

Mindfulness and Health Behavior Change: Insights from Individuals Managing Hypertension

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ABSTRACT

This study aimed to explore the lived experiences of individuals with hypertension who engage in mindfulness practices to understand how mindfulness supports health behavior change. This qualitative study utilized a descriptive phenomenological design to investigate the role of mindfulness in health behavior change among adults diagnosed with hypertension. Sixteen participants (9 females, 7 males) from Canada, all of whom had practiced mindfulness for at least three months, were recruited through purposive sampling. Data were collected through semi-structured interviews focused on participants' experiences with mindfulness in managing hypertension-related behaviors such as stress reduction, medication adherence, diet, and physical activity. Interviews were transcribed verbatim and analyzed thematically using NVivo software. Thematic saturation was reached after the 16th interview. Three main themes emerged from the data: Awareness and Self-Regulation, Motivation and Empowerment, and Lifestyle Integration and Behavior Adaptation. Participants reported enhanced bodily awareness, improved emotional regulation, and reduced reactivity to stress through mindfulness practice. They also described a heightened sense of control and internal motivation to make healthier choices, as well as the successful integration of mindfulness into daily behaviors such as eating, exercising, and medication adherence. Many participants reframed their hypertension as an opportunity for growth and reported improved relationships and communication through mindful connection with others. The findings suggest that mindfulness supports meaningful and sustainable health behavior changes in individuals with hypertension by fostering self-awareness, intrinsic motivation, and daily behavioral adaptation. Integrating mindfulness into hypertension care may enhance patient self-efficacy and support long-term lifestyle management.

Keywords: *Mindfulness, Health Behavior Change, Hypertension, Qualitative Study, Self-Regulation, Motivation, Lifestyle Adaptation*

1. Introduction

Hypertension is a leading chronic condition globally, contributing significantly to cardiovascular morbidity and mortality. Behavioral risk factors such as poor diet, physical inactivity, emotional dysregulation, and non-adherence to treatment protocols are central to its persistence and progression (Irawan et al., 2023). While pharmacological interventions remain a mainstay of treatment, there is growing recognition of the need for complementary behavioral strategies that empower patients to actively manage their condition (Chokshi, 2019). Mindfulness—a mental practice characterized by nonjudgmental awareness of the present moment—has emerged as a promising avenue in this regard (Tang, 2017).

Research indicates that mindfulness not only alleviates psychological distress but also contributes to sustainable health behavior change by enhancing self-regulation and promoting intentional action (Schuman-Olivier et al., 2020). Among individuals living with hypertension, this capacity for increased awareness and control over internal states can be particularly beneficial, given the complex interplay between stress, emotional reactivity, and physiological responses (Torske et al., 2024). By cultivating a mindful orientation, individuals may become more attuned to bodily sensations, stress cues, and behavioral impulses, allowing for more adaptive health choices (Mitchell et al., 2021).

Mindfulness-based interventions have demonstrated significant promise in improving behavioral adherence among patients with chronic illnesses. In a cross-sectional study involving individuals with acute coronary syndrome, mindfulness was found to be positively associated with adherence to health behaviors, with perceived health competence playing a mediating role (Li et al., 2024). Similarly, Irawan et al. (2023) documented reductions in blood pressure and anxiety following the implementation of mindfulness-based cognitive therapy in hypertensive individuals (Irawan et al., 2023). These findings underscore the potential of mindfulness to serve not only as a stress reduction strategy but also as a catalyst for long-term lifestyle change.

The mechanisms through which mindfulness influences health behavior are multifaceted. According to Schuman-Olivier et al. (2020), mindfulness facilitates behavior change by enhancing cognitive flexibility, reducing experiential avoidance, and increasing present-moment awareness, all of which support decision-making aligned with health goals (Schuman-Olivier et al., 2020). Moreover, mindfulness has

been shown to regulate emotional and physiological responses to stress, a key contributor to hypertension (Torske et al., 2024). These regulatory effects are supported by neurobiological evidence indicating that mindfulness modulates neural circuits associated with emotion regulation and interoception (Tang & Tang, 2024).

In addition to its psychological benefits, mindfulness appears to enhance individuals' sense of control over their health. In a study exploring the relationship between mindfulness and mind-body beliefs, individuals who held stronger beliefs in the interdependence of mental and physical health were more likely to engage in positive health behaviors (Ku et al., 2024). This suggests that mindfulness may not only function as a practice but also as a cognitive framework that reinforces agency and responsibility in health management (Teufer & Grabner-Kräuter, 2023). Such agency is particularly crucial in managing chronic illnesses like hypertension, where consistent behavioral engagement is required.

