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Digital Monitoring and Burnout: The Mediating Role of Perceived Control

ABSTRACT

This study aimed to investigate the relationship between digital monitoring and employee burnout, examining the mediating role of perceived control in this association. A descriptive-correlational design was employed with a sample of 285 full-time employees from various sectors. Participants completed three standardized instruments: the Electronic Monitoring and Surveillance Scale (EMSS) for digital monitoring, the Pearlin Mastery Scale (PMS) for perceived control, and the Maslach Burnout Inventory (MBI) for burnout. Data were analyzed using Pearson correlation, structural equation modeling (SEM), and mediation analysis in SPSS-27 and AMOS-24. The goodness-of-fit indices were used to evaluate the model's fit, including χ^2/df, GFI, AGFI, CFI, TLI, and RMSEA. Inferential analysis revealed that digital monitoring was positively associated with burnout ($\beta = 0.34$, $p < .001$) and negatively associated with perceived control ($\beta = -0.31$, $p < .001$). Perceived control was significantly negatively associated with burnout ($\beta = -0.43$, $p < .001$). Mediation analysis indicated a significant indirect effect of digital monitoring on burnout through perceived control ($\beta = 0.13$, $p = .001$), and the total effect of digital monitoring on burnout was significant ($\beta = 0.47$, $p < .001$). Model fit indices confirmed good model fit (χ^2/df = 2.05, GFI = 0.94, AGFI = 0.91, CFI = 0.96, TLI = 0.95, RMSEA = 0.061). The findings suggest that digital monitoring contributes to higher levels of employee burnout both directly and indirectly by reducing perceived control. Perceived control plays a protective, mediating role and should be considered a crucial psychological factor when designing and implementing monitoring technologies in the workplace.

Keywords: Digital monitoring, Burnout, Perceived control, Workplace surveillance, Structural equation modeling, Occupational stress.

Introduction

The growing prevalence of digital monitoring technologies in the workplace has sparked considerable academic interest and public concern regarding their psychological implications, particularly their potential to contribute to employee burnout. As organizations increasingly rely on performance-tracking systems, surveillance tools, and algorithmic oversight to regulate workflow and evaluate productivity, employees often report feelings of reduced autonomy, increased pressure, and emotional exhaustion [1, 2]. Burnout, characterized by emotional exhaustion, depersonalization, and diminished personal accomplishment, has become a defining occupational hazard of the digital era [3, 4]. Against this backdrop, perceived control emerges as a crucial psychological resource that may mediate the effects of digital monitoring on burnout. This study explores how digital monitoring contributes to burnout among employees and investigates whether perceived control serves as a mediating variable in this relationship.

Burnout has been extensively researched in various professional contexts, from healthcare to education, sports, and service industries, where job demands often exceed individual coping capacities [5-7]. During the COVID-19 pandemic, for instance, burnout reached alarming levels among frontline healthcare workers and educators, exacerbated by increased

workloads, technological challenges, and social isolation [4, 8, 9]. In these contexts, burnout is often linked to emotional exhaustion, loss of motivation, and a diminished sense of professional efficacy [10, 11]. While the Job Demands-Resources (JD-R) model provides a theoretical lens through which burnout can be understood—as the imbalance between external demands and internal or environmental resources—recent scholarship emphasizes the role of perceived psychological control as a personal resource that may buffer such effects [4, 12].

Perceived control refers to an individual's belief in their ability to influence outcomes in their environment and manage stressors effectively. In occupational settings, higher levels of perceived control are associated with lower emotional exhaustion and better mental health outcomes [12, 13]. The erosion of perceived control, however, is a common consequence of digital monitoring technologies that limit autonomy and micromanage task execution [1, 2]. When employees feel constantly surveilled, even under the guise of productivity optimization or security, they may interpret these practices as signals of mistrust or lack of agency. This psychological interpretation can increase stress responses and lead to emotional disengagement and burnout [14, 15].

