



# Transforming managers with mindfulness-based training: a journey towards humanistic management principles

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## Abstract

This study examines the transformative impact of a 6-week mindfulness-based training program on managers within the framework of humanistic management principles. Implemented as a randomized controlled trial (RCT), the research involved 97 managers from the R&D department of a technology development company in Türkiye. Participants were allocated to either an intervention group ( $N=47$ ) or a waitlist control group ( $N=50$ ), with assessments conducted at three time points: pre-test, post-test, and a 16-week follow-up. The findings reveal significant improvements in empathy, mindfulness, and wisdom among managers who completed the program, compared to those who did not. While the impact on inclusive leadership was less pronounced, the results indicate potential benefits for organizational culture as a whole. This study provides empirical evidence supporting the efficacy of mindfulness-based interventions in fostering key elements of humanistic management—such as empathy, mindfulness, and wisdom—and underscores their broader implications for cultivating a more humanistically oriented workplace.

**Keywords** Workplace mindfulness · Mindful leadership · Mindfulness training · Humanistic management · Randomised control trial

## Introduction

In the context of humanistic management, which prioritizes people and human factors in leadership (Melé, 2016), this study explores the transformative impact of a mindfulness-based training program on essential managerial qualities. Humanistic management, distinct from traditional approaches focused primarily on outcomes, emphasizes the well-being and dignity of each employee (Dierksmeier, 2016; Schlag & Melé, 2020). Unlike economism, which seeks to maximize financial returns, humanistic management aims for a balanced approach that values thoughtful judgment and a commitment to ethical considerations,

extending beyond financial metrics alone (Laszlo, 2019). Responding to the growing recognition that business models centered exclusively on financial value are unsustainable (Domingo & Melé, 2022), this study proposes mindfulness as a pathway to fostering a more human-centered management approach.

Mindfulness, known for fostering inner awareness and an understanding of interconnectedness (Senker et al., 2020), may play a central role in this transformation toward humanistic management. Our study, conducted within the unique cultural context of Türkiye, integrates cultural dimensions such as power distance and collectivism to provide a comprehensive understanding of how humanistic management principles are adopted.

Given the growing diversity and complexity in today's workplaces, qualities like inclusive leadership, empathy, mindfulness, and wisdom can be considered as essential humanistic attitudes. In Türkiye, where hierarchical and collectivist values significantly shape workplace dynamics (Hofstede, 2011), fostering these qualities through mindfulness-based interventions may present unique challenges. For instance, Türkiye's high power distance (Yahyagil & Otken, 2011) could influence openness to practices that prioritize

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inclusion, as these principles sometimes contrast with traditional leadership expectations. By situating our study within this cultural milieu, we aim to offer insights into how cultural factors influence the acceptance and effectiveness of human-centered approaches to leadership, thereby enriching the theoretical foundation of humanistic management.

Inclusive leadership, which involves actively valuing diverse perspectives, is crucial in fostering a culture where all employees feel respected and engaged, directly enhancing collaboration and innovation (Randel et al., 2018). Empathy contributes to effective leadership by enabling managers to understand and respond to employees' unique needs and concerns, fostering trust and support within teams (Goleman, 2004). Mindfulness enhances leaders' self-awareness and capacity to remain present and balanced under pressure, which are vital for responsive and ethical decision-making (Feruglio et al., 2023; Ruedy & Schweitzer, 2010). Wisdom, meanwhile, reflects a capacity for deep, ethical judgment that considers both short- and long-term impacts, supporting leaders in navigating complex, unpredictable environments (Verhaeghen, 2020).

While there is growing recognition of mindfulness's potential to support these qualities, mindfulness alone may not fully enable inclusive leadership, empathy and wisdom. Although mindfulness is known to reduce stress, increase self-regulation, and foster awareness, other developmental efforts may be necessary to cultivate deeper interpersonal skills like empathy or ethical discernment. For example, mindfulness alone may not address the systemic biases that inclusive leadership seeks to overcome or provide the ethical frameworks needed for wisdom-based decisions (Chen & Jordan, 2020). Addressing this gap, our study explores why a holistic approach to cultivating inclusive leadership and other humanistic qualities is essential for modern organizations facing increasing diversity and complexity, and how mindfulness, as a foundational tool, can support this holistic development alongside other targeted interventions.

This research presents a mindfulness-based training program designed to enhance inclusive leadership, empathy, mindfulness and wisdom, recognizing that the integration of these qualities can foster a more humanistic workplace. While literature highlights the positive effects of mindfulness on individual well-being, stress reduction, and leadership skills (Shapiro et al., 2012; Pirson, 2019; Urrila, 2022), previous studies rarely examine these specific elements together in a single intervention. Combining these qualities can create a transformative force to strengthen workplace culture and support diversity, equality, and inclusion. Rather than representing isolated traits, these qualities reflect dynamic states and conscious attitudes that can lead to holistic personal growth and transformative leadership (Zheng et al., 2023). Training managers in these aspects aligns with

the broader objective of creating humanistic workplaces. As leaders adopt these values, organizations shift toward a sustainable, human-centered approach to management (Town et al., 2024). This comprehensive approach differentiates our research and contributes novel insights to the field of humanistic management.

