

Addressing Remote Work Burnout: Mindfulness and Strategic Subtraction Techniques for Effective Leadership

Chris Simone
The Pennsylvania State University

John Lipinski
Indiana University of Pennsylvania

Joseph A. Rosendale
Indiana University of Pennsylvania

This study examines burnout reduction interventions for remote leaders, particularly in the context of COVID-19's impact on work-life boundaries. Using a quasi-experimental design, online survey findings from remote employees were analyzed through the lens of Maslach Burnout Inventory (MBI) and Job Demands-Resource Theory (JD-R). Results indicate that Mindfulness Meditation and Strategic Subtraction are effective in reducing burnout. These findings offer practical insights for organizations seeking to improve employee well-being and mitigate turnover risks in remote work settings. Implications for leadership strategies and workplace policies are discussed to support sustainable remote work environments through practical interventions.

Keywords: employee burnout, remote employment, leadership, management interventions

INTRODUCTION

Employee burnout represents a significant burden on the global workforce, costing companies an estimated \$300 billion annually while simultaneously subjecting workers to long term health risks (Rowe, 2017). As companies continue to experience this considerable loss, the World Health Association (WHA) noted that burnout's costs to the global economy reached \$1 trillion. Based on the astronomical statistics found, burnout is a global issue. In a recent Deloitte study, administered as a Workplace Well-Being Survey, findings indicated that 77% of employees surveyed experienced burnout in their current role, 91% have an unmanageable level of stress impacting their work quality, and 83% find their burnout to have a negative effect on their relationships outside of work (Fisher, 2020).

The global pandemic, circa 2020, caused remote employment to become a regular part of most non-essential workplaces. In the wake of the pandemic, how people viewed and approached work was notably transformed (Kramer & Kramer, 2020). The challenge of job burnout took on more significant urgency as individuals reconsidered the purpose and worth of their work, affecting health considerations (Ouyang et al., 2022). While many leaders may have initially adapted to this shift in work environments as a temporary

response, the pandemic put significant pressure on the leadership, resulting in higher stress and anxiety for employees (Collings et al., 2021). At the onset of the pandemic, few anticipated the duration; as the world approached the two-year mark, and approximately 72% of white-collar employees worked remotely (Jones, 2021). While the pandemic forced organizations to modify their daily practices and processes, particularly those that influenced the employee experience, a significant challenge involved how rapidly the transition from the office to remote work happened (Nyberg et al., 2021). Before the pandemic, approximately 15% of employees in the United States engaged in remote work for their organizations (Sull et al., 2020). In May of 2020, The Bureau of Labor Statistics distributed a survey, that indicated approximately 57% of the entire U.S. workforce worked remotely – a 42% increase (Coate, 2021). The dramatic increase in employees working remotely compared to a brick-and-mortar work experience remains astonishing.

Despite extensive research on job burnout for remote leaders during the pandemic, a gap exists in research on burnout for remote employees; that is, the effect of the pandemic on burnout among leadership throughout the pandemic. Because such a significant percentage of employees continue to work remotely through the pandemic, nearly 60% (Anderson, 2021), it is necessary to investigate factors contributing to and remedy employee burnout in the remote setting. The worldwide pandemic created a need for employers to deploy a work-from-home model for most employees, including their leaders. While many contributing factors exist, burnout witnessed a dramatic increase during the pandemic (Moss, 2021). Although some employees worked remotely before the pandemic, the industry saw a 42% increase in remote employment (Coate, 2021). Many employees had children also forced into remote schools, simultaneously isolating entire families (Coate, 2021). Single parents in particular faced challenges with lack of proper childcare, multitasking while on virtual meetings, and balancing too many priorities simultaneously, which ultimately created a near-impossible scenario (Schulte & Pabst, 2021). While many employees, including single parents, included previous apprehension about working remotely, recent research shows that some embraced this transition into the home office (Young, 2020). Those in leadership positions may face different risks in their employment and will need to adjust their leadership practices to align with the conditions of remote employment (Contreras et al., 2020).

BACKGROUND INFORMATION AND THEORY

The trend toward remote work has increased in recent years, accelerated in no small part by the global pandemic. Remote work offers benefits such as flexibility and autonomy but also presents challenges for leaders, including the risk of burnout (Banks, 2020; Sulea, Maricutoiu, Comanescu, & Sava, 2020). Burnout is a psychological condition caused by chronic workplace stress, as reflected by emotional exhaustion, depersonalization, and reduced personal accomplishment (Maslach, Schaufeli, & Leiter, 2001). Remote leaders, who must navigate the complexities of managing a distributed team, are particularly susceptible to burnout (Makhanova & Shepherd, 2020).

Research has shown that remote leaders are at higher risk of burnout than traditional office-based leaders (Gajendran & Harrison, 2007; Golden & Veiga, 2008). In a study of 570 remote workers, 53% of the respondents reported experiencing burnout, and 59% reported feeling more stressed than when working in the office (Sulea et al., 2020). Another study found remote leaders reported higher emotional exhaustion and depersonalization levels than office-based leaders (Golden & Veiga, 2008). Makhanova and Shepherd (2020) suggest that the unique challenges of remote leadership, such as managing communication across time zones and cultures, can lead to burnout.

Several strategies have been proposed for preventing and managing burnout in remote leaders. One approach is to provide training and support for remote leaders, such as coaching on communication skills and emotional regulation (Banks, 2020). Sulea et al. (2020) suggest that organizations can reduce the risk of burnout by promoting work-life balance, creating a supportive culture, and providing resources for mental health and well-being. Golden and Veiga (2008) propose that remote leaders can reduce burnout by setting boundaries between work and non-work time, prioritizing self-care, and seeking social support.

Remote leaders are at higher risk of burnout than traditional office-based leaders due to the unique challenges of managing a distributed team. To prevent and manage burnout in this population, organizations

can provide training and support, promote work-life balance, create a supportive culture, and provide mental health and well-being resources. Remote leaders can also reduce burnout by setting boundaries, prioritizing self-care, and seeking social support.

Consequently, Maslach (2001) discusses the need and desirability to mitigate burnout through interventions, either at the individual (micro) or organizational (macro) levels, while noting that interventions at the individual level only reduce a portion of the symptoms, specifically emotional exhaustion (Bretland et al., 2015). A study in China by Li et al., (2019) that focused on physicians experiencing burnout demonstrated viable data that macro-level focus on mitigating burnout saw a decline, or absence thereof, depersonalization (DP) in those who participated in the study (Li et al., 2019). The literature consistently demonstrates, irrespective of the country, a notable difference between micro and macro-level interventions when mitigating burnout among employees, whether working remotely or in a traditional office setting (Awa, Plaumann, & Walter, 2010). Table 1 presents burnout costs from both the employee and organizational levels.