Existing literature highlights how digital surveillance, while intended to enhance efficiency, may paradoxically undermine employee engagement and well-being. Rony and Pardosi (2021) found that digital monitoring negatively affects employee engagement, particularly when perceived as intrusive or excessive [1]. Similarly, Lang et al. (2023) demonstrated that algorithmically controlled gig workers frequently report lower levels of perceived control and higher burnout symptoms, largely due to opaque and rigid monitoring systems [2]. These findings align with broader organizational psychology research, which shows that perceived autonomy and control are vital protective factors against stress and burnout [9, 10]. When employees perceive that they have choice and influence in their roles, even under demanding circumstances, they are more likely to remain resilient and engaged.

Perceived control also plays a critical role in how individuals interpret and respond to occupational stressors. According to Degachi et al. (2023), perceived control significantly influences the effectiveness of support systems—including AI-based burnout chatbots—in mitigating psychological strain [13]. In education and healthcare sectors, where job demands are consistently high, studies have shown that interventions aimed at enhancing perceived control lead to reduced burnout and improved well-being [3, 9]. Similarly, studies on teacher-student relationships and workplace political skill suggest that when professionals feel capable of navigating their work environments autonomously, they report fewer symptoms of burnout and greater job satisfaction [12].

The importance of perceived control is further supported in stress and coping theories, which posit that stress is not merely a function of external conditions but also of individuals' subjective evaluations of their capacity to manage those conditions [16, 17]. Perceived control, therefore, mediates not only the emotional impact of workplace stressors but also the behavioral outcomes associated with them, including disengagement, absenteeism, and burnout [4, 15]. For instance, in their study on midwives, Liu et al. (2022) identified perceived social support and control as mediators between perceived stress and job burnout, reinforcing the protective function of control beliefs [15].

Digital monitoring’s impact is also shaped by contextual and cultural variables. In collectivist cultures, where hierarchical structures and top-down oversight are often normalized, the psychological impact of digital monitoring may differ from individualistic contexts where autonomy is highly valued [8, 18]. Nonetheless, studies across different regions and professional groups consistently underscore the adverse effects of perceived over-monitoring on well-being, regardless of

cultural background [7, 19]. Burnout symptoms are increasingly seen not only as outcomes of personal vulnerabilities or workload excess but also as reflections of organizational culture, managerial style, and technological governance [5, 10].

Despite growing awareness of the psychological consequences of digital monitoring, empirical investigations into its mechanism—especially the mediating role of perceived control—remain limited. While some studies have explored the direct relationship between surveillance and burnout, fewer have examined how control beliefs modulate this relationship. For example, in sports psychology, Choi et al. (2020) identified that the quality of coach–athlete communication and relational trust significantly moderated the effects of coaching behavior on athlete burnout, suggesting parallels to employer-employee dynamics in monitored environments [20]. Likewise, Olsson et al. (2021) examined how perfectionism traits predicted burnout among athletes, a variable that may also intersect with perceived control in high-pressure work settings [19].

Furthermore, interventions targeting burnout increasingly emphasize strategies to restore individual agency and perceived influence over work-related decisions. Mind-body interventions, such as mindfulness-based breathing, have shown promise in enhancing perceived control and reducing emotional burden among caregivers and students alike [11, 18]. Such findings align with the proposition that enhancing perceived control—whether through psychological training or structural changes in digital monitoring protocols—can buffer the negative effects of surveillance and improve psychological resilience [6, 17].

Taken together, the literature strongly indicates that digital monitoring practices, when unmoderated by fairness, transparency, and user autonomy, may contribute to heightened employee burnout.

Methods and Materials

Study Design and Participants

This research employed a descriptive-correlational design to examine the relationship between digital monitoring and employee burnout, as well as the mediating role of perceived control. The study population consisted of full-time employees from diverse sectors in Brazil. Based on the Morgan and Krejcie sample size table, a sample of 391 participants was deemed sufficient for inferential analysis. Participants were selected through stratified random sampling to ensure representation across job sectors. Inclusion criteria required participants to be currently employed, aged between 21 and 60, and working in organizations where digital performance monitoring tools were implemented. All participants provided informed consent prior to data collection.

