STUDIA DOCTORALIA
PSYCHOLOGY AND EDUCATIONAL SCIENCE
UNIVERSITY OF BUCHAREST
VIRTUTE ET SAPIENTIA

Are Mindful Employees Less Stressed at Work? The Impact of Mindfulness on Perceived Workplace Stress and the Moderating Role of Social Support

Alexia-Ana Alexandrescu

University of Bucharest

ARTICLE INFO

Article history:
Received 18-Jun-2025
Accepted 24-Oct-2025
Available online 01-November-2025

This article should be cited as: Alexandrescu A-A.. (2025). Are Mindful Employees Less Stressed at Work? The Impact of Mindfulness on Perceived Workplace Stress and the Moderating Role of Social Support. *Studia Doctoralia. Psychology and Educational Science, 16*(2), 68-76. https://doi.org/10.47040/sdpsych.v16/2.187

University of Bucharest, Department of Psychology, 90 Panduri Av, Bucharest, RO.
Tel.: +40 (0) 31-425.34.45
E-mail address: alexia.alexandrescu16@gmail.com

ABSTRACT

The present study aimed to investigate whether the role trait mindfulness (the general tendency to be present) decreases the stress level, where social support moderates this relationship. Stress has harmful effects on mental and physical health as well as productivity at work, being one of the main triggers for these problems. At the same time, mindfulness can mitigate these effects. However, few studies have tested the moderating role of social support and the empirical role of the awareness trait in this process. A sample of 182 employees participated in this cross-sectional study by completing a research questionnaire consisting of the Freiburg Mindfulness Inventory, the Social Provisions Scale, and the Work Stress Questionnaire. It was observed that mindfulness and social support are significant negative predictors of stress, indicating that higher levels of the two variables predict lower stress levels. At the same time, social support was found to moderate the relationship between mindfulness and stress. These results emphasize the importance of integrating mindfulness programs alongside strategies to improve social support in the workplace. Future research should use a longitudinal design to observe the relationship between these long-term variables and the use of a possible mediating variable..

Keywords: mindfulness, well-being, social support, stress, moderation

1. INTRODUCTION

Significance of the Topic

Perceived stress is a critical factor affecting both professional and personal well-being, influencing mental health, workplace productivity, and economic outcomes (Siu et al., 2020). Short-term stress can aid task performance, but chronic stress poses physiological and psychological risks, including anxiety, depression, muscle tension, headaches and insomnia (The American Institute of Stress, 2024).

The role of mindfulness

Mindfulness, an intrinsically ethical stance, emphasizes present-moment awareness, attention to sensory stimuli, and non-judgmental observation (Kabat-Zinn, 2021). Research shows that mindfulness practices, including deep-breathing exercises, can reduce stress, such as workplace stress (Siu et al., 2020). It can be conceptualized along two dimensions: trait and practiced mindfulness (Goldberg et al., 2021). Trait mindfulness reflects a stable, natural tendency to maintain present-focused, non-reactive awareness, linked to lower negative affect, better mental health, greater life satisfaction, and enhanced emotional regulation (Allen & Kiburz, 2011; Mesmer-Magnus et al., 2017; Raza et al., 2018). The Five Facet Mindfulness Questionnaire assesses observing, describing, acting with awareness, non-judging, and non-reactivity, with observing showing unique associations in non-meditators (Carpenter et al., 2019). Practiced mindfulness involves intentional exercises such as meditation, yoga, or conscious breathing, which consistently reduce stress, anxiety, and depression (Carpenter et al., 2019; Eberth et al., 2019).

The role of social support

Social support significantly influences well-being and stress, shaping both positive and negative workplace outcomes (Dinesh et al., 2022). It is often provided due to attachment to particular individuals or groups (Suthatorn & Charoensukmongkol, 2022). Stressed employees who receive such support report higher levels of happiness, safety, and positivity. (Buckley et al., 2020). In a study of 689 students in northern China, Suthatorn and Charoensukmongkol (2022) found that social support reduced stress and anxiety, enhanced self-acceptance, improved relationships, and strengthened confidence. Higher perceived support also fostered motivation, knowledge sharing, collaboration, and academic performance.

