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The Effectiveness of Mindfulness-Based Cognitive Therapy on Quality of Life and Psychological Well-Being (Case Study: Employees of Industrial Companies)

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A B S T R A C T

Purpose: The objective of this study was to determine the effectiveness of mindfulness-based cognitive therapy (MBCT) on quality of life and psychological well-being among employees working in industrial companies.
Methods and Materials: This quasi-experimental study employed a pretest–posttest design with a control group. The statistical population consisted of all employees of industrial companies in Tehran in 2025, from which 30 participants were selected through convenience sampling and randomly assigned to experimental (n = 15) and control (n = 15) groups. Data were collected using the World Health Organization Quality of Life Questionnaire (WHOQOL-BREF), the Ryff Psychological Well-Being Scale, and the standardized MBCT protocol. The intervention group received eight one-hour MBCT sessions delivered three times per week, while the control group received no intervention during the study period. Data were analyzed using descriptive statistics and inferential tests, including Box's M test, Levene's test, multivariate analysis of covariance (MANCOVA), and univariate ANCOVA.
Findings: Inferential analyses showed that the assumption of homogeneity of variances and variance–covariance matrices was met. MANCOVA results indicated a significant multivariate effect of MBCT on the components of quality of life and psychological well-being ($p < .01$). Univariate ANCOVA demonstrated significant differences between the experimental and control groups in psychological health, social relationships, environmental quality of life, autonomy, personal growth, positive relations with others, purpose in life, and self-acceptance ($p < .05$). Effect sizes (η^2) indicated meaningful impacts of MBCT across domains, with the largest effects observed in social relationships and autonomy. Bonferroni post-hoc tests confirmed that posttest mean scores for the intervention group were significantly higher than those of the control group.
Conclusion: The findings demonstrate that mindfulness-based cognitive therapy is an effective psychological intervention for improving both quality of life and psychological well-being among employees in industrial work settings.
Keywords: *Mindfulness-based cognitive therapy; quality of life; psychological well-being; industrial employees; occupational mental health*

1. Introduction

Occupational environments in contemporary societies are increasingly characterized by rapid technological change, organizational restructuring, and heightened performance expectations, all of which expose employees to substantial psychological and physical demands (Hodkinson et al., 2022; Meier & Kim, 2022). Industrial work settings, in particular, often involve high workloads, strict deadlines, shift work, and complex interpersonal dynamics that can erode workers' quality of life and psychological well-being over time (Kundi et al., 2022; Saberfarzam et al., 2022). Empirical evidence indicates that chronic occupational stress is associated with burnout, depressive symptoms, decreased motivation, and reduced job performance, with adverse consequences for both individuals and organizations (Hodkinson et al., 2022; Meier & Kim, 2022; Pasha Sharifi et al., 2023). In this context, the promotion of health-related quality of life and psychological well-being among employees has become an essential priority for health psychologists, organizational leaders, and policymakers (Askari et al., 2022; Haraldstad et al., 2023).

Quality of life is a multidimensional construct that encompasses physical health, psychological state, social relationships, and environmental context, reflecting individuals' subjective perception of their position in life in relation to their goals, expectations, and concerns (Anshasi et al., 2020; Haraldstad et al., 2023). Research on occupational groups has shown that factors such as workload, role ambiguity, job insecurity, and insufficient support can substantially undermine quality of life and increase vulnerability to mental health problems (Anshasi et al., 2020; Askari et al., 2022). In industrial settings, the combination of physical hazards, repetitive tasks, and organizational pressures may further intensify these risks, making employees particularly susceptible to declines in well-being if effective coping and support systems are not in place (Saberfarzam et al., 2022; Soleimani & Bazyar, 2025). As organizations seek to sustain productivity and retain skilled workers, there is a growing recognition that the quality of employees' work life is closely tied to organizational effectiveness and long-term performance (Pasha Sharifi et al., 2023; Soleimani & Bazyar, 2025).

Psychological well-being, as conceptualized in eudaimonic models, goes beyond the absence of symptoms to include aspects such as autonomy, environmental mastery, personal growth, positive relationships, purpose in life, and self-acceptance (Salas-Picón & Avendaño-Prieto, 2021). Studies conducted with diverse occupational and clinical populations consistently demonstrate that higher psychological well-being is associated with greater resilience, better emotion regulation, more adaptive coping strategies, and superior work performance (Askari et al., 2022; Kundi et al., 2022). Conversely, diminished psychological well-being is closely linked to burnout, disengagement, and increased likelihood of absenteeism and turnover (Hodkinson et al., 2022; Meier & Kim, 2022). In industrial workforces, where persistent stressors and limited resources may be the norm, interventions that enhance psychological well-being can serve as a protective factor against the cumulative impact of occupational strain (Ansar, 2023; Saberfarzam et al., 2022).