Data Collection

Burnout was assessed using the Maslach Burnout Inventory (MBI) developed by Maslach and Jackson (1981), which is one of the most widely used instruments for measuring occupational burnout. The MBI consists of 22 items and is divided into three subscales: Emotional Exhaustion (9 items), Depersonalization (5 items), and Personal Accomplishment (8 items). Participants respond on a 7-point Likert scale ranging from 0 (never) to 6 (every day), with higher scores in Emotional Exhaustion and Depersonalization indicating higher burnout, while lower scores in Personal Accomplishment reflect greater burnout. The MBI has demonstrated high internal consistency, with Cronbach's alpha coefficients typically above 0.70 for all subscales, and its validity and reliability have been confirmed in numerous occupational and cross-cultural studies, making it a robust choice for examining burnout in diverse professional settings.

Perceived control was measured using the Pearlin Mastery Scale (PMS) developed by Pearlin and Schooler (1978), which is a widely used tool to assess individuals' sense of control over life circumstances. This scale comprises 7 items, each rated on a 4-point Likert scale ranging from 1 (strongly disagree) to 4 (strongly agree), with higher scores indicating a stronger internal locus of control or mastery. Sample items include statements such as "I can do just about anything I really set my mind to." The PMS has consistently shown acceptable levels of internal reliability, with Cronbach's alpha values typically above 0.70, and its construct validity has been supported across various psychological and sociological studies, making it an effective measure of perceived control in both general and work-specific contexts.

Digital monitoring was assessed using the Electronic Monitoring and Surveillance Scale (EMSS) developed by Alder, Noel, and Ambrose (2006), which is designed to evaluate employees' perceptions of electronic performance monitoring in the workplace. The EMSS includes 10 items and covers two subscales: Purpose of Monitoring (e.g., productivity or security) and Perceived Fairness. Responses are rated on a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), with higher scores reflecting greater perceptions of digital surveillance. This scale has been found to possess good internal consistency, with reported Cronbach's alpha values ranging from 0.78 to 0.88 for its subscales, and empirical studies have supported its content and construct validity, especially in organizational research examining technological monitoring practices.

Data analysis

Data were analyzed using SPSS-27 and AMOS-21. Descriptive statistics (mean and standard deviation) were calculated for all variables. To assess the bivariate relationships between the dependent variable (burnout) and independent variables (digital monitoring and perceived control), Pearson correlation coefficients were computed. In the next step, a Structural Equation Modeling (SEM) approach was conducted to test the direct and indirect relationships between variables and to evaluate the mediating role of perceived control. The SEM model's fit was assessed using standard indices: Chi-Square (χ^2), Degrees of Freedom (df), χ^2/df ratio, Goodness-of-Fit Index (GFI), Adjusted GFI (AGFI), Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA).

Findings and Results

Of the 391 participants, 213 (54.48%) identified as female and 178 (45.52%) as male. Participants ranged in age from 22 to 59 years, with 164 individuals (41.94%) aged between 30 and 39, 128 (32.74%) between 40 and 49, and 99 (25.32%) either below 30 or above 50. Regarding educational attainment, 152 participants (38.87%) held a bachelor's degree, 121 (30.95%) had a master's degree, 96 (24.55%) held a diploma or associate degree, and 22 (5.63%) had a doctoral qualification. Participants were distributed across five major sectors, with the highest representation in information technology (26.09%), followed by finance (21.74%), healthcare (19.44%), education (17.39%), and manufacturing (15.34%).

Table 1

Descriptive Statistics for Study Variables

Variable	Mean	Standard Deviation
Digital Monitoring	34.76	6.82
Perceived Control	18.43	3.57
Burnout	61.28	9.94

As shown in Table 1, the mean score for digital monitoring was 34.76 (SD = 6.82), suggesting a moderate to high perceived level of workplace surveillance. The average score for perceived control was 18.43 (SD = 3.57), indicating moderate perceived autonomy among participants. Burnout scores had a mean of 61.28 (SD = 9.94), consistent with moderately high burnout symptoms as per the Maslach Burnout Inventory scoring system.