Importantly, mindfulness practices are increasingly being integrated into digital and community-based health initiatives, enhancing accessibility. Huff (2020) highlighted the effectiveness of mobile applications for mindfulness meditation, demonstrating their potential for broad reach and long-term engagement (Huff, 2020). In another study, Ibrahim et al. (2025) found that parents who participated in mindfulness-based cognitive behavioral interventions reported improved mental health, parenting practices, and mindful engagement with their children—findings that suggest mindfulness training can lead to meaningful changes in both personal and relational domains (Ibrahim et al., 2025).

Despite its promise, the adoption of mindfulness practices remains inconsistent across populations. Saunders et al. (2024) emphasized the importance of embedding mindfulness-based interventions within multitiered systems of support to increase uptake and reduce stigma, particularly in underserved communities (Saunders et al., 2024). Furthermore, Aufauvre-Poupon et al. (2021) documented the benefits of mindfulness in high-stress environments such as submarine confinement, where individuals reported increased resilience, emotional regulation, and clarity despite prolonged isolation (Aufauvre-Poupon et al., 2021).

The capacity of mindfulness to facilitate sustained habit formation is also well documented. Miles et al. (2023) found that individuals who practiced mindfulness consistently were more likely to develop health-promoting routines, suggesting that mindfulness serves as a foundational habit

that supports other behavior changes (Miles et al., 2023). This is consistent with earlier findings by Salmoirago-Blotcher et al. (2013), who observed that participants in an MBSR program reported increased physical activity, healthier eating patterns, and improved stress management, even in the absence of explicit behavior change goals (Salmoirago-Blotcher et al., 2013).

Social and environmental contexts also play a role in shaping the effectiveness of mindfulness-based health interventions. Teufer and Grabner-Kräuter (2023) emphasized the value of consumer networks in reinforcing sustainable health behaviors through shared mindfulness practices and community accountability (Teufer & Grabner-Kräuter, 2023). These findings align with those of Valley and Stallones (2018), who conducted a thematic analysis of healthcare workers and found that mindfulness enabled better coping, interpersonal connection, and behavioral consistency under work-related stress (Valley & Stallones, 2018).

Moreover, mindfulness supports cognitive restructuring and value clarification, two key components of long-term behavior change. Parra et al. (2019) found that older adults who initiated mindfulness and exercise routines reported shifts in their identity and values, indicating that the practice helped them reframe aging and chronic illness as opportunities for growth (Parra et al., 2019). Likewise, Geiger et al. (2018) described an indirect pathway from mindfulness to ecological and health behavior, driven by increased awareness, empathy, and intentional living (Geiger et al., 2018).

Mindfulness also has implications for managing behavioral triggers and automatic responses. In a randomized trial, Gawande et al. (2023) demonstrated that warm mindfulness—an affectively rich form of mindfulness emphasizing compassion—was effective in enhancing emotion regulation in patients, particularly those experiencing stress-related health issues (Gawande et al., 2023). This aligns with the dual-process model proposed by Qiu et al. (2022), which conceptualizes mindfulness as a strategy for reducing impulsivity and enhancing reflective decision-making in health contexts (Qiu et al., 2022).

The potential of mindfulness as a tool for health behavior change is further supported by studies in the domain of physical activity. Mitchell et al. (2021) reported that mindfulness-informed guided imagery improved both motivation and bodily awareness during exercise, enhancing participants' adherence to physical activity regimens (Mitchell et al., 2021). Kennedy and Resnick (2015) also

suggested that mindfulness may increase physical activity by promoting enjoyment and bodily engagement, reducing the likelihood of avoidance or disengagement (Kennedy & Resnick, 2015).

Collectively, these findings illustrate that mindfulness serves not only as a method of stress reduction but as a multidimensional process that supports behavior change through enhanced awareness, emotional regulation, motivation, and social connection. However, while quantitative studies have confirmed many of these outcomes, there remains a need for deeper exploration of individuals' lived experiences with mindfulness, especially in relation to chronic illness management.

To address this gap, the present study explores how individuals diagnosed with hypertension understand, engage with, and apply mindfulness in their daily lives.

