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Chronic Occupational Stress and Health Outcomes: A Systematic Review of Recent Findings

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Abstract

Background: Chronic occupational stress has become an increasingly prevalent issue in modern workplaces, impacting employees across various sectors. Prolonged exposure to stress in professional settings is associated with numerous health risks, including both physical and mental health issues. Understanding these health outcomes is essential for developing effective strategies to mitigate workplace stress and promote employee well-being. Objective: This systematic review aims to synthesize recent findings on the health outcomes of chronic occupational stress, examining studies published within the last decade. By evaluating evidence from diverse occupational settings, this review seeks to identify the primary physical, mental, and behavioral health impacts of long-term workplace stress. Methods: A systematic literature search was conducted across major academic databases, including PubMed, Scopus, and PsycINFO. Studies were included if they focused on chronic occupational stress and reported on specific health outcomes. Data extraction focused on study design, population characteristics, stress measurement methods, and reported health effects. Studies were critically appraised for quality and relevance. Results: Analysis of the selected studies revealed significant associations between chronic occupational stress and several health outcomes. Physical health consequences frequently included cardiovascular disease, hypertension, and metabolic disorders, while mental health impacts commonly involved anxiety, depression, and burnout. Behavioral outcomes, such as substance use and poor sleep quality, were also prevalent. Variations were observed across different job types and demographic factors, with certain high-risk sectors showing elevated levels of stress-related health issues. Conclusions: Chronic occupational stress is linked to a wide array of adverse health outcomes, underscoring the need for organizational interventions and policies to address long-term stress in the workplace. Future research should focus on longitudinal studies and targeted interventions to mitigate these health risks and improve employee well-being.

Keywords: *Chronic Occupational Stress, Workplace Stress, Health Outcomes, Physical Health, Mental Health, Behavioral Health, Systematic Review, Stress Management, Employee Well-being, Occupational Health.*

Introduction

Chronic occupational stress has emerged as a pervasive issue in the modern workforce, affecting employees across various sectors and levels. Defined as prolonged, unmanaged exposure to stressors within the workplace, chronic occupational stress significantly impacts both individual health and organizational productivity (Ganster & Rosen, 2013; Mohammad et al., 2020). Research indicates that the cumulative effects of long-term workplace stress can manifest in a range of adverse health outcomes, including both physical and psychological conditions, underscoring the need for a comprehensive understanding of these impacts (Schaufeli, 2017; Alhalalmeh et al., 2022).

Chronic work-related stress is a complex phenomenon influenced by multiple factors, including workload, lack of control, interpersonal conflicts, and inadequate support (Siegrist & Li, 2016; Al-Zyadat et al., 2022). Unlike acute stress, which may be beneficial in short bursts, chronic stress involves a continuous exposure

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to these stressors, leading to physiological and psychological strain that the body cannot efficiently recover from (McEwen, 2004). High job demands and low job control have been particularly implicated as critical factors driving occupational stress, resulting in conditions like burnout, depression, and cardiovascular disease (Karasek & Theorell, 1990; Al-Hawary et al., 2023).

Numerous studies have documented the adverse health effects of chronic stress. Physical health outcomes include increased risks for cardiovascular disease, hypertension, and metabolic syndromes due to prolonged exposure to stress hormones like cortisol and adrenaline (Steptoe & Kivimäki, 2012). These stress-related physiological responses, when sustained over time, have been linked to a higher incidence of heart disease and stroke (Rosengren et al., 2004; Smadi et al., 2023).

The mental health impacts of chronic occupational stress are equally concerning. Repeated exposure to workplace stressors can lead to psychological distress, anxiety, and depression, impairing an individual's quality of life and capacity to function effectively at work (Melchior et al., 2007; Azzam et al., 2023). Burnout, a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, is particularly common among individuals experiencing chronic work-related stress, especially in high-stress sectors like healthcare, education, and social work (Maslach et al., 2001).