Table 2

Pearson Correlation Matrix Between Study Variables

Variable	1	2	3
1. Digital Monitoring	—	−0.43** (p = .001)	0.49** (p = .000)
2. Perceived Control	−0.43** (p = .001)	—	−0.52** (p = .000)
3. Burnout	0.49** (p = .000)	−0.52** (p = .000)	—

Table 2 demonstrates significant relationships between all study variables. Digital monitoring was negatively correlated with perceived control ($r = -0.43$, $p = .001$), indicating that as perceptions of digital monitoring increased, perceived control declined. Digital monitoring was positively correlated with burnout ($r = 0.49$, $p < .001$), whereas perceived control was negatively correlated with burnout ($r = -0.52$, $p < .001$), supporting the theoretical framework that links surveillance, autonomy, and emotional exhaustion.

Table 3

Model Fit Indices for the Structural Equation Model

Fit Index	Value	Recommended Threshold
Chi-Square (χ^2)	108.74	—
df	53	—
χ^2/df	2.05	< 3.00
GFI	0.94	> 0.90
AGFI	0.91	> 0.90
CFI	0.96	> 0.95
TLI	0.95	> 0.95
RMSEA	0.061	< 0.08

The structural model demonstrated an excellent fit to the data. The chi-square/df ratio was 2.05, which is well within the acceptable range. Other indices such as the GFI (0.94), AGFI (0.91), CFI (0.96), and TLI (0.95) exceeded conventional thresholds, and RMSEA was within the acceptable limit of < 0.08, suggesting that the hypothesized model fits the observed data well.

Table 4

Direct, Indirect, and Total Effects Between Study Variables

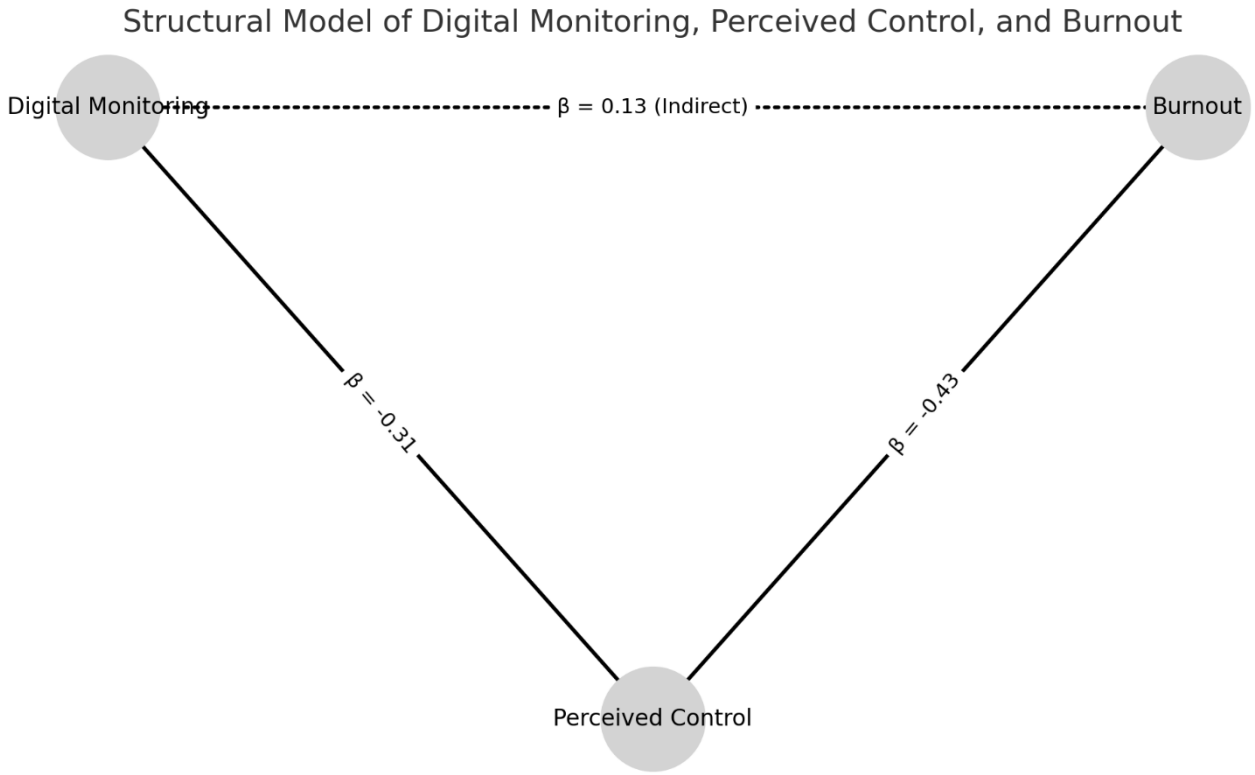
Path	B	S.E.	Beta	p
Digital Monitoring → Burnout	0.41	0.07	0.34	.000
Digital Monitoring → Perceived Control	−0.38	0.06	−0.31	.000
Perceived Control → Burnout	−0.53	0.08	−0.43	.000
Digital Monitoring → Burnout (Indirect via Perceived Control)	0.20	0.05	0.13	.001
Total Effect: Digital Monitoring → Burnout	0.61	—	0.47	.000