These findings highlight the role of social support in emotional and professional development by promoting healthy relationships and supportive environments. Building on this, the present study examines social support as a moderating variable in the link between trait mindfulness and workplace stress.

Research conducted over time in this field has highlighted the strong impact of workplace stress on both physical and mental health (Kploanyi et al., 2020; My et al., 2017).

Physical Problems Caused by Stress

Most individuals with high levels of stress may, over time, develop cardiovascular diseases, back problems, high blood pressure, hormonal changes, diabetes (Fassnacht et al., 2023; Ganster & Rosen, 2013), or musculoskeletal pain (Catapano et al., 2023).

Psychological Changes Caused by Stress

In addition to physical problems, a wide range of psychological disorders may arise, such as anxiety, depression, or the most common, burnout syndrome, especially when individuals are unable to effectively manage stress (Shaholli et al., 2023; Bruschini et al., 2018; Kploanyi et al., 2020; Ganster & Rosen, 2013).

Stress, Mental Disorders, and Adverse Environments in Physical Health

With the increasing number of individuals experiencing long-term stress, numerous studies have aimed to raise awareness of its negative effects. For instance, a study involving 1675 miners indicated that stress plays a major role in the development of musculoskeletal disorders, particularly when combined with mental health issues such as anxiety, depression, or post-traumatic stress disorder, adverse environmental factors like confined spaces, noise, or extreme temperatures, and excessive physical exertion (Li et al., 2021).

Such research is essential given the high prevalence of stress-related conditions in society. According to the World Health Organization (2022), stress is considered the leading global contributor to disability and remains one of the primary risk factors worldwide.

2. MATERIALS AND METHODS

Participants and Procedure

The current study included employed individuals from both urban and rural areas in Romania. Participants were randomly recruited to complete an online questionnaire designed to measure the three study variables. The questionnaire link was accompanied by a brief description of the study and its objectives. Hosted on Google Forms, the self-report survey provided information regarding the handling of personal data,

and participants gave consent for their anonymized responses to be used for research purposes. At the outset, participants were informed that completion was voluntary and that they could withdraw at any time if any questions caused discomfort.

A total of 184 employed individuals were included (n = 136, 73.9% male), aged 18 to 73 years (M = 44.41, SD = 11.32). Two participants were excluded because they did not consent to the processing of personal data.

Of the participants, 163 (88.6%) were from urban areas and 21 (11.4%) from rural areas. The majority of participants (n = 79, 42.9%) had completed a master's degree, whereas only one participant (.5%) had completed primary education. The largest subgroup of participants (n = 62, 33.7%) reported 16–25 years of work experience. Inclusion criteria required participants to be at least 18 years of age and to hold current employment.

The planned sample size was determined using G*Power 3.1.9.7 software, yielding a total of 188 participants (Annex B). The actual sample differed from the planned size, as 182 participants completed the questionnaire and provided consent for the processing of personal data. To calculate the required sample, a coefficient of determination of .3 was extracted from a previous study that examined the effects of perceived stress, mindfulness, self-efficacy, and social support on well-being during the COVID-19 pandemic. The standard error was set at .05 (Dinesh et al., 2022).

Given that data were collected via a structured questionnaire, the study employed a cross-sectional design comprising three scales measuring mindfulness, perceived workplace stress, and perceived social support.

Data Analysis

The dataset was prepared using JASP Team software (2025), an open-source program commonly employed for advanced statistical analyses. Statistical analyses were additionally conducted using R Core Team (2024). Correlational analyses were performed with the assistance of the psych package (Revelle, 2007b).

