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Brief mindfulness interventions as first aid for psychological distress

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Abstract

Brief Mindfulness Interventions (BMIs) have been receiving growing interest as cost-effective and time-saving alternatives to the traditional mindfulness-based programs. This literature review summarises the evidence on the effectiveness, delivery modalities, psychological mechanisms of change, methodological constraints and real-world feasibility of BMIs in various populations. Results consistently support that very brief as well as long-term mindfulness training provided using single-session workshops, multi-session programs, online programs, or mobile apps is effective in yielding reductions in stress, anxiety, depressive symptoms and burnout while directing significant improvements in emotional regulation, attention, resilience, and cognitive flexibility, with increased levels of overall well-being. There are many ways these effects could occur, including enhanced emotion regulation, greater meta-awareness, bolstered cognitive reappraisal and acceptance capacity, promotion of nonattachment tendencies, and increased distress tolerance. However, in the field of BMI, there are limitations, including self-reported BMI measurements, homogeneity of samples, inconsistent intervention protocols and adherence, and limited long-term follow-up data. Evidence further suggests that the feasibility of BMIs is very strong in workplace, academic, care ('medicine'), and digital settings when interventions are matched to participants' schedules/needs for engagement. In sum, the review suggests that BMIs represent effective, 'scalable' and 'accessible' tools for fostering psychological well-being, while calling into question some of these terms themselves, yet also highlights the need for future studies to adopt methodological rigour, diverse sampling, multimodal assessment, and the sustainability of effects over time.

Keywords: Brief mindfulness interventions, psychological distress, emotion regulation, digital delivery; stress reduction, well-being

1. Introduction

Highlights

- BMIs effectively reduce stress, anxiety, and rumination among populations.
- *Mindfulness* practices enhance emotion regulation, attentional stability, and cognitive flexibility.
- Digital delivery formats expand accessibility and scalability of BMIs.

The phrase "psychological distress" refers to a wide range of emotional suffering that is often characterised by symptoms like worry, tension, and depression that develop in reaction to unfavourable living circumstances or excessive demands. Contemporary literature conceptualises distress as a multidimensional phenomenon reflecting mental strain rather than distinct clinical disorders. (Blasco-Belled *et al.*, 2024) ^[1] Describe psychological distress as a combination of anxious and depressive symptoms that fluctuate depending on personal, social, and contextual challenges. There have also been reports of gender-linked differences, with women often displaying higher levels of discomfort as a result of interacting with biological, psychological, and societal factors (Viertö *et al.*, 2021) ^[2]. Similarly, (Tomitaka *et al.* 2019) ^[3] highlight that

psychological distress exists on a continuum of affective symptoms common across various psychiatric conditions. These perspectives collectively underscore the complexity and widespread nature of psychological distress in modern life.

Against this backdrop, mindfulness has emerged as a powerful psychological tool for managing distress. The metaphor of the "monkey mind," which originates from ancient Chinese folklore and Buddhist philosophy, vividly captures the restless, scattered, and impulsive nature of human thought. This metaphor, later expanded in Buddhist teachings, illustrates how constant mental agitation contributes to suffering, emotional instability, and distraction (Keeler, 2023). The Dhammapada highlights the fundamental idea that our ideas influence our daily experience, underscoring the significance of developing steady and controlled mental states. In contemporary psychological discourse (Shamdasani, 2019), the concept of the "monkey mind" is reframed as incessant mental chatter that fuels stress, doubt, and emotional turbulence.

Mindfulness provides a bridge between these ancient insights and modern scientific understanding. (Analayo, 2019) describes mindfulness rooted in the traditions of *sati* and *smṛti* as a form of "clear knowing" supported by alert

awareness (*sampajañña*), fostering equanimity and discernment. In psychological science, (Kabat-Zinn, 2003) ^[4] defines mindfulness as the intentional, present-centred awareness of experience without judgment, while Bishop *et al.* (2004) describe it as involving both self-regulated attention and an open, accepting orientation toward internal and external phenomena. Together, these conceptualisations present mindfulness as an evidence-based method for enhancing emotional balance and reducing psychological distress.

A substantial body of empirical research supports the effectiveness of mindfulness-based approaches. Meta-analytic findings show that mindfulness practices reduce rumination, improve emotional regulation, and alleviate symptoms of anxiety and depression (Creswell, 2017; Khoury *et al.*, 2015; Osman *et al.*, 2021) ^[5, 6, 7]. For instance, Khoury *et al.*, (2015) synthesised data from 2,668 participants across 29 studies and documented significant reductions in stress, anxiety, and depression following mindfulness training. (Osman *et al.*, 2021) ^[7] Further found that even short, online mindfulness sessions can decrease perceived stress and burnout while enhancing well-being.