2. Methods and Materials

2.1. Study Design and Participants

This qualitative study employed a descriptive phenomenological design to explore the experiences of individuals managing hypertension through mindfulness-based practices. The study focused on gaining in-depth insights into how mindfulness influences health behavior change in the context of hypertension management. Participants were selected using purposive sampling to ensure the inclusion of individuals who had personal experience with both hypertension and the application of mindfulness techniques in their daily lives. The final sample consisted of 16 participants residing in Canada. All participants were adults diagnosed with hypertension and had been engaged in mindfulness practices such as meditation, body scans, or mindful breathing for a minimum of three months. Sampling continued until theoretical saturation was achieved, meaning no new themes or insights emerged from additional interviews.

2.2. Data Collection

Data collection was conducted through semi-structured interviews designed to encourage participants to reflect deeply on their experiences with mindfulness and health-related behavior changes. Each interview was guided by an interview protocol that included open-ended questions exploring participants' motivations, challenges, and perceived effects of mindfulness on their lifestyle, medication adherence, stress levels, and overall well-being.

Interviews were conducted in person or via secure video conferencing platforms, based on participant preference and convenience. Each session lasted approximately 45 to 60 minutes and was audio-recorded with participant consent to ensure accuracy. All recordings were transcribed verbatim for analysis.

2.3. Data Analysis

The data were analyzed using a thematic analysis approach, facilitated by NVivo software. Transcripts were first read multiple times to achieve immersion and to identify initial codes. These codes were then organized into broader categories and eventually refined into overarching themes that captured shared meanings across participants' narratives. The analysis followed an iterative and recursive process, allowing for continuous refinement of categories as new insights emerged. Trustworthiness of the findings was ensured through member checking, where participants were

invited to review preliminary findings for accuracy, and through peer debriefing with fellow qualitative researchers.

3. Findings and Results

The participants in this study consisted of 16 adults diagnosed with hypertension, all residing in Canada. The sample included 9 females and 7 males, ranging in age from 38 to 72 years, with a mean age of 56.5 years. In terms of education level, 5 participants had completed high school, 7 held undergraduate degrees, and 4 had postgraduate education. Regarding duration of mindfulness practice, 6 participants had been engaged in mindfulness for less than one year, 7 for one to three years, and 3 for more than three years. Additionally, 11 participants identified as practicing mindfulness independently, while 5 had received formal training through mindfulness-based programs such as MBSR or MBCT. All participants were managing their hypertension through a combination of lifestyle modifications and prescribed medications.

Table 1

Categories, Subcategories, and Concepts

Category (Main Theme)	Subcategory (Subtheme)	Concepts (Open Codes)
1. Awareness and Self-Regulation	Enhanced Bodily Awareness	Noticing heartbeat, Recognizing tension, Awareness of breath, Scanning for discomfort, Monitoring posture
	Emotional Regulation	Observing emotions, Naming feelings, Reducing reactivity, Staying present during anger, Letting go of frustration
	Stress Recognition and Reduction	Identifying stress triggers, Calming mind, Reducing physiological arousal, Using breath for calm, Preventing emotional spikes
	Increased Present-Moment Focus	Returning to now, Watching thoughts, Tuning in to surroundings, Mindful eating, Slowing down
	Improved Sleep Hygiene	Evening meditation, Body scan before bed, Reducing screen time, Noticing sleep patterns, Letting go before sleep
	Better Decision-Making in Health Behaviors	Thinking before reacting, Evaluating food choices, Considering medication timing, Pausing before action
	Self-Monitoring of Symptoms	Logging blood pressure, Noting dietary effects, Tracking mood, Observing fatigue levels
2. Motivation and Empowerment	Internal Motivation for Change	Desire for health, Wanting self-control, Intrinsic commitment, Feeling hopeful, Self-initiated goals
	Sense of Control Over Health	Feeling in charge, Active health ownership, Managing own routine, Less dependent on doctors
	Positive Reinforcement from Practice	Feeling accomplished, Enjoying calmness, Valuing peace, Experiencing clarity, Sensing balance
	Reframing Illness as a Challenge, Not Burden	Seeing growth, Embracing change, Finding meaning, Accepting the condition
	Goal-Directed Behavior	Setting health goals, Aligning actions with values, Tracking achievements, Sustaining momentum
3. Lifestyle Integration and Behavior Adaptation	Mindful Eating Practices	Eating slowly, Chewing thoroughly, Tasting each bite, Avoiding emotional eating, Recognizing fullness
	Medication Adherence through Intentionality	Remembering doses, Linking to routines, Appreciating benefits, Reducing resistance
	Active Engagement in Physical Activity	Walking mindfully, Body awareness during movement, Motivated to move, Tuning into body during yoga
	Managing Triggers and Temptations	Recognizing cues, Avoiding sugar, Delaying cravings, Breathing through impulses, Non-judgmental awareness of slip-ups