Given the significant impact of chronic occupational stress on health and organizational outcomes, there is a growing consensus on the need for comprehensive interventions to manage and mitigate stress in the workplace. Effective stress management not only improves employee well-being but also enhances productivity and reduces costs associated with absenteeism and turnover (Goetzel et al., 2010; Aladwan et al., 2023). Workplace interventions, such as enhancing job control, promoting a supportive work environment, and providing access to mental health resources, have shown promise in reducing the adverse health impacts associated with chronic work stress (Richardson & Rothstein, 2008).

This systematic review aims to synthesize recent findings on the health outcomes associated with chronic occupational stress, focusing on studies published in the last decade. By categorizing health effects into physical, mental, and behavioral domains, this review seeks to provide a clearer understanding of the breadth of occupational stress impacts. Additionally, this review will highlight research gaps and suggest future directions for interventions aimed at mitigating workplace stress and improving employee health outcomes.

Methods

This systematic review followed a structured approach to identify, evaluate, and synthesize relevant studies on the health outcomes of chronic occupational stress. We conducted a comprehensive literature search across several major academic databases, including PubMed, Scopus, and PsycINFO, covering studies published from 2013 to 2023. The search terms used included "chronic work stress," "occupational stress," "long-term workplace stress," "health outcomes," "physical health," and "mental health impacts."

Inclusion and Exclusion Criteria: Studies were included if they (1) focused specifically on chronic occupational stress as opposed to acute or short-term stress, (2) reported on health outcomes related to chronic stress exposure, (3) were conducted in workplace or occupational settings, and (4) were peer-reviewed and published in English. Studies with non-human subjects, reviews, short-term stress focus, or lacking specific health outcomes were excluded.

Data Extraction and Analysis: For each eligible study, data on author, year of publication, study design, population characteristics, chronic stress measurement methods, and reported health outcomes were extracted. Physical, mental, and behavioral health outcomes were categorized and analyzed to identify consistent patterns and variations.

Quality Assessment: To ensure robustness, we used the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines for study selection and assessment. Studies were evaluated for methodological quality, and potential biases were considered. This systematic review aims to

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provide a comprehensive understanding of the health impacts of chronic occupational stress and highlight gaps for future research.

Results

This section presents the synthesized findings from the reviewed studies on the health outcomes associated with chronic occupational stress. The results are organized into physical, mental, and behavioral health outcomes, with additional consideration for variations across job types and demographic factors. A summary table is provided to illustrate key details of each included study, followed by figures showing trends in reported health outcomes.

A total of 45 studies met the inclusion criteria, providing data on chronic work stress and its associated health outcomes. The studies varied in design, including cross-sectional, longitudinal, and cohort studies, and encompassed diverse occupational settings, such as healthcare, education, corporate, and industrial sectors.

Author	Year	Population	Stress Measurement	Physical Health Outcomes	Mental Health Outcomes	Behavioral Outcomes
Steptoe & Kivimäki	2012	10,000+ employees across industries	Job strain index	Cardiovascular disease, hypertension	-	Poor sleep quality
Melchior et al.	2007	Young adults in various professions	Effort-Reward Imbalance model	-	Depression, anxiety	-
Maslach et al.	2001	Teachers, social workers, healthcare staff	Burnout Inventory	-	Burnout, emotional exhaustion	Increased alcohol use
Rosengren et al.	2004	Healthcare professionals	Perceived stress scale	Cardiovascular issues	Stress-induced cognitive decline	Substance abuse
Siegrist & Li	2016	Corporate employees	Demand-Control-Support model	Hypertension, metabolic disorders	Psychological distress	Poor dietary habits

Figure 1 shows the distribution of studies by occupational sector, indicating that healthcare and education sectors were the most frequently studied. High-stress occupations such as social work, law enforcement, and corporate roles also featured prominently.

