpha for this measure was acceptable at 0.85.

## Results

Descriptive statistics and bivariate correlations for all study variables are presented in Table 1. The mean score for perceived organizational support was 4.71 (SD = 1.28), while work engagement had a mean of 3.10 (SD = 1.06), indicating moderately high levels of both constructs across the sample. The three proposed moderators—techno-overload, psychological distress, and work-family conflict—had mean scores of 2.55 (SD = 1.03), 1.61 (SD = 0.50), and 2.63 (SD = 1.07), respectively, suggesting some variation in these factors experienced by remote employees. As shown in Table 1, perceived organizational support was positively and significantly correlated with work engagement ( $r = 0.49, p < .01$ ), supporting the first hypothesis. In contrast, all three moderating variables showed significant negative correlations with work engagement: techno-overload ( $r = -.14, p < .05$ ), work-family conflict ( $r = -.25, p < .01$ ), and psychological distress ( $r = -.44, p < .01$ ). Perceived organizational support was also negatively correlated with techno-overload ( $r = -.31, p < .01$ ), work-family conflict ( $r = -.46, p < .01$ ), and psychological distress ( $r = -.37, p < .01$ ), suggesting that higher organizational support is associated with lower perceived levels of these moderators.

Hypothesis 1 posited that perceived organizational support has a positive correlation with work engagement among remote employees. Table 1 illustrates a positive and statistically significant Pearson correlation between perceived organizational support and work engagement,  $r = .49, p < .01$ . This suggests that employees who reported elevated organizational support also indicated increased work engagement. Hypothesis 2 posited that techno-overload would moderate

the association between perceived organizational support and work engagement, indicating that the positive correlation would diminish at elevated levels of techno-overload. The moderation analysis utilizing PROCESS Model 1 indicated that the interaction term between perceived organizational support and techno-overload was not statistically significant ( $p > .05$ ). This signifies that techno-overload did not substantially modify the intensity or direction of the association between perceived organizational support and work engagement. Consequently, hypothesis 2 was not supported. Hypothesis 3 stated that work-family conflict moderates the link between perceived organizational support and work engagement, wherein the positive impact of perceived organizational support on work engagement would be attenuated in the presence of elevated work-family conflict. Inconsistent with hypothesis 3, the interaction between perceived organizational support and work-family conflict was non-significant ( $p > .05$ ). Consequently, hypothesis 3 was also unsupported.

To test hypothesis 4, which proposed that psychological distress moderates the relationship between perceived organizational support and work engagement such that the positive association is weaker at higher levels of psychological distress, a moderation analysis was conducted using Hayes' PROCESS macro (Model 1;  $N = 242$ ) (Hayes, 2022). Results are presented in Table 2. The overall model was statistically significant,  $F(3, 238) = 40.04, p < .001$ , with an  $R^2 = .33$ , indicating that the predictors explained 33% of the variance in work engagement. Crucially, the interaction term between perceived organizational support and psychological distress was also significant ( $b = -0.16, SE = 0.074, t(238) = -2.16, p = .03$ ). The 95% confidence interval was  $[-0.31, -0.01]$ , indicating that it did not cross zero. This supports the presence of a statistically significant moderation effect. The inclusion of the interaction term accounted for an additional 1% of the variance in work engagement ( $\Delta R^2 = .01, F(1, 238) = 4.69, p < .05$ ). The  $POS \times$  psychological-

distress interaction was negative and statistically significant ( $b = -0.16$ , 95% CI  $[-0.31, -0.01]$ ;  $\Delta R^2 = .01$ ). Based on this, a figure was created to ascertain the shape of moderation. Figure 2 (in Appendix A) shows that higher psychological distress attenuates the positive association between perceived organizational support and work engagement. Specifically, individuals experiencing lower psychological distress benefited more from perceived organizational support in terms of their work engagement compared to those with higher levels of distress. Therefore, hypothesis 4 is supported: psychological distress significantly moderates the relationship between perceived organizational support and work engagement in the predicted direction.