Table 4 presents the standardized and unstandardized path coefficients derived from the structural model. The direct effect of digital monitoring on burnout was significant ($\beta = 0.34$, $p < .001$), and digital monitoring was also negatively associated with perceived control ($\beta = -0.31$, $p < .001$). In turn, perceived control had a strong negative direct effect on burnout ($\beta = -0.43$, $p < .001$). The indirect path from digital monitoring to burnout through perceived control was also

statistically significant (β = 0.13, p = .001), confirming the mediating role of perceived control. The total effect of digital monitoring on burnout (including both direct and indirect effects) was substantial (β = 0.47, p < .001).

Figure 1

Final Model of the Study



Discussion and Conclusion

The aim of the present study was to investigate the relationship between digital monitoring and employee burnout, with a particular focus on the mediating role of perceived control. The results indicated that digital monitoring significantly predicted burnout, and that this relationship was partially mediated by perceived control. Specifically, higher levels of perceived monitoring were associated with lower levels of perceived control, which in turn contributed to increased burnout symptoms. These findings offer important insights into the psychological mechanisms by which digital surveillance practices impact occupational health and well-being in contemporary work environments.

The direct association between digital monitoring and burnout confirms prior empirical evidence suggesting that excessive surveillance technologies contribute to psychological strain and emotional exhaustion among employees. Rony and Pardosi (2021) found that intrusive digital monitoring negatively influenced employee engagement and was associated with symptoms of burnout, particularly in high-pressure corporate contexts where algorithmic oversight leaves little room for autonomy or discretion [1]. Similarly, Lang et al. (2023) demonstrated that algorithmically managed gig workers reported elevated levels of burnout and disengagement due to their inability to influence the system governing their work, an issue that mirrors the dynamics observed in the current study [2].

Importantly, the current research extended these findings by identifying perceived control as a key mediating variable. The statistical mediation observed supports the notion that digital monitoring leads to burnout not only through direct stress

mechanisms but also by undermining individuals' sense of autonomy and efficacy. This aligns closely with the findings of Degachi et al. (2023), who showed that in technology-mediated work contexts, employees' trust and control perceptions were central to their mental health outcomes and engagement with support systems [13]. Similarly, the study by Guangya et al. (2022) on university faculty burnout revealed that perceived control moderated the negative impact of relational conflicts on occupational burnout, suggesting that control beliefs function as a psychological buffer [12].