Measurements

Mindfulness was measured using the Freiburg Mindfulness Inventory (FMI; Walach et al., 2006). It is a measurement scale consisting of 14 items, representing the short version of the original 30-item scale. It covers all aspects of mindfulness and is structured as a four-point Likert scale, with responses ranging from rarely (1) to almost always (4). It is widely used and easy to administer, including for individuals without any background in Buddhism. Examples of statements include: "I feel my body, whether I am eating, cooking, cleaning, or talking," "I am able to appreciate myself," and "I am impatient with myself and with others." The latter is the only item in the inventory that requires reverse coding. Additionally, the scored responses of the scale are summed at the end. The authors of this assessment instrument reported that this version is reliable both statistically and semantically. It demonstrated construct validity through group differentiation, sensitivity to change, and correlations with other constructs such as well-being and dissociation. Considering that the long version of the inventory presents issues in this regard, the 14-item version is an improvement, also showing good internal consistency, with a Cronbach's alpha of 0.86. This indicates good test reliability. The authors also state that the scale displays acceptable psychometric properties and covers all essential aspects of mindfulness. A final important feature of the 14-item scale is its high sensitivity to change, making it suitable for use with participants who do not have a history of practicing meditation or mindfulness (Walach et al., 2006b).

Perceived Work-Related Stress was measured with The Work Stress Questionnaire, developed by Holmgren and colleagues (2009), is a self-administered tool designed to assess perceived occupational stress. Most items use a four-point Likert scale ranging from yes, always (1) to no, never (4). The questionnaire, available from the University of Gothenburg website, contains 21 items across four dimensions: influence at work, indistinct organization and conflicts, individual demands and commitment, and work–leisure interference. Items in the second and third dimensions are answered on a three-point scale (yes [1], partially [2], no [3]) and are each followed by the question, "Do you perceive this as stressful?"—adding 12 items in total. Example questions include: "Do you have the opportunity to influence decisions at work?", "Does your supervisor take your opinions into account?", and "Can you determine the pace at which you work?" In the literature, the Work Stress Questionnaire demonstrates high reliability, as shown by test-retest studies, and face validity, indicating appropriateness for the field despite limited prior research (Frantz & Holmgren, 2019). De Sio et al. (2020) administered the questionnaire via Google Forms at two time points, reporting Cronbach's alpha values of .93 and .94, respectively. For database preparation, scoring followed the evaluation instructions provided on the platform hosting the instrument.

Social Support. The present study used a Romanian adaptation of the Social Provisions Scale, originally developed by Russell and Cutrona (1987) based on Weiss's framework (1974). The scale assesses six domains of social support: guidance, opportunity to provide care, social integration, reliable alliance, attachment, and reassurance of worth, measuring individuals' perceived support from their social relationships. It has been widely used in psychological and sociological research to examine associations, such as between social support and stress. Russell and Cutrona (1987) reported a

Cronbach's alpha of .92 for overall internal consistency. The 24-item scale uses a four-point Likert scale from strongly disagree (1) to strongly agree (4), with 12 items reverse-coded; total scores are computed by summing item responses. Example items include: "There are people who rely on my help," "Other people do not think I am good at what I do," and "I have close relationships that make me feel good." The scale was obtained from the Research Central website.

Studies with different populations, including individuals with multiple sclerosis and teachers, have demonstrated strong construct and criterion validity (Chiu et al., 2016; Russell et al., 1987), and test reliability has been confirmed in research on physical activity among White and Black adolescent girls (Motl et al., 2004c).

3. RESULTS

The correlational analysis revealed significant relationships among mindfulness, perceived stress, and social support. Mindfulness was positively correlated with social support ($r = .16$, $p < .05$), indicating a weak but statistically significant relationship. Mindfulness exhibited a moderate negative correlation with perceived stress ($r = -.34$, $p < .01$), suggesting that higher levels of mindfulness are associated with lower stress. A similar negative correlation was observed between social support and perceived stress ($r = -.34$, $p < .01$). The average mindfulness level among participants was moderate ($M = 41.10$), with relatively low score variability ($SD = 5.60$). Social support was relatively high ($M = 67.03$), but the greater variability ($SD = 10.12$) reflects differences in participants' perceptions. Perceived stress showed a moderate level ($M = 33.73$) with variability indicating that some participants experienced significantly higher or lower stress ($SD = 7.36$). Overall, social support exhibited the greatest variability, whereas mindfulness showed the least (see Table 1).