Although humanistic principles have been explored in terms of organizational values (Zheng et al., 2022), this study specifically addresses how a mindfulness-based program can practically implement these principles. Our aim is to provide actionable insights for organizations seeking to develop a humanistic workplace culture. The intervention developed within this study serves as an effective tool within corporate development programs, with findings intended to inform organizational practices. Through this research, we seek to promote a more holistic and human-centered approach to leadership, enhancing overall workplace well-being and sustainability.

## Theoretical framework

Mindfulness, rooted in the deliberate and non-judgmental observation of the present moment, has increasingly found its place in organizational settings since its development by Jon Kabat-Zinn in the 1980s through the Mindfulness-Based Stress Reduction (MBSR) program. This secular practice not only enhances mental and physical health but also strengthens relationships and boosts productivity (Kay & Skarlicki, 2020; Barcaccia et al., 2024). Mindfulness has been consistently linked to the cultivation of healthier, more productive employees (Kroon et al., 2017), positioning it as a crucial strategy for leadership development (Reb et al., 2015; Sanyal & Rigg, 2021; Wibowo & Paramita, 2022). Mindful leadership—characterized by reduced emotional exhaustion, stress, and burnout—aligns closely with humanistic management principles, which prioritize the intrinsic value of individuals and promote well-being and dignity in the workplace (Pirson, 2019). Goldman Schuyler et al. (2021) introduced the concept of generative mindfulness, highlighting its potential to foster inclusivity in the workplace by promoting ethically grounded practices. This ground-breaking paradigm shift towards mindful practices rooted in creative, ethical, and emotional learning is essential for advancing humanistic management. When such practices are integrated into leadership training, they have the transformative potential to reshape organizational culture, encouraging leaders to adopt a more holistic, human-centered approach (Waddock, 2016). Building on this foundation, our study explores the potential of a mindfulness-based training program to enhance humanistic management principles. Humanistic management theory emphasizes

leadership that goes beyond economic outcomes, fostering environments where employees can truly thrive (Schlag & Melé, 2020). Our training program is designed around four key pillars: inclusive leadership, empathy, mindfulness and wisdom—each of which plays a critical role in shaping a humanistic workplace.

*Inclusive Leadership* is the cornerstone of humanistic management, fostering a culture of diversity, equity, and inclusion. Leaders who embody inclusivity are not only aware of their own leadership style but also actively work to ensure that decision-making processes are free from biases and open to diverse perspectives (Fagan et al., 2022). This inclusive approach enhances employee participation and well-being, creating a supportive work environment (Fujimoto & Uddin, 2021; Khan et al., 2024). Our training program integrates theoretical discussions and practical applications to cultivate these skills, covering topics like unconscious bias and workplace discrimination (See Table 1). Crucially, inclusive leadership does not exist in isolation—it is deeply connected to the other pillars. Empathy, for example, is essential for inclusive leaders, enabling them to genuinely understand and connect with the emotions and experiences of their team members (Nakamura & Milner, 2023). Mindfulness further enhances this by helping leaders remain present and open during interactions, fostering trust and communication (Doornich et al., 2024).

*Empathy* is another pillar essential to humanistic management, allowing leaders to connect with their employees on a deeper emotional level (Caggiano et al., 2024). This connection fosters trust, mutual respect, and a culture of support within organizations (Clark et al., 2019). Empathy, however, is not merely about understanding others—it is also about being fully present in the moment, a skill that mindfulness cultivates. Mindful practices increase awareness and emotional intelligence, creating the cognitive space necessary for empathy to flourish (Yavuz Sercekman, 2023). By integrating empathy with mindfulness, leaders can better understand their employees' needs and foster a more inclusive and supportive workplace. This interconnection reinforces the humanistic approach, where the well-being of individuals is paramount (Cheang et al., 2019).

*Mindfulness* itself serves as the foundation upon which the other pillars rest. Mindfulness is more than a practice—it is a way of being that promotes acceptance, compassion, and non-judgment (Kabat-Zinn, 2013). By integrating mindfulness into daily routines, managers and leaders can foster a work environment that is calm, focused, and resilient (Tan et al., 2023; Zhou et al., 2023). Furthermore, mindfulness can enhance both empathy and inclusive leadership by cultivating awareness and reducing impulsive reactions, which are critical for making thoughtful and fair decisions. Studies have shown that mindful leaders are better equipped

