



Impact of Stress Management Interventions on Employee Performance: A Systematic Review

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Abstract: Workplace stress is a pervasive issue that diminishes employee productivity, well-being, and retention across industries. This systematic review explores the effectiveness of stress management interventions in enhancing employee performance, synthesizing findings from studies published between 2013 and 2023. Employing the PRISMA guidelines, a rigorous selection process identified key interventions: mindfulness practices, cognitive-behavioral therapy (CBT), physical activity programs, and employee assistance programs (EAPs). The review reveals that mindfulness-based interventions and CBT stand out for their substantial impact on reducing psychological stress and enhancing focus, resilience, and job satisfaction. Physical activity programs yield moderate benefits, mainly contributing to physical well-being and indirectly influencing productivity, while EAPs offer valuable support for employees facing acute stressors but vary in efficacy depending on participation levels. Performance metrics analyzed include productivity, job satisfaction, absenteeism, retention, decision-making, and teamwork. Mindfulness and CBT particularly improve cognitive performance, attention, and interpersonal interactions, contributing to overall workplace harmony and efficiency. However, implementation challenges persist, including high costs, variable employee engagement, and sustaining long-term adherence, particularly in small to medium-sized enterprises. This review underscores the critical role of organizational support and culture in promoting effective stress management and maintaining engagement. The findings offer actionable insights for HR professionals and organizational leaders, advocating for a tailored approach to intervention selection and integration into workplace culture. Future research should focus on longitudinal

studies to evaluate the enduring impacts of stress management programs and explore hybrid approaches that combine mental and physical wellness strategies. This comprehensive review highlights the importance of prioritizing stress management as a strategic tool for enhancing employee performance, ultimately fostering healthier, more resilient workplaces.

Keywords: Workplace stress, Employee performance, Stress management interventions, Mindfulness and cognitive-behavioral therapy, Organizational well-being

1. INTRODUCTION

Workplace stress is a significant issue that affects employees across various industries, leading to adverse outcomes such as decreased productivity, low morale, and high turnover rates (Cartwright & Cooper, 2014). According to the World Health Organization (WHO, 2020), work-related stress is increasingly recognized as a serious global health issue, impacting both employees' well-being and organizational performance. High levels of stress are often associated with factors such as job demands, role ambiguity, lack of control, and insufficient support, all of which can lead to burnout, anxiety, and a decline in job satisfaction (Karanika-Murray & Michaelides, 2020). Consequently, there is growing interest in exploring effective stress management interventions as a strategy to mitigate these negative effects and enhance employee performance.

Stress management interventions encompass a range of techniques designed to help individuals cope with stress and reduce its harmful impact. These interventions, often implemented at both the individual and organizational levels, include mindfulness practices, cognitive-behavioral therapy, physical activity programs, and employee assistance programs (EAPs) (Richardson & Rothstein, 2008). Mindfulness-based interventions, for instance, have gained popularity for their effectiveness in reducing psychological stress and enhancing focus and resilience among employees (Khoury et al., 2015). Additionally, cognitive-behavioral interventions are widely used to help employees modify negative thought patterns, which can alleviate stress and foster a positive work environment (Awa, Plaumann, & Walter, 2010).

Empirical evidence suggests that implementing stress management interventions can lead to improvements in key performance metrics, including productivity, job satisfaction, and reduced absenteeism (Goh et al., 2015). For example, a study by Klatt, Steinberg, and Duchemin (2015) demonstrated that a mindfulness-based program not only decreased stress levels but also enhanced attention and engagement at work. Similarly, Richardson and Rothstein's (2008) meta-analysis on stress management interventions found that cognitive-behavioral interventions had the most substantial impact on improving psychological well-being and work performance. Given the demonstrated benefits, this review aims to examine the impact of various stress management interventions on employee performance, comparing the effectiveness of different approaches. By analyzing recent studies, the review will provide insights into which interventions yield the best results and explore the practical implications for organizations aiming to create healthier, more productive workplaces.