Table 1

Pearson correlations between mindfulness, social support, and perceived stress

	M	SD	Mindfulness	Social support
Mindfulness	41.10	5.60		
Social support	67.03	10.14	.16*	
Stess	33.73	7.36	-.34**	-.34**

Note. **. p < .01, *. p < .05

Regression Analysis

To examine the relationship between the independent and moderating variables on perceived stress, a multiple linear regression analysis was conducted, including the interaction between mindfulness and social support. The regression model was significant, accounting for 21.6% of the variance in stress scores, $R^2 = .21$, adjusted $R^2 = .20$, $p < .001$. The analysis indicated that mindfulness (state of awareness) was a significant negative predictor of stress, $B = -1.27$, $\beta = -.28$, $p = .005$, with a 95% confidence interval of [-2.15, -.40]. Similarly, the Social Provisions Scale (SPS) score had a significant negative effect on Work Stress Questionnaire (WSQ) scores, $B = -.75$, $\beta = -.27$, $p = .006$, with a 95% confidence interval of [-1.29, -.22].

The interaction between social support and mindfulness was significant, $B = .00$, $\beta = .10$, $p = .04$, indicating that the relationship between mindfulness and stress varies as a function of social support. Specifically, this interaction suggests that the negative effect of the independent variable on the dependent variable is attenuated at higher levels of social support (see Table 2).

Table 2
Linear regression for mindfulness, perceived stress, and social support

Predictors	Estimates	Beta std.	CE	CE std.	p	p std.
(Intercept)	99.02	-.02	63.60 – 134.44	-.15 – .11	<.001	.80
Mindfulness	-1.27	-.28	-2.15 – -.40	-.41 – -.15	.005	<.001
Suport Social	-.75	-.27	-1.29 – -.22	-.40 – -.14	.006	<.001
Mindfulness × Suport social	.01	.10	.00 – .03	.00 – 0.21	.04	.04
R^2 / Adjusted R^2	.21 / .20					

Based on the conducted regression analysis, the standard error for mindfulness is .44, which is relatively low and suggests a precise estimate. A higher standard error is observed for social support, indicating less precision in the estimation of this predictor's coefficient (see Table 3)..

Table 3
Linear regression results for mindfulness, stress, and social support

Predictors	b	SE	t	p
(Intercept)	99.02	17.95	5.52	< .001 ***
Mindfulness	-1.27	.44	-2.87	.005 **
Social support	-.75	.27	-2.77	.006 **
Mindfulness × Social support	.01	.006	2.03	.044 *

4. DISCUSSIONS

The present study examined the role of mindfulness in perceived workplace stress. Results showed that both mindfulness and social support negatively predicted stress, indicating that higher mindfulness and support are associated with lower stress. Moreover, social support moderated this relationship, enhancing the stress-reducing effect of mindfulness.

These findings align with Grossman et al. (2004), who reported improvements in mental and physical health, including stress reduction (effect size = .55). Unlike that meta-analysis, this study used a more homogeneous sample and additional measures of mindfulness, providing a more precise estimation of its effects.

The results support the first hypothesis: higher mindfulness is linked to lower stress (Grossman et al., 2004; Carpenter et al., 2019; Eberth et al., 2019; Mesmer-Magnus et al., 2017; Heckenberg et al., 2019; Dinesh et al., 2022). The second hypothesis was also confirmed: social support strengthens mindfulness' stress-reducing effect, consistent with research on the protective role of social support (Dinesh et al., 2022; Buckley et al., 2020).

The findings are comparable to Mishra et al. (2023), who reported a negative relationship between occupational stress and perceived organizational support, as well as stress and organizational commitment. While Mishra et al. (2023) examined social support as a mediating variable, this study considered mindfulness as an individual stress-reduction strategy, with social support as a moderator. Despite limited prior research on this moderating role, the present study contributes to the literature by suggesting that mindfulness is most effective when combined with strategies that strengthen social support (Panditharathne & Chen, 2021).