**Table 1** Theoretical and practical content of the training

	Key theme	Theory	Practices	Weekly homework
1	Mindfulness	Introduction to mindfulness; Workplace mindfulness; Stress triggers	Breath awareness (5 min); Body scan (25 min); Mindful eating (10 min)	Body scan (guided); Journaling; Informal mindfulness practice
2	Mindfulness	Polyvagal theory; Nervous system; Stress responses	Breath awareness (5 min); Focused attention (20 min); Perception exercises (10 min); Mindful movement (5 min)	Sitting meditation (guided); Journaling; Informal mindfulness practice
3	Emotional Intelligence	Self-awareness; Self-regulation; Self-leadership; Motivation	Breath awareness (5 min); What makes me come alive? (guided meditation-15 min); Mindful walking (10 min); Exploring yourself as a leader (guided meditation-15 min)	Sounds and thoughts meditation (guided); Journaling; Informal mindfulness practice
4	Insight	Empathy; Wisdom; Mindful communication; Navigating difficult conversations	Breath awareness (5 min); Awareness of people just like you (guided meditation-15 min); Mindful listening in pairs (15 min); Cultivating society and protecting the Earth (10 min)	Inner wisdom meditation (guided); Metta meditation (guided); Journaling
5	Compassion	Common humanity & suffering; Self-compassion; Self-esteem; Kindness	Giving yourself compassion for a difficult situation (10 min); In depth practice for self-compassion (20 min); Writing a compassionate letter (15 min)	Gratitude meditation (guided); Self-compassion breaks; Self-esteem homework; Journaling
6	Inclusive Leadership	Diversity, Equality & Inclusion; Discrimination & microaggression in the workplace; Understanding categorisation and unconscious bias	Becoming motivated (5 min); Setting goals and accomplishing them (15 min); Mountain exercise-expressive arts (25 min); Tong-Len meditation (15 min)	Continue with any formal and informal exercises they wish

to handle stress, make ethical decisions, and foster innovation (Reitz et al., 2020; Carleton et al., 2018; Small & Lew, 2021). Previous studies, including research by Lange and Rowold (2019) on the impact of a mindfulness-based leadership development program, and investigations by Rupprecht et al. (2019) Nübold et al. (2020) on mindfulness-based interventions, have explored the influence of these practices on leaders' mindfulness levels and mindful leadership outcomes. Despite this, limited research delves into the effects of a second-wave mindfulness-based intervention on managers' mindfulness levels (Van Gordon & Shonin, 2020). According to Van Gordon et al. (2015), second-generation mindfulness-based interventions typically meet most or all of the following criteria that distinguish them from first-generation mindfulness-based interventions: (i) being manifestly psycho-spiritual or spiritual in nature; (ii) using a wide variety of (typically secularized) meditative techniques; (iii) emphasizing ethics as a core component of the taught curriculum; and (iv) using an instructor training program.

*Wisdom*, the fourth pillar, represents the culmination of the other three concepts. Wisdom in leadership involves making decisions that are not only effective but also ethical, considering the broader implications for individuals, teams, and the organization as a whole (Rooney et al., 2021; King et al., 2022). Wise leaders may use mindfulness to navigate complex situations with clarity, empathy to understand the human impact of their decisions, and inclusive leadership to ensure all voices are heard (Urrila & Mäkelä, 2024). This integration of wisdom with the other pillars creates a balanced, ethical, and human-centered approach to leadership. In the context of humanistic management, wisdom allows leaders to foster trust, transparency, and long-term sustainability (Intezari & Pauleen, 2018). By embedding wisdom in our training program, we aim to create leaders who not only excel in their roles but also contribute to a thriving organizational culture.

Through this interconnected framework, our study aims to demonstrate how mindfulness-based training can significantly enhance the core principles of humanistic management. By focusing on inclusive leadership, empathy, mindfulness, and wisdom, the program equips leaders with the skills necessary to create a workplace culture that prioritizes human well-being and ethical decision-making, ultimately contributing to the success and sustainability of the organization.

## Methods

### Design and procedure

This study was designed as a randomized controlled trial (RCT) to evaluate the effects of a mindfulness-based training program on several managerial qualities. The program announcement was disseminated via the company's intra-email system by the Human Resources Training and Planning Directorate. Employees interested in participating accessed a Google Forms application, where they were informed about the nature of the program and the importance of home practices such as meditation, movement exercises, and keeping a daily activities diary. The application emphasized that daily commitment to 25–45 min of home practice over the six-week program was essential for achieving optimal outcomes.

Several inclusion criteria were established to ensure the relevance and effectiveness of the intervention. These criteria included: (a) no prior participation in mindfulness training, (b) no regular yoga or meditation practice, (c) no psychotherapy support within the past year, (d) no treatment for clinical mental health issues such as post-traumatic stress disorder, grief, suicidal thoughts, depression, or substance abuse in the past year, (e) no life-threatening physiological diseases in the past two years, and (f) a minimum of three years in a managerial position. These criteria were crucial in selecting a sample that would benefit most from the intervention and ensure the applicability of the findings to managerial contexts.

Initially, 127 participants applied for the program. After evaluating the applications based on the inclusion criteria, 112 participants were randomly assigned to either the intervention group or the waitlist control group (See Fig. 1). The experimental (intervention) group attended an orientation meeting before the program started, while the control (waitlist) group was placed on a waiting list with no intervention. The study employed a pre-test-posttest control group design, with self-report questionnaires administered at three time points: one week before the program's commencement (T1), upon completion of the program (T2), and 16 weeks after the program (T3). Following the completion of all evaluation phases, the training was also offered to the waitlist group, ensuring that all participants eventually benefited from the program.