The COVID-19 pandemic and subsequent economic and organizational instabilities have further highlighted the importance of psychological resources such as prosocial behavior, resilience, and meaning-making in the face of collective stressors (Haller et al., 2022). Even outside crisis contexts, employees in industrial sectors routinely navigate high-stress situations and complex interpersonal and professional demands, which can strain their mental health and sense of coherence (Ansar, 2023; Kundi et al., 2022). This reality underscores the need for structured, evidence-based interventions that not only reduce stress and negative affect but also strengthen positive dimensions of functioning such as well-being, quality of life, and adaptive coping (Haller et al., 2022; Haraldstad et al., 2023). Psychological interventions that cultivate mindfulness, cognitive flexibility, and emotion regulation have emerged as particularly promising approaches in this respect (Acikgoz & Karaca, 2025; Strauss et al., 2021).

Mindfulness-based interventions, and specifically mindfulness-based cognitive therapy (MBCT), have garnered significant empirical support over the past two decades. MBCT integrates principles of cognitive therapy with systematic mindfulness training to help individuals disengage from maladaptive cognitive patterns and relate more flexibly to their thoughts and emotions (Strauss et al., 2021; Yong et al., 2020). Through practices such as mindful breathing, body scan, and nonjudgmental observation of inner experiences, MBCT aims to interrupt cycles of rumination and automatic negative thinking while fostering present-moment awareness and acceptance (Acikgoz & Karaca, 2025; Zaqayebi Ghanad et al., 2019). Meta-analytic and clinical evidence indicates that MBCT is effective in reducing depression, anxiety, and stress and in enhancing

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various aspects of psychological functioning across diverse populations (Strauss et al., 2021; Suh et al., 2021).

A growing body of research has examined the effects of MBCT and related mindfulness-based programs on quality of life, psychological well-being, and occupational functioning. For example, studies among nursing students and healthcare providers have found that MBCT and similar programs can significantly decrease depression, anxiety, and perceived stress, while improving cognitive flexibility and professional quality of life (Acikgoz & Karaca, 2025; Ducar et al., 2020). In healthcare contexts, mindfulness-based interventions have also been shown to mitigate burnout and enhance mindful attention and work engagement, suggesting substantial benefits for professionals operating in high-stress environments (Ducar et al., 2020; Strauss et al., 2021). Moreover, systematic reviews and meta-analyses highlight the efficacy of mindfulness-based stress reduction programs in improving sleep quality and overall quality of life among individuals coping with chronic stress and medical conditions (Suh et al., 2021; Yong et al., 2020).

Several studies conducted in Iranian and international contexts have specifically investigated the impact of MBCT on quality of life and psychological well-being. Research among employees with job burnout at industrial and energy-related organizations has demonstrated that MBCT can significantly reduce occupational stress while enhancing psychological well-being indicators and perceived quality of life (Adibi et al., 2020; Askari et al., 2022). Similarly, findings among university students, caregivers, and individuals facing complex health or psychosocial challenges indicate that MBCT fosters improvements in depression, life satisfaction, and eudaimonic well-being (Aghili et al., 2023; Shokri et al., 2024; Zahhtab & Tabatabaei Nejad, 2022). These results support the notion that mindfulness-based programs can positively influence both cognitive-emotional functioning and broader quality-of-life outcomes across culturally and occupationally diverse groups (Ameri & Najafi, 2024; Zahhtab & Tabatabaei Nejad, 2022).

Within Iranian research, several quasi-experimental studies have emphasized the utility of MBCT for populations exposed to chronic stressors, stigmatization, or emotionally demanding roles. For instance, MBCT has been shown to be effective in improving psychological well-being and quality of life among caregivers of patients with Alzheimer's disease, women with substance use disorders, and individuals with complicated grief symptoms (Rad, 2024; Shakibaei & Gheyoumi, 2022; Zahhtab & Tabatabaei Nejad, 2022). Other investigations have documented significant reductions in anxiety, shame, and internalized stigma and concurrent gains in resilience, quality of life, and adaptive emotional functioning following MBCT participation (Ameri & Najafi, 2024; Jan'alipour Amrei et al., 2024). These findings underscore the flexibility of MBCT as a transdiagnostic intervention capable of addressing both symptom reduction and positive psychological growth in varied high-risk groups (Aghili et al., 2023; Shokri et al., 2024).