Despite the extensive focus on structured, long-form programs such as *Mindfulness-Based Stress Reduction* (MBSR) and *Mindfulness-Based Cognitive Therapy* (MBCT), there is a growing need to understand the effectiveness of Brief *Mindfulness Interventions* (BMIs), short, accessible practices designed for rapid emotional relief. BMIs, typically delivered in single sessions or over a few days, are increasingly recognised for their practicality and scalability across workplace, healthcare, and educational settings. Yet, systematic research is still required to clarify their mechanisms, effectiveness, and implementation challenges. The Objectives of the present study are to evaluate the effectiveness of Brief *Mindfulness Interventions* (BMIs) in enhancing psychological well-being while reducing stress, anxiety, and depression. It further seeks to examine the underlying psychological mechanisms through which BMIs facilitate emotional regulation and adaptive coping. In addition, the study aims to identify key methodological limitations, research gaps, and future directions within existing BMI literature. Finally, it explores the feasibility and scalability of BMIs across workplaces, educational institutions, and healthcare systems, thereby assessing their broader applicability in real-world settings.

1. Understanding Psychological Distress: Symptoms and Dimensions

Psychological distress is broadly defined as a state of emotional suffering, commonly marked by symptoms of anxiety, depression, and stress. It reflects a level of mental strain that affects well-being even when it does not meet diagnostic criteria for a mental disorder (Blasco-Belled *et al.*, 2024) ^[1]. Distress occurs on a continuum influenced by biological, psychological, and social factors (Viertö *et al.*, 2021; Tomitaka *et al.*, 2019) ^[2, 3].

Psychological distress is typically understood through four interconnected dimensions:

1. **Emotional dimension:** Includes feelings such as sadness, irritability, tension, hopelessness, or restlessness, often associated with anxiety and depressive symptoms (Blasco-Belled *et al.*, 2024;

Tomitaka *et al.*, 2019) ^[1, 3].

2. **Cognitive dimension:** involves disruptions in thought patterns, such as rumination, excessive worry, indecisiveness, and difficulty concentrating or organising thoughts (Belay *et al.* 2021) ^[8].
3. **Behavioural dimension:** Refers to changes in daily functioning, including withdrawal from social interaction, reduction in routine activities, avoidance behaviours, and challenges in maintaining work or academic engagement (Belay *et al.*, 2021) ^[8].
4. **Somatic/physical dimension:** includes physical symptoms such as sleep disturbances, fatigue, headaches, and low energy levels, which may differ across settings and populations (Viertö *et al.*, 2021; Belay *et al.*, 2021) ^[2, 8].

Standardised assessment tools such as the General Health Questionnaire (GHQ), the Mental Health Inventory-5 (MHI-5), and the six-item Kessler Psychological Distress Scale (K6) are widely used to measure psychological distress, though their effectiveness may vary across demographic groups. Large-scale epidemiological findings indicate that despite expanded mental health services and increased use of antidepressant medications since the 1990s, psychological distress remains prevalent, suggesting its persistent and multifaceted nature (Tomitaka *et al.*, 2019) ^[3].

Understanding these dimensions is essential for contextualising mindfulness-based interventions, which aim to reduce distress by enhancing present-focused awareness, emotional regulation, and adaptive coping.

2. Brief Mindfulness Practices (BMIs): Overview and Types

2.1 Defining BMIs and Their Distinguishing Features

Brief *Mindfulness Interventions* (BMI) are condensed versions of traditional mindfulness programs, structured to enhance accessibility and reduce time investment. These programs typically consist of sessions lasting 30 minutes or less, totalling around 100 minutes per week for four weeks, which is nearly half the duration of standard MBSR protocols (Howarth *et al.*, 2019) ^[9]. Their development primarily addresses the needs of individuals with limited time availability, such as healthcare professionals and other high-demand groups (Ameli *et al.*, 2020) ^[10]. Slightly longer formats, such as 75-minute weekly sessions over eight weeks, have also been shown to reduce stress and anxiety while promoting resilience and compassion (Ameli *et al.*, 2020; Nutting *et al.*, 2022) ^[10, 11].

The growing number of randomised controlled trials investigating mindfulness reflects increasing interest in shorter, adaptable formats (Schumer *et al.*, 2018) ^[12]. In addition to multiweek programs, BMIs include single-session practices and short interventions spanning one to two weeks, both of which have demonstrated effectiveness even among individuals with no prior meditation experience (Schumer *et al.*, 2018) ^[12]. These interventions commonly incorporate focused techniques such as mindful breathing, body scans, and sitting meditation (Palacios *et al.*, 2022).