To evaluate whether common-method variance (CMV) might be an issue with this self-report data, Harman's single-factor test was conducted. All measurement items from the five study constructs were entered into an unrotated principal-components extraction (PCA) in SPSS, with the number of factors constrained to one (Fixed = 1) (See Table 3). The single component produced an eigenvalue of 12.68 and accounted for 29.49 % of the total variance—well below the 50 % benchmark for problematic CMV (Podsakoff et al., 2003). These results indicate that CMV is unlikely to threaten the validity of the observed relationships.

## **Discussion**

Drawing on the Job Demands-Resources and Conservation of Resources (COR) theories, this research set out to explore how perceived organizational support is associated with employee engagement in remote work environments, and whether certain factors, namely, techno-overload, work-family conflict, and psychological distress, shape the strength of this relationship. The results confirm JD-R theory: that organizational resources, including support, can augment work engagement. In alignment with prior research (e.g., Stefanidis & Strogilos, 2021; Biggs et al.,

2014), the significant and positive correlation between perceived organizational support and work engagement underscores the notion that organizational support functions as a vital resource in enhancing employee work engagement. This association remained important even in the context of remote work, when physical separation from the workplace may introduce additional resource-related issues, including isolation, ambiguity, and diminished visibility of contributions. This indicates that, even without physical in-person connection for all working times, employees continue to be highly receptive to indications that their organization values and cares about them.

However, this study also found that psychological distress was a boundary condition of the link between perceived organizational support and work engagement. When psychological distress was high, the relationship between perceived organizational support and work engagement was not as strong as when psychological distress was low. Although perceived organizational support often fosters work engagement, its association was diminished when employees faced elevated levels of distress. While past research revealed that psychological distress has associations with perceived organizational support (e.g., Chatzittofis et al., 2021), and work engagement (e.g., Gómez-Salgado et al., 2021; Jindo et al., 2020), this study also critically identifies psychological distress as a moderator in the relationship between perceived organizational support and work engagement. This indicates that when employees report experiencing increased distress, they are less capable of utilizing organizational support to maintain their work engagement.

This corresponds with COR theory's claim that the depletion of internal resources, such as mental energy and emotional stability, might diminish an individual's ability to capitalize on other resources. During periods of psychological distress, employees may find it challenging to utilize the support offered to them. This finding underscores the necessity of considering various types of organizational support as well as additional resources: perceived support alone may prove

ineffective without concurrent initiatives to acknowledge and mitigate underlying psychological distress. This finding also has supervisory implications for remote work. Supervisors should be prepared to detect signs of resource depletion (e.g., psychological distress) among remote employees.

The expected moderating effects of techno-overload and work-family conflict were not confirmed. Despite being addressed in remote work literature, these factors did not significantly change the relationship between perceived organizational support and work engagement in this study. This may indicate that not all types of resource depletion uniformly impede remote employees' capacity to utilize organizational resources. Techno-overload and work-family conflict, albeit disruptive, may be more effectively mitigated through personal coping skills, flexible work rules, or digital literacy. Conversely, psychological distress perhaps signifies a more internalized type of strain, which may more profoundly undermine an individual's motivational capacity and emotional resilience.

## **Implications**

These findings position perceived organizational support as a valuable resource for sustaining work engagement in remote settings, while clarifying a key boundary condition: when employees are depleted, particularly through psychological distress, their capacity to convert perceived organizational support into engagement weakens. Accordingly, organizations should treat perceived organizational support as necessary but not sufficient; efforts to build support must be paired with initiatives that proactively reduce depletion (e.g., mental-health literacy, workload and schedule design, and accessible recovery opportunities).

The moderation pattern indicates that not all forms of depletion constrain resource gain to the same extent. Psychological distress, an internal, persistent drain on mental and emotional

energy, more directly interferes with employees' ability to capitalize on available support. By contrast, techno-overload and work–family conflict did not significantly alter the organizational support–engagement association in this sample, consistent with the idea that some indicators may be manageable or buffered through factors such as digital competence, boundary-setting, and/or flexible work arrangements.

Managers should deliberately signal support in ways that are salient in remote workers and could also implement management practices that help foster work engagement in remote workers. For example, ensuring that procedures within the organization are fair and perceived as fair by employees, maintaining open channels of communication, showing recognition for professional accomplishments, adapting the work schedule to individual needs, and providing employees with the resources they need through training, coaching and information (Caesens & Stinglhamber, 2014).