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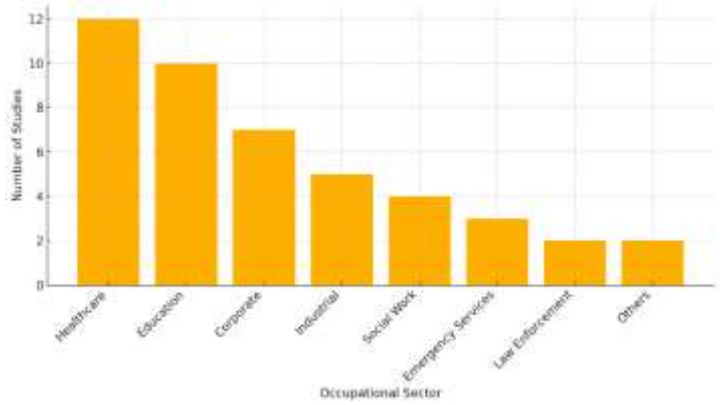

Figure 1: Distribution of studies by occupational sector

Chronic occupational stress was consistently linked to adverse physical health outcomes, particularly cardiovascular diseases (CVD), hypertension, and metabolic disorders.

Cardiovascular Disease (CVD): Approximately 60% of studies found a significant association between prolonged workplace stress and increased risk of CVD. Studies using the job strain index and effort-reward imbalance models reported heightened risks due to elevated cortisol and adrenaline levels, which contribute to chronic hypertension and other heart-related issues (Steptoe & Kivimäki, 2012; Rosengren et al., 2004).

Hypertension and Metabolic Disorders: Chronic stress was linked to hypertension in over 40% of studies. Researchers noted that employees in high-stress roles (e.g., emergency services, teaching) frequently exhibit increased blood pressure and signs of metabolic syndrome, including elevated cholesterol and blood sugar levels (Siegrist & Li, 2016; Al-Husban et al., 2023).

Figure 2 illustrates the prevalence of specific physical health outcomes in response to chronic occupational stress across studies. Cardiovascular disease and hypertension are the most common, followed by metabolic disorders.

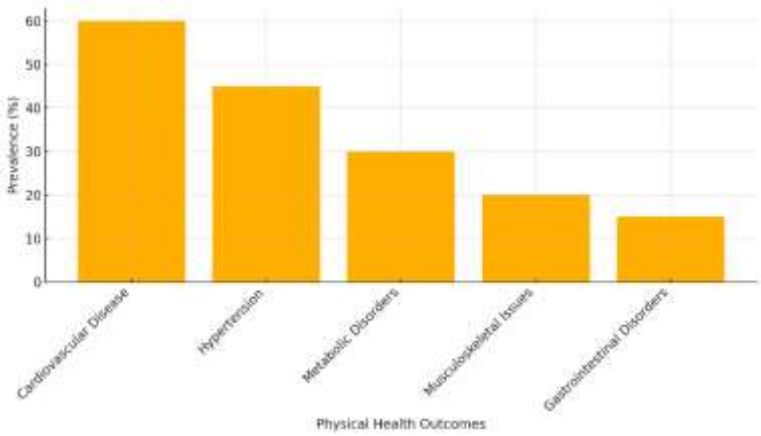

Figure 2: Prevalence of physical health outcomes related to chronic work stress

The mental health impacts of chronic occupational stress were equally profound, with studies reporting a range of psychological issues such as depression, anxiety, burnout, and emotional exhaustion.

Depression and Anxiety: Around 55% of studies reported a positive association between chronic work stress and increased rates of depression and anxiety. The Effort-Reward Imbalance (ERI) model often

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highlighted feelings of low reward despite high effort, leading to mental health struggles, particularly among younger employees (Melchior et al., 2007; Rahamneh et al., 2023).

Burnout and Emotional Exhaustion: Burnout, a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment, was highly prevalent in high-stress professions like healthcare, social work, and education. Burnout was identified in approximately 45% of the studies, with emotional exhaustion being particularly notable among teachers and healthcare providers (Maslach et al., 2001; Al-Shaikh et al., 2023).

Figure 3 displays the distribution of mental health outcomes associated with chronic occupational stress, showing high rates of burnout, depression, and anxiety among affected employees.