Evidence consistently shows that BMIs lead to meaningful improvements in psychological functioning. Findings include reductions in stress, anxiety, depression, and rumination, along with enhancements in mood, emotional regulation,

self-esteem, attention, and adaptive coping (Chiodelli *et al.*, 2018; Wu *et al.*, 2019; Reangsing *et al.*, 2023; Barcaccia *et al.*, 2024) ^[13, 14, 15, 16]. Overall, BMIs serve as efficient, empirically supported tools that promote emotional stability and resilience across diverse populations.

3. Modalities and Delivery Formats (Single Sessions, Online, App-Based)

3.1 Single-Session or Multi-Session In-Person Workshops

Single-session and brief multi-session in-person workshops deliver mindfulness face-to-face, either in one structured session or across a few short meetings. Evidence shows that even a single guided session can produce meaningful short-term benefits. (Rubin *et al.*, 2024) ^[17] reported that a one-hour mindfulness and compassion practice reduced perceived stress, anxiety, and depressive symptoms. Other studies similarly indicate that short in-person workshops support improvements in attention and emotional balance (Yin *et al.*, 2021; Vorontsova-Wenger *et al.*, 2022) ^[18, 19].

3.2 Online Programs

Online BMIs provide self-paced mindfulness training through web-based platforms, offering flexible and accessible formats. Brief online programs have been shown to reduce stress and anxiety while enhancing emotional regulation. For example, a 16-day online mindfulness and compassion program improved self-compassion and lowered anxiety and stress among university students (González-García *et al.*, 2021) ^[20]. Likewise, brief online mindfulness practice has been associated with reductions in depression, rumination, and trait anxiety (Barcaccia *et al.*, 2024) ^[16].

3.3 App-Based Interventions

App-based BMIs deliver guided exercises and audio practices through mobile applications, supporting consistent mindfulness engagement. Research shows that even short-term app use leads to psychological improvements. Using Headspace for 10-30 days improved life satisfaction, reduced stress, and enhanced resilience in healthy adults (Champion *et al.*, 2018) ^[21]. Daily 5-10-minute Well Mind sessions increased self-compassion and state mindfulness among healthcare professionals (Jaiswal *et al.*, 2024) ^[22]. Similarly, 20-30 days of app-based practice reduced perceived stress, improved sleep quality, and lowered physiological stress responses in adults under elevated stress (Kirk *et al.*, 2023) ^[23].

Effectiveness of BMIs in Promoting Psychological Well-Being

4. Empirical Evidence and Meta-Analyses

Evidence consistently shows that brief mindfulness interventions (BMIs) enhance psychological well-being across different groups. Even brief practices, ranging from a single session to a few days, have been shown to reduce stress, anxiety, and depressive symptoms while supporting emotional regulation and cognitive functioning (Wu *et al.*, 2019; Chiodelli *et al.*, 2018; Howarth *et al.*, 2019) ^[14, 13, 9]. Meta-analytic results also support these outcomes; BMIs reliably reduce negative affectivity across randomised controlled trials (Schumer *et al.*, 2018) ^[12]. Recent findings further extend these benefits to digital and academic contexts. Brief online mindfulness sessions have been found to reduce

mobile phone addiction (Zhang *et al.*, 2025) ^[24] and lower test anxiety while improving academic performance (Sun *et al.*, 2025) ^[25, 26]. Among older adults, short mindfulness-based programs have resulted in improvements in cognitive flexibility, mood, and social connectedness (Katzenelenbogen *et al.*, 2025) ^[27]. Collectively, this body of evidence confirms that BMIs are time-efficient and adaptable strategies that support overall psychological well-being.

4.1 Impact on Anxiety, Depression, Stress, and Burnout

BMIs have shown clear effectiveness in reducing psychological distress across clinical and non-clinical populations. Studies demonstrate that even single-session or brief multi-session practices can meaningfully decrease perceived stress, anxiety, and depressive symptoms (Rubin *et al.*, 2024; Vorontsova-Wenger *et al.*, 2022) ^[17, 19]. Improvements in emotional regulation and reductions in broader psychopathological symptoms have also been reported following brief mindfulness exposure (Yin *et al.*, 2021; Barcaccia *et al.*, 2024) ^[18, 16]. Consistent findings of reduced stress and anxiety in short-term online programs further strengthen the evidence base (González-García *et al.*, 2021) ^[20]. Overall, BMIs function as practical, efficient tools for managing psychological symptoms and preventing burnout.