### Participants

The sample consisted of 112 managers and leaders from the R&D and Innovation department of a company providing technology development services in the defence industry in Türkiye. The focus on managers and leaders, rather than

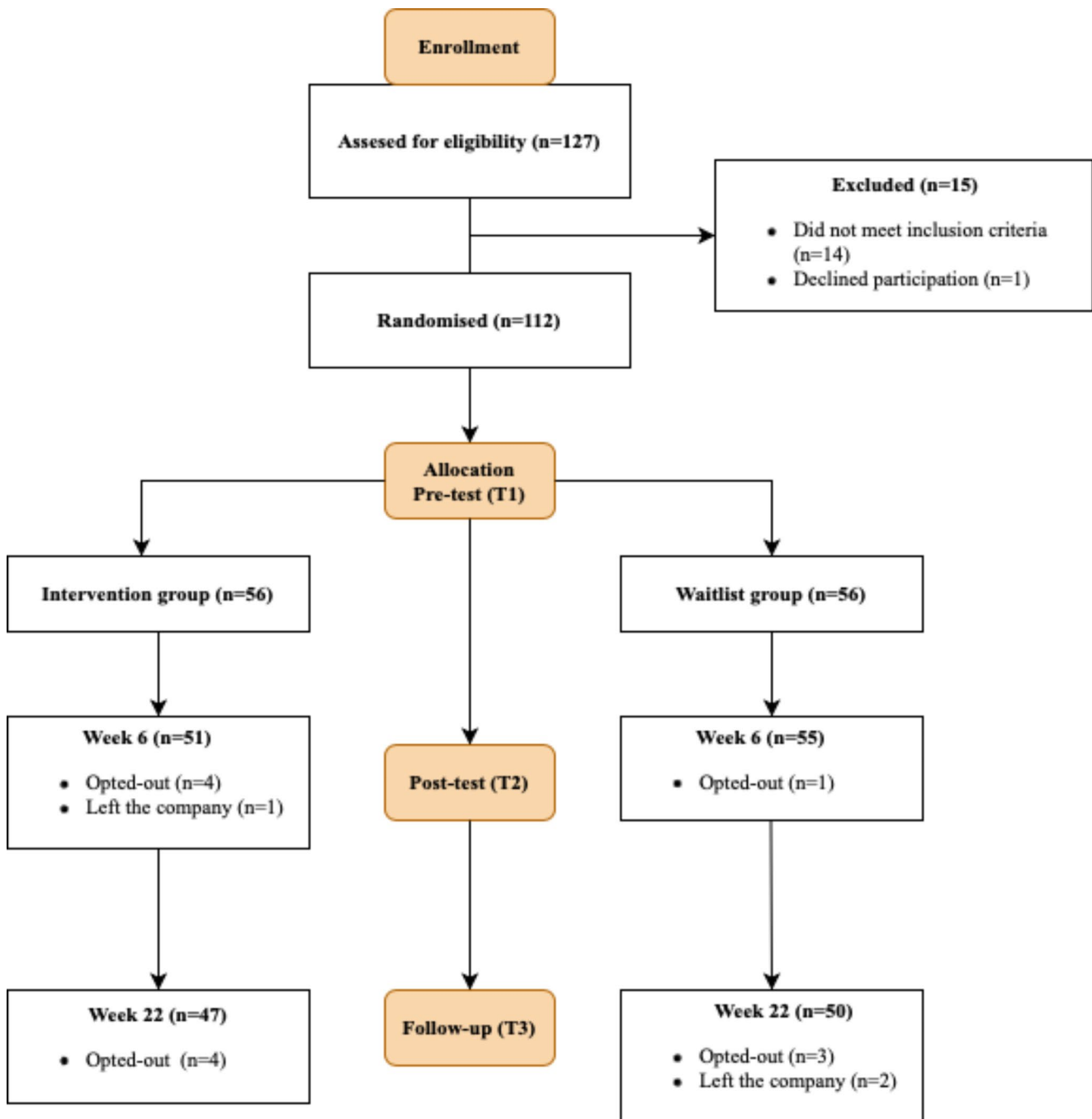


Fig. 1 Participant flow diagram

general employees, was intentional, reflecting the study's goal of enhancing leadership capabilities directly tied to humanistic management principles. The sample was predominantly female (75.9%), with participants categorized into three age groups: 19.5% were 30 years and below, 61.1% were aged 31–38, and 19.4% were above 39 years. In terms of marital status, 41.6% were single, and 58.4% were married. Regarding managerial tenure, 33.3% had been in their positions for 2–5 years, 38.5% for 6–10 years,

and 28.2% for more than 10 years. This demographic profile ensured that the sample included individuals with sufficient managerial experience to appreciate and benefit from the advanced concepts introduced in the training program.

## Measures

*Inclusive Leadership* was assessed using the 9-item Inclusive Leadership Questionnaire (Carmeli et al., 2010). In the

original study, employees completed the questionnaire about their managers. In this study, the items were rephrased into the first person (“I language”) to measure participants’ self-perceptions of inclusive leadership. Participants rated their openness, availability, and accessibility to subordinates on a 5-point scale (1 = not at all to 5 = a large extent). Cronbach’s alpha values were 0.86 (T1), 0.89 (T2), and 0.77 (T3).