These results are consistent with broader theoretical models such as the Job Demands-Resources (JD-R) framework, which posits that a lack of autonomy and decision latitude increases the risk of burnout under high job demands [4, 15]. The findings of the present study substantiate this theoretical position, illustrating how perceived control operates as a personal resource capable of reducing vulnerability to stressors such as digital surveillance. Indeed, several studies across diverse occupational settings, including healthcare [8, 21], education [5, 9], and sports [19, 20], have confirmed the critical role of control in preventing emotional exhaustion and maintaining job motivation.

Furthermore, the mediating effect of perceived control observed here is consistent with research indicating that interventions designed to enhance personal agency—such as mindfulness-based training or relational communication—can reduce burnout symptoms and improve psychological resilience. For instance, Yıldırım et al. (2024) demonstrated that mindfulness-based breathing improved strain and burnout in family caregivers by enhancing their internal sense of control and coping resources [11]. Likewise, Zhu et al. (2021) found that mind-body interventions reduced burnout and stress in female students by bolstering their psychological regulation and perceptions of control over academic stressors [18].

Notably, the present study's results support the argument that perceived control is not a static personality trait but a dynamic construct influenced by environmental factors such as managerial style, monitoring intensity, and organizational transparency. Degachi et al. (2023) emphasized that even AI-powered burnout interventions were only effective when employees believed they retained control over their emotional and occupational responses [13]. Similarly, Cece et al. (2022) revealed that when teachers perceived higher support from their principals, their professional identity and internal control were enhanced, contributing to better well-being outcomes [9].

The study also contributes to the expanding literature on occupational burnout during and after the COVID-19 pandemic. During this time, the intensification of remote work, the expansion of digital control tools, and the uncertainty surrounding performance evaluation generated unprecedented stress for employees. Holmes and Iwanaga (2023) showed that parents experienced heightened levels of burnout due to limited control over their routines during the pandemic [10], while Zhou et al. (2022) applied the JD-R model to show that healthcare workers' burnout was strongly influenced by the perceived balance between job demands and control resources [4]. The current study, situated in the post-pandemic context, adds to this dialogue by illustrating how the normalization of digital monitoring continues to exert psychological costs even as physical workspaces reopen.

In contrast with traditional explanations that attribute burnout solely to excessive workload, our findings align with a growing body of research indicating that the subjective experience of powerlessness and lack of agency are more predictive of burnout than objective workload measures. Hudziak et al. (2021) argued that burnout assessment should account for individualized cognitive contributors, such as perceived control, which are often masked in general burnout scales [16]. Likewise, Makara-Studzińska et al. (2020) found that perceived stress and burnout levels varied more significantly with self-efficacy and control beliefs than with actual task load in air traffic controllers and maritime navigators [17].

The present findings also resonate with the work of Vandermeulen et al. (2022), who examined the protective role of perceived emotional fit in mitigating activist burnout. Their results highlighted that individuals embedded in emotionally affirming environments were better equipped to cope with external pressures, much like how control perceptions can moderate the negative effects of surveillance [14]. In occupational contexts, this suggests that a psychologically empowering environment may be more important for employee resilience than the absence of stressors alone.

From a practical standpoint, these findings have several implications for organizational leaders and policymakers. First, the use of digital monitoring systems should be approached with caution and balanced by practices that reinforce employee autonomy and transparency. Second, interventions aimed at improving perceived control—whether through participative decision-making, communication training, or leadership support—may serve as effective burnout prevention strategies. Third, organizations should prioritize psychological safety and design monitoring tools in ways that empower rather than constrain employees.

Despite its strengths, this study is not without limitations. One primary limitation concerns the cross-sectional design, which restricts the ability to make causal inferences about the relationships among digital monitoring, perceived control, and burnout. Longitudinal or experimental designs would offer more definitive insights into temporal dynamics and directionality. Additionally, the sample may not be fully representative of all industries or cultural contexts, as the intensity and interpretation of digital monitoring can vary significantly across sectors and regions. Another limitation lies in the use of self-report measures, which are subject to response biases such as social desirability or mood-state effects. While validated instruments were used, future studies could enhance objectivity by including behavioral or physiological measures of stress and monitoring exposure.