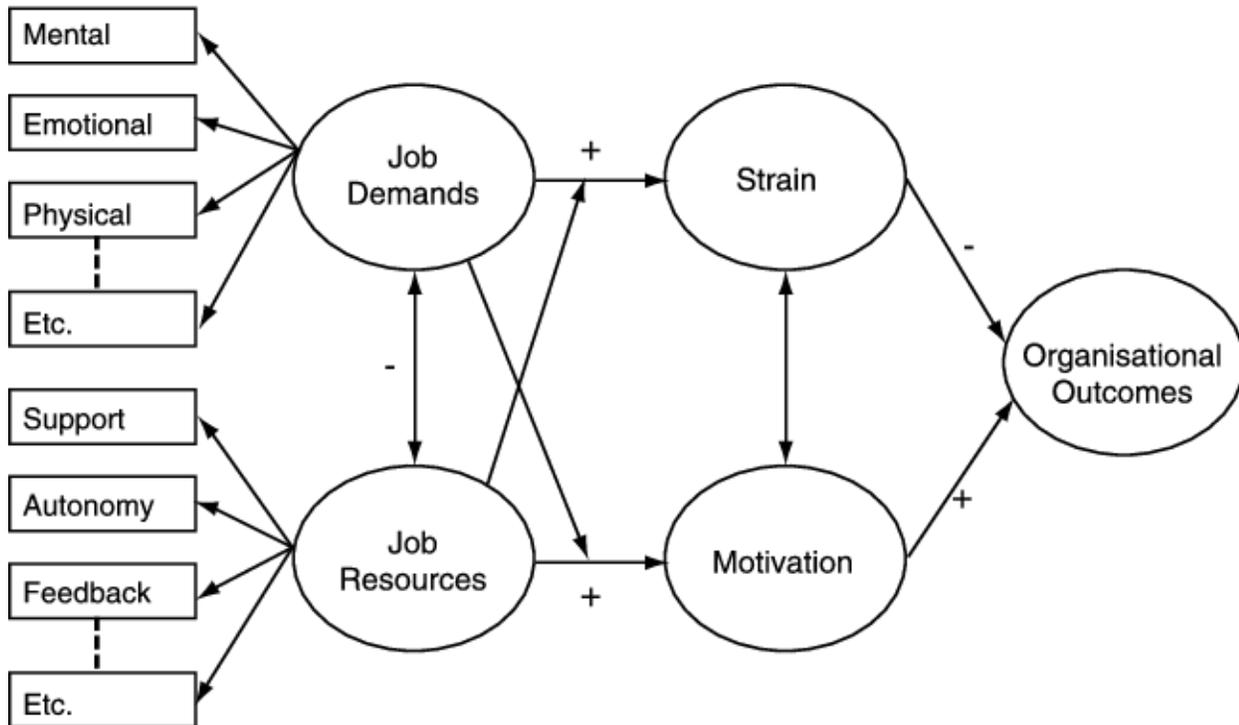
**TABLE 1
COSTS OF BURNOUT**

Employee Costs	Organizational Costs
Physical Health Implication – e.g., Heart Attacks and Strokes	\$300 Billion Per Year Increased Employee Turnover Lower Employee Retention Lower Employee Engagement
Work-Life Conflict	Diminished Organizational Commitment
Increased Stress	Increased Employee Absenteeism
Substance Addiction	
Mental Health Implications – e.g., Anxiety and Depression	

As alluded, burnout is a well-researched topic, with over 6,000 academic publications to date. Throughout this longstanding trend in research, several theories have demonstrated value in mitigating and understanding burnout. This study focuses on the Job Demands Resource (JD-R) Theory since it focuses specifically on the effect of work roles and organizational demands on employee burnout. The JD-R model explains employee burnout by examining the balance between job demands and job resources (Bakker & Demerouti, 2007). According to this model, high job demands (e.g., workload, time pressure, emotional demands) coupled with low job resources (e.g., autonomy, support, feedback) contribute to burnout (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The JD-R model suggests that employees who lack sufficient resources to cope with high job demands experience burnout symptoms such as exhaustion and disengagement (Bakker & Demerouti, 2017).

The Job Demands Resources Model (JD-R) includes definition as Schaufeli, Bakker, et al. (2009) present a model that concisely illustrates how certain working conditions, universal across all organizational contexts, may lead to either job strain (signified by burnout) or enhancement (signified by work engagement). The JD-R theory is typically utilized in determining how one’s job impacts well-being (Tummers & Bakker, 2021). According to Schaufeli, Bakker, et al. (2009), the JD-R model assumes that each professional context's inherent job resources and demands significantly shape employee well-being. These conditions may either enhance well-being, as reflected in work engagement, or deteriorate it, as shown by emotional exhaustion. Through Demerouti and Nachreiner's (1997) research, findings indicated that job demands were a contributor to exhaustion, which to the point of Rubio-Valdehita et al. (2020) is a predictor of burnout (Bakker & Demerouti, 2017).

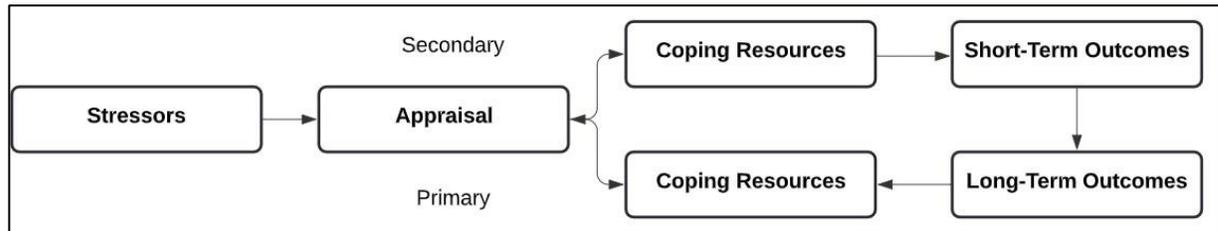
FIGURE 1
JOB DEMANDS RESOURCE MODEL



Workloads that are excessive and consume employee resources (e.g., energy) can result in a depletion of resources, resulting in employee burnout (Bakker & Demerouti, 2007). An earlier version of the JD-R model (Demerouti et al., 2001) demonstrates how job demands result in employee exhaustion, which has been linked directly to burnout (Matthews et al., 2006). Further, JD-R theory determined the extent that personal control within the Workplace held importance (Maslach & Leiter, 2008a) and placed demands and resources into two classifications, where a) increased demands can negatively impact an employee’s health and b) specifically when they are not aligned with the resources of work (Xiaoye et al., 2021). Indeed, the JD-R model has emerged as a practical framework for understanding the complex relationships between job characteristics, employee well-being, and job performance and has likewise informed a growing body of empirical research and organizational interventions by identifying the critical role of job demands and resources in shaping employees' experiences at work.