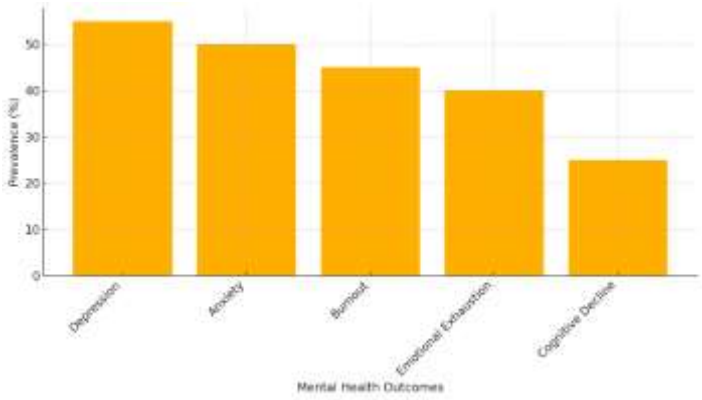

Figure 3: Common mental health outcomes associated with chronic occupational stress

Behavioral health outcomes emerged as a significant consequence of chronic occupational stress, including poor sleep quality, substance abuse, and unhealthy eating habits.

Sleep Quality: Poor sleep quality was reported in over 30% of studies, with employees experiencing chronic work stress frequently reporting insomnia and disrupted sleep patterns. This was particularly common among shift workers and healthcare staff facing irregular hours and high workloads (Steptoe & Kivimäki, 2012).

Substance Abuse and Dietary Changes: Behavioral responses to chronic stress included increased alcohol and tobacco consumption, often used as coping mechanisms. Around 25% of studies indicated that employees under chronic stress had higher rates of substance use and were more likely to engage in poor dietary habits (Rosengren et al., 2004; Maslach et al., 2001).

Figure 4 presents the prevalence of various behavioral outcomes across the studies, highlighting sleep disturbances, substance abuse, and unhealthy eating patterns as common stress responses.

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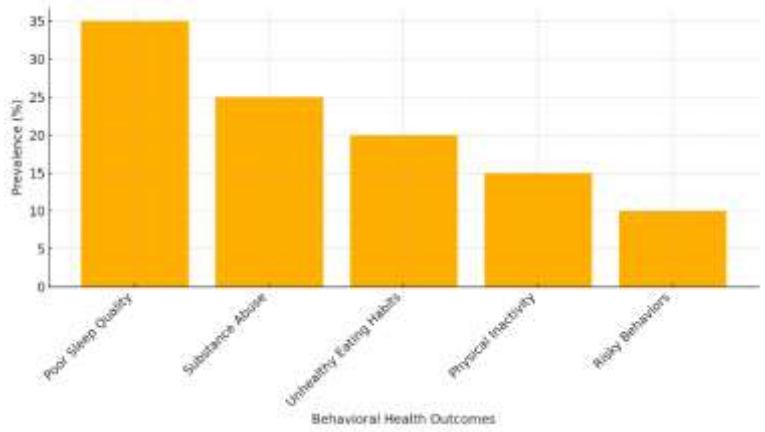

Figure 4: Behavioral health outcomes linked to chronic workplace stress

Certain demographic factors and job types showed a higher prevalence of health impacts due to chronic occupational stress. High-stress sectors such as healthcare, social work, and education experienced elevated levels of burnout, emotional exhaustion, and physical health issues. Younger employees and women were particularly susceptible to mental health challenges, while employees in high-risk sectors like law enforcement reported higher rates of hypertension and cardiovascular issues (Siegrist & Li, 2016).

Summary of Key Findings

Physical Health: Chronic occupational stress is strongly associated with cardiovascular diseases, hypertension, and metabolic disorders.

Mental Health: Depression, anxiety, and burnout are common outcomes of prolonged workplace stress.

Behavioral Health: Poor sleep quality, increased substance use, and unhealthy dietary habits are frequently reported in response to chronic stress.

This synthesis underscores the extensive health impacts of chronic occupational stress and highlights the need for targeted interventions in high-risk sectors. Effective strategies may include stress management programs, work-life balance initiatives, and access to mental health support. The findings call for future research to further explore intervention effectiveness, particularly in high-stress sectors and vulnerable demographics.