Because resource depletion limits employees' ability to use perceived organizational support to enhance engagement, organizations should also monitor and respond to employee psychological distress. This includes equipping leaders to notice early behavioural cues, providing access to counselling and wellness resources, and fostering psychologically safe norms that make help-seeking routine. Managers educated in mental health awareness are more adept at identifying behavioural changes in employees that signal distress, hence enhancing their capacity to intervene and provide effective support to those struggling (Dimoff & Kelloway, 2019). Remote teams may require adapted processes to surface depletion early and route employees to appropriate support.

Taken together, there are two practical implications of this study: (1) build perceived organizational support in ways that are visible and reliable in remote work, and (2) lower employee

resource depletion, with special attention to psychological distress, so that employees can use the support provided.

## **Limitations and Future Research**

This study provides valuable insights into the correlation between perceived organizational support and work engagement in remote work environments and has identified an important moderator of this relationship in psychological distress. Nevertheless, as with all research, some limitations must be recognized. The research utilized a cross-sectional approach, which constrains the capacity to identify causal relationships among perceived organizational support, psychological distress, and work engagement. Although moderation studies yield insights into conditional effects, longitudinal or experimental methods would provide a more robust foundation for determining causal direction. However, Siemsen et al. (2010) indicate that the probability of identifying a significant interaction using solely mono-method data is diminished, implying that if such an interaction is detected, it constitutes compelling evidence of a true interaction effect. Therefore, it is unlikely that the significant interaction that was found is due to the cross-sectional nature of the data.

Secondly, a further constraint of this study is that the hypothesized relationships were evaluated using data derived from self-reported measurements. Consequently, the findings may have been affected by common method bias (e.g., Podsakoff et al., 2003). As detailed in the results section, Harman's single-factor test showed that a single unrotated factor explained only 29.49 % of the total variance, indicating that common-method bias is unlikely to have affected the findings. Integrating multi-source data, such as supervisor evaluations or behavioural metrics, in forthcoming studies could enhance validity. The utilization of Prolific for participant recruitment, while beneficial for accessing geographically diversified remote workers, may constrain external

validity. Participants were sourced from English-speaking nations (Canada, the UK, and the USA), thus constraining the generalizability to other cultural or organizational contexts where remote work norms and support systems vary.

Further, although the perceived organizational support  $\times$  psychological-distress interaction was statistically significant ( $b = -0.16$ ,  $SE = 0.73$ ,  $p = .03$ ), it added only  $\Delta R^2 = .01$  to the model, an incremental change that indicates the effect, while reliable, is small in practical terms. This increment suggests that other unmeasured factors, such as additional indicators of resource depletion (e.g., chronic fatigue, sleep quality) or contextual resources (e.g., job autonomy, team communication quality), may account for a larger share of unexplained variance. Future studies should consider additional indicators of resources and depletion.

Finally, due to the nature of the data collected, I was unable use percentage of time working remotely as a control variable. The question regarding percentage of time working remotely was used as a screening question to ensure that those participants who took the survey were working more than 50% of their time remotely. Although participants indicated the proportion of their weekly schedule spent working remotely, that percentage was not part of the main survey dataset. Consequently, I could not test whether the relationships in this study vary across different levels of remote-work intensity (e.g., comparing employees who are partially versus fully remote). This would be an interesting avenue for future research.

Future research should also address a key limitation of this study: I did not capture the full landscape of resource depletion that may shape the organizational support-engagement association. The non-significant moderating effects of techno-overload and work–family conflict may indicate that other depletion channels (e.g., techno-invasion/complexity, recovery deficits) and buffering resources (e.g., job autonomy, role clarity, digital competence, schedule control, and

flexible work policies) may be important. Subsequent studies can simultaneously model various depletion and buffer variables, ideally using longitudinal, multi-wave, and multi-source designs, to trace resource loss/gain cycles. Because psychological distress emerged as a salient boundary condition here, future work might also incorporate behavioral indicators of distress observable in remote contexts (e.g., such as withdrawal or reduced responsiveness) to complement self-reports and strengthen construct validity (Dimoff & Kelloway, 2018, 2019).