Social Support Through Mindful Connection	Sharing progress, Listening to others mindfully, Feeling heard, Non-reactive communication, Building empathy
Creating Mindfulness Habits in Daily Routine	Morning breathing exercises, Mindful tea drinking, Silent moments in commute, Pausing before meals, Using reminders to be present

Participants included in this study were 16 adults from Canada who had been diagnosed with hypertension and regularly practiced mindfulness. Thematic analysis of semi-structured interviews led to the identification of three main categories: *Awareness and Self-Regulation*, *Motivation and Empowerment*, and *Lifestyle Integration and Behavior Adaptation*. Each category consisted of a series of subcategories and open-coded concepts that reflected participants' lived experiences.

In the subcategory *Enhanced Bodily Awareness*, participants consistently described developing a deeper sensitivity to physical sensations, which they attributed to mindfulness practice. They reported being more attuned to their heartbeat, bodily tension, breathing patterns, and physical posture. One participant noted, "Before mindfulness, I didn't notice when my body was tightening up. Now I can feel it right away and release it." Another shared, "I'm more in tune with what my body needs, like rest or hydration—I didn't have that before."

Under *Emotional Regulation*, many individuals emphasized that mindfulness gave them tools to observe and manage their emotional responses more effectively. They described being able to name and acknowledge their emotions without judgment, reducing their emotional reactivity. A participant explained, "I used to explode when I felt stressed, but now I can step back, take a breath, and respond instead of react." Another remarked, "When anger or sadness shows up, I just watch it. That alone changes everything."

The theme of *Stress Recognition and Reduction* emerged as a core benefit of mindfulness. Participants became more adept at identifying stress triggers and regulating their physiological responses. They highlighted practices such as mindful breathing and grounding exercises to manage anxiety and tension. One individual stated, "I never realized how much my stress was affecting my blood pressure until I started paying attention through mindfulness." Another reflected, "When I feel pressure building, I just sit quietly and breathe—my whole system calms down."

In the subcategory *Increased Present-Moment Focus*, participants shared that mindfulness helped them anchor their attention in the here and now, especially during moments of distraction or anxiety. They described developing the ability to return to the present moment

through breath, sensory awareness, and mental redirection. One participant mentioned, "When my mind starts spinning with worry, I bring it back to the now—what I see, hear, feel. That helps me reset." Another added, "Mindfulness gave me a way to stop living in the past or future and just be."

Improved Sleep Hygiene was also frequently discussed. Many participants noted that their sleep quality had improved as a result of evening mindfulness practices such as body scans, meditation, or simply winding down with deep breathing. As one participant described, "I used to toss and turn with racing thoughts. Now, I do a body scan before bed, and I fall asleep so much faster." Another said, "I don't use my phone late at night anymore; I do mindful breathing instead—it makes a big difference."

Regarding *Better Decision-Making in Health Behaviors*, individuals emphasized how mindfulness introduced a pause between impulse and action, allowing for more intentional choices related to diet, medication, and daily routines. A participant stated, "I don't just grab junk food anymore. I take a breath, ask myself what I really need." Another commented, "Mindfulness taught me to think before skipping a dose or staying up late—there's a moment to choose."

The subcategory *Self-Monitoring of Symptoms* revealed that participants were more conscious of their physical health and better able to track blood pressure fluctuations, dietary effects, and patterns of fatigue. They integrated mindful awareness into self-monitoring routines. One participant shared, "I notice when my pressure spikes and link it to what I ate or how I slept. Before, I never paid attention." Another said, "I write down how I feel every day—it helps me see patterns I missed before."

In the category of *Motivation and Empowerment*, the subtheme *Internal Motivation for Change* emerged prominently. Participants expressed that mindfulness fostered a deep, personal desire to maintain healthy behaviors, not just due to external pressure but because of intrinsic values. One individual stated, "It's not about doing it for the doctor anymore—it's for me, because I want to feel better." Another reflected, "Mindfulness made me care more about my well-being from the inside."