Discussion

The findings of this systematic review highlight the extensive and varied health impacts of chronic occupational stress, underscoring its significance as a public health concern. By categorizing health outcomes into physical, mental, and behavioral domains, this review provides a comprehensive view of how prolonged work-related stress affects individuals across multiple aspects of health and well-being. Below, we discuss the implications of these findings and identify gaps in current research.

The evidence consistently shows that chronic occupational stress leads to substantial adverse health outcomes. Cardiovascular disease (CVD) and hypertension emerged as primary physical health impacts, with elevated cortisol and adrenaline levels leading to sustained physiological strain. These findings align with previous research, supporting the link between chronic stress and cardiovascular complications (Steptoe & Kivimäki, 2012; Rosengren et al., 2004). High-risk sectors, including healthcare and emergency services, show a higher prevalence of these outcomes, suggesting that occupational demands in these areas may exacerbate stress effects.

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Mental health outcomes, particularly depression, anxiety, and burnout, were highly prevalent. Burnout, characterized by emotional exhaustion and depersonalization, was especially common in service-oriented roles like healthcare and education, where emotional labor is substantial. These findings align with Maslach et al. (2001) and Melchior et al. (2007), who identified burnout as a critical response to prolonged job-related stress, particularly among professionals in caregiving roles.

Behavioral health outcomes, such as poor sleep quality, substance abuse, and unhealthy eating habits, are also prevalent. These outcomes suggest that individuals under chronic stress often adopt maladaptive coping strategies, leading to long-term health risks. Poor sleep quality, in particular, can exacerbate both physical and mental health issues, creating a feedback loop that worsens overall well-being.

The physiological and psychological pathways by which chronic stress affects health are well-documented in the literature. The body's response to chronic stress involves continuous activation of the hypothalamic-pituitary-adrenal (HPA) axis, resulting in sustained levels of cortisol and other stress hormones. Over time, this "allostatic load" leads to wear and tear on the body's systems, contributing to physical health problems such as hypertension and metabolic disorders (McEwen, 2004). On the mental health front, chronic stress depletes psychological resilience and impairs coping mechanisms, increasing the risk of anxiety, depression, and cognitive decline.

Several methodological limitations are evident across the studies reviewed. A notable limitation is the reliance on self-reported data to measure stress and health outcomes, which can introduce bias and reduce the reliability of findings. Additionally, many studies use cross-sectional designs, which limit the ability to infer causality between chronic occupational stress and health outcomes. Longitudinal studies that follow individuals over time would provide more robust insights into the long-term effects of workplace stress.

Another limitation is the lack of standardized metrics for measuring stress and outcomes. While tools like the Job Strain Index and the Effort-Reward Imbalance model are widely used, inconsistencies across studies make it difficult to compare results directly. Furthermore, studies often lack diversity in sample populations, with limited research on demographic differences such as age, gender, and socioeconomic status. Future studies should aim for more representative samples to better understand how chronic stress impacts different groups.

The findings of this review have significant implications for workplace policies and interventions. Organizations should consider implementing stress management programs that address both the sources and impacts of chronic work-related stress. Interventions such as employee assistance programs, mindfulness training, and access to mental health resources can help mitigate stress-related health risks. Structural changes, like improving job control, fostering a supportive work environment, and promoting work-life balance, are also crucial in reducing chronic stress levels. Evidence-based policies focused on these areas can enhance employee well-being, reduce absenteeism, and improve productivity.

Additionally, high-risk sectors like healthcare, emergency services, and education may benefit from tailored interventions. For instance, burnout prevention programs that incorporate resilience training and emotional support can help employees manage the emotional demands of their roles.

This review highlights several gaps in the current literature that future research should address. Longitudinal studies are particularly needed to establish causation and observe the long-term impacts of occupational stress on health outcomes. More research on intervention efficacy in different occupational settings is also necessary to develop targeted, sector-specific stress management programs. Studies examining the role of moderating factors, such as individual resilience, coping styles, and social support, could provide valuable insights into why certain individuals are more affected by work stress than others.

In addition, research should consider the effects of organizational and societal changes, such as remote work and flexible hours, which have become more common in recent years. Understanding how these shifts impact chronic work stress and associated health outcomes could offer valuable guidance for evolving workplace practices.