4.2 Evidence Across Different Populations

BMIs demonstrate effectiveness across a wide range of populations and age groups. Among school-aged children, brief mindfulness practices have been associated with improved attention regulation and reductions in internalising behaviours (Crescentini *et al.*, 2016) ^[28]. In university settings, short online mindfulness and compassion-based programs have led to decreases in stress, anxiety, and rumination, together with increases in self-compassion and emotional regulation (González-García *et al.*, 2021; Barcaccia *et al.*, 2024) ^[20, 16]. For adults and healthcare professionals, short-duration mindfulness programs have been linked to greater resilience, enhanced mindfulness, reduced stress, and improved neurophysiological markers (Champion *et al.*, 2018; Jaiswal *et al.*, 2024; Kirk *et al.*, 2023) ^[21, 22, 23]. Similarly, among older adults, brief mindfulness practices have contributed to improved cognitive functioning, mood stability, and overall psychological well-being (Katzenelenbogen *et al.*, 2025) ^[27]. Together, these findings emphasise the scalability and adaptability of BMIs, highlighting their usefulness across the lifespan in supporting psychological health and resilience.

5. Psychological Mechanisms Underlying BMI Effects

5.1 Emotion Regulation Mechanisms in Mindfulness

Mindfulness enhances emotion regulation by strengthening awareness of present experiences and reducing automatic emotional reactions. By intentionally noticing thoughts, feelings, and bodily cues, individuals identify emotional shifts earlier and interrupt maladaptive tendencies such as avoidance, rumination, or suppression. Research shows that mindfulness practice lowers physiological arousal, such as reduced skin conductance and decreased amygdala activation indicating improved emotional stabilisation (Grecucci *et al.*, 2015) ^[29]. Psychological models also explain that mindfulness promotes meta-awareness, decentring, and non-

reactivity, enabling emotions to be observed without escalation or cognitive elaboration (Roemer *et al.*, 2015) ^[30]. Integrative reviews conclude that mindfulness enhances both top-down regulatory mechanisms (monitoring, cognitive reappraisal, prefrontal control) and bottom-up processes (lower limbic activation), supporting more adaptive and balanced emotional responses (Guendelman *et al.*, 2017) ^[31].

5.2 Cognitive Reappraisal and Acceptance

Brief mindfulness interventions (BMIs) improve cognitive reappraisal and acceptance by fostering a non-judgmental, observing stance toward internal experiences. Instead of reacting automatically to stressful or negative thoughts, mindfulness encourages reinterpretation of events in more adaptive ways, reducing cognitive strain and improving emotional outcomes (Keng *et al.*, 2017) ^[32]. Acceptance, an essential component of mindfulness, allows individuals to experience emotions without avoidance or suppression, relying on fewer regulatory resources while supporting more efficient physiological functioning compared to reappraisal (Troy *et al.*, 2018) ^[33]. Evidence from a four-session BMI demonstrates increases in cognitive reappraisal along with decreases in rumination and emotional suppression, showing that even short programs can effectively promote flexible emotional regulation (Cerna *et al.*, 2021) ^[34]. Together, these findings indicate that BMIs are effective tools for strengthening the cognitive foundations of emotion regulation.

5.3 Nonattachment and Distress Tolerance

BMIs support the development of nonattachment, helping individuals observe thoughts and emotions without clinging, avoidance, or overidentification. Research indicates that increases in nonattachment predict lower psychological distress and greater emotional equilibrium (Ho *et al.*, 2022) ^[35]. Mindfulness-based programs similarly show gains in nonattachment paired with reductions in anxiety and depressive symptoms (Joss *et al.*, 2020) ^[36]. Recent evidence further highlights that nonattachment mediates the positive relationship between mindfulness and emotional well-being (Yu *et al.*, 2025) ^[37]. BMIs also enhance distress tolerance, the capacity to remain with uncomfortable internal experiences without impulsive reactions, a mechanism shown to mediate reductions in emotional distress following mindfulness practice (Aldbyani *et al.*, 2025) ^[38]. Overall, these findings demonstrate that even brief mindfulness training effectively cultivates nonattachment and distress tolerance, supporting resilience and emotional stability.

6. Methodological Limitations and Research Gaps

6.1 Design and Sampling Issues

Research on brief mindfulness interventions (BMIs) faces several methodological challenges that limit the reliability, validity, and generalizability of findings. A primary limitation is the heavy reliance on self-report measures, which introduces potential response bias, shared method variance, and limited construct validity (Davidson & Kaszniak, 2015; Goldberg *et al.*, 2019) ^[39, 40]. Many studies use only self-administered questionnaires without incorporating behavioural, physiological, or clinician-rated measures, reducing the rigour and comprehensiveness of outcome assessment.