In addition to the JD-R model, the Transactional Model of Stress, developed by Lazarus and Folkman (1984) is based on the premise that an individual's ability to handle and adapt to difficulties and challenges is influenced by the interaction or mutual relationship between the individual and their environment (Craig et al., 2022). How one experiences or process stress includes a foundation based on a system of appraisal, response to the stressors, and adaptation to that stress (Frings, 2017). The Transactional Model suggests the existence of two main stages of appraisal (primary and secondary) that a human goes through before producing any feeling or response to stress (Frings, 2017). One needs to go through a re-appraisal to repeat the process, as responses are not static – they can fluctuate based on the stressor (Frings, 2017).

FIGURE 2
TRANSACTIONAL MODEL OF STRESS



Lazarus and Folkman, 1984

The Transactional Model of Stress encapsulates stress due to imbalances that create strain, effectively acting as a connective link between sequential phases of imbalance. In the initial stage, job stressors emerge due to a disparity between the demands of work and the individual's resources, followed by a phase of individual strain, expressed through an emotional reaction characterized by exhaustion and anxiety. The final stage involves defensive coping, wherein attitudes and behavior change, often leading to increased cynicism (Maslach & Leiter, 2016).

Potential Interventions

Interventions to combat burnout vary throughout the literature, although there is an emphasis on organizational based (macro) interventions providing equal or more value than self-care mechanisms (Maslach, 2003; Maslach & Leiter, 2008b). Since the concept of burnout was coined (Freudenberger, 1977), interventions have been conceived as a necessity in combating burnout, where two initial types of interventions were noted; 1) Individual interventions aimed at helping employees cope with stress, and 2) Organizational focused interventions aimed at altering the factors that contributed to burnout in the first place (Maricuțoiu et al., 2016). As the research shows, it was found early in the onset of burnout that organizational interventions may be more impactful than individual-level interventions. Furthermore, combating burnout through strategic interventions may be more effective at the organizational level (macro), as individualized (micro) self-care practices may not overcome the organizational causes of burnout (Gabriel & Aguinis, 2022). A study by Wadhen and Cartwright (2021) showed a positive effect of virtual yoga sessions in the form of an intervention for remote workers at the organizational (macro) level. Their findings demonstrated reduced perceived stress levels in their test subjects but not in overall stress and anxiety (Wadhen & Cartwright, 2021).

Mindfulness Meditation can be traced back to, and is rooted in, Buddhist practices. As a formal concept, Mindfulness was first introduced as a construct in the United States in the 1970s (Charoensukmongkol, 2013, Sarazine et al., 2021). The phrase 'Mindfulness' was originally used as a meditation technique, traced back over two thousand years, where it was practiced creating stronger mental and physical awareness (Dhiman, 2008). Today, Mindfulness is seen by organizations as a tool to help individuals focus on the present moment, but it not designed to solve all of life's problems (Sarazine et al., 2021). By witnessing the workings of their body and mind without judgment, individuals can release entrenched thought patterns and cognitive understandings of life events (Charoensukmongkol, 2013; Hölzel et al., 2011). This approach enables them to perceive reality rather than through their expectations (Baer, 2003).

The practice of mindfulness, in which individuals develop nonjudgmental awareness of their experiences, can help promote this perspective shift and improve mental well-being (Kabat-Zinn, 1990; Hölzel et al., 2011).

Mindfulness has been shown to provide various psychological benefits, reducing the symptoms of psychological distress, burnout, and increasing subjective well-being (Keng et al., 2011). Organizations can teach Mindfulness practices to employees in the workplace, which can be applied as a strategy to prevent and mitigate burnout and protect psychological well-being (Moody et al., 2013). Mindfulness-based stress reduction (MBSR) started in the healthcare sector but has recently been applied across the broader

professional workforce (Marotta et al., 2022). Those who practice MM have been shown to respond better to stressful events and a stronger sense of control in their lives (Khisty, 2010).

Several studies in the current literature have investigated the effectiveness of Mindfulness-Based Interventions (MBIs) in reducing burnout among healthcare professionals. For example, a randomized controlled trial (RCT) by Shapiro, Astin, Bishop, and Cordova (2005) found that Mindfulness-Based Stress Reduction (MBSR) reduced burnout symptoms in medical students. Similarly, an RCT by Krasner et al. (2009) demonstrated that MBSR effectively decreased emotional exhaustion and depersonalization in primary care physicians, two critical areas of Maslach's Burnout Inventory (MBI).

A systematic review and meta-analysis by Burton et al. (2017) examined the effects of MBIs on the overall mental health of healthcare professionals, including burnout. The review included 28 studies in total, with 22 of them explicitly targeting burnout and its overall impacts. The researchers found that MBIs dramatically reduced burnout symptoms, with moderate effects on emotional exhaustion and minor effects on depersonalization rates in healthcare professionals.

Additionally, several studies on reducing burnout in corporate settings using mindfulness have shown effectiveness in mitigation rates. For example, Hülshager et al. (2013) conducted a study with 219 employees and found that mindfulness was negatively associated with emotional exhaustion, demonstrating mindfulness's positive impact on burnout reduction. In another study, Virgili (2015) conducted a meta-analysis of 19 intervention studies and found that MBIs significantly reduced employees' burnout symptoms.

Eby et al., (2019) completed a comprehensive qualitative review of 67 published studies, finding that integrating an MM program across the studies was to reduce overall stress (burnout) and improve wellbeing. Current research supports these findings, where there is an increase of studies demonstrating the positive correlation of Mindfulness practices in the workplace on psychological wellbeing and workplace performance (Fazia et al., 2021).

Lastly, Bamber and Schneider (2022) used a thematic synthesis approach to examine the literature on Mindfulness-Based Interventions and noted that college students found MBI beneficial in the reduction of stress and anxiety. Furthermore, the research indicates that MBI should be tailored for specific audiences, not a general approach, and that additional research is needed in this area (Bamber and Schneider, 2022).