Directions for Future Research

Future research should employ longitudinal designs to determine whether the relationship between mindfulness, social support, and stress is sustained over time. Although the current study treated mindfulness as a stable personality trait, including additional variables such as cognitive regulation mechanisms or participants' intelligence could provide a deeper understanding of how individuals interpret and respond to stressors. Employees who effectively use cognitive regulation strategies may benefit more from mindfulness, while higher cognitive capacity may facilitate the application of mindfulness techniques, enhancing their effectiveness. However, including such variables would require additional instruments, increasing completion time and dropout rates, as well as necessitating larger samples for adequate statistical power. Future studies should also consider mixed-methods approaches, combining self-reports with objective stress measurements, such as biological assessments. Finally, investigating other contextual factors, including organizational culture or personal life events, could provide a more comprehensive understanding of the determinants of perceived workplace stress.

Implications

Workplaces that develop stress-reduction programs can take into account both the importance of perceived social support among employees and activities aimed at enhancing mindfulness. Initiatives such as meditation sessions and stress-management techniques may be implemented to strengthen employees' coping resources. Equally important are trainings focused on improving emotional self-regulation and the ability to handle workplace challenges, as these can provide individuals with meaningful support while fostering higher levels of well-being.

Workplaces aiming to reduce stress can benefit from initiatives that address both perceived social support and mindfulness enhancement. Programs incorporating meditation sessions, stress-management techniques, and training focused on emotional self-regulation can strengthen employees' coping resources while fostering greater well-being. Equally important is the creation of an organizational culture where leaders are trained to demonstrate empathy, promote collegiality, encourage peer support, and provide constructive feedback.

These strategies can be implemented through mentorship programs, peer-support groups, and structured opportunities for feedback and reflection. By embedding such practices into workplace routines, organizations can build healthier, more engaged teams and create conditions for long-term productivity and success.

Conclusion

This study demonstrates that mindfulness and social support are key factors in reducing perceived workplace stress, supporting employees' coping and well-being. Prolonged exposure to stressful environments can generate excessive stress, negatively affecting employees' productivity, job engagement, well-being, and both mental and physical health. Research findings emphasize that mindfulness and social support are essential factors in reducing stress and play a crucial role in employees' ability to cope with demanding professional tasks. Organizations that prioritize employee well-being can implement programs designed to enhance wellness and encourage social support among staff. In doing so, they cultivate a workforce that is less stressed, more engaged, and better positioned to thrive within a workplace environment that fosters long-term success.

Limitations

The study's findings provide significant evidence for the relationship between mindfulness, social support, and perceived workplace stress; however, several limitations should be noted. First, the study employed a cross-sectional design, collecting data at a single time point, which precludes causal inferences regarding the effects of mindfulness and social support on stress reduction.

Second, all data were obtained via self-report questionnaires, introducing potential biases such as social desirability, where participants may overstate their levels of mindfulness or perceived social support. Additionally, the measurements were entirely subjective, relying solely on participants' perceptions.

Finally, the analysis did not account for external factors, such as workload, organizational culture, or other psychological variables. The absence of these additional predictors may limit understanding of the mechanisms underlying stress regulation in employees.

Impact

These findings advance understanding of stress regulation by highlighting the role of mindfulness and social support. In line with Self-Determination Theory, mindfulness was linked to lower perceived stress, supporting its role in emotional self-regulation, while Conservation of Resources Theory is reflected in the stress-buffering effect of social support. The significant

interaction between mindfulness and social support aligns with the Transactional Model of Stress, showing that internal and external resources influence stress outcomes. Practically, the results suggest that mindfulness-based interventions and the cultivation of supportive workplace networks can reduce stress, and that combining individual- and organizational-level strategies may optimize employee well-being.