Additionally, research in remote work environments could investigate the influence of specific ways that organizational support could manifest, such as digital leadership and remote management approaches. As remote work grows, leadership styles tailored to remote settings (e.g., e-leadership) may affect employees' perceptions of support and their levels of engagement (DasGupta, 2011). Furthermore, as hybrid work models gain prevalence, future studies may explore how various remote work configurations (e.g., hybrid versus entirely remote) affect the link between perceived organizational support and employee engagement. Comparative analyses across industries or cultural contexts may elucidate global variability in the efficacy of organizational support techniques, especially in resource-limited environments. By following these suggestions, researchers can uncover factors that enhance the development of sustainable remote work environments that emphasize employee well-being and organizational effectiveness.

## **Conclusion**

This study aimed to deepen our understanding of how perceived organizational support is associated with work engagement among remote employees. The findings indicated that remote workers who perceive stronger organizational support also tend to report higher levels of vigour, dedication, and absorption in their tasks. However, this association was weaker among employees

experiencing higher psychological distress. Thus, perceived organizational support appears less strongly linked to engagement when remote employees report higher levels of a specific form of resource depletion (i.e., psychological distress). Organizations should take actions to ensure that remote employees can access supports that address psychological distress.

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# Appendix A: Figures

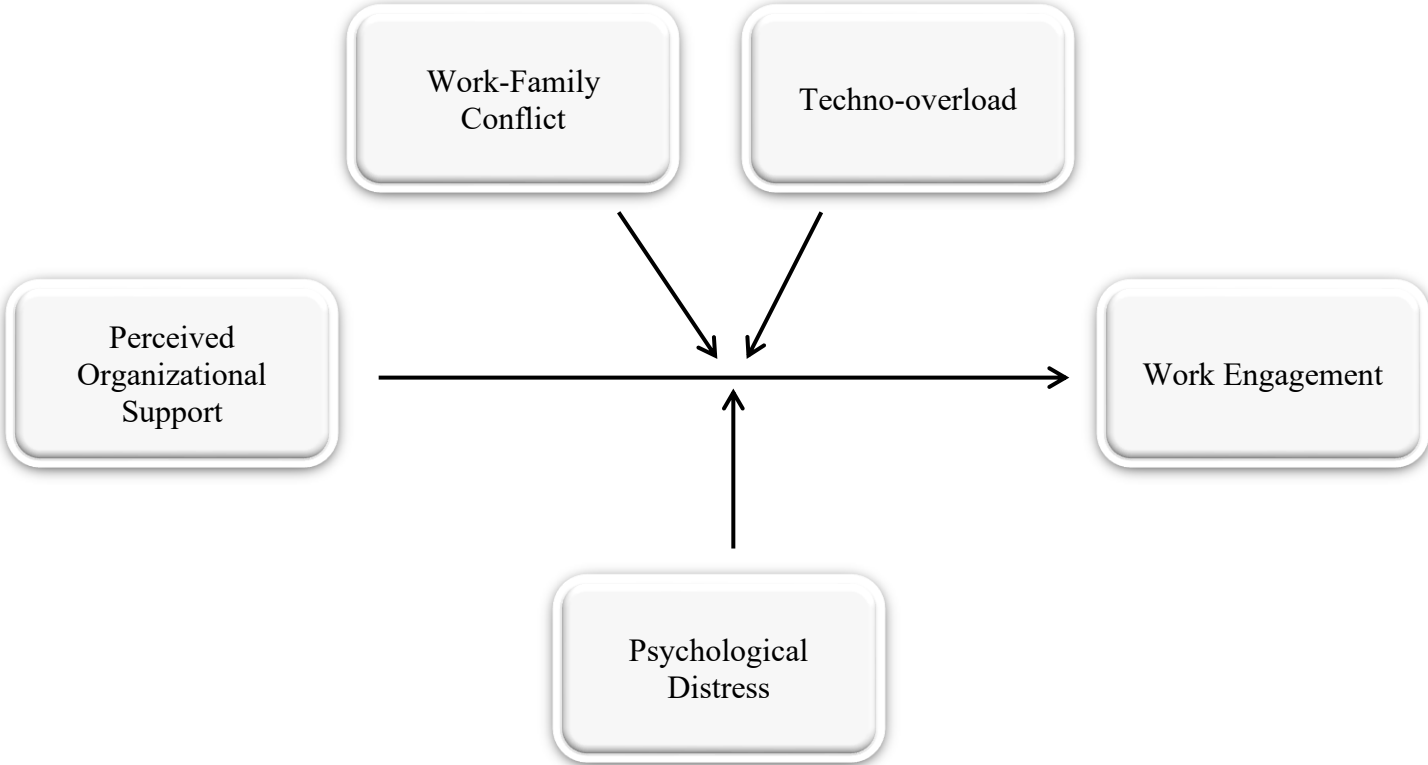


Figure 1: Visual Summary of Hypotheses

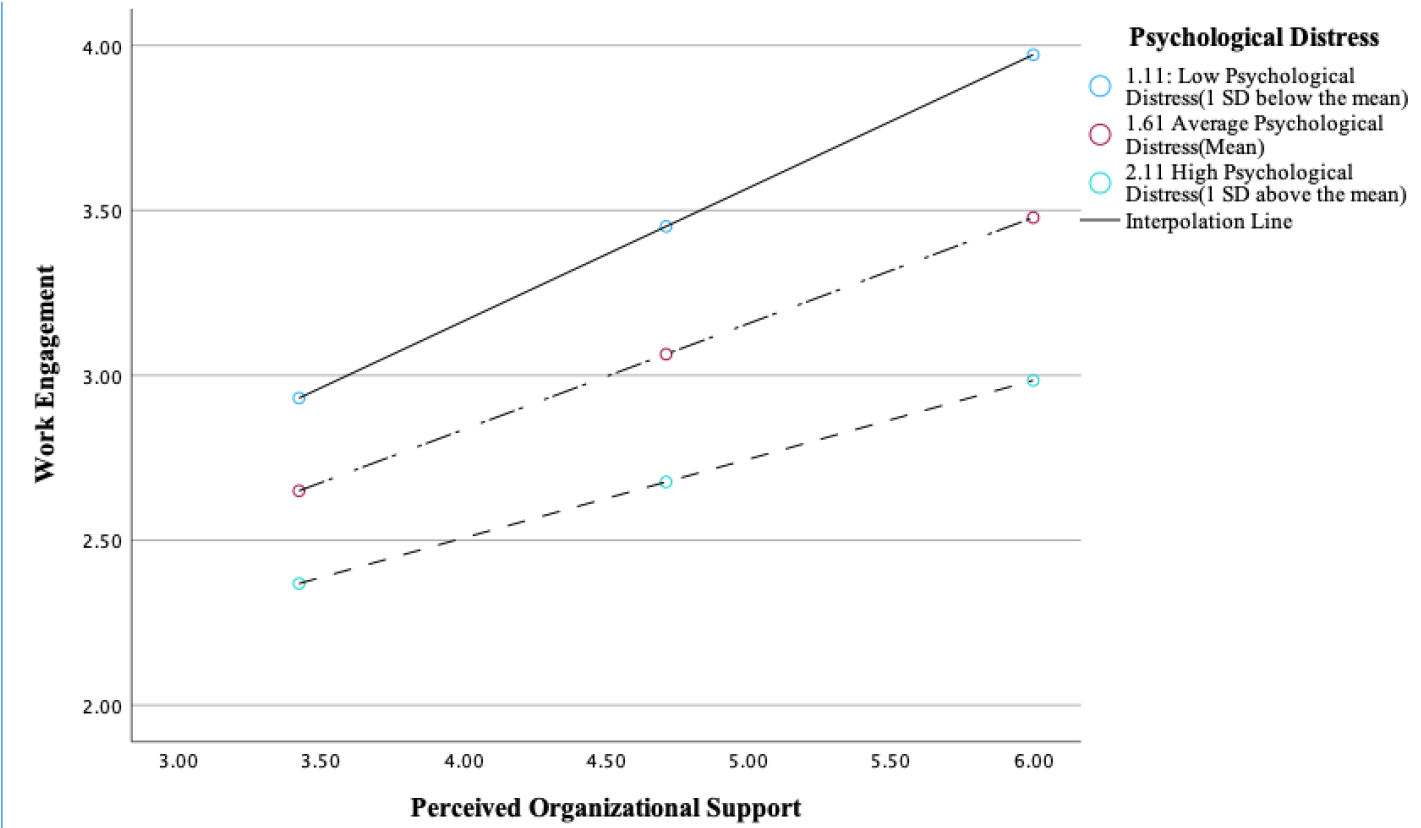