Another potential intervention to reduce employee burnout is group reflection, which is the process where employees engage in structured conversations about their employment experiences, challenges, and coping strategies (Sandaunet, 2009). Reflexivity is the act of reflecting, specifically within teams, regarding objectives, strategies, tasking, and other processes to adapt and align them to anticipated circumstances (De Dreu, 2007). A growing body of research has investigated the impact of reflection as a tool to mitigate burnout, particularly among healthcare professionals, educators, and other high-stress occupations. Several studies have examined the effect of group reflection exercises on employee burnout. Sandaunet (2009) discovered how reflection exercises reduced burnout among healthcare professionals by providing a space for emotional processing and support. Similarly, O'Sullivan and Irby (2011) reported that group reflection sessions for educators led to lower emotional exhaustion and depersonalization levels, two of the constructs under the MBI theory. Employees can utilize multiple forms of reflexivity (i.e., team, social) in the form of interventions. As Andela & Truchot (2017) described, social reflexivity pertains to the degree to which teams deliberate upon and consider the social dynamics within their group. Social reflexivity may have positive effects in mitigating burnout during times of stress (Andela & Truchot, 2017).

According to Chen et al. (2018), team reflexivity involves a collective process where team members thoughtfully consider the team's objectives, strategies, and processes and then make necessary adaptations. Both team and social reflexivity act as moderators in mitigating burnout (Andela & Truhot, 2017). In a conventional work setting, teams position themselves to have face-to-face interactions, including a reflection process. However, virtual teams may experience the loss of verbal and visual cues, causing detrimental effects on team reflection (Lines et al., 2021). A moderator analysis by Lines et al. (2021) indicated that reflexivity interventions are more effective for face-to-face teams in a conventional workplace when compared to groups virtually employed regarding performance. It is observed in this study

that a gap exists in the literature regarding reflexivity within remote (virtual) employees, specifically surrounding interventions that combat burnout.

One of the fundamental mechanisms through which reflection mitigates burnout is improving self-awareness and emotional balance (Krasner et al., 2009). Reflective practice allows individuals to recognize their emotional states, identify internal and external stressors, and develop coping techniques to control their emotions (Ghaye, 2011). In a study by Krasner et al. (2009), physicians who participated in an intervention focusing on self-awareness and reflection reported significant reductions in burnout symptoms and improvements in empathy and job satisfaction.

Reflection also contributes to individual growth and stability, which can help prevent and mitigate burnout (West, Dyrbye, & Shanafelt, 2018). Reflexivity also enables individuals to learn from their experiences and acclimate to challenges, promoting competence and proficiency (Zimmerman & Kitsantas, 2007). In a longitudinal study by West et al. (2018), healthcare professionals who engaged in regular reflective practice exhibited increased resilience and a lower likelihood of burnout over a given period.

Group reflection exercises (i.e., facilitated debriefs or team-based reflection discussions) can reduce burnout by encouraging group support and team-based learning (Eppich, Cheng, & Grant, 2015). Participating in group reflection can create a sense of belonging, validate emotional opinions and allow employees to expand their knowledge through the experiences of peer employees (Rees & Monrouxe, 2011). A Mezirow (1990) study found that teacher group reflection exercises reduced burnout symptoms and increased job satisfaction.

Reflexivity indicates the ability to enhance overall team effectiveness by helping comprehend expectations and crafting ways to adapt and respond to organizational challenges (Chen et al., 2018). Team size contributes to the effectiveness of reflexivity within teams, and observations include that larger groups experience less participation than smaller teams (Carter & West, 1998). Larger teams are more likely to report additional mental health concerns than smaller teams (Carter & West, 1998). Based on these literature findings, reflexivity in teams, both small and large, is essential to increase team efficiency and alignment.

Reflexivity has been researched in-depth since the term was coined by Argyris and Schon (1978), but modern research on reflexivity as a mitigating construct of burnout is limited.

Incorporating reflective practice into professional development programs and organizational culture may help promote well-being and resilience among employees in high-stress occupations. Further research is needed to explore the most effective methods for implementing reflective practice and to identify factors that may moderate the relationship between reflection and burnout reduction.

METHODOLOGY

This study utilizes a quantitative, quasi-experimental approach by administering two surveys. In the initial survey, participants responded to scales used as predictors of employee burnout: three intervention scales and the nature of task assignment and work hours. The follow-up survey included the Maslach Burnout Inventory (MBI) that serves as an outcome variable. To obtain interpretable results, a regression analysis is used to identify the relative effects of factors in the mitigation of burnout in remote employees. Before conducting regression analyses, data was examined to determine if there are outliers that need to be considered before the analysis.

Informed by prior research, this study's main research question and subsequent hypotheses are posited as such:

RQ: *Which effective management practices can reduce burnout in remote working leadership teams?*

H1: *Mindfulness meditation breaks will reduce the level of burnout in remote workers.*

H2: *Group reflection exercises will reduce the level of burnout in remote workers.*

H3: *Subtraction-inducing exercises will reduce the level of burnout in remote workers.*

Sample Selection and Data Collection

Participants of this research are individuals in leadership positions who primarily work from home for a large global corporation. The participants in the sample were carefully selected to ensure that all participants met specific criteria related to education and leadership experience. Every participant held a minimum of a bachelor's degree, aligning with a certain level of educational attainment that supports the research's focus. Additionally, each employee in the sample had at least five years of experience in leadership roles. This criterion was crucial to ensure the participants possessed sufficient practical leadership experience, which was expected to add depth and relevancy to the study's findings. This rigorous selection process, thus, aimed to create a homogeneous group in terms of educational background and professional experience, facilitating more meaningful comparisons and interpretations of the survey data. A research survey was crafted in Qualtrics, consisting of sections. The research survey was sent to a population of 320 employees, with a final matched (i.e., completed both surveys) amount of ($n = 48$) submissions, leading to a 15% survey response rate. The administration process was in the form of email invitations approved by the Internal Review Board (IRB) before sending. The pool of employees selected were all leaders within the same organization.

The final sample of this research was ($n = 48$) individuals. These participants answered two online surveys (the initial and follow-up surveys). The participants' average response to the total work hours per week was 5.06 on the 6-point rating scale (the category 5 corresponds to 70–80 hours). While the sample size may be small, it is concentrated on leaders within the same organization, requiring the submission of two separate surveys. The initial survey response rate for survey one was 121 (38% response rate), with 73 participants dropping off for the second survey submission. In a study by Kouchaki & Wareham (2015), a sample size of ($n = 47$) was used with students to investigate the impacts of social exclusions. The study utilized similar methodological choices (i.e., descriptive statistics, correlations, and regression analyses), that produced statistically significant results (Kouchaki & Wareham, 2015), supporting the smaller sample size.

Procedures and Interventions

Employees were educated on possible intervention programs, including meditation, reflection, and subtraction, at least thirty days before the first survey was administered to allow adequate time to understand each intervention. The second survey was administered five months after the first, while some submitters took another month to submit their responses, totaling six months between each assessment. My role in the process involved guiding the introduction and implementation of these measures, which was generally a positive and rewarding experience.