Workplace stress has become an increasingly prevalent issue affecting employees across various sectors, contributing to adverse mental and physical health outcomes, as well as diminished work performance (American Psychological Association, 2020). Stress in the workplace is often a result of high job demands, limited autonomy, role ambiguity, and lack of social support, which can lead to burnout and absenteeism if unaddressed (Bakker & Demerouti,

2007). According to the World Health Organization (2020), workplace stress is one of the leading occupational health concerns globally, with significant economic implications due to decreased productivity and increased healthcare costs. For organizations aiming to enhance performance and retain a motivated workforce, effective stress management interventions have become essential (Avey, Luthans, & Jensen, 2009).

Several types of interventions have been developed to address workplace stress, including individual-level approaches such as cognitive-behavioral therapy (CBT), mindfulness training, and physical activity programs, as well as organizational-level interventions that involve restructuring work conditions to reduce stress (Richardson & Rothstein, 2008). Cognitive-behavioral interventions, which focus on modifying stress-inducing thought patterns, have been shown to be particularly effective in reducing stress and improving overall well-being (Giga et al., 2003). For instance, Richardson and Rothstein's (2008) meta-analysis of occupational stress management interventions concluded that CBT-based methods were among the most successful at improving employee psychological health and performance outcomes.

Mindfulness-based stress reduction (MBSR) is another widely adopted approach, gaining popularity due to its holistic impact on mental health, emotional regulation, and resilience (Khoury et al., 2015). MBSR techniques, including meditation and focused breathing exercises, have been shown to reduce anxiety, increase attention, and enhance overall work engagement (Good et al., 2016). Research by Klatt, Steinberg, and Duchemin (2015) demonstrated that mindfulness interventions in high-stress work environments could significantly reduce employee stress levels and improve attention, which are critical components of productivity.

In addition to individual-focused interventions, organizational-level strategies, such as redesigning work environments and providing flexible work schedules, have been implemented to address structural causes of stress (Awa, Plaumann, & Walter, 2010). Studies indicate that such organizational changes not only help reduce stress but also foster a positive work culture, leading to enhanced job satisfaction and performance (Bond & Bunce, 2001). Furthermore, employee assistance programs (EAPs), which provide counseling and support services, have become a key element in many organizations' stress management strategies, offering accessible mental health resources for employees in need (Hersey, 2019). This study seeks to explore the impact of these diverse stress management interventions on employee performance. By synthesizing current literature, the study will provide insights into the relative effectiveness of different intervention types and highlight best practices for organizations aiming to mitigate stress and enhance workforce productivity.

2. RELATED STUDIES

Research on workplace stress and its management has yielded extensive insights into the effectiveness of various interventions aimed at improving employee well-being and performance. Cognitive-behavioral therapy (CBT) has emerged as one of the most effective approaches for reducing occupational stress and enhancing mental health in the workplace (Richardson & Rothstein, 2008). CBT programs help employees identify and alter negative thought patterns, which can alleviate stress and promote adaptive coping strategies. In their meta-analysis, Richardson and Rothstein (2008) found that CBT interventions not only reduced stress but also improved work-related outcomes such as job satisfaction and productivity, demonstrating the potential of CBT to support both individual and organizational well-being.

Mindfulness-based stress reduction (MBSR) has also gained traction as an effective tool for managing workplace stress. Studies suggest that mindfulness practices enhance self-awareness and emotional regulation, reducing stress levels and fostering resilience (Lomas et al., 2019). For instance, Bartlett et al. (2019) conducted a randomized controlled trial that evaluated the effects of an MBSR program on healthcare employees and found significant reductions in stress and burnout symptoms. Additionally, employees who practiced mindfulness reported improved focus and clarity in decision-making, which are essential components of effective performance in high-stress work environments (Lomas et al., 2019).

Physical activity interventions are another well-documented approach to managing stress in the workplace. Participation in regular exercise has been associated with reduced levels of anxiety, depression, and stress (Stults-Kolehmainen & Sinha, 2014). Research by Gerber et al. (2013) found that employees who engaged in moderate physical activity experienced lower stress levels and improved psychological well-being. This study also highlighted that physical activity, particularly aerobic exercise, promotes the release of endorphins, which helps counteract stress hormones and enhance mood stability, thereby supporting better job performance.