Figure 2: Moderating Effect of Psychological Distress on the Relationship between Perceived Organizational Support and Work Engagement

# Appendix B: Ethics Approval



Interdisciplinary Committee on  
Ethics in Human Research (ICEHR)

St. John's, NL, Canada A1C 5S7  
Tel: 709 864-2561 icehr@mun.ca  
[www.mun.ca/research/ethics/humans/icehr](http://www.mun.ca/research/ethics/humans/icehr)

ICEHR Number:	20250671-BA
Approval Period:	October 18, 2024 – October 31, 2025
Funding Source:	
Responsible Faculty:	Dr. Kara Arnold Faculty of Business Administration
Title of Project:	<i>Employee Wellbeing in Hybrid Workplace</i>
Amendment #:	01

November 28, 2024

Mr. Hossein Khatibzadeh Davani  
Faculty of Business Administration  
Memorial University

Dear Mr. Khatibzadeh Davani:

The Interdisciplinary Committee on Ethics in Human Research (ICEHR) has reviewed the proposed revisions for the above referenced project, as outlined in your amendment request dated November 25, 2024. We are pleased to give approval to the revised compensation, as described in your request, provided all other previously approved protocols are followed.

The *TCPS2* requires that you **strictly adhere to the protocol and documents as last reviewed** by ICEHR. If you need to make any other additions and/or modifications during the conduct of the research, you must submit an Amendment Request with a description of these changes, for the Committee's review of potential ethical issues, before they may be implemented. Submit a Personnel Change Form to add or remove project team members and/or research staff. Also, to inform ICEHR of any unanticipated occurrences, an Adverse Event Report must be submitted with an indication of how the unexpected event may affect the continuation of the project.

Your ethics clearance for this project expires **October 31, 2025**, before which time you must submit an Annual Update to ICEHR, as required by the *TCPS2*. If you plan to continue the project, you need to request renewal of your ethics clearance, and include a brief summary on the progress of your research. When the project no longer requires contact with human participants, is completed and/or terminated, you need to provide an annual update with a brief final summary, and your file will be closed.