Employees were introduced to the practice of mindfulness meditation as a means to improve mental well-being and enhance productivity. This intervention included daily 15-minute guided mindfulness meditation sessions conducted via Zoom. These sessions were supported by a Headspace app to provide daily reinforcement for meditation (Headspace, n.d.). The meditation intervention was introduced by providing employees with training on the fundamentals of meditation, its origins, benefits, and practical approaches for seamlessly incorporating mindfulness into their daily routines (Kabat-Zinn, 2003). Research has shown that mindfulness meditation can improve cognitive functioning, enhance emotional regulation, and reduce stress (Chiesa & Serretti, 2009).

To supplement MM, employees were provided with training seminars, including resources in the form of PDFs and internal articles with strategies for incorporating strategically saying 'no' into their daily leadership practice. These resources and training emphasized the value of strategically saying 'no' to additional tasks when approaching exhaustion or experiencing chronic stress (Maslach & Leiter, 2008). These resources highlighted the importance of setting boundaries and maintaining a healthy work-life balance. By recognizing the early signs of burnout and appropriately declining extra tasks in their daily workload, employees can actively contribute to reducing and preventing burnout, leading to improved job satisfaction and overall well-being (Nelson & Simmons, 2003).

Reflexivity exercises, initially designed to foster a culture of continuous learning and improvement, were introduced through similar seminars on burnout that stressed the importance of leaders taking time

each week to adopt regular individual and team reflection points. During these group reflective sessions, employees engaged in discussions to evaluate decisions made, assessed their respective outcomes, and analyzed the impact of these decisions on both micro (individual or team) and macro (organizational) levels (Schön, 1984). Workday breaks have been found to play a critical role in reducing burnout and enhancing employee well-being (Hunter & Wu, 2016). Aside from targeting burnout prevention or reduction, this reflective practice encourages employees to develop critical thinking skills, foster a growth mindset, and cultivate a deeper understanding of the complex relationships between decision-making processes and outcomes in the workplace (Argyris & Schön, 1978).

Instruments

The purpose of the initial survey was to administer scales of constructs that are used as predictors of employee burnout: three intervention scales (i.e., mindfulness meditation, group reflection exercises, and subtraction-inducing exercises), and the nature of task assignment, and nature of work hours. The questions from both surveys were derived from Maslach and Schaufeli's (1993, 2014, 2020) burnout measurements. All participants were given the option to opt out of the survey at any time without consequence.

For the mindfulness meditation, 3 items were used: "I attend mindfulness micro-breaks daily," "I design my workday to renew four core energies - Spiritual, Mental, Emotional, Physical," and "I attend mindfulness micro-breaks weekly." The reflexivity exercises were measured using five items: "At work, our team regularly reviews our objectives," "At work, we regularly discuss whether our team is working together effectively" (Fu et al., 2021, pg. 239), "At work, we regularly reflect on the way we communicate," "Our team often reviews our approach to getting the job done", (Konradt et al., 2016, pg. 157) and "The methods used by our team to get the job done are often discussed." (Auzoult et al., 2021, pg. 18). Finally, the subtraction-inducing exercises were measured using two items: "I strategically say "no" when appropriate to additional tasking," and "We modify our objectives in the light of changing circumstances." Participants were asked to respond to what extent they engaged in each exercise. All these intervention items were presented with 5-point Likert-like scales with labels ranging from "1: Never" to "5: Always."

The nature of the task assignments was measured using four items: "My leader assigns my tasks," "My tasks are self-assigned," "My tasks are assigned in collaboration with myself and my leader," and "My tasks are assigned by a peer project leader." These items were presented with 5-point Likert-like scales with labels ranging from "1: Never" to "5: Always." The nature of work hours was measured using four items. Participants responded to "How many hours did you work last week?" on the following options: "1: 30-40 hours," "2: 40- 50 hours," "3: 50-60 hours," "4: 60-70 hours," "5: 80-80 hours," and "6: over 80 hours." Regarding the hours of average shift, they responded to "How long is your average shift?" on the following options: "1: 1-4 hours," "2: 5-8 hours," "3: 9-12 hours," and "4: 13 or more." Regarding the tenure in the current role and tenure in the company, participants responded to "How long have you been in your current role?" and "How long have you worked for your current company?" on the following options: "1: less than 1 year," "2: 1-2 years," "3: 3-5 years," "4: 6-8 years," and "5: more than 8 years."

The purpose of the follow-up survey was to administer the scale measuring employee burnout, which serves as the current research's main dependent variable (DV). The following eleven independent variables were selected from the Maslach and Schaufeli's (1993, 2014, 2020) burnout measurements: "I feel mentally exhausted while at work," "Staying focused at work is a struggle," "At the end of a work day, my energy is depleted," "In the morning, I lack the energy to start my work day" (Haar, 2022, pg. 314), "Thinking clearly at work is a struggle," "I often wake up at night thinking about work related tasks," "I often wake up at night thinking about work related tasks," "I feel distracted and forgetful while at work," "I make mistakes at work due to my mind being preoccupied," "At the end of my working day, I feel mentally exhausted and drained", (Schaufeli et al., 2020, pg. 17) "I have trouble falling or staying asleep (Schaufeli et al., 2020, pg. 17)," "I find it difficult to concentrate at work due to feeling exhausted."

RESULTS AND DISCUSSION

To formally tests the three hypotheses listed, three sets of regressions were conducted to allowing the researchers to shed light on the patterns and associations in employee burnout interventions (Pallant, 2020). The overarching results are presented in Table 2.

TABLE 2
EXPLORATORY FACTOR ANALYSIS

Construct	Items	Factor 1	Factor 2	Factor 3	Factor 4
Burnout	I feel mentally exhausted while at work	.77	-.10	-.13	-.28
	Staying focused at work is a struggle	.80	-.34	-.08	-.20
	At the end of a workday, my energy is depleted	.68	-.25	.01	-.11
	In the morning, I lack the energy to start my workday (Haar, 2022, pg. 314)	.73	-.24	-.13	-.38
	Thinking clearly at work is a struggle		-.24	-.18	
Group reflection	At the end of my working day, I feel mentally exhausted and drained (Schaufeli et al., 2020, pg. 17)	.76	-.33	.07	-.10
	I have trouble falling or staying asleep (Schaufeli et al., 2020, pg. 17)	.65	-.31	.11	-.45
	I find it difficult to concentrate at work due to feeling exhausted	.77	-.27	.16	.16
	I attend mindfulness micro-breaks daily		-.92	.13	
	I design my workday to renew four core energies - Spiritual, Mental, Emotional, Physical	-.32	.62	.09	.46
Group reflection	At work, our team regularly reviews our objectives	.07	-.10	.51	.20
	At work, we regularly discuss whether our team is working together effectively (Fu et al., 2021, pg. 239)	.13	.04	.74	.10
	At work, we regularly reflect on the way we communicate	-.10	.18	.81	.24
	Our team often reviews our approach to getting the job done (Konradt et al., 2016, pg. 157)	-.21	.11	.71	.67