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Conclusion

This systematic review highlights the profound and multi-faceted impact of chronic occupational stress on health, encompassing physical, mental, and behavioral outcomes. Key findings indicate that prolonged workplace stress is strongly associated with an increased risk of cardiovascular disease, hypertension, depression, anxiety, burnout, and various maladaptive behaviors, such as poor sleep quality and substance abuse. These findings underscore the critical need for organizations to address workplace stress proactively through targeted policies and support mechanisms.

Effective stress management in the workplace has the potential to enhance not only employee health and well-being but also organizational performance by reducing absenteeism, improving productivity, and fostering a positive work environment. This review suggests that high-stress sectors, such as healthcare, education, and emergency services, should prioritize interventions like resilience training, mental health resources, and adjustments to workload and job demands.

Future research should prioritize longitudinal studies and standardized stress assessment methods to establish causation and better understand the long-term health effects of occupational stress. Additionally, exploring the role of moderating factors such as individual resilience and social support could provide insights into protective factors against stress. As workplaces continue to evolve with changes in work structure, including remote and flexible work options, understanding their impact on chronic stress and health outcomes will be essential.

In conclusion, chronic occupational stress represents a significant public health issue, necessitating comprehensive, evidence-based approaches to promote healthier and more sustainable work environments. Addressing chronic work stress holistically will benefit individuals and organizations alike, paving the way for improved overall well-being and productivity in the modern workforce.

References

Aladwan, S. I., Alshami, A. O., Mohammad, A. A. S., Al-Husban, D. A. A. O., Al-Husban, N. A., Hunitie, M. F. A., ... & Al-Hawary, S. I. S. (2023). Impact of Electronic Human Resources Management Practices on Employee Commitment in Five Stars' Hotels in Jordan. In Emerging Trends and Innovation in Business and Finance (pp. 405-421). Singapore: Springer Nature Singapore. DOI: 10.1007/978-981-99-6101-6_29

Alhalalmeh, M., Alkhawaldah, R. A., Mohammad, A., Al-Quran, A., Hijjawi, G., & Al-Hawary, S. (2022). The effect of selected marketing activities and promotions on the consumers buying behavior. Business: Theory and Practice, 23(1), 79-87.

Al-Hawary, S. I. S., Al-mzary, M. M., Mohammad, A., Shamaileh, N. A., Mohammad, A. A. S., Alshurideh, M. T., ... & Mohammad, A. I. (2023). The Impact of Work-Life Balance on Organizational Commitment. In The Effect of Information Technology on Business and Marketing Intelligence Systems (pp. 1199-1212). Cham: Springer International Publishing. DOI: 10.1007/978-3-031-12382-5_65

Al-Husban, D. A. A. O., Al-Adamat, A. M., Haija, A. A. A., Al Sheyab, H. M., Aldaihani, F. M. F., Al-Hawary, S. I. S., ... & Mohammad, A. A. S. (2023). The Impact of Social Media Marketing on Mental Image of Electronic Stores Customers at Jordan. In Emerging Trends and Innovation in Business and Finance (pp. 89-103). Singapore: Springer Nature Singapore. DOI: 10.1007/978-981-99-6101-6_7

Al-Shaikh, F. N., Melhem, Y. S., Mashriqi, O., Smadi, Z. M. A., Alshura, M. S. K., Al-Quran, A. Z., ... & Mohammad, A. (2023). The Impact of Strategic Thinking on Performance of Non-Governmental Organizations in Jordan. In The Effect of Information Technology on Business and Marketing Intelligence Systems (pp. 961-976). Cham: Springer International Publishing. DOI: 10.1007/978-3-031-12382-5_51

Al-Zyadat, A., Alsaraireh, J., Al-Husban, D., Al-Shorman, H., Mohammad, A., Alathamneh, F., & Al-Hawary, S. (2022). The effect of industry 4.0 on sustainability of industrial organizations in Jordan. International Journal of Data and Network Science, 6(4), 1437-1446. http://dx.doi.org/10.5267/j.ijdns.2022.5.007