All post-approval ICEHR event forms noted above must be submitted by selecting the *Applications: Post-Review* link on your Researcher Portal homepage.

The Committee would like to thank you for the update on your proposal and we wish you well with your research.

Yours sincerely,



**Interdisciplinary Committee on Ethics in Human Research (ICEHR)**

St. John's, NL, Canada A1C5S7  
Tel: 709 864-2561 icehr@mun.ca  
www.mun.ca/research/ethics/humans/icehr

ICEHR Number:	20250671-BA
Approval Period:	October 18, 2024 – October 31, 2025
Funding Source:	
Responsible Faculty:	Dr. Kara Arnold Faculty of Business Administration
Title of Project:	<i>Employee Wellbeing in Hybrid Workplace</i>

October 18, 2024

Mr. Hossein Khatibzadeh Davani  
Faculty of Business Administration  
Memorial University

Dear Mr. Khatibzadeh Davani:

Thank you for your correspondence addressing the issues raised by the Interdisciplinary Committee on Ethics in Human Research (ICEHR) for the above-named research project. ICEHR has re-examined the proposal with the clarifications and revisions submitted, and is satisfied that the concerns raised by the Committee have been adequately addressed. In accordance with the *Tri-Council Policy Statement on Ethical Conduct for Research Involving Humans (TCPS2)*, the project has been granted *full ethics clearance for one year*. ICEHR approval applies to the ethical acceptability of the research, as per Article 6.3 of the *TCPS2*. Researchers are responsible for adherence to any other relevant University policies and/or funded or non-funded agreements that may be associated with the project. If funding is obtained subsequent to ethics approval, you must submit a Funding and/or Partner Change Request to ICEHR so that this ethics clearance can be linked to your award.