Results for the first hypothesis indicated that mindfulness meditations (H1. Mindfulness meditation breaks will reduce the level of burnout in remote workers) negatively and significantly predicted the levels of burnout ($b = -.26$, $p = .01$). These findings are consistent with the findings from Eby et al. (2019), Hunt et al. (2017), and Fazia et al. (2021); it was anticipated that MM would be effective in the mitigation of burnout in this study based on the findings in the literature. Additionally, a systematic review and meta-analysis by Virgili (2015) found that MM as an intervention significantly reduced employee burnout across various industries. Mindfulness-based interventions (MBIs) can be understood further through the JD-R theory framework. The JD-R theory aids employees in handling job demands more effectively. By encouraging cognitive and emotional flexibility and balance and maintaining a present mindset, mindfulness can prepare employees to cope skillfully with job demands, reducing burnout's adverse effects (Hülshager et al., 2013; Hölzel et al., 2011). Furthermore, mindfulness meditation may improve employees' ability to identify and employ various job resources (i.e., social support and autonomy) to increase self-awareness (Moore & Malinowski, 2009). Lastly, a study by Hülshager et al. (2013) indicated that small periods of mindfulness meditation interventions could profoundly reduce burnout symptoms. A one-unit increase was found in mindfulness meditations, which reduced the burnout $-.35$ unit ($\beta = -.35$).

The group-reflection exercises (H2. Group reflection exercises will reduce the level of burnout in remote workers) did not reveal a significant negative relationship with burnout ($\beta = .06$). Therefore, the results from the regression analyses indicated that hypotheses 1 and 3 are supported. Similar to findings in

the literature, a systematic review by Mann, Gordon, and MacLeod (2009) found a need for more rigorous research surrounding group reflection exercises in healthcare professionals due to mixed results in effectiveness. While there is some evidence to suggest that group reflection can positively impact employee burnout, the results are not unequivocally supported by the results of this study.

Subtraction-inducing exercises (H3. Subtraction-inducing exercises will reduce the level of burnout in remote workers) also negatively and significantly predicted the levels of burnout ($b = -.32$, $p = .02$). One unit increase in subtraction-inducing exercises reduced the burnout -.33 unit ($\beta = -.33$). The results of subtraction exercises are consistent with findings in the literature, highlighting the impacts of heavy workloads on employee burnout and the effects of task subtraction on improving symptoms (Maslach & Leiter, 2008; Phillips, 2020; Matthews et al., 2006).

The JD-R theory supports the notion that task reduction can benefit employee well-being and reduce burnout by decreasing job demands and increasing job resources (Bakker & Demerouti, 2007), demonstrating the strength of the intervention included in this study. When implemented thoughtfully, task reduction can lead to decreased job demands. By reducing employee tasks or workloads, employees may experience reduced time pressure, role conflict, or role ambiguity, all known to contribute to burnout (Demerouti et al., 2001).

CONCLUSIONS AND IMPLICATIONS

Employee burnout research, particularly in remote leadership roles, carries significance, given the critical impact of burnout on organizational effectiveness, employee health, and overall productivity. Organizations may assume their leaders know to mitigate or prevent burnout when faced with it, leading to dangerous outcomes due to disregarding employee wellbeing. Many leaders need help with varying levels of burnout, as shown by this study, but we need to know what percentage of leaders are properly equipped to act. This research aims to inform educators and organizations on the importance of burnout awareness and taking proper action when this syndrome negatively impacts one's firm.

The findings of this study shed considerable light on the nuanced relationship between remote work, management practices, and burnout. Importantly, they enhance our understanding of the challenges faced by remote leaders, especially in the context of blurred work-life boundaries and the additional pressures brought on by the pandemic. This research not only supports but also expands on both the Transactional Model of Stress proposed by Lazarus and Folkman (1984) and the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007), demonstrating their applicability within the context of remote work.

In line with the JD-R model, this study emphasizes the significant role job demands play in burnout, a finding consistent with previous research highlighting the effects of work demands and personal resources (Schaufeli & Bakker, 2004). However, this research further details the unique demands faced by remote leaders, such as blurred boundaries between work and personal life and increased workload. The results concerning individual strain and particularly emotional exhaustion also mirror findings from earlier studies (Maslach & Leiter, 2016), reaffirming the relationship between these variables and burnout in remote leaders. Moreover, this study offers more profound insight into the specific experiences of emotional exhaustion within remote work settings.

Furthermore, although Reflection Exercises did not significantly reduce burnout as expected, a combination of different interventions - from Subtraction-Inducing Exercises, task restructuring, Mindfulness practices, and stress management training showed a positive impact in reducing burnout symptoms. These interventions help mitigate the symptoms of burnout and promote well-being and productivity among remote leaders.

These findings offer valuable insights for organizations navigating the territory of remote work. They suggest a multi-faceted approach to managing burnout among remote leaders can be more effective than focusing on a single strategy. By combining interventions and reducing role overload, organizations can create a healthier work environment that minimizes burnout and enhances overall performance. Moreover, this study's results reinforce the importance of context in understanding and managing burnout. Specific contextual factors, such as the nature of remote work, the characteristics of the tasks, and the individual

coping skills of leaders, may influence the effectiveness of different interventions. Organizations must consider these contextual factors when designing and implementing strategies to manage burnout.

Indeed, this research fills an important gap in the literature by focusing specifically on remote leaders, a group that is becoming increasingly prevalent in today's workforce. It contributes to our understanding of burnout in this population and offers practical strategies for organizations to manage this issue effectively. As remote work continues to evolve, this research provides a valuable foundation for future studies on burnout among remote leaders, paving the way for more informed and effective interventions.

Implications for Future Research

This study's findings on the impact of interventions in reducing burnout for remote leaders laid the groundwork for future research. Several areas of inquiry could be explored further, including:

- Investigating the effectiveness of specific intervention components, such as mindfulness exercises, workload management (i.e., subtraction), and reflexivity, in reducing burnout for remote leaders. These insights can help organizations tailor interventions to their specific needs.
- Examining potential moderators of intervention effectiveness, such as organizational culture, leadership style, or individual factors, to identify which subgroups of remote leaders may benefit most from different interventions.
- Exploring the potential benefits of these interventions for remote employees in general, not just leaders, to understand how the well-being of the entire remote workforce can be improved.