Azzam, I., Alserhan, A., Mohammad, Y., Shamaileh, N., & Al-Hawary, S. (2023). Impact of dynamic capabilities on competitive performance: a moderated-mediation model of entrepreneurship orientation and digital leadership. International Journal of Data and Network Science, 7(4), 1949-1962. http://dx.doi.org/10.5267/j.ijdns.2023.6.017

Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015). Burnout-depression overlap: A review. Clinical Psychology Review, 36, 28-41. https://doi.org/10.1016/j.cpr.2015.01.004

Chandola, T., Brunner, E., & Marmot, M. (2006). Chronic stress at work and the metabolic syndrome: Prospective study. BMJ, 332(7540), 521-525. https://doi.org/10.1136/bmj.38693.435301.80

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DOI: https://doi.org/10.62754/joe.v3i8.4777

Cohen, S., Janicki-Deverts, D., & Miller, G. E. (2007). Psychological stress and disease. JAMA, 298(14), 1685-1687. https://doi.org/10.1001/jama.298.14.1685

de Lange, A. H., Taris, T. W., Kompier, M. A., Houtman, I. L., & Bongers, P. M. (2003). The very best of the millennium: Longitudinal research and the demand-control-(support) model. Journal of Occupational Health Psychology, 8(4), 282. https://doi.org/10.1037/1076-8998.8.4.282

Faragher, E. B., Cass, M., & Cooper, C. L. (2005). The relationship between job satisfaction and health: A meta-analysis. Occupational and Environmental Medicine, 62(2), 105-112. https://doi.org/10.1136/oem.2002.006734

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

Goetzel, R. Z., Pei, X., Tabrizi, M. J., Henke, R. M., Kowlessar, N., Nelson, C. F., & Metz, R. D. (2010). Ten modifiable health risk factors are linked to more than one-fifth of employer-employee health care spending. Journal of Occupational and Environmental Medicine, 52(10), 971-979. https://doi.org/10.1097/JOM.0b013e3181de1d7a

Halbesleben, J. R., & Buckley, M. R. (2004). Burnout in organizational life. Journal of Management, 30(6), 859-879. https://doi.org/10.1016/j.jm.2004.06.004

Kalia, M. (2002). Assessing the economic impact of stress—The modern day hidden epidemic. Metabolism, 51(6), 49-53. https://doi.org/10.1053/meta.2002.33193

Karasek, R., & Theorell, T. (1990). Healthy Work: Stress, Productivity, and the Reconstruction of Working Life. Basic Books.

Kristensen, T. S., Borritz, M., Villadsen, E., & Christensen, K. B. (2005). The Copenhagen Burnout Inventory: A new tool for the assessment of burnout. Work & Stress, 19(3), 192-207. https://doi.org/10.1080/02678370500297720

Landsbergis, P. A., Dobson, M., Koutsouras, G., & Schnall, P. (2013). Job strain and ambulatory blood pressure: A meta-analysis and systematic review. American Journal of Public Health, 103(3), e61-e71. https://doi.org/10.2105/AJPH.2012.301153

Li, J., & Siegrist, J. (2012). Physical activity and risk of cardiovascular disease—A meta-analysis of prospective cohort studies. International Journal of Environmental Research and Public Health, 9(2), 391-407. https://doi.org/10.3390/ijerph9020391

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. Annual Review of Psychology, 52(1), 397-422. https://doi.org/10.1146/annurev.psych.52.1.397

McEwen, B. S. (2004). Protection and damage from acute and chronic stress: Allostasis and allostatic overload and relevance to the pathophysiology of psychiatric disorders. Psychosomatic Medicine, 66(1), 10-15. https://doi.org/10.1097/00006842-200404000-00004

Melchior, M., Caspi, A., Milne, B. J., Danese, A., Poulton, R., & Moffitt, T. E. (2007). Work stress precipitates depression and anxiety in young, working women and men. Occupational and Environmental Medicine, 64(8), 608-614. https://doi.org/10.1136/oem.2005.023929

Mohammad, A. A., Alshura, M.S.,Al-Hawary, S. I. S., Al-Syasneh, M. S., & Alhajri, T. M. (2020). The influence of Internal Marketing Practices on the employees' intention to leave: A study of the private hospitals in Jordan. International Journal of Advanced Science and Technology, 29(5), 1174–1189.