The *TCPS2* requires that you **strictly adhere to the protocol and documents as last reviewed** by ICEHR. If you need to make additions and/or modifications, you must submit an Amendment Request with a description of these changes, for the Committee's review of potential ethical concerns, before they may be implemented. Submit a Personnel Change Form to add or remove project team members and/or research staff. Also, to inform ICEHR of any unanticipated occurrences, an Adverse Event Report must be submitted with an indication of how the unexpected event may affect the continuation of the project.

The *TCPS2* requires that you submit an Annual Update to ICEHR before **October 31, 2025**. If you plan to continue the project, you need to request renewal of your ethics clearance and include a brief summary on the progress of your research. When the project no longer involves contact with human participants, is completed and/or terminated, you are required to provide an annual update with a brief final summary and your file will be closed. All post-approval ICEHR event forms noted above must be submitted by selecting the *Applications: Post-Review* link on your Researcher Portal homepage. We wish you success with your research.

Yours sincerely,

James Drover, Ph.D.  
Vice-Chair, Interdisciplinary Committee on Ethics in Human Research

JD/bc

cc: Supervisor – Dr. Kara Arnold, Faculty of Business Administration

## Appendix C: Full Measures

Let's begin with some general questions about the kind of work that you do, the nature of your occupation and industry, and your responsibilities at work.

Do you supervise employees and/or have direct reports?

- No (1)
- Yes. If yes, how many: (2) \_\_\_\_\_

How long have you worked with your current organization? (in years) [sliding scale in years]

What is your gender?

- Male (1)
- Female (2)
- Gender fluid (3)
- Non-binary (4)
- Trans-woman (5)
- Trans-man (6)
- Two Spirit (7)
- Don't know (8)
- Prefer not to say (9)

What is your boss's gender?

- Male (1)
- Female (2)
- Gender fluid (3)

- Non-binary (4)
- Trans-woman (5)
- Trans-man (6)
- Two Spirit (7)
- Don't know (8)
- Prefer not to say (9)

Please select the level of leadership that best describes your boss' position in the hierarchy of your organization.

- Top: My boss is the CEO/president or Executive member (e.g., Chief Operating Officer, Vice-President), or I report directly to the CEO/President or member of the top management team.
- Middle: My boss reports to the Executive but also attends to strategic goals of multiple business units, manages significant projects, and is responsible for multiple organizational levels below their own position in the organization.
- Lower: My boss interacts directly with frontline employees in a supervisory fashion to complete the organization's core business.

**Attention Check Question (This was asked twice in the survey)**

"To confirm that you're reading the instructions carefully, please select 'Neutral' for this question."

- Strongly Disagree
- Disagree
- **Neutral** (Correct Answer)
- Agree
- Strongly Agree

### **Perceived Organizational Support (Eisenberger et al., 1997)**

Question: For each statement, indicate the point on the response scale that best describes your experience.

Scale: 7-point Likert-type scale (1=strongly agree, 7=strongly disagree)

1. My organization cares about my opinions.
2. My organization really cares about my well-being.
3. My organization strongly considers my goals and values.
4. Help is available from my organization when I have a problem.
5. My organization would forgive an honest mistake on my part~
6. If given the opportunity, my organization would take advantage of me. (R)
7. My organization shows very little concern for me. (R)
8. My organization is willing to help me if I need a special favour.

### **Work-Family Conflict (Kopelman et al., 1983)**

Question: For each statement, indicate the point on the response scale that best describes your experience.

1. My work schedule often conflicts with my family life.
2. After work, I come home too tired to do some of the things I'd like to do.
3. On the job I have so much work to do that it takes away from my personal interests.
4. My family dislikes how often I am preoccupied with my work while I am home.
5. Because my work is demanding, at times I am irritable at home.
6. The demands of my job make it difficult to be relaxed all the time at home.
7. My work takes up time that I'd like to spend with my family.