REFERENCES

- Andela, M., & Truchot, D. (2017). Emotional dissonance and burnout: The moderating role of team reflexivity and re-evaluation. *Stress & Health: Journal of the International Society for the Investigation of Stress*, 33(3), 179–189.
- Anderson, A. (2021). *12 remote work statistics to know in 2022*. NorthOne. Retrieved from <https://www.northone.com/blog/small-business/remoteworkstatistics#:~:text=41%25%20of%20those%20workers%20are,to%20the%20COVID>
- AngChooi Hwa, M. (2012). Emotional labor and emotional exhaustion. *Journal of Management Research*, 12(3), 115–127.
- Argyris, C., & Schön, D.A. (1978). *Organizational learning: A theory of action perspective*. Addison-Wesley.
- Auzoult, L., Priolo, D., Blanchet, C., & Guilbert, L. (2021). Self-and coregulation of health and performance at workplace. *Psychological Studies*, 66(1), 14–25.
- Awa, W.L., Plaumann, M., & Walter, U. (2010). Burnout prevention: A review of intervention programs. *Patient Education and Counseling*, 78(2), 184–190.
- Baer, R.A. (2003). Mindfulness training as a clinical intervention: A conceptual and empirical review. *Clinical psychology: Science and Practice*, 10(2), 125.
- Bakker, A.B., & Costa, P.L. (2014). Chronic job burnout and daily functioning: A theoretical analysis. *Burnout Research*, 1(3), 112–119.
- Bakker, A.B., & Demerouti, E. (2017). Job demands–resources theory: Taking stock and looking forward. *Journal of Occupational Health Psychology*, 22(3), 273–285.
- Bakker, A.B., Demerouti, E., & Sanz-Vergel, A.I. (2014). Burnout and work engagement: The JD–R approach. *Annu. Rev. Organ. Psychol. Organ. Behavior*, 1(1), 389–411.
- Bamber, M.D., & Schneider, J.K. (2022). College students' perceptions of mindfulness-based interventions: A narrative review of the qualitative research. *Current Psychology*, 41(2), 667–680.
- Banks, J. (2020). Leading remotely: The effects of leadership on employee burnout in a remote work environment. *Journal of Business and Psychology*, 35(6), 719–732
- Bretland, R.J., & Thorsteinsson, E.B. (2015). Reducing workplace burnout: The relative benefits of cardiovascular and resistance exercise. *PeerJ*. <https://doi.org/10.7717/peerj.891>

- Burton, A., Burgess, C., Dean, S., Koutsopoulou, G.Z., & Hugh-Jones, S. (2017). How effective are mindfulness-based interventions for reducing stress among healthcare professionals? A systematic review and meta-analysis. *Stress and Health, 33*(1), 3–13.
- Charoensukmongkol, P. (2013). The contributions of mindfulness meditation on burnout, coping strategy, and job satisfaction: Evidence from Thailand. *Journal of Management and Organization, 19*(5), 544–558.
- Chiesa, A., & Serretti, A. (2009). Mindfulness-based stress reduction for stress management in healthy people: A review and meta-analysis. *The Journal of Alternative and Complementary Medicine, 15*(5), 593–600. <https://doi.org/10.1089/acm.2008.0495>
- Coate, P. (2021, January 25). Remote work before, during, and after the pandemic. *Quarterly Economics Briefing–Q42020*. Retrieved from https://www.ncci.com/SecureDocuments/QEB/QEB_Q4_2020_RemoteWork.html
- Collings, D.G., Nyberg, A.J., Wright, P.M., & McMackin, J. (2021). Leading through paradox in a COVID-19 world: Human resources comes of age. *Human Resource Management Journal, 31*(4), 819–833. <https://doi.org/10.1111/1748-8583.12343>
- Contreras, F., Baykal, E., & Abid, G. (2020). E-leadership and teleworking in times of COVID 19 and beyond: What we know and where do we go. *Frontiers in Psychology, 11*(590271), 1–11.
- Craig, A., Duff, J., & Middleton, J. (2022). Spinal cord injuries. In G.J.G. Asmundson (Ed.), *Comprehensive Clinical Psychology, 2*(8), 301–328.
- De Dreu, C. (2007). Cooperative outcome interdependence, task reflexivity, and team effectiveness. *Journal of Applied Psychology, 92*(3), 628–638
- Eby, L.T., Allen, T.D., Conley, K.M., Williamson, R.L., Henderson, T.G., & Mancini, V. (2019). Mindfulness-based training interventions for employees: A qualitative review of the literature. *Human Resource Management Review, 29*(2), 156–178.
- Fazia, T., Bubbico, F., Berzuini, G., Tezza, L.D., Cortellini, C., Bruno, S., & Bernardinelli, L. (2021). Mindfulness meditation training in an occupational setting: Effects of a 12 weeks mindfulness-based intervention on wellbeing. *Work, 70*(4), 1089–1099.
- Fisher, J. (2020, April 24). Workplace burnout survey: Burnout without borders. *Deloitte*. Retrieved from <https://www2.deloitte.com/us/en/pages/about-deloitte/articles/burnout-survey.html>
- Frings, D. (2017, December 14). The transactional model of stress and coping. *PsychologyItBetter*. Retrieved from <http://psychologyitbetter.com/transactional-model-stress-coping>
- Fu, N., Flood, P.C., Rousseau, D.M., & Morris, T. (2021). Resolving the individual helping and objective job performance dilemma: The moderating effect of team reflexivity. *Journal of Business Research, 129*, 236–243.
- Gabriel, K.P., & Aguinis, H. (2022). How to prevent and combat employee burnout and create healthier workplaces during crises and beyond. *Business Horizons, 65*(2), 183–192.
- Gajendran, R.S., & Harrison, D.A. (2007). The good, the bad, and the unknown about telecommuting: Meta-analysis of psychological mediators and individual consequences. *Journal of Applied Psychology, 92*(6), 1524–1541.
- Ghaye, T. (2010). *Teaching and learning through reflective practice: A practical guide for positive action*. Routledge.
- Golden, T.D., & Veiga, J.F. (2008). The impact of extent of telecommuting on job satisfaction: Resolving inconsistent findings. *Journal of Management, 34*(2), 317–342.
- Hölzel, B.K., Lazar, S.W., Gard, T., Schuman-Olivier, Z., Vago, D.R., & Ott, U. (2011). How does mindfulness meditation work? Proposing mechanisms of action from a conceptual and neural perspective. *Perspectives on psychological science, 6*(6), 537–559.
- Hülshager, U.R., Alberts, H.J., Feinholdt, A., & Lang, J.W. (2013). Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology, 98*(2), 310.