Furthermore, organizational-level interventions have been shown to play a significant role in mitigating workplace stress. Implementing flexible work arrangements, such as telecommuting or flextime, can alleviate stress by allowing employees more control over their work schedules (Rudolph & Baltes, 2017). A study by Allen et al. (2013) showed that flexible work policies not only decreased stress but also increased job satisfaction and engagement, which are critical factors in employee performance. These findings underscore the importance of organizational support in reducing work-related stress and enhancing overall productivity.

Employee Assistance Programs (EAPs), which provide counseling and mental health services, are another key intervention. A study by Attridge (2019) reviewed the effectiveness of EAPs and reported that employees who utilized these services experienced significant reductions in stress and improvements in job performance. Attridge's (2019) findings reveal that access to professional mental health resources can help employees manage stress more effectively, particularly when personal or work-related challenges arise. Together, these studies underscore the effectiveness of both individual-focused and organizational-level interventions in reducing workplace stress and enhancing employee performance. The current study builds on this body of literature by further exploring the specific impacts of various stress management strategies on performance outcomes across different industries.

3. METHODOLOGY

This systematic review was conducted to evaluate the impact of stress management interventions on employee performance. Following the guidelines established by the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, a structured approach was adopted to identify, screen, and select studies relevant to the topic (Moher et al., 2009). The review considered only studies published in English between 2013 and 2023 to ensure that findings reflect recent research.

Search Strategy

A comprehensive literature search was performed in three major academic databases: PubMed, JSTOR, and Google Scholar. Keywords included “stress management interventions,”

“workplace stress,” “employee performance,” “mindfulness,” “employee assistance programs,” and “cognitive-behavioral therapy.” Boolean operators were used to broaden or narrow the search as needed, with terms combined in various ways, such as “stress management AND employee performance” and “workplace interventions OR employee well-being.”

Inclusion and Exclusion Criteria

Studies were included if they (a) examined a specific stress management intervention, (b) assessed the impact of the intervention on employee performance metrics (e.g., productivity, job satisfaction, absenteeism), and (c) were empirical studies, including both randomized controlled trials (RCTs) and quasi-experimental designs. Exclusion criteria involved studies focusing on non-workplace stress interventions, non-empirical research (e.g., theoretical papers), or those not published in peer-reviewed journals (Higgins & Green, 2011).

Data Extraction and Quality Assessment

Data extraction focused on gathering information regarding the study’s objectives, intervention type, sample size, methods used for measuring both stress and performance outcomes, and major findings. To ensure accuracy, data extraction was performed independently by two reviewers, and discrepancies were resolved through discussion. The methodological quality of each study was assessed using the Cochrane Collaboration’s Risk of Bias Tool, which examines elements such as selection, detection, and attrition biases (Higgins et al., 2011).

Data Synthesis

A narrative synthesis approach was used to analyze and report the findings, as the studies included varied widely in terms of intervention types, measures, and outcomes. This approach enabled the synthesis of results to draw broader conclusions regarding the effectiveness of different stress management interventions and their impact on employee performance (Popay et al., 2006).

4. RESULTS

1. Effectiveness of Different Interventions

Studies have shown that different stress management interventions vary in effectiveness. Mindfulness-based interventions and Cognitive Behavioral Therapy (CBT) have consistently proven to be the most effective in reducing stress and enhancing performance, particularly in roles requiring high cognitive engagement. Mindfulness practices, such as meditation and breathing exercises, help employees remain calm, focus better, and manage work-related anxiety. On the other hand, physical activity programs like exercise routines and onsite gym facilities have demonstrated moderate effects, with benefits skewed more towards physical health than direct performance outcomes. Employee Assistance Programs (EAPs) provide personalized counseling and show effectiveness in reducing stress, but their success heavily depends on employee participation rates.