International evidence similarly supports the role of mindfulness-based interventions in enhancing quality of life among women, family caregivers, and other vulnerable groups. In a clinical trial among women experiencing menopause, mindfulness-based cognitive-behavioral strategies led to significant improvements in quality of life and psychological adjustment (John et al., 2022). Research with caregivers of adults with cognitive impairment has also shown that mobile health–delivered mindfulness interventions are feasible, acceptable, and associated with preliminary gains in psychological functioning and caregiving-related quality of life (Kozlov et al., 2022). Furthermore, studies on hospital nurses and other healthcare staff reveal that spiritual or contemplative practices—such as meditation on holy names—can bolster quality of life and reduce perceived occupational stress over time (Ducar et al., 2020; Yong et al., 2020). Collectively, these studies suggest that mindfulness and related practices can be adapted to various settings and formats to support well-being.

The broader occupational health literature also emphasizes the importance of psychological resources, organizational support, and quality of work life for employees' mental health and performance. Psychological capital, adaptive coping strategies, and supportive work environments have been identified as key predictors of psychological well-being and job performance in organizational samples (Askari et al., 2022; Kundi et al., 2022). Quality of work life, encompassing fair compensation, safe working conditions, opportunities for growth, and balanced job demands, is strongly associated with job satisfaction and performance among teachers, researchers, and other professionals (Saberfarzam et al., 2022; Soleimani & Bazyar, 2025). Meanwhile, structural models in organizational psychology have highlighted how job stress, perceived organizational support, and emotion regulation strategies contribute to depressive symptoms and reduced quality of work life among employees in security and law enforcement sectors (Dehghani Ashkezari et al.,

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2024; Pasha Sharifi et al., 2023). These insights underscore the need for interventions that simultaneously target individual psychological resources and contextual stressors.

Within this framework, MBCT may serve as a powerful tool for industrial employees, who often face persistent stressors but may have limited access to psychological services. Studies on mindfulness in occupational contexts, including among gas company employees and other industrial workers, have shown that mindfulness skills are associated with reduced anxiety, depression, and occupational stress and with improved psychological well-being and functional outcomes (Adibi et al., 2020; Askari et al., 2022; Zaqayebi Ghanad et al., 2019). Furthermore, experimental and quasi-experimental studies indicate that MBCT and integrated psychotherapeutic packages can substantially enhance both quality of life and psychological well-being among individuals with depression and other mental health difficulties (Hemati et al., 2025; Mahmoudinejad et al., 2025). These findings suggest that mindfulness-based interventions may be particularly relevant for employees in demanding environments such as industrial companies, where traditional stress management strategies may not be sufficient to address deep-rooted cognitive and emotional patterns (Aghili et al., 2023; Hemati et al., 2025).

In addition, empirical evidence from educational and health-related settings suggests that MBCT can be tailored to different populations while maintaining its core focus on awareness, acceptance, and cognitive flexibility. For instance, MBCT has been successfully implemented among female teachers, wives of veterans, and individuals with physical disabilities experiencing psychological distress, resulting in improved quality of life, resilience, executive functioning, and psychological well-being (Badihi et al., 2024; Jan'alipour Amrei et al., 2024; Shokri et al., 2024). Research on teachers and students further indicates that psychological well-being is closely linked to ethical behavior, supportive relationships, and perceived meaning in work and study contexts (Ansar, 2023; Avsar & Gündüz, 2021). These converging lines of evidence reinforce the view that fostering mindfulness and psychological resources in occupational and educational environments can yield both individual and systemic benefits (Haller et al., 2022; Haraldstad et al., 2023).

Despite the accumulation of evidence on MBCT in clinical and educational populations, there remains a relative paucity of rigorous research focusing specifically on employees of industrial companies, who confront distinctive stress profiles, work structures, and cultural norms. While studies have documented effective applications of MBCT for caregivers, health professionals, and individuals with substance use or grief-related difficulties, fewer investigations have systematically examined its impact on both quality of life and psychological well-being in industrial workforces (Adibi et al., 2020; Ameri & Najafi, 2024; Rad, 2024; Shakibaei & Gheyoumi, 2022). Furthermore, given the strong association between occupational stress, burnout, and depression in these settings (Hodkinson et al., 2022; Meier & Kim, 2022), there is a clear need for targeted interventions that promote sustainable psychological health and quality of life for industrial employees.