8. My Job makes it difficult to be the kind of spouse or parent lid like to be.

Scale: 1 (strongly disagree) – 5 (strongly agree)

**Psychological Distress (Dimoff & Kelloway, 2019)**

Question: Please rate the frequency with which you have engaged in each of the following behaviours over the last 4 weeks at work.

In the past 4 weeks, I have...

1. Expressed being unhappy at work.
2. Expressed wanting to quit.
3. Mentioned how stressed I was.
4. Cried at work.
5. Complained about work-life balance.
6. Mentioned problems at home.
7. Withdrew from coworkers at work.
8. Withdrew from social activities.
9. Did not engage in normal work activities.
10. Was absent from work.
11. Was sick.
12. Was late to work.
13. Did not perform to his/her usual standards.
14. Failed to meet goals or requirements (e.g. deadlines).
15. Was less responsive than usual.
16. Expressed desire to hurt self or others.
17. Expressed the desire to commit suicide.
18. Acted out toward others at work.
19. Neglected personal hygiene.
20. Was impaired or brought alcohol/ drugs to work.

Scale: 1) Never 2) Seldom 3) Sometimes 4) Often 5) Very often 6) Everyday

Note: A pop-up screen will appear if participants answer affirmatively to question #16 or #17: If you are experiencing stress or anxiety, please consult with a healthcare provider near you. If you

would like to obtain information about additional support, please visit the following website, where some national-and local-level supports are listed for residents of the U.S. and Canada:  
<https://mindyourmind.ca/help/where-call>

### **Techno-overload (Tarafdar et al., 2007)**

Question: Please indicate the extent to which you agree or disagree with the following statements about your experience with information and computer technology at work.

Techno-overload

1. I am forced by technology to do more work than I can handle.
2. I am forced by technology to work with very tight time schedules.
3. I am forced to change my work habits to adapt to new technologies.
4. I have a higher workload because of increased technology complexity.

Scale: 1 (strongly disagree) – 5 (strongly agree)

### **Work Engagement (Schaufeli et al., 2017)**

Question: Rate the following according to how you feel about your work:

1. At my work, I feel bursting with energy [vigor]
2. I am enthusiastic about my job [dedication]
3. I am immersed in my work [absorption]

Scale: 1 (strongly disagree) – 5 (strongly agree)

## Appendix D: Results Tables

Table 1: Descriptive Statistics and Correlations for All Study Variables

Variables	M	SD	1	2	3	4	5
1. Perceived Organizational Support	4.71	1.28	1				
2. Work Engagement	3.10	1.06	.49**	1			
3. Techno-overload	2.55	1.03	-.31**	-.14*	1		
4. Psychological Distress	1.61	0.50	-.37**	-.44**	.54**	1	
5. Work-Family Conflict	2.63	1.07	-.46**	-.25**	.55**	.54**	1

Note \*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 2: Ordinary Least Squares Regression Analysis Examining Psychological Distress as a Moderator between Perceived Organizational Support and Work Engagement

Variables	coeff	se	t	p	LLCI	ULCI
Constant	1.55	0.59	2.60	0.01	0.37	2.71
Perceived organizational support	0.59	0.13	4.54	0.00	0.33	0.84
Psychological distress	- 0.01	0.31	- 0.03	0.98	-0.62	0.60
Perceived organizational support x psychological distress	- 0.16	0.74	- 2.25	0.03	-0.31	-0.01

*Notes.* N = 242, listwise deletion. Model summary:  $R^2 = .33$ ,  $F(3, 238) = 40.04$ ,  $p < .01$ .

$R^2$  increase due to interaction:  $\Delta R^2 = .01$ ,  $F(1, 238) = 4.69$ ,  $p < .05$ .

Table 3: Harman’s Single-Factor Test for Common-Method Variance

Component	Eigenvalue	% Variance Explained	Cumulative %
1 (unrotated)	12.68	29.49	29.49

*Notes.* Principal-component analysis was run on all item-level indicators of perceived organizational support, work engagement, techno-overload, work-family conflict, and psychological distress.