5. REFERENCES

Allen, T. D., & Kiburz, K. M. (2011). Trait mindfulness and work–family balance among working parents: The mediating effects of vitality and sleep quality. *Journal of Vocational Behavior, 80*(2), 372–379. https://doi.org/10.1016/j.jvb.2011.09.002

Bruschini, M., Carli, A., & Burla, F. (2018). Burnout and work-related stress in Italian rehabilitation professionals: A comparison of physiotherapists, speech therapists and occupational therapists. *Work, 59*(1), 121–129. https://doi.org/10.3233/wor-172657

Buckley, L., Berta, W., Cleverley, K., Medeiros, C., & Widger, K. (2020). What is known about paediatric nurse burnout: a scoping review. *Human Resources for Health, 18*(1). https://doi.org/10.1186/s12960-020-0451-8

Carpenter, J. K., Conroy, K., Gomez, A. F., Curren, L. C., & Hofmann, S. G. (2019). The relationship between trait mindfulness and affective symptoms: A meta-analysis of the Five Facet Mindfulness Questionnaire (FFMQ). *Clinical psychology review, 74*, 101785. https://doi.org/10.1016/j.cpr.2019.101785

Catapano, P., Cipolla, S., Sampogna, G., Perris, F., Luciano, M., Catapano, F., & Fiorillo, A. (2023). Organizational and Individual Interventions for Managing Work-Related Stress in Healthcare Professionals: A Systematic review. *Medicina, 59*(10), 1866. https://doi.org/10.3390/medicina59101866

Chiu, C., Motl, R. W., & Ditchman, N. (2016). Validation of the Social Provisions Scale in people with multiple sclerosis. *Rehabilitation Psychology, 61*(3), 297–307. https://doi.org/10.1037/rep0000089

Cropanzano, R., Rupp, D.E. and Byrne, Z.S. (2003) 'The relationship of emotional exhaustion to work attitudes, job performance, and organizational citizenship behaviors', *Journal of Applied Psychology, 88*(1), 160–169.

Cruz-Pereira, J. S., Rea, K., Nolan, Y. M., O'Leary, O. F., Dinan, T. G., & Cryan, J. F. (2020). Depression's Unholy Trinity: Dysregulated Stress, Immunity, and the Microbiome. *Annual review of psychology, 71*, 49–78. https://doi.org/10.1146/annurev-psych-122216-011613

De Sio, S., Cedrone, F., Perri, R., Nieto, H. A., Greco, E., Buomprisco, G., & Stansfeld, S. (2020). Work-Related Stress Questionnaire (WRSQ): a new tool to assess psychosocial risks at workplaces. *La Clinica terapeutica, 171*(4), e316–e320. https://doi.org/10.7417/CT.2020.2235

Dinesh, T. K., Shetty, A., Gil, M., & D'souza, K. (2022). Effects of perceived stress, mindfulness, self-efficacy and social support on psychological wellbeing of life insurance agents during the COVID-19 pandemic. *Economic Research-Ekonomska Istraživanja, 36*, 1–25. https://doi.org/10.1080/1331677X.2022.2154237

Eberth, J., Sedlmeier, P., & Schäfer, T. (2019). PROMISE: A model of insight and equanimity as the key effects of mindfulness meditation. *Frontiers in Psychology, 10*. https://doi.org/10.3389/fpsyg.2019.02389

Malisiova, E. K., Mourikis, I., Darviri, C., Nicolaides, N. C., Zervas, I. M., Papageorgiou, C., & Chrousos, G. P. (2020). Hair cortisol concentrations in mental disorders: A systematic review. *Physiology & Behavior, 229*, 113244. https://doi.org/10.1016/j.physbeh.2020.113244

Fassnacht, M., Tsagarakis, S., Terzolo, M., Tabarin, A., Sahdev, A., Newell-Price, J., Pelsma, I., Marina, L., Lorenz, K., Bancos, I., Arlt, W., & Dekkers, O. M. (2023). European Society of Endocrinology Clinical Practice Guidelines on the management of adrenal incidentalomas, in collaboration with the European Network for the study of adrenal tumors. *European Journal of Endocrinology, 189*(1). https://doi.org/10.1093/ejendo/lvad066

Frantz, A., & Holmgren, K. (2019). The Work Stress Questionnaire (WSQ) – reliability and face validity among male workers. *BMC Public Health, 19*(1). https://doi.org/10.1186/s12889-019-7940-5

Ganster, D. C., & Rosen, C. C. (2013). Work stress and employee health. *Journal of Management, 39*(5), 1085–1122. https://doi.org/10.1177/0149206313475815