- Hunt, M., Al-Braiki, F., Dailey, S., Russell, R., & Simon, K. (2018). Mindfulness training, yoga, or both? Dismantling the active components of a mindfulness-based stress reduction intervention. *Mindfulness*, 9(2), 512–520.
- Jones, J.A. (2021, November 24). *Seven in 10 U.S. White-collar workers still working remotely*. Gallup. <https://news.gallup.com/poll/348743/seven-u.s.-white-collar-workers-still-workingremotely.aspx>
- Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice*, 10(2), 144–156.
- Kabat-Zinn, J., & Hanh, T.N. (2009). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness*. Delta
- Keng, S.L., Smoski, M.J., & Robins, C.J. (2011). Effects of mindfulness on psychological health: A review of empirical studies. *Clinical Psychology Review*, 31(6), 1041–1056.
- Khisty, C.J. (2010). The practice of mindfulness for managers in the marketplace. *Systemic Practice & Action Research*, 23(2), 115–125.
- Konradt, U., Otte, K.-P., Schippers, M.C., & Steenfatt, C. (2016). Reflexivity in Teams: A Review and New Perspectives. *Journal of Psychology*, 150(2), 151–174.
- Kouchaki, M., & Wareham, J. (2015). Excluded and behaving unethically: Social exclusion, physiological responses, and unethical behavior. *Journal of Applied Psychology*, 100(2), 547.
- Krasner, M.S., Epstein, R.M., Beckman, H., Suchman, A.L., Chapman, B., Mooney, C.J., & Quill, T.E. (2009). Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *Jama*, 302(12), 1284–1293.
- Lazarus, R.S., & Folkman, S. (1984). *Stress, appraisal, and coping*. Springer.
- Li, H., Yuan, B., Meng, Q., & Kawachi, I. (2019). Contextual factors associated with burnout among Chinese primary care providers: A multilevel analysis. *International Journal of Environmental Research and Public Health*, 16(19), 3555.
- Lines, R.L., Pietsch, S., Crane, M., Ntoumanis, N., Temby, P., Graham, S., & Gucciardi, D. (2021). The effectiveness of team reflexivity interventions: A systematic review and meta-analysis of randomized controlled trials. *Sport, Exercise, and Performance Psychology*, 10(3), 438–473.
- Makhanova, A., & Shepherd, D.A. (2020). Preventing burnout in remote teams: The soft side of working from home. *Harvard Business Review*. Retrieved from <https://hbr.org/2020/04/preventing-burnout-in-remote-teams-the-soft-side-of-working-from-home>
- Maricuțoiu, L.P., Sava, F.A., & Butta, O. (2016). The effectiveness of controlled interventions on employees' burnout: A meta-analysis. *Journal of Occupational & Organizational Psychology*, 89(1), 1–27.
- Maslach, C. (2003). Job burnout: New directions in research and intervention. *Current Directions in Psychological Science*, 12(5), 189–192.
- Maslach, C., & Leiter, M.P. (2008b). *The truth about burnout: How organizations cause personal stress and what to do about it*. Wiley & Sons.
- Maslach, C., & Leiter, M.P. (2016). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111.
- Maslach, C., Schaufeli, W.B., & Leiter, M.P. (2001). Job burnout. *Annual Review of Psychology*, 52(1), 397–422.
- Moody, K., Kramer, D., Santizo, R., Magro, L., Wyshogrod, D., Ambrosio, J., & Stein, J. (2013). Helping the helpers. *Journal of Pediatric Oncology Nursing*, 30(5), 275–284.
- Moore, A., & Malinowski, P. (2009). Meditation, mindfulness and cognitive flexibility. *Consciousness and Cognition*, 18(1), 176–186.
- Moss, J. (2021, February 10). The burnout crisis. *Harvard business school cases*, 1, 1–57. Retrieved from <https://store.hbr.org/product/the-burnout-crisis/bg2101?sku=BG2101-PDF-ENG>
- Nyberg, A.J., Shaw, J.D., & Zhu, J. (2021). The people still make the (remote work-) place: Lessons from a pandemic. *Journal of Management*, 47(8), 1967–1976.

- Ouyang, C., Zhu, Y., Ma, Z., & Qian, X. (2022). Why Employees Experience Burnout: An Explanation of Illegitimate Tasks. *International Journal of Environmental Research and Public Health*, 19(15), 8923.
- Rowe, D. (2017). The stress burden: strategies for management. *Nevada RN Information*, 21, 12. Retrieved from <https://www.thefreelibrary.com/The+stress+burden%3a+strategies+for+management>.
- Rubi- Valdehita, S., Diaz-Ramiro, E.M., & Aparicio-García, M.E. (2020). Psychological capital, workload, and burnout: what's new?: The impact of personal accomplishment to promote sustainable working conditions. *Sustainability*, 12(19), 8124.
- Sarazine, J., Heitschmidt, M., Vondracek, H., Sarris, S., Marcinkowski, N., & Kleinpell, R. (2021). Mindfulness workshop effects on nurses' burnout, stress, and mindfulness skills. *Holistic Nursing Practice*, 35(1), 10–18.
- Sandaunet, A.G. (2008). The challenge of fitting in: non-participation and withdrawal from an online self-help group for breast cancer patients. *Sociology of Health & Illness*, 30(1), 131–144.
- Schaufeli, W.B., & Bakker, A.B. (2004). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, 25(3), 293–315.
- Schulte, B., & Pabst, S. (2021, August 27). *Combating burnout as a single working parent*. Harvard Business Review. Retrieved from <https://hbr.org/2021/06/combating-burnout-as-a-singleworking-parent>
- Sulea, C., Maricuțoiu, L.P., Comanescu, A., & Sava, F.A. (2020). Organizational and individual predictors of telecommuting-induced strain and job burnout. *Current Psychology*, 39(3), 855–862.
- Sull, D., Sull, C., & Bersin, J. (2020). Five ways leaders can support remote work. *MIT Sloan Management Review*, 61(4), 1–10.
- Virgili, M. (2015). Mindfulness-based interventions reduce psychological distress in working adults: A meta-analysis of intervention studies. *Mindfulness*, 6(2), 326–337.
- Wadhen, V., & Cartwright, T. (2021). Feasibility and outcome of an online streamed yoga intervention on stress and wellbeing of people working from home during COVID-19. *Work*, 1–19.
- West, C.P., Dyrbye, L.N., & Shanafelt, T.D. (2018). Physician burnout: contributors, consequence and solutions. *Journal of Internal Medicine*, 283(6), 516–529.
- Young, R.A. (2020). Remote work: Pandemic & beyond. *Arkansas Business*, 37(26), 19.
- Zimmerman, B., & Kitsantas, A. (2007). Reliability and validity of self-efficacy for learning form (SELF) scores of college students. *Zeitschrift für Psychologie/Journal of Psychology*, 215(3), 157–163.