*Empathy* was measured using the 16-item Toronto Empathy Questionnaire (Spreng et al., 2009). Participants rated their agreement with the items on a 5-point scale (0 = rarely to 4 = always). Cronbach’s alpha values were 0.75 (T1), 0.76 (T2), and 0.80 (T3).

*Mindfulness* was assessed with the 39-item Five Facet Mindfulness Questionnaire (Baer et al., 2008), covering five subscales: observe, describe, act with awareness, non-judging of inner experience, and non-reactivity to inner experience. Participants rated their agreement on a 5-point scale (1 = rarely true to 5 = always true). Cronbach’s alpha values were 0.92 (T1), 0.90 (T2), and 0.92 (T3).

*Wisdom* was measured using the 39-item Three-Dimensional Wisdom Scale (3D-WS) (Ardelt, 2003), which includes 14 items for the cognitive component, 12 for the reflective component, and 13 for the affective component. Participants rated their agreement on a 5-point scale (1 = strongly agree to 5 = strongly disagree; for some items 1 = definitely true of myself to 5 = not true of myself). Cronbach’s alpha values were 0.77 (T1), 0.81 (T2), and 0.82 (T3).

## Intervention

The intervention consisted of a structured six-week program, with weekly 2.5-hour sessions designed to balance mindfulness practices, theoretical learning, and participant feedback. This comprehensive approach aimed to enhance leadership qualities aligned with humanistic management principles. Each session included guided mindfulness exercises, discussions on the theoretical underpinnings of mindfulness and leadership, and opportunities for participants to share their experiences and insights. The content was carefully curated to align with the study’s aim and to equip participants with the tools necessary to apply these concepts in their professional roles.

Table 1 provides a detailed overview of the theoretical and practical content covered in each session. Topics included understanding the foundations of mindfulness, exploring the role of empathy in leadership, developing inclusive leadership skills, and cultivating wisdom for ethical decision-making. The program integrated practices of connectivity, mindfulness, and compassion, drawing from both Eastern and Western traditions to calm the mind and broaden consciousness. These practices included meditation, journaling,

outdoor walking, arts and aesthetics, and physical activity. The randomized controlled study employed both formal practices, such as body scan meditation, breath awareness, imagination exercises, and compassionate meditations, and informal practices, such as mindful eating, journaling, mindful listening, and mindful walking. Additionally, an expressive arts-based practice was incorporated.

Daily home practice was a crucial component of the program, designed to reinforce the concepts and skills introduced during the sessions. Participants were provided with a program handbook, six meditation audio recordings, and a diary template to document their daily practice. This daily practice, ranging from 25 to 45 min, included activities such as meditation, mindful movement, and reflective journaling. These practices were intended to cultivate a deeper sense of self-awareness, emotional regulation, and empathy, which are vital for effective leadership.

An orientation meeting was held one week prior to the start of the program to familiarize participants with the structure and expectations. During this meeting, the importance of consistency in daily practice was emphasized, and participants were encouraged to commit fully to the program to maximize its benefits. The orientation also provided an opportunity for participants to ask questions and clarify any concerns.

The program was designed and facilitated by a practitioner with extensive experience in corporate training and mindfulness-based interventions. Accredited as a Mindfulness-Based Stress Reduction (MBSR) teacher since 2019, the practitioner holds postgraduate degrees in psychology of work and management and has completed additional training in mindfulness, compassion-based practices, and yoga. This expertise ensured that the program was delivered with a high level of competency and was tailored to meet the specific needs of managers and leaders in a corporate setting.

## Statistical analysis

The data analysis began with assessing the normality of the variables using the Kolmogorov-Smirnov test. Reliability was measured through Cronbach’s alpha, composite reliability, and average variance extracted, all within a 95% confidence interval. To compare pre-test scores (T1) between the intervention and control groups, a Multivariate Analysis of Variance (MANOVA) was employed. Descriptive analyses and Repeated-Measures Analysis of Variance (ANOVA) were then conducted to evaluate the program’s impact on the pre-test scores. A Multivariate Analysis of Covariance (MANCOVA) was used to detect significant differences in changes between the intervention and control groups. Post-test scores (T2) were analyzed using ANCOVAs with pre-test scores as covariates. For the follow-up

evaluation (T3), a MANCOVA was conducted on the entire set of study variables, followed by ANCOVAs to analyze the follow-up scores. Effect sizes ( $\mu^2$ ) were calculated using partial eta-squared and categorized according to the ranges suggested by Tabachnick et al. (2013): negligible (0–0.009), low (0.010–0.089), medium (0.090–0.249), and high (> 0.250).