Goldberg, S. B., Riordan, K. M., Sun, S., & Davidson, R. J. (2021). The Empirical Status of Mindfulness-Based Interventions: A Systematic Review of 44 Meta-Analyses of Randomized Controlled Trials. *Perspectives on Psychological Science, 17*(1), 108–130. https://doi.org/10.1177/1745691620968771

Grossman, P., Niemann, L., Schmidt, S., & Walach, H. (2004). Mindfulness-based stress reduction and health benefits. *Journal of Psychosomatic Research, 57*(1), 35–43. https://doi.org/10.1016/s0022-3999(03)00573-7

Hatch, R., Young, D., Barber, V., Griffiths, J., Harrison, D. A., & Watkinson, P. (2018). Anxiety, Depression and Post Traumatic Stress Disorder after critical illness: a UK-wide prospective cohort study. *Critical Care, 22*(1). https://doi.org/10.1186/s13054-018-2223-6

Heckenberg, R. A., Hale, M. W., Kent, S., & Wright, B. J. (2019). Trait mindfulness and the Effort-Reward Imbalance workplace stress model: Higher trait mindfulness is associated with increased salivary immunoglobulin A. *Behavioural Brain*

Research, 377, 112252. https://doi.org/10.1016/j.bbr.2019.112252
Holmgren, K., Hensing, G., & Dahlin-Ivanoff, S. (2009). Development of a questionnaire assessing work-related stress in women – identifying individuals who risk being put on sick leave. *Disability and Rehabilitation, 31*(4), 284–292. https://doi.org/10.1080/09638280801931287
Huang, Y., Zhan, Y., & Zhan, Y. (2025). Psychological stress on cancer progression and immunosenescence. *Seminars in Cancer Biology, 113*, 85–99. https://doi.org/10.1016/j.semcancer.2025.05.007
JASP Team. (2025). JASP (Version 0.19.3)[Computer software]. https://jasp-stats.org/Kabat-Zinn, J. (2021). The liberative potential of mindfulness. *Mindfulness, 12*(6), 1555–1563. https://doi.org/10.1007/s12671-021-01608-6
Koh-Bell, A., Chan, J., Mann, A. K., & Kapp, D. S. (2021). Social isolation, inflammation, and cancer mortality from the National Health and Nutrition Examination Survey - a study of 3,360 women. *BMC Public Health, 21*(1). https://doi.org/10.1186/s12889-021-11352-0
Kploanyi, E. E., Dwomoh, D., & Dzodzomenyo, M. (2020). The effect of occupational stress on depression and insomnia: a cross-sectional study among employees in a Ghanaian telecommunication company. *BMC Public Health, 20*(1). https://doi.org/10.1186/s12889-020-08744-z
Li, X., Yang, X., Sun, X., Xue, Q., Ma, X., & Liu, J. (2021). Associations of musculoskeletal disorders with occupational stress and mental health among coal miners in Xinjiang, China: a cross-sectional study. *BMC Public Health, 21*(1), 1327. https://doi.org/10.1186/s12889-021-11379-3
Liu MY, Li N, Li WA, Khan H. Association between psychosocial stress and hypertension: a systematic review and meta-analysis. *Neurology Research, 39*, 573–80. https://doi.org/10.1080/01616412.2017.1317904.
Muntean, L.M.; Nires, tean, A.; M˘arus, teri, M.; Sima-Comaniciu, A.; Lukacs, E. Occupational Stress and Personality in Medical Doctors from Romania. *Healthcare, 10*, 1612. https://doi.org/10.3390/healthcare10091612
Mesmer-Magnus, J., Manapragada, A., Viswesvaran, C., & Allen, J. W. (2017b). Trait mindfulness at work: A meta-analysis of the personal and professional correlates of trait mindfulness. *Human Performance, 30*(2–3), 79–98. https://doi.org/10.1080/08959285.2017.1307842
Mishra, A., Upadhyay, R., Chaudhary, A., & Singh, A. (2023). Mediating effect of perceived organisational support in the relation between job stress and organisational commitment. International *Journal of Business and Systems Research, 17*, 44. https://doi.org/10.1504/IJBSR.2023.127718