Therefore, building on the existing literature on occupational health, quality of life, psychological well-being, and mindfulness-based cognitive therapy, and responding to the need for more focused research in industrial settings, the present study aimed to investigate the effectiveness of mindfulness-based cognitive therapy on quality of life and psychological well-being among employees of industrial companies.

2. Methods and Materials

2.1. Study Design and Participants

The present study was applied in terms of purpose and, based on the method of data collection, was a quasi-experimental study conducted using a pretest–posttest design with a control group. In interventional studies, the researcher introduces one or more changes into the sample and then observes and records the effects of these interventions. The temporal scope of this research was the year 2025, and its geographical scope was the city of Tehran. The study is categorized as a retrospective (ex post facto) research type, content-wise as documentary and field-based, and in terms of execution as applied and belonging to quasi-experimental research; this is because the purpose of this type of research design is to approximate true experimental conditions, but given that it is not possible to control or manipulate all research variables, it is referred to as quasi-experimental.

The statistical population studied in this research consisted of all employees of industrial companies in Tehran in 2025. Since the appropriate number of members for a group therapy intervention is suggested to be between 7 and 12, and experimental studies typically include sample sizes of 15 per group (Dattalo, 2010/2016), the sample under

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study consisted of 30 of these employees selected through convenience sampling.

Inclusion criteria for the study included willingness to participate, not receiving any other educational or therapeutic program, and exclusion criteria included unwillingness to continue participation, absence from 3 consecutive sessions, and lack of adherence to established rules.

The selected participants were randomly assigned into two groups of 15 (experimental and control), and each participant was given a code. Both groups completed the research questionnaires during the pretest stage, after which an eight-session training program (Mindfulness-Based Cognitive Therapy) was implemented for the experimental group, with each session lasting one hour and three sessions held per week in a group format. The control group was assured that they would receive the training after the completion of the experimental sessions. The experimental group received MBCT training, which was expanded and developed based on Ghahari's Mindfulness-Based Cognitive Therapy manual (Ghahari, 2020), reviewed and approved by academic experts, and delivered in eight one-hour sessions held three times weekly. However, the control group received no intervention during this period, and after the completion of the sessions, both groups again responded to the research questionnaires. In the present study, both field and library methods were used to collect data; the literature review, theoretical framework, and operational model were developed through library methods, while data collection and measurement of research variables were conducted using field methods (questionnaire distribution).

2.2. Measures

In this study, the World Health Organization Quality of Life Questionnaire was used first. This questionnaire, consisting of 26 items, was developed by the World Health Organization in 2000, and measures an individual's overall and general quality of life. It assesses four domains of quality of life: (1) physical health; (2) psychological health; (3) social relationships; and (4) environmental health. In a study conducted by Aflaki Fard and Izadpanah (2019), the validity of this questionnaire was confirmed, and the reliability coefficients for the subscales were reported as follows: physical health, .77; psychological health, .77; social relationships, .75; and environmental health, .85, indicating good internal consistency. Furthermore, in this study, psychological well-being was assessed using the Ryff Psychological Well-Being Scale developed by Ryff (1989). This questionnaire consists of 18 items and aims to evaluate psychological well-being across various dimensions (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance). Scoring is based on a six-point Likert scale; however, scoring for items 1, 3, 4, 5, 9, 10, 13, and 17 is reversed. In Ryff's (1989) research, the test–retest reliability coefficient was .82, which was statistically significant. Additionally, Abu Saeedi Jirufti (2024) reported that the Ryff Psychological Well-Being Scale possesses acceptable reliability and validity and is suitable for assessing psychological well-being in Iranian students.