Future research should consider employing longitudinal designs to examine how perceived control evolves over time in response to digital monitoring practices, especially as organizations continue to adopt new surveillance technologies. Studies could also explore industry-specific differences to determine whether perceived control functions similarly in high-autonomy versus low-autonomy roles. Moreover, qualitative research could yield deeper insights into how employees subjectively interpret monitoring experiences and how these perceptions relate to broader organizational culture and identity. Including variables such as organizational justice, leadership style, or trust in technology could also provide a more comprehensive picture of the burnout process in digital environments.

Organizations should implement digital monitoring systems transparently, ensuring that employees understand their purpose and limits. Training programs that enhance employees' problem-solving abilities and autonomy can foster a stronger sense of control. Managers should prioritize open communication, involve employees in decision-making processes, and ensure regular feedback mechanisms to preserve perceived agency. Finally, mental health support services should be accessible and tailored to address challenges posed by surveillance-related stress, fostering a culture where well-being and technological advancement coexist harmoniously.

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Authors' Contributions

All authors equally contributed to this study.

Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants. Written consent was obtained from all participants in the study.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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References

[1] Z. T. Rony and H. D. Pardosi, "Burnout Digital Monitoring on Employee Engagement at the Company," *International Journal of Research in Business and Social Science (2147-4478),* vol. 10, no. 7, pp. 156-162, 2021, doi: 10.20525/ijrbs.v10i7.1412.

[2] J. J. Lang, Y. Li, C. Cheng, X. Y. Cheng, and F. Y. Chen, "Are Algorithmically Controlled Gig Workers Deeply Burned Out? An Empirical Study on Employee Work Engagement," *BMC Psychology,* vol. 11, no. 1, 2023, doi: 10.1186/s40359-023-01402-0.

[3] M. Masoomi, n. jamshidnejad, m. kianidehkordi, f. Ghasempour, and S. Gholamzad, "The Effectiveness of a Balint Group on Burnout Prevention, Reduction of Stress Perception, and Improvement of Caring Behaviors in Nurses in the COVID-19 Ward at Amir-Alam Hospital," 2023, doi: 10.21203/rs.3.rs-2733482/v1.

[4] T. Zhou *et al.*, "Burnout and Well-Being of Healthcare Workers in the Post-Pandemic Period of COVID-19: A Perspective From the Job Demands-Resources Model," *BMC Health Services Research,* vol. 22, no. 1, 2022, doi: 10.1186/s12913-022-07608-z.

[5] A. A. D. Cruz, "Direct and Indirect Factors Affecting Teachers' Burnout in the New Normal," *Recoletos Multidisciplinary Research Journal,* vol. 8, no. 2, pp. 75-86, 2020, doi: 10.32871/rmrj2008.02.06.

[6] G. Greco, "Effects of Combined Exercise Training on Work-Related Burnout Symptoms and Psychological Stress in the Helping Professionals," *Journal of Human Sport and Exercise,* vol. 16, no. 2, 2020, doi: 10.14198/jhse.2021.162.16.

[7] S. A. Holzgang, A. P. Pazhenkottil, M. Princip, B. Auschra, S. Euler, and R. v. Känel, "Burnout Among Male Physicians: A Controlled Study on Pathological Personality Traits and Facets," *Psych,* vol. 5, no. 1, pp. 1-13, 2022, doi: 10.3390/psych5010001.

[8] G. M. García and J. C. A. Calvo, "The Threat of COVID-19 and Its Influence on Nursing Staff Burnout," *Journal of Advanced Nursing,* vol. 77, no. 2, pp. 832-844, 2020, doi: 10.1111/jan.14642.

[9] V. Cece, G. Martinent, E. Guillet-Descas, and V. Lentillon-Kaestner, "The Predictive Role of Perceived Support From Principals and Professional Identity on Teachers' Motivation and Well-Being: A Longitudinal Study," *International Journal of Environmental Research and Public Health,* vol. 19, no. 11, p. 6674, 2022, doi: 10.3390/ijerph19116674.