The sense of *Control Over Health* was also strengthened by mindfulness, as individuals reported feeling more autonomous and proactive in managing their hypertension.

They expressed a shift from dependency on medical advice to a more empowered, participatory approach. A participant explained, "Before, I just followed orders. Now, I make choices consciously—I'm in charge of my health." Another added, "I don't feel helpless anymore; mindfulness gave me the reins."

Participants described *Positive Reinforcement from Practice* as a key driver for continuing mindfulness. They experienced moments of clarity, calm, and accomplishment that encouraged ongoing engagement. One participant shared, "After a session, I feel clear and grounded—that's enough to keep me coming back." Another said, "I feel proud when I remember to breathe instead of react—it's a small win."

Reframing Illness as a Challenge, Not a Burden was another meaningful subtheme. Participants spoke about a shift in their perception of hypertension—from a source of suffering to an opportunity for growth. A participant noted, "Instead of fighting it, I've learned to live with it—and even grow through it." Another reflected, "Mindfulness helped me see my condition as a teacher, not an enemy."

In the subcategory *Goal-Directed Behavior*, mindfulness was seen as a mechanism to align daily actions with long-term health objectives. Participants described setting and maintaining goals related to diet, physical activity, and stress reduction. As one individual put it, "I set goals that actually match my values now, like eating well and staying active." Another added, "Mindfulness helps me stay on track because I remember *why* I started."

In the final category, *Lifestyle Integration and Behavior Adaptation*, the subtheme *Mindful Eating Practices* was central to many participants' behavioral changes. They reported becoming more intentional with food choices, slowing down while eating, and recognizing satiety cues. One person stated, "Now I actually taste my food instead of rushing through meals." Another shared, "I stop when I'm full because I pay attention—I used to ignore that feeling."

Medication Adherence through Intentionality was another noted outcome. Participants became more consistent with taking medication, integrating it into their mindfulness routines and reframing it as an act of self-care. One explained, "I used to skip meds without thinking. Now, I take them mindfully, appreciating their role." Another said, "It's part of my daily ritual—I don't forget anymore."

In the subcategory *Active Engagement in Physical Activity*, mindfulness encouraged participants to approach movement with awareness and purpose. They described walking or exercising while being tuned in to bodily

sensations. As one participant put it, "I walk mindfully now—I notice my feet, the air, my breath. It makes movement enjoyable." Another added, "Yoga used to feel like a chore, but now I do it with intention and feel more connected."

Managing Triggers and Temptations was a critical subtheme in helping participants resist unhealthy behaviors. Mindfulness helped them recognize cues, delay gratification, and observe urges without reacting. One participant said, "I see the craving rise, and I breathe through it—it passes." Another shared, "When I want something sweet, I ask myself if it's stress or real hunger. That pause helps."

Participants also valued *Social Support Through Mindful Connection*. They described developing deeper, more empathetic interactions with others, leading to emotional support and motivation. One noted, "I listen better now, and people open up more—that helps me stay on track too." Another explained, "Mindful conversations with others on the same path really motivate me."

Lastly, *Creating Mindfulness Habits in Daily Routine* was essential to sustaining change. Participants described embedding mindfulness into everyday moments like drinking tea, commuting, or preparing meals. A participant said, "Even brushing my teeth is a mindful moment now." Another shared, "These small pauses make a big impact—they remind me to slow down and be present."

4. Discussion and Conclusion

The findings of this qualitative study offer rich insights into the lived experiences of individuals managing hypertension through mindfulness-based practices. The three main themes identified—Awareness and Self-Regulation, Motivation and Empowerment, and Lifestyle Integration and Behavior Adaptation—reflect the multifaceted role mindfulness plays in supporting health behavior change. Participants described how mindfulness helped them develop bodily awareness, regulate emotional responses, and make conscious decisions that aligned with their health goals. These findings highlight the transformative potential of mindfulness in chronic disease management and echo the theoretical understanding of mindfulness as both a psychological and behavioral resource (Schuman-Olivier et al., 2020).