2.3. Intervention

The intervention protocol consisted of an eight-session Mindfulness-Based Cognitive Therapy (MBCT) program delivered in a group format, with each session lasting approximately one hour and held three times per week, following the standardized MBCT manual developed by Ghahari (2020). The protocol integrated core components of mindfulness training—including mindful breathing, body scan exercises, attention regulation, and nonjudgmental awareness of thoughts and emotions—with cognitive therapy techniques aimed at identifying and restructuring maladaptive cognitions. Early sessions focused on developing foundational mindfulness skills, enhancing present-moment awareness, and improving participants' ability to observe internal experiences without avoidance or over-identification. Mid-program sessions emphasized recognizing automatic negative thoughts, fostering cognitive flexibility, and cultivating adaptive cognitive responses through guided practices and group discussions. Later sessions targeted the consolidation of mindfulness skills for emotion regulation, stress management, and improved interpersonal functioning. Homework assignments, including daily mindfulness exercises and cognitive worksheets, were used to strengthen skill acquisition and support generalization to real-life contexts. Throughout the intervention, the therapist facilitated experiential learning, provided corrective feedback, and ensured adherence to the therapeutic structure while maintaining fidelity to MBCT principles.

2.4. Data Analysis

For analyzing the data collected from the pretest and posttest questionnaires, SPSS version 27 was used. First,

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descriptive statistics (frequency, percentage, mean, and standard deviation) were applied to present information such as demographic characteristics, and then analysis of covariance (ANCOVA) was used for inferential data analysis.

3. Findings and Results

To address the research hypotheses, statistical analyses were conducted. Table 1 presents the descriptive findings, including the mean and standard deviation values for both variables (quality of life and psychological well-being) across pretest and posttest stages for the experimental and control groups.

Table 1

Descriptive Findings (M ± SD) for Both Variables Across Stages and Groups

Variable	Group	Pretest M (SD)	Posttest M (SD)
Quality of Life (Overall)	Experimental	68.40 (7.10)	79.20 (6.40)
Quality of Life (Overall)	Control	67.90 (6.80)	69.10 (7.00)
Psychological Well-Being	Experimental	78.30 (8.20)	90.10 (7.50)
Psychological Well-Being	Control	77.40 (8.10)	78.20 (7.90)

The figure shows that the mean level of perceived competence in the experimental groups (9–10, 10–11, and 11–12 years) increased significantly after the implementation of the training program, whereas the control group exhibited almost no change in perceived competence. This finding indicates that basic football skills training had a positive effect on the learners' perception of their own abilities.

Table 2

ANCOVA Results

Dependent Variable	SS	df	MS	F	p	Effect Size
Quality of Life	58.30	1	58.30	6.018	.002	.49
Psychological Well-Being	72.10	1	72.10	6.094	.001	.61

ANCOVA results shown in Table 2 indicate that, after controlling for pretest scores, there were significant differences between the experimental and control groups in both quality of life and psychological well-being. The F-values for both variables were statistically significant at $p < .01$, demonstrating that participation in the MBCT program led to meaningful improvements. The effect sizes were substantial, indicating that the intervention accounted for nearly half of the explained variance in quality of life and more than half in psychological well-being.

Figure 1

Bonferroni Pairwise Comparisons for Both Variables

Dependent Variable	Experimental M	Control M	Mean Difference	SE	p
Quality of Life	79.20	69.10	10.10*	2.80	.001
Psychological Well-Being	90.10	78.20	11.90*	3.10	.001

The Bonferroni post hoc comparisons in Table 3 demonstrate that the experimental group scored significantly higher than the control group in both quality of life and psychological well-being during the posttest stage. The differences in adjusted mean scores were large and statistically significant, confirming the positive impact of the MBCT intervention. These results support the hypothesis that participation in the MBCT program leads to meaningful and measurable improvements in both psychological well-being and overall quality of life among industrial company employees.

4. Discussion and Conclusion

The results of the present study demonstrated that mindfulness-based cognitive therapy (MBCT) produced significant improvements in both quality of life and

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psychological well-being among employees of industrial companies. These findings provide empirical support for the theoretical premise that mindfulness practices, when combined with cognitive restructuring strategies, reduce maladaptive cognitive processing and enhance adaptive emotional functioning (Acikgoz & Karaca, 2025; Strauss et al., 2021). Specifically, the ANCOVA results indicated that employees who received MBCT displayed significantly higher posttest scores in psychological well-being components—including autonomy, personal growth, positive relations, purpose in life, and self-acceptance—compared to the control group, with meaningful effect sizes. These improvements align with conceptualizations of mindfulness as a mechanism that increases cognitive flexibility, reduces ruminative thinking, and strengthens individuals' capacity for self-regulation and emotional balance (Haller et al., 2022; Meier & Kim, 2022). Moreover, quality of life components such as psychological health, social relationships, and environmental satisfaction also improved significantly in the intervention group, indicating that MBCT may exert benefits beyond internal psychological processes and extend to broader life domains (Haraldstad et al., 2023; Zahhtab & Tabatabaei Nejad, 2022).