Table 1: Comparison of Intervention Effectiveness

Intervention Type	Stress Reduction Effectiveness	Performance Improvement	Key Findings
Mindfulness-Based Practices	High	High	Significant reduction in stress and improved focus and job satisfaction (Hülshager et al., 2013)
Cognitive Behavioral Therapy (CBT)	High	Moderate to High	Improved productivity and coping mechanisms (Richardson & Rothstein, 2008)
Physical Activity Programs	Moderate	Moderate	Reduced stress with moderate impact on productivity; indirect benefits (Bond et al., 2020)
Employee Assistance Programs (EAPs)	Moderate to High	Moderate	Effective with employee buy-in; higher engagement improves outcomes (Attridge, 2019)

2. Impact on Employee Performance Metrics

Stress management interventions positively affect specific performance metrics, such as productivity, job satisfaction, absenteeism, and retention. Mindfulness and CBT particularly influence cognitive abilities, including decision-making and concentration, leading to greater productivity and job satisfaction. Physical activity interventions show moderate effects, primarily impacting absenteeism and retention by reducing physical stress. Studies suggest that reduced stress enhances teamwork and decision-making, as employees become more mentally resilient and capable of handling interpersonal workplace challenges.

Table 2: Impact of Interventions on Employee Performance Metrics

Performance Metric	Mindfulness-Based Practices	Cognitive Behavioral Therapy (CBT)	Physical Activity Programs	Employee Assistance Programs (EAPs)
Productivity	High	High	Moderate	Moderate
Job Satisfaction	High	Moderate to High	Moderate	Moderate
Absenteeism	Moderate	Moderate	High	Moderate to High
Retention	High	Moderate	Moderate	Moderate
Decision-Making & Concentration	High	High	Low to Moderate	Moderate
Teamwork	High	Moderate	Low	Moderate

Source: (Bond et al., 2020)

3. Challenges and Limitations of Implementing Interventions

Implementing stress management interventions involves various organizational challenges. High costs, especially for comprehensive programs like CBT and EAPs, can be prohibitive for small to medium-sized organizations. Employee participation and engagement are also crucial for success; for example, mindfulness programs require sustained engagement, which may be challenging without a supportive culture. Furthermore, the suitability of certain interventions across different work environments and employee roles poses a challenge. Adherence to stress management practices over the long term is often difficult, impacting the sustainability of performance improvements.

Table 3: Challenges and Limitations in Implementing Stress Management Interventions

Challenge	Mindfulness-Based Practices	Cognitive Behavioral Therapy (CBT)	Physical Activity Programs	Employee Assistance Programs (EAPs)
Cost	Moderate	High	Moderate	High
Employee Participation	High	Moderate	Moderate	Variable
Suitability Across Roles	High	Moderate	Moderate	Moderate
Long-Term Adherence	Moderate to Low	Moderate	Moderate	Low to Moderate
Organizational Support Needed	High	High	Moderate	High

Source: (Bond et al., 2020)

5. DISCUSSION

The findings of this systematic review align with and expand upon the existing literature, emphasizing the efficacy of stress management interventions in improving employee performance metrics such as productivity, job satisfaction, absenteeism, and retention. Notably, mindfulness-based practices and cognitive-behavioral therapy (CBT) emerged as the most effective interventions, corroborating previous studies that highlight their role in fostering mental resilience and focus (Khoury et al., 2015; Hülshager et al., 2013). Mindfulness-based interventions demonstrated significant reductions in psychological stress, improvements in focus, and heightened job satisfaction. These findings are consistent with Hülshager et al. (2013), who identified mindfulness as a pivotal factor in reducing emotional exhaustion and increasing job engagement in high-stress environments. Moreover, Klatt, Steinberg, and Duchemin (2015) highlighted how mindfulness programs not only alleviate stress but also enhance attentional capacity, a critical determinant of productivity in cognitively demanding roles. This review further confirms that mindfulness practices effectively improve interpersonal interactions and teamwork by fostering emotional regulation and self-awareness, supporting the assertions of Lomas et al. (2019).

CBT emerged as a highly impactful intervention, particularly for modifying stress-inducing thought patterns and improving productivity. The meta-analysis by Richardson and Rothstein (2008) similarly found that CBT interventions had the most substantial impact on psychological well-being and work performance. These findings underscore the utility of CBT in equipping employees with adaptive coping mechanisms to navigate workplace stressors, as corroborated by Giga et al. (2003). This review also highlights the broader applicability of CBT across diverse organizational settings, suggesting that it can be tailored to address specific stressors, such as role ambiguity and high workloads. Although physical activity programs showed moderate effects on productivity and stress reduction, their primary benefits were linked to physical well-being. This aligns with Stults-Kolehmainen and Sinha (2014), who found that regular exercise decreases stress by reducing cortisol levels and increasing endorphin production. However, the review also noted that these programs indirectly enhance performance by reducing absenteeism and turnover, findings supported by Gerber et al. (2013). The results suggest that while physical activity programs are less impactful on cognitive performance compared to mindfulness and CBT, they remain valuable components of holistic stress management strategies.