The theme of Awareness and Self-Regulation reflects one of the most foundational benefits of mindfulness practice: the ability to attend to internal experiences with clarity and

without judgment. Participants reported greater awareness of physiological states such as heartbeat, tension, and breath—an attunement that allowed for early recognition of stress responses and behavioral triggers. This aligns with previous research that identifies mindfulness as a mechanism for enhancing interoceptive awareness, which plays a crucial role in managing conditions like hypertension (Tang & Tang, 2024). The observed improvement in emotional regulation among participants supports findings from Gawande et al. (2023), who demonstrated that mindfulness, especially when practiced with warmth and compassion, enhances emotion regulation in populations under psychological and physiological stress (Gawande et al., 2023). This increased self-regulatory capacity is vital for individuals with hypertension, as emotional reactivity and unmanaged stress are known contributors to elevated blood pressure (Torske et al., 2024).

Participants also described using mindfulness to return to the present moment, thereby reducing mental rumination and anxiety—two factors commonly associated with poor health outcomes. Similar findings have been reported in mindfulness-based cognitive therapy (MBCT) studies, where present-focused awareness was linked to reduced anxiety and improved cardiovascular markers (Irawan et al., 2023). Furthermore, the development of healthier sleep habits reported by participants echoes earlier findings that mindfulness interventions can enhance sleep quality and reduce insomnia by quieting cognitive arousal before bedtime (Saunders et al., 2024). The ability to create space between stimulus and response, as described by participants, is consistent with dual-process models of mindfulness, which suggest that mindfulness allows individuals to shift from automatic reactions to reflective, deliberate responses (Qiu et al., 2022).

The second theme, Motivation and Empowerment, highlights how mindfulness fosters intrinsic motivation for behavioral change and a sense of agency in health management. Participants articulated a shift from externally driven compliance (e.g., “doing it for the doctor”) to internally motivated engagement (e.g., “doing it for myself”), which aligns with self-determination theory and previous findings by Li et al. (2024). In their study, perceived health competence mediated the relationship between mindfulness and adherence to health behaviors, suggesting that mindfulness strengthens individuals’ belief in their capacity to influence their own health outcomes (Li et al., 2024). The sense of empowerment reported in this study also resonates with findings from Ku et al. (2024), who

demonstrated that individuals with strong mind–body beliefs were more likely to act in health-supportive ways (Ku et al., 2024). This highlights the cognitive restructuring facilitated by mindfulness, which enables individuals to reframe their condition not as a burden but as an opportunity for growth—a perspective shared by several participants in the current study.

Positive reinforcement emerged as a subtheme within motivation, with participants describing a cycle of calm, accomplishment, and clarity that encouraged continued practice. Miles et al. (2023) support this dynamic in their longitudinal study on mindfulness habit formation, noting that initial subjective benefits (e.g., reduced anxiety, improved focus) increase the likelihood of continued engagement (Miles et al., 2023). Similar motivational pathways were observed in Kennedy and Resnick’s (2015) work, where mindfulness was found to enhance enjoyment during physical activity and reinforce routine behavior change (Kennedy & Resnick, 2015). Participants in the current study echoed this sentiment, stating that mindfulness created a sense of alignment between values and actions, further reinforcing their health-related decisions.

The third theme, Lifestyle Integration and Behavior Adaptation, illustrates how mindfulness practice extended into participants’ daily routines. From mindful eating to intentional medication use, the ability to infuse ordinary behaviors with awareness and purpose was consistently reported. This finding reinforces the notion that mindfulness serves not only as a discrete practice but as a way of being—one that transforms everyday actions into conscious, health-oriented choices. Studies by Salmoirago-Blotcher et al. (2013) and Teufer and Grabner-Kräuter (2023) similarly found that mindfulness-based stress reduction (MBSR) participants reported improved dietary and lifestyle behaviors as secondary outcomes of their mindfulness training (Salmoirago-Blotcher et al., 2013; Teufer & Grabner-Kräuter, 2023). Moreover, the theme of mindful medication adherence observed in the current study resonates with Esmaeilzadeh (2020), who explored how information technology mindfulness influences the post-adoption use of mobile health devices (Esmaeilzadeh, 2020). Participants in our study demonstrated comparable levels of intentionality, suggesting that mindfulness may increase users’ engagement with both behavioral routines and health technologies.