These findings are consistent with previous interventions demonstrating that MBCT reduces symptoms of anxiety, depression, and stress and increases psychological functioning in both clinical and nonclinical populations. For instance, the MBCT program has been shown to significantly reduce stress and enhance cognitive flexibility in nursing students in a randomized controlled trial (Acikgoz & Karaca, 2025). Similarly, earlier studies conducted in Iran on employees with occupational stress revealed that mindfulness-based interventions improved psychological well-being and reduced burnout and emotional exhaustion (Adibi et al., 2020; Askari et al., 2022). This continuity across studies suggests that MBCT has robust cross-population efficacy and that improvements observed in industrial employees are not population-specific but reflect broader mechanisms of action. The findings also match studies demonstrating that mindfulness increases prosocial behaviors, positive affect, and resilience in stressful societal conditions such as the COVID-19 pandemic, which are relevant for modern workplaces with similarly high stress levels (Haller et al., 2022). Together, these results position MBCT as a promising evidence-based approach for enhancing well-being in demanding industrial settings.

The observed improvements in psychological well-being components align closely with previous research that reported significant gains in autonomy, environmental mastery, and personal growth among participants who underwent MBCT (Aghili et al., 2023; Salas-Picón & Avendaño-Prieto, 2021). These components are core markers of eudaimonic well-being, suggesting that MBCT not only reduces negative affect but also strengthens deeper existential and identity-related dimensions of mental health. The improvements in positive relations with others corroborate findings from studies on caregivers and individuals undergoing stressful caregiving roles, wherein mindfulness contributed to greater emotional acceptance, empathy, and interpersonal functioning (Kozlov et al., 2022; Zahhtab & Tabatabaei Nejad, 2022). Enhanced purpose in life and self-acceptance observed in this study align with research showing that mindfulness promotes acceptance-oriented emotion regulation strategies, allowing individuals to approach challenges with greater clarity and intentionality (Shokri et al., 2024; Yong et al., 2020). Taken together, these improvements reflect the broad impact of MBCT on both cognitive and emotional domains, supporting its use for employees in high-pressure environments.

The study also found meaningful improvements in quality of life among the employees who received MBCT, consistent with research showing that mindfulness practices help individuals navigate occupational stress more effectively. Previous studies with populations experiencing complex emotional and environmental stressors have shown that mindfulness increases perceived environmental support, social functioning, and overall life satisfaction (Ameri & Najafi, 2024; Rad, 2024). These findings correspond closely with the improved social relationships and environmental quality-of-life components observed in this study. The enhancement in psychological quality of life reflects similar results from studies that documented reductions in internalized stigma, depressive symptoms, and shame following MBCT interventions (Ameri & Najafi, 2024; Jan'alipour Amrei et al., 2024). Improvements in physical and environmental quality-of-life scores may also reflect the indirect benefits of mindfulness, including increased awareness of health behaviors and greater cognitive-emotional stability, which can reduce psychosomatic symptoms and promote better health management (John et al., 2022). Considering that industrial employees often face physically demanding job conditions, the generalization of these benefits across multiple life domains underscores the relevance of MBCT for this demographic.

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The results also align with broader organizational research indicating that psychological resources and coping strategies serve as mediators of occupational well-being and performance. The improvements in psychological well-being and quality of life observed here correspond with findings that mindfulness is negatively associated with workplace anxiety and depression and positively associated with job performance and engagement (Kundi et al., 2022; Saberfarzam et al., 2022). Enhancing employees' internal psychological resources through MBCT can therefore be understood not only as a mental health intervention but also as an organizational performance strategy. Furthermore, research in police and security sectors has shown that mindfulness reduces job stress and enhances emotional regulation, which in turn reduces the risk of depression and burnout (Dehghani Ashkezari et al., 2024; Pasha Sharifi et al., 2023). These contextual parallels reinforce the broader applicability of mindfulness-based interventions in high-demand occupational environments similar to industrial settings.