## Findings

The pre-test (T1) MANOVA results showed no statistically significant differences between the groups before the intervention, with Wilks' Lambda,  $\Lambda=0.625$ ;  $F(6,18)=0.759$ ;  $p=0.721$ , and a low effect size ( $\mu^2=0.018$ ,  $r=0.09$ ). This indicates that the groups were comparable at the outset, ensuring the validity of the comparisons made post-intervention. The ANOVA results in the pre-test phase (see Table 2) also indicated no statistically significant differences in any of the study's dependent variables (all  $p$  values > 0.05).

The pre-test–post-test (T2) MANCOVA results revealed significant differences between the two conditions, with Wilks' lambda,  $\Lambda=1.305$ ;  $F(6,15)=2.954$ ;  $p=0.004$ , and a medium effect size ( $\mu^2=0.213$ ,  $r=0.29$ ). This suggests that the intervention had a meaningful impact on the measured variables. The pre-test follow-up (T3) MANCOVA results after 16 weeks of intervention continued to show significant differences between the two conditions, with Wilks' lambda,  $\Lambda=1.214$ ;  $F(6,11)=3.067$ ;  $p=0.027$ , and an average effect size ( $\mu^2=0.228$ ,  $r=0.22$ ), indicating that the effects of the intervention were sustained over time.

Table 2 shows the changes in the dependent variables across the experimental group (EG) and control group (CG) from the pre-test (T1) to the post-test (T2) and the follow-up test (T3). A slight increase in Inclusive Leadership levels was observed from T1 to T3 in both groups, but this increase was not statistically significant, suggesting that the interventions did not have an immediate or strong impact on Inclusive Leadership. In contrast, Empathy levels showed a significant increase from T1 to T2 in the EG, with a low effect size ( $\mu^2=0.067$ ). This increase was maintained at T3 with a medium effect size ( $\mu^2=0.091$ ), suggesting a lasting impact of the intervention on Empathy.

Mindfulness levels demonstrated a significant increase from T1 to T2 in the EG with a medium effect size ( $\mu^2=0.198$ ), which persisted at T3 with a medium effect size ( $\mu^2=0.134$ ), implying a sustained effect of the intervention on Mindfulness. For Wisdom, a modest increase was observed from T1 to T2 in the EG with a low effect size ( $\mu^2=0.053$ ), while a more pronounced increase was apparent at T3 in the EG with a medium effect size ( $\mu^2=0.196$ ). This indicates that the intervention might have a delayed, yet significant, effect on enhancing Wisdom.

**Table 2** Comparing the intervention to the waitlist control group on inclusive leadership, empathy, mindfulness, and wisdom

	Pre-test (T1)		Post-test (T2)		Follow-up (T3)		F	p	$\mu^2$						
	EG	CG	EG	CG	EG	CG									
	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)	M(SD)									
Incl. Leadership	8.96(2.53)	8.82(2.68)	0.315	0.823	0.002	9.06(2.62)	8.84(2.58)	0.574	0.148	0.016	9.69(2.10)	8.79(2.71)	0.389	0.061	0.013
Empathy	30.64(6.14)	29.92(6.35)	1.023	0.324	0.004	32.51(5.79)	29.94(6.98)	1.842	0.026	0.067	33.09(5.95)	29.89(7.04)	2.142	0.003	0.091
Mindfulness	40.49(7.07)	41.12(7.11)	0.862	0.171	0.008	46.19(5.98)	40.93(6.63)	1.662	0.021	0.198	44.12(6.01)	41.76(7.01)	1.245	0.002	0.134
Wisdom	18.51(4.80)	17.20(4.95)	2.164	0.457	0.001	19.18(4.80)	17.65(4.91)	2.271	0.037	0.053	21.17(3.98)	17.54(4.87)	2.118	0.007	0.196

EG experimental group; CG control group; M means; SD standard deviation;  $\mu^2$ , eta squared effect size



**Fig. 2** Comparison of all scores by group and time. EG, experimental group; CG, control group

### Discussion

The results of our study highlight the complex nature of leadership development and the varying impacts of mindfulness-based interventions on different leadership traits. The 6-week training program was successful in enhancing levels of empathy, mindfulness and wisdom among managers, yet it did not significantly impact inclusive leadership (see Fig. 2). Understanding the reasons behind these outcomes is crucial for both refining future interventions and

advancing the field of humanistic management. The modest impact on inclusive leadership may be attributed to several factors. First, inclusive leadership is not solely a function of individual characteristics; it is deeply embedded in organizational culture and practices. A 6-week program, although intensive, might not be sufficient to induce significant changes in a construct that requires sustained organizational support and reinforcement. Additionally, the cultural context in which the training was delivered could have influenced the outcomes. In Turkiye, where this study was conducted,

certain cultural norms may not prioritize inclusivity to the same extent as other leadership qualities. This could result in a slower or more resistant adoption of inclusive leadership practices, even with dedicated training. Furthermore, the concept of inclusive leadership might be relatively new in some organizational or cultural contexts, including Türkiye. As such, participants may need more time to fully understand and integrate the principles of inclusive leadership into their managerial practices. Comparatively, a study conducted in Hong Kong, a region with cultural similarities to Türkiye in terms of individualism, power distance, and achievement orientation, found that mindfulness levels and inclusive leadership significantly affected job performance among teachers (Hong & Zainal, 2024). The differences between this study and the one conducted in Türkiye could be due to variations in the professional roles of the participants, as well as differences in organizational culture and societal values. Teachers in Hong Kong might experience a stronger link between mindfulness and inclusive leadership due to the nature of their work, which inherently involves nurturing and inclusive behaviors.