The integration of mindful movement and physical activity, as reported by participants, is consistent with Mitchell et al. (2021), who found that mindfulness-informed

guided imagery enhanced physical activity by promoting greater awareness of bodily sensations and internal cues (Mitchell et al., 2021). This echoes earlier findings by Geiger et al. (2018), who proposed that mindfulness increases pro-environmental and health behaviors through indirect pathways of emotional and cognitive engagement (Geiger et al., 2018). Furthermore, participants' ability to manage behavioral triggers and cravings through mindful observation and breathwork aligns with the stress-eating modulation effects observed by Torske et al. (2024) in neuroimaging studies (Torske et al., 2024).

Social support emerged as an additional subtheme in lifestyle integration, as participants described developing deeper, more empathetic relationships. This finding aligns with Valley and Stallones (2018), who found that healthcare workers practicing mindfulness reported improved interpersonal communication and emotional resilience (Valley & Stallones, 2018). Similarly, Ibrahim et al. (2025) reported that parents who practiced mindful parenting developed more responsive and connected relationships with their children, indicating that mindfulness extends its influence into relational domains (Ibrahim et al., 2025). In our study, such relational shifts also appeared to reinforce health behaviors, particularly through mutual accountability and emotional support from others engaging in mindfulness.

The participants' descriptions of integrating mindfulness into routine behaviors—such as commuting, preparing meals, or brushing teeth—reflect findings from Huff (2020), who noted that mobile app-based mindfulness encouraged micro-moments of awareness throughout the day (Huff, 2020). These micro-practices, while brief, contributed to the cultivation of a mindful disposition that shaped participants' overall approach to health. This observation is supported by Aufauvre-Poupon et al. (2021), who reported that even in highly restrictive environments, such as submarine deployments, short mindfulness sessions produced significant psychological benefits (Aufauvre-Poupon et al., 2021). The present findings suggest that similar benefits can be achieved in the context of hypertension management, where individuals often face psychological burden and behavioral fatigue.

Finally, the process of reframing illness as a meaningful experience rather than a burden resonates with Parra et al. (2019), who found that older adults practicing mindfulness reported a shift in identity and purpose, particularly in relation to aging and health management (Parra et al., 2019). Our participants echoed this shift, describing their hypertension as a wake-up call that prompted intentional

living. This psychological reorientation supports the model proposed by Tang and Tang (2024), who argue that mindfulness promotes brain-body integration in ways that support health behavior and emotional well-being (Tang & Tang, 2024).

Despite the valuable insights generated, this study has several limitations. First, the sample size was relatively small ($N = 16$), and while data saturation was achieved, the findings may not capture the full diversity of experiences among individuals managing hypertension through mindfulness. Second, all participants were from Canada, which may limit the cultural generalizability of the results. Third, because the study relied on self-reported data collected through interviews, there may be recall bias or social desirability effects in participants' responses. Additionally, participants were already engaged in mindfulness practices, which may have introduced a selection bias favoring individuals with positive views of mindfulness. Finally, the study did not account for the influence of concurrent interventions such as psychotherapy, diet counseling, or pharmacotherapy, which may have interacted with mindfulness practices to influence outcomes.

Future research should consider conducting longitudinal studies to assess the sustained impact of mindfulness on hypertension management and related health behaviors over time. Incorporating physiological markers such as blood pressure readings, heart rate variability, or cortisol levels would strengthen the link between subjective experience and objective outcomes. Studies with more diverse samples—across different countries, socioeconomic backgrounds, and levels of mindfulness experience—would enhance the generalizability of findings. It may also be valuable to compare the experiences of individuals who self-initiate mindfulness practice versus those who participate in structured mindfulness-based interventions. Finally, future research should examine the interaction between mindfulness and digital health technologies, such as wearable trackers or mobile applications, to explore how these tools can be integrated into behavior change models.

Mindfulness can be a powerful adjunct to traditional hypertension care and should be considered in clinical and community health settings. Healthcare providers can introduce brief mindfulness practices to patients as part of routine consultations and encourage integration into daily life. Mindfulness programs should be tailored to individual readiness and offered in flexible formats—both in-person and digitally—to increase accessibility. Practitioners should support patients in linking mindfulness to tangible health

goals such as stress reduction, improved sleep, medication adherence, and healthy eating. Emphasizing small, sustainable changes and reinforcing the value of self-awareness may enhance long-term engagement. Integrating mindfulness into interdisciplinary care teams, including nurses, psychologists, and health educators, can foster a holistic approach to hypertension management and patient empowerment.

Authors' Contributions

Authors contributed equally to this article.

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

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

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