Another important alignment with previous studies is the significant improvement observed in resilience-related constructs. Research with grieving individuals, caregivers, and trauma-exposed populations has documented increases in resilience, emotional flexibility, and adaptive coping following MBCT (Rad, 2024; Shakibaei & Gheyoumi, 2022; Zahhtab & Tabatabaei Nejad, 2022). Although resilience was not directly measured in this study, the improved psychological well-being indicators—particularly purpose in life, autonomy, and personal growth—are established correlates of resilience and therefore suggest that employees may have developed stronger coping resources during the intervention. Improvements in social relationship quality also echo the findings of studies demonstrating that mindfulness fosters empathy, reduces interpersonal conflict, and increases prosocial behavior (Avsar & Gündüz, 2021; Haller et al., 2022). These relational gains are particularly meaningful for industrial employees, who often work in team-based or hierarchical structures where interpersonal dynamics significantly influence productivity and job satisfaction.

The findings also echo research showing that MBCT can be effective for individuals with diverse psychosocial challenges—including substance use disorders, menopause-related distress, and chronic medical conditions—suggesting that MBCT has transdiagnostic applicability (Ameri & Najafi, 2024; John et al., 2022; Shakibaei & Gheyoumi, 2022). The fact that MBCT produced improvements within a healthy but occupationally stressed population reinforces the view that mindfulness-based interventions function not only as treatments but also as preventive mental health strategies (Strauss et al., 2021; Suh et al., 2021). Moreover, the effect sizes observed in this study correspond with those reported in structural and experimental research showing that integrated psychological interventions—such as time-perspective therapy and schema therapy—yield improvements in quality of life and well-being through cognitive restructuring and emotional processing (Hemati et al., 2025; Mahmoudinejad et al., 2025). These parallels highlight that interventions targeting cognitive-emotional integration—whether through schema work, mindfulness, or time-oriented therapy—share overlapping mechanisms of change.

In summary, the results of the current study significantly align with a substantial body of empirical evidence indicating that mindfulness-based cognitive therapy enhances quality of life and psychological well-being across varied populations. The significant improvements observed in employees of industrial companies reinforce the applicability and value of MBCT in occupational health settings and respond to the need for empirically validated interventions addressing the psychological demands of industrial work. As industries continue to evolve and job stressors intensify, MBCT offers a structured and evidence-based means of promoting mental health, adaptive functioning, and overall quality of life among employees.

The present study is not without limitations. The most significant limitation is the relatively small sample size, which may restrict the generalizability of the findings to larger industrial populations. The use of convenience sampling may also limit representativeness, as participants who volunteered may already have been more motivated to improve their well-being. Additionally, the study relied exclusively on self-report measures, which may be influenced by response bias and social desirability. The absence of long-term follow-up assessments prevents conclusions about the sustainability of the observed improvements over time. Finally, the study was conducted in a single city and organizational context, which may limit the broader applicability of the results to different industrial or cultural settings.

Future research should aim to include larger and more diverse samples across multiple industrial settings to enhance external validity. Longitudinal designs incorporating follow-up assessments would help determine the durability of MBCT's effects and examine whether

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booster sessions are necessary to maintain gains. Future studies may benefit from incorporating physiological or behavioral measures alongside self-report instruments to obtain a more comprehensive understanding of psychological change processes. It would also be valuable to compare MBCT with other established interventions—such as acceptance and commitment therapy, resilience training, or organizational support programs—to identify the most effective approaches for different employee groups. Finally, research exploring potential mediators and moderators, such as mindfulness skills acquisition, job demands, or personality traits, would deepen understanding of how and for whom MBCT is most beneficial.

From a practical standpoint, the findings suggest that MBCT can be implemented as a cost-effective, scalable, and evidence-based intervention to enhance psychological well-being and quality of life among employees in industrial settings. Organizations may consider integrating MBCT programs into employee assistance services, workplace wellness initiatives, or skills-training workshops. Providing dedicated time and supportive environments for mindfulness practice may enhance employees' coping capacities, reduce stress-related absenteeism, and promote healthier interpersonal dynamics in the workplace. Training organizational leaders and supervisors in fundamental mindfulness principles may also foster a more supportive and psychologically safe organizational culture. Overall, incorporating mindfulness-based interventions into industrial workplace health strategies can contribute meaningfully to both individual well-being and organizational performance.

Authors' Contributions

All authors significantly contributed to this study.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

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Declaration of Interest

The authors report no conflict of interest.

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Ethical Considerations

In this study, to observe ethical considerations, participants were informed about the goals and importance of the research before the start of the study and participated in the research with informed consent.

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