Based on our findings, the most significant improvement was observed in mindfulness scores, followed by increases in empathy and wisdom scores. The pronounced enhancement in mindfulness is likely attributable to the strong emphasis on both theoretical and practical applications within the program. Given that the training was specifically designed to cultivate mindfulness, it is reasonable to expect a substantial impact in this area. Although there were also gains in empathy and wisdom, these improvements were somewhat less pronounced than anticipated. While the theoretical foundation provided by the program appears adequate for understanding these constructs, it suggests that additional practical applications could further enhance these outcomes.

The results align with previous studies that have demonstrated the effectiveness of mindfulness interventions in fostering empathy (Garrote-Caparrós et al., 2023; Ridderinkhof et al., 2017). However, it is important to note that much of the existing research has been conducted outside the workplace context. Our study contributes to the literature by confirming the positive relationship between mindfulness and empathy within a corporate environment, specifically among white-collar workers. Additionally, to the best of our knowledge, this is the first study to establish a connection between mindfulness-based interventions and the enhancement of wisdom among employees, adding a novel dimension to the field. The inclusion of wisdom-related content as part of the ethical component of the training was particularly encouraging, as it suggests the potential of mindfulness interventions to enhance not only empathy but also wisdom in the workplace. This finding may significantly contribute

to the broader field of humanistic management by demonstrating the applicability of mindfulness interventions in promoting ethical and wise decision-making among leaders (Akca et al., 2021). Further supporting this notion, Verhaeghen and Aikman (2020) identified a significant correlation between mindfulness and ethical sensitivity, indicating that mindfulness can influence an individual's capacity for ethical decision-making within an organization. Shapiro et al. (2012) also emphasized the role of mindfulness as a critical element in the ethical decision-making process, which can enhance the overall ethical climate within an organization, as evidenced by Valentine et al. (2010). In a more recent study, Orazi et al. (2021) highlighted that mindfulness-based interventions can promote ethical behaviors, such as choosing fair-trade products, engaging in charitable activities, and volunteering. These findings underscore the importance of further experimental research on the role of mindfulness in ethical decision-making and its broader implications for organizational behavior.

In conclusion, our study provides valuable insights into the potential of mindfulness interventions to foster key leadership qualities, such as empathy and wisdom, within the workplace. By demonstrating these effects, the study contributes to the growing body of literature on humanistic management and underscores the importance of integrating mindfulness practices into leadership development programs.

### Practical implications

The findings of this study provide several important practical implications for organizations aiming to foster humanistic management principles through leadership training. The significant improvements observed in empathy, mindfulness and wisdom among managers and leaders suggest that mindfulness-based interventions can be powerful tools for cultivating these essential leadership qualities. By integrating such interventions into leadership development programs, organizations can nurture a management approach that is not only empathetic, mindful, and wise but also capable of creating a more supportive, inclusive, and ethically driven workplace culture.

To ensure the long-term sustainability of these benefits, organizations should consider embedding mindfulness practices into daily routines and organizational culture. For example, regular mindfulness workshops, weekly reflection sessions, or on-demand digital mindfulness resources could support continuous engagement. These sustained practices allow leaders to deepen their commitment to mindfulness over time, creating a lasting impact that goes beyond initial training sessions.

However, the lack of significant improvement in inclusive leadership highlights the complexity of this particular quality and suggests that it may require a more targeted and sustained approach. Inclusive leadership is not solely an individual attribute; it involves broader organizational practices that promote diversity, equity, and inclusion. Brief training programs, even those as intensive as our six-week intervention, may not be sufficient to bring about significant changes in inclusive leadership behaviors. To address this, organizations might need to integrate additional support mechanisms, such as ongoing coaching, mentoring, and comprehensive diversity and inclusion initiatives. For example, creating peer-group discussions on inclusivity or scheduling quarterly reviews on inclusive practices could reinforce these principles over time. Policy changes that emphasize inclusivity at all levels are also essential to support the transformation of inclusive leadership from an individual practice into a core organizational value.

When designing leadership training interventions, it is crucial to consider individual characteristics such as demographics, personality traits, and cultural background. These factors can significantly influence perceptions of what is ethical, humanistic, and inclusive, and they play an important role in the development of mindful leadership. To address these variations, organizations could conduct preliminary cultural sensitivity assessments or provide optional modules tailored to leaders in diverse cultural environments. Such tailored approaches ensure that mindfulness and inclusive leadership training are more relevant and effective across different organizational contexts.