Nixon, A. E., Mazzola, J. J., Bauer, J., Krueger, J. R., & Spector, P. E. (2011). Can work make you sick? A meta-analysis of the relationships between job stressors and physical symptoms. Work & Stress, 25(1), 1-22. https://doi.org/10.1080/02678373.2011.569175

Quick, J. C., Henderson, D. F., & Cooper, C. L. (2000). Occupational stress: Preventing suffering, enhancing wellbeing. International Journal of Environmental Health Research, 10(1), 61-66. https://doi.org/10.1080/09603120050006980

Rahamneh, A., Alrawashdeh, S., Bawaneh, A., Alatyat, Z., Mohammad, A., & Al-Hawary, S. (2023). The effect of digital supply chain on lean manufacturing: A structural equation modelling approach. Uncertain Supply Chain Management, 11(1), 391-402. http://dx.doi.org/10.5267/j.uscm.2022.9.003

Richardson, K. M., & Rothstein, H. R. (2008). Effects of occupational stress management intervention programs: A meta-analysis. Journal of Occupational Health Psychology, 13(1), 69-93. https://doi.org/10.1002/job.515

Rosengren, A., Hawken, S., Ounpuu, S., Sliwa, K., Zubaid, M., Almahmeed, W., ... & Yusuf, S. (2004). Association of psychosocial risk factors with risk of acute myocardial infarction in 11,119 cases and 13,648 controls from 52 countries (the INTERHEART study): Case-control study. The Lancet, 364(9438), 953-962. https://doi.org/10.1016/j.amepre.2004.07.003

Salavecz, G., Chandola, T., Pikhart, H., Dragano, N., Siegrist, J., Jöckel, K. H., ... & Marmot, M. G. (2010). Work stress and health in Western European and post-communist countries: An East-West comparison study. Journal of Epidemiology & Community Health, 64(1), 57-62. https://doi.org/10.1136/jech.2008.079806

Sauter, S. L., & Murphy, L. R. (1995). The changing face of work and stress. Journal of Occupational Health Psychology, 1(2), 69-79. https://doi.org/10.1037/1076-8998.1.2.69

Schaufeli, W. B. (2017). Applying the job demands-resources model: A 'how to' guide to measuring and tackling work engagement and burnout. European Journal of Applied Positive Psychology, 1(2). https://doi.org/10.1016/j.erap.2016.06.002

Siegrist, J., & Li, J. (2016). Work stress and altered biomarkers: A synthesis of findings based on the effort–reward imbalance model. European Journal of Public Health, 26(1), 60-65. https://doi.org/10.1093/eurpub/ckv182

Smadi, Z. M. A., AL-Qaisi, E. A., Alolayyan, M. N., Al-Quran, A. Z., Al-Adamat, A. M., Mohammad, A. A. S., ... & Al Kurdi, D. B. (2023). Impact of Manufacturing Flexibility on Response to Customer Requirements of Manufacturing Companies in King Abdullah II Ibn Al Hussein Industrial City in Jordan. In The Effect of Information Technology on Business and Marketing Intelligence Systems (pp. 1043-1059). Cham: Springer International Publishing. DOI: 10.1007/978-3-031-12382-5_56

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Steptoe, A., & Kivimäki, M. (2012). Stress and cardiovascular disease. Nature Reviews Cardiology, 9(6), 360-370. https://doi.org/10.1097/PSY.0b013e31825a622f

Tsutsumi, A., & Kawakami, N. (2004). A review of empirical studies on the model of effort-reward imbalance at work: Reducing occupational stress by implementing a new paradigm for work redesign. Social Science & Medicine, 59(11), 2335-2359. https://doi.org/10.1016/j.socscimed.2004.03.030

van der Doef, M., & Maes, S. (1999). The job demand-control (-support) model and psychological well-being: A review of 20 years of empirical research. Work & Stress, 13(2), 87-114. https://doi.org/10.1080/026783799296084