EAPs were effective in providing personalized support for employees dealing with acute stressors, but their efficacy varied depending on employee participation levels. Attridge (2019) similarly observed that EAPs yield significant improvements in job performance and stress management when participation rates are high. However, challenges such as stigma and limited awareness of available resources continue to hinder their widespread adoption. This review emphasizes the need for organizations to integrate EAPs within a supportive culture to maximize their impact, consistent with findings by Hersey (2019). The role of organizational culture emerged as a critical factor in the success of stress management interventions. Flexible work arrangements and leadership support were identified as key facilitators of long-term engagement with these programs, mirroring the findings of Bond and Bunce (2001). This review also highlights that organizational support not only reduces barriers to participation but also amplifies the benefits of individual-focused interventions, such as mindfulness and CBT. As Awa, Plaumann, and Walter (2010) suggested, restructuring work environments to align with stress management objectives fosters a more resilient workforce and enhances the sustainability of performance improvements.

This review's findings resonate with earlier meta-analyses, such as Richardson and Rothstein (2008), which emphasized the superiority of CBT in addressing workplace stress. However, it also builds on this foundation by demonstrating the growing prominence of mindfulness-based practices as equally effective interventions in modern organizational contexts. Additionally, the inclusion of longitudinal insights highlights the need for sustained engagement with stress management practices, an area previously underexplored in short-term evaluations. While physical activity programs and EAPs have been extensively studied (Gerber et al., 2013; Attridge, 2019), this review underscores their complementary role in comprehensive intervention frameworks. It advocates for hybrid approaches that integrate mental and physical wellness strategies to address the multifaceted nature of workplace stress, as recommended by Lomas et al. (2019). The findings emphasize the need for tailored, context-specific interventions to maximize effectiveness. For organizations with resource constraints, prioritizing cost-effective digital mindfulness platforms or structured CBT modules may yield substantial benefits. Furthermore, fostering a culture of well-being through leadership endorsement and transparent communication can enhance participation and long-term adherence to these programs.

6. IMPLICATIONS FOR PRACTICE

The findings from this review emphasize the importance of implementing targeted, well-supported stress management interventions to improve employee performance and well-being. For managers and HR professionals, selecting the most appropriate intervention starts with understanding the specific stressors and performance demands within their organization. Mindfulness-based practices and Cognitive Behavioral Therapy (CBT) are particularly effective for enhancing cognitive performance, resilience, and job satisfaction. Therefore, organizations might consider offering regular workshops or accessible online modules, especially for roles requiring high mental engagement. Additionally, it is crucial to align interventions with employee demographics and needs. Younger employees may prefer digital mindfulness apps, while more experienced staff might respond better to in-person workshops or coaching. Physical activity programs, such as gym memberships or walking groups, can benefit more physically active or younger teams. To optimize engagement, organizations should conduct initial assessments through surveys or focus groups, which will reveal employee preferences and ensure interventions resonate with their workforce.

Integrating stress management programs into the organizational culture is equally essential for success. Creating an environment where well-being is prioritized and where participating in these programs carries no stigma encourages employees to make full use of the resources provided. Regular communication about these initiatives, coupled with visible support from senior leaders, can further normalize participation and foster a supportive workplace culture. To address budget constraints, especially in smaller organizations, balancing cost with accessibility is vital. While CBT and Employee Assistance Programs (EAPs) can be resource-intensive, organizations can explore more affordable options such as digital mindfulness platforms or structured group exercise classes. Partnering with external wellness providers can also extend the range of available interventions without excessively straining organizational budgets.

Ensuring long-term adherence to these interventions is another key factor for sustained improvements in performance and well-being. Interventions often lose momentum without periodic follow-up, so it's beneficial to implement structured check-ins, progress assessments, and reminders. Managers might consider adding refreshers or advanced sessions to deepen engagement and make these practices an integrated part of employees' routines. Regular evaluation of each program's effectiveness is also critical. This process involves tracking key performance indicators (KPIs) like productivity, job satisfaction, and absenteeism while collecting feedback through surveys and performance reviews. By assessing the outcomes and making data-driven adjustments, HR professionals can refine interventions over time to ensure they remain relevant and impactful.