In addition to tailoring training programs, it is vital that these programs are grounded in a robust theoretical framework. A strong foundation ensures that interventions are based on sound principles and are more likely to achieve desired outcomes. Leadership development should be viewed as a continuous journey rather than a one-time event. Single-session or one-off training activities may not provide the depth or continuity needed to achieve lasting change. Continuous learning opportunities, coupled with regular reflection and practice, are essential for embedding the principles of mindful and inclusive leadership into daily management practices. Organizations might consider creating “mindfulness ambassador” programs, where trained leaders mentor peers in mindfulness practices, fostering a supportive environment for ongoing development.

In conclusion, the practical implications of this study underscore the need for a holistic approach to leadership development. Such an approach should recognize the complexity of leadership traits and account for cultural context, sustainability, and continuous development. By adopting a comprehensive strategy that includes ongoing support, cultural adaptation, and a solid theoretical base, organizations

can better equip their leaders to embody humanistic management principles. This, in turn, can lead to more ethical, inclusive, and effective leadership, ultimately benefiting the entire organization.

### Limitations and future research suggestions

The sample size of 47 participants in the intervention group and 50 in the waitlist group at the follow-up phase may be considered small ( $N=97$ ) compared to non-experimental studies, which typically involve several hundred employees completing surveys. However, randomized experiments are rare in organizational research, making our study unique compared to the numerous non-experimental designs (e.g., cross-sectional surveys) that rely on complex statistical controls to account for confounding variables and establish relationships. Despite the smaller sample size, the training’s effectiveness observed in this study can be further examined in different cultural and organizational contexts with larger samples to assess its replicability and generalizability.

In this study, we hypothesized that the variables of inclusive leadership, empathy, mindfulness and wisdom could represent key elements of humanistic management principles. While the observed increases in these variables suggest a potential rise in humanistic management traits and attitudes, we acknowledge that these variables alone may not fully capture the breadth of humanistic management. A more comprehensive model that encompasses all relevant aspects of humanistic management and mindfulness could be developed by expanding the theoretical framework. To achieve this, future research should be supported by qualitative studies and a more systematic literature review.

A significant limitation is the short-term nature of the intervention, which was conducted over six weeks. While positive changes were observed, certain leadership qualities—particularly inclusive leadership—may require a longer intervention period to produce more substantial effects. Future research could explore the impact of extended interventions over several months or even a year, with regular follow-up assessments to observe how mindfulness practices evolve and influence leadership qualities over time. This would offer valuable insights into the long-term development and sustainability of inclusive leadership, empathy, mindfulness and wisdom as core humanistic attitudes.

To further support the sustainability of these interventions, future studies could investigate incorporating follow-up sessions or booster programs to reinforce the mindfulness practices and leadership qualities learned. For example, organizations might consider implementing periodic mindfulness workshops or coaching sessions to sustain and deepen participants’ engagement with these practices. Such ongoing support mechanisms could enhance the

intervention's lasting impact on leadership development, promoting a culture of mindfulness and empathy that continues to grow beyond the initial training period.

Additionally, it is important to recognize that certain concepts, such as inclusive leadership, have faced methodological and theoretical critiques. Our reliance on self-reported measures in this study may be seen as a limitation, as these are susceptible to demand effects and potential biases. Future research could address these limitations by incorporating secondary or peer assessments and utilizing objective outcome measures. Moreover, it is possible that some of the medium effects observed in this study were influenced by factors beyond our hypothesized mechanisms. For instance, the waitlist group also showed increases in most variables, which may indicate a testing effect, consistent with findings in the literature on wait-listed participants in intervention studies (Freedland et al., 2011; Cunningham et al., 2013). It has been suggested that the non-negligible treatment effects of waitlist control conditions should be considered when designing and interpreting randomized controlled trials on psychotherapeutic or behavioral interventions (Zhippei et al., 2014).

As discussed earlier, the intervention positively affected empathy, mindfulness and wisdom, though the impact on inclusive leadership was less pronounced. Longer-term studies might allow more time for these principles to be absorbed and integrated effectively. Additionally, future research could explore the intersection of cultural factors and leadership training effectiveness, leading to the development of culturally tailored training programs. A multifaceted approach that combines individual training with broader organizational changes could also be examined to promote inclusive leadership and other humanistic qualities in a holistic manner.

Finally, corporate culture and the degree of readiness for change are crucial factors influencing the success of interventions. As a result, both the effectiveness of the development program and the readiness of participants should be evaluated. Future research should measure the impact of training on behaviors, traits, attitudes, and performance across various organizational and cultural settings. More research is needed to provide comprehensive, practice-based evidence supporting the effectiveness of mindfulness training in the workplace.

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**Data availability** Confidentiality and anonymity were ensured throughout the study, with all data stored securely by the corresponding author and identifiable information removed during the analysis and reporting stages. The data that support the findings of this study are available upon request from the corresponding author. However, they are not publicly available due to company restrictions, as they contain information that could compromise the privacy of company

and research participants.

## Declarations

**Ethical Considerations** This study obtained ethical approval from the Brunel University of London Research Ethics Committee. Informed consent was obtained from all participants prior to their participation in the study. Participants were informed about the nature and purpose of the study, their rights as participants, and the voluntary nature of their participation.

**Conflict of Interest** The authors declare that they have no conflict of interest.

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