Motl, R. W., Dishman, R. K., Saunders, R. P., Dowda, M., & Pate, R. R. (2004c). Measuring Social Provisions for Physical Activity among Adolescent Black and White Girls. *Educational and Psychological Measurement, 64*(4), 682–706. https://doi.org/10.1177/0013164404263880
Panditharathne, P. N. K. W., & Chen, Z. (2021). An Integrative Review on the Research Progress of Mindfulness and Its Implications at the Workplace. *Sustainability, 13*(24), 13852. https://doi.org/10.3390/su132413852
R Core Team. (2024). *R: A Language and Environment for Statistical Computing*. R Foundation for Statistical Computing. https://www.R-project.org/
Raza, B., Ali, M., Naseem, K., Moeed, A., Ahmed, J., & Hamid, M. (2018). Impact of trait mindfulness on job satisfaction and turnover intentions: Mediating role of work–family balance and moderating role of work–family conflict. *Cogent Business & Management, 5*(1). https://doi.org/10.1080/23311975.2018.1542943
Russell, D. W., Altmaier, E., & Van Velzen, D. (1987). Job-related stress, social support, and burnout among classroom teachers. *Journal of Applied Psychology, 72*(2), 269–274.
Russell, D., & Cutrona, C. E. (1987). *The Social Provisions Scale: A multidimensional measure of perceived social support*. Manuscript in preparation.
Siu, O. L., Cooper, C. L., Roll, L. C., & Lo, C. (2020). Occupational stress and its economic cost in Hong Kong: The role of Positive Emotions. International Journal of Environmental *Research and Public Health, 17*(22), 8601. https://doi.org/10.3390/ijerph17228601
Shaholli, D., Mantione, G., & La Torre, G. (2023). Work-related stress costs assessment: a narrative review. *La Clinica terapeutica, 174*(5), 456–460. https://doi.org/10.7417/CT.2023.2464
Suthatorn, P., & Charoensukmongkol, P. (2022). Effects of trust in organizations and trait mindfulness on optimism and perceived stress of flight attendants during the COVID-19 pandemic. *Personnel Review*. https://doi.org/10.1108/PR-06-2021-0396
The American Institute of Stress. (2024, June 14). *WHAT IS STRESS? - the American Institute of Stress*. https://www.stress.org/what-is-stress/
Toniolo-Barrios, M., & Brummelhuis, L. L. ten. (2023). How does mindfulness reduce stress at work? A two-study examination using a stress appraisal perspective. *Personality and Individual Differences, 215*, 112392. https://doi.org/10.1016/j.paid.2023.112392
Vonderlin, R., Biermann, M., Bohus, M., & Lyssenko, L. (2020). Mindfulness-Based Programs in the Workplace: A Meta-Analysis of Randomized Controlled Trials. *Mindfulness, 11*(7), 1579–1598. https://doi.org/10.1007/s12671-020-01328-3
Walach, H., Buchheld, N., Buttenmüller, V., Kleinknecht, N., & Schmidt, S. (2006). Measuring mindfulness—The Freiburg Mindfulness Inventory (FMI). *Personality and Individual Differences, 40*(8), 1543–1555. https://doi.org/10.1016/j.paid.2005.11.025
William Revelle. (2024). *psych: Procedures for Psychological, Psychometric, and Personality Research*. Northwestern University. https://CRAN.R-project.org/package=psych

World Health Organization: WHO. (2022, July 14). *Musculoskeletal health*. https://www.who.int/news-room/fact-sheets/detail/musculoskeletal-conditions

Xie, X., Zhou, Y., Fang, J., & Ying, G. (2022). Social support, mindfulness, and job burnout of social workers in China. *Frontiers in Psychology, 13*. https://doi.org/10.3389/fpsyg.2022.775679

Zhao, L., Xu, J., Liang, F., Li, A., Zhang, Y., & Sun, J. (2015). Effect of Chronic Psychological Stress on Liver Metastasis of Colon Cancer in Mice. *PloS one, 10*(10), e0139978. https://doi.org/10.1371/journal.pone.0139978