7. FUTURE RESEARCH DIRECTIONS

While current findings affirm the effectiveness of stress management interventions in enhancing employee performance, several areas warrant further exploration to deepen understanding and optimize these strategies. First, more studies are needed to examine the long-term effects of stress management interventions on performance outcomes. Most existing research assesses short-term impacts, yet the sustained benefits of these programs on

productivity, job satisfaction, and overall well-being remain unclear. Longitudinal studies that track employees over extended periods would provide valuable insights into how the effects of these interventions evolve and whether consistent engagement leads to more durable improvements.

Another promising area for future research is the role of organizational culture in determining the success of stress management interventions. Culture shapes employees' attitudes toward these programs, influencing participation and long-term adherence. Research could investigate how various cultural factors such as leadership support, peer involvement, and organizational values impact employees' openness to stress management interventions. Such studies could reveal whether supportive workplace cultures amplify the benefits of stress management programs and identify cultural adjustments that could enhance engagement and effectiveness.

Lastly, exploring hybrid or combined approaches to stress management holds significant potential. Combining elements of mindfulness with physical activity, for example, could offer a more holistic intervention, addressing both mental and physical dimensions of stress. Studies that compare hybrid approaches to single-method interventions would clarify whether these combined strategies yield greater improvements in stress reduction and performance. Additional research could also look at integrating multiple techniques such as CBT with mindfulness or exercise with peer support to determine the most effective combinations for various employee groups and organizational contexts.

8. CONCLUSION

The findings from this systematic review highlight the positive impact of various stress management interventions on employee performance, reinforcing the importance of adopting evidence-based practices to enhance workplace well-being and productivity. Mindfulness-based practices and cognitive-behavioral therapy (CBT) emerged as the most effective interventions, showing significant reductions in stress levels and improvements in focus, job satisfaction, and productivity. Physical activity programs and Employee Assistance Programs (EAPs) also contributed beneficially, albeit with moderate effects primarily directed toward physical health and indirect performance gains. Organizational support, including flexible work arrangements and culture-specific adaptations, proved essential in fostering long-term adherence and maximizing the success of these interventions. Challenges such as high costs, limited participation, and difficulties in sustaining long-term engagement were notable obstacles that organizations must consider in planning and implementing stress management programs. However, tailoring interventions to meet the diverse needs of employees and embedding a supportive organizational culture can improve the adoption and effectiveness of these practices. For future research, longitudinal studies could provide insights into the lasting impacts of stress management interventions on employee performance. Additionally, exploring hybrid approaches that integrate mindfulness, physical activity, and other techniques may offer more comprehensive solutions to workplace stress. Ultimately, organizations are encouraged to prioritize employee well-being by adopting a strategic approach to stress management, benefiting both individual employees and overall organizational performance.

AUTHOR CONTRIBUTIONS

This research paper was collaboratively developed by Charles Ephrim, Nasage Naabulee Nestor, and Vida Korang. Each author made distinct contributions to ensure the study's academic rigor and practical relevance, as outlined below:

Charles Ephrim: Initiated the research idea and conceptualized the framework of the systematic review. He led the literature search, synthesized findings, and played a primary role in drafting the manuscript. Charles also developed the interpretation of results, focusing on the practical implications of stress management interventions for workplace productivity and employee well-being.

Nasage Naabulee Nestor: Provided oversight of the methodology and ensured compliance with the PRISMA guidelines. He reviewed the inclusion and exclusion criteria, verified data extraction processes, and critically analyzed the results. Nasage significantly contributed to refining the discussion and recommendations sections, ensuring they were well-grounded in evidence and aligned with organizational strategies.

Vida Korang: Supported the data synthesis and analysis, contributing particularly to the sections on mindfulness practices and cognitive-behavioral therapy. Vida also reviewed and edited the manuscript for coherence, clarity, and academic rigor, providing critical feedback to enhance the overall quality of the paper. She assisted in formatting and ensuring the references adhered to journal requirements.

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