[10] C. M. Holmes and K. Iwanaga, "Parental Burnout, Quality of Life, and Pregnancy During COVID-19," *The Family Journal,* vol. 32, no. 2, pp. 269-276, 2023, doi: 10.1177/10664807231173693.

[11] D. Yıldırım, C. Ç. Yıldız, and M. H. Özdoğan, "The Effects of Mindfulness-Based Breathing on Strain, Burden, and Burnout in Family Caregivers of Palliative Care Patients," *Holistic Nursing Practice,* 2024, doi: 10.1097/hnp.0000000000000685.

[12] M. Guangya, C. Po-Chien, L. I. N. Ying-Yin, and K. W. Io, "The Influence of Teacher-Student Relationship Conflict on University Teacher Job Burnout: The Role of Perceived Control and Political Skill," *Journal of Macau University of Science and Technology,* vol. 16, no. 2, p. 13, 2022, doi: 10.58664/mustjournal.2022.02.013.

[13] C. Degachi, M. L. Tielman, and M. A. Owayyed, "Trust and Perceived Control in Burnout Support Chatbots," pp. 1-10, 2023, doi: 10.1145/3544549.3585780.

[14] D. Vandermeulen, S. H. Aslih, E. Shuman, and E. Halperin, "Protected by the Emotions of the Group: Perceived Emotional Fit and Disadvantaged Group Members' Activist Burnout," *Personality and Social Psychology Bulletin,* vol. 49, no. 7, pp. 1086-1096, 2022, doi: 10.1177/01461672221092853.

[15] C. Liu *et al.*, "Mediating Role of Perceived Social Support in the Relationship Between Perceived Stress and Job Burnout Among Midwives in the Post-COVID-19 Era," *Nursing Open,* vol. 10, no. 2, pp. 479-487, 2022, doi: 10.1002/nop2.1313.

[16] J. Hudziak *et al.*, "Psychometric Properties of a Novel Burnout Assessment Instrument: Individualized Burnout and Contributors Scale (IBOCS)," 2021, doi: 10.21203/rs.3.rs-1053776/v1.

[17] M. Makara-Studzińska, M. Załuski, P. Jagielski, D. Wójcik-Małek, and M. Szelepajło, "An Exploration of Perceived Stress, Burnout Syndrome, and Self-Efficacy in a Group of Polish Air Traffic Controllers and Maritime Navigators: Similarities and Differences," *International Journal of Environmental Research and Public Health,* vol. 18, no. 1, p. 53, 2020, doi: 10.3390/ijerph18010053.

[18] X. Zhu *et al.*, "Effectiveness of Mind-Body Exercise on Burnout and Stress in Female Undergraduate Students," *International Journal of Mental Health Promotion,* vol. 23, no. 3, pp. 353-360, 2021, doi: 10.32604/ijmhp.2021.016339.

[19] L. F. Olsson, D. J. Madigan, A. P. Hill, and M. C. Grugan, "Do Athlete and Coach Performance Perfectionism Predict Athlete Burnout?," *European Journal of Sport Science,* vol. 22, no. 7, pp. 1073-1084, 2021, doi: 10.1080/17461391.2021.1916080.

[20] h. choi, Y. Jeong, and S.-K. Kim, "The Relationship Between Coaching Behavior and Athlete Burnout: Mediating Effects of Communication and the Coach–Athlete Relationship," *International Journal of Environmental Research and Public Health,* vol. 17, no. 22, p. 8618, 2020, doi: 10.3390/ijerph17228618.

[21] H. Khatatbeh, S. Hammoud, M. Khatatbeh, A. Oláh, and A. Pakai, "Paediatric Nurses' Burnout and Perceived Health: The moderating Effect of the Common Work-shift," *Nursing Open,* vol. 9, no. 3, pp. 1679-1687, 2022, doi: 10.1002/nop2.1192.