Sampling and adherence concerns further constrain evidence quality. High attrition and low completion rates, especially in online interventions, can bias results if missing data are nonrandom (Linardon *et al.*, 2023) ^[41]. Participant samples are often demographically homogeneous, frequently overrepresenting females, which limits generalizability. The use of wait-list control groups also fails to account for nonspecific factors such as participant expectations, time spent, or engagement in self-care, making it difficult to isolate mindfulness-specific effects (Dimidjian & Segal, 2015) ^[42]. Short-term interventions with brief follow-up periods leave the long-term sustainability of effects uncertain.

Variability in intervention delivery adds further complexity. BMIs differ in session length, frequency, instructor consistency, and home practice guidance. In many studies, active control conditions are not well matched with standardised interventions such as MBSR or MBCT. As a result, it becomes challenging to clearly identify which outcomes are specifically due to mindfulness practices (Dimidjian & Segal, 2015) ^[42]. Many studies also do not systematically monitor formal and informal practice, obscuring dose, response relationships (Creswell, 2017) ^[5]. Differences in follow-up durations, assessment methods, and participant engagement contribute to inconsistent outcomes (Morone *et al.*, 2016).

Overall, these limitations indicate the need for future research using multimethod assessments, active control conditions, diverse and adequately powered samples, standardised delivery, careful adherence monitoring, and longer follow-up periods to strengthen evidence for BMIs.

6.2 Limited Evidence on Long-Term Effects

A major gap in BMI research is the limited long-term follow-up data, leaving uncertainty about whether benefits are sustained. Most studies measure outcomes immediately post-intervention, providing minimal information on lasting effects. Evidence is mixed: for example, (Rigas *et al.* 2022) ^[43] reported that brief mindfulness reduced anxiety in patients undergoing haemodialysis, with effects lasting up to six months. Similarly, (de Vibe *et al.*, 2018) ^[44] found sustained improvements in mindfulness, coping, and well-being up to six years among medical and psychology students. In contrast, (Karing *et al.*, 2024) ^[45] observed no long-term advantage for a combined face-to-face and app-based intervention at 12 months, and (Shomaker *et al.*, 2019) ^[46] reported variable sustained outcomes among adolescents with insulin resistance.

Thus, while short-term BMI benefits are consistently reported, evidence on long-term maintenance remains limited, inconsistent, and highly dependent on population characteristics, intervention format, and engagement.

7. Feasibility, Scalability, and Implementation of BMIs

7.1 Practical Use in Workplaces, Schools, and Healthcare

Brief mindfulness interventions (BMIs) have demonstrated significant benefits across workplace, healthcare, and educational settings. In workplace contexts, (Arredondo *et al.*, 2017) ^[47] implemented an 8-week brief integrated mindfulness program (M-PBI) with employees, reporting reductions in perceived stress and burnout, alongside improvements in mindfulness, self-compassion, and

decentring. Similarly, (Ameli *et al.*, 2020) ^[10] found that a brief mindfulness-based self-care program (MBSC) for healthcare professionals reduced stress and anxiety, enhanced positive affect, and increased state mindfulness, indicating that even short structured interventions can effectively support well-being in demanding environments. In healthcare settings, brief programs are feasible and impactful. (Miller-Matero *et al.*, 2019) ^[48] demonstrated that a 10-minute mindfulness intervention for hospitalised patients with acute pain reduced stress and pain. (Server *et al.*, 2022) ^[49] reported that an 8-week BMI for pain clinic staff achieved high adherence and acceptability, improved mindfulness and self-compassion, and reduced emotional exhaustion among physicians. (Seidel *et al.*, 2021) ^[50] evaluated a short mindfulness course tailored for nurses and healthcare providers, finding improvements in mindful awareness, aspects of burnout, and quality of life.

Educational applications of BMIs have also been effective. (Sun *et al.*, 2025) ^[25, 26] implemented a five-day, eight-minute daily mindfulness program for high school students, observing reduced test anxiety, improved mindfulness skills, and better exam performance. (Phan *et al.*, 2022) ^[51] concluded in a systematic review that school-based mindfulness programs enhance prosocial behaviour, attention, resilience, and mindfulness while reducing anxiety and attention-related problems. Brief mindfulness coaching has also improved cognitive performance; (Jaiswal *et al.*, 2025) ^[52] found enhancements in selective attention among medical scientists following a 12-week program. (Gilmartin *et al.*, 2017) ^[53] systematically reviewed BMIs for healthcare providers, confirming improvements in stress, anxiety, mindfulness, and resilience. Collectively, these findings demonstrate that BMIs are practical, feasible, and effective across diverse applied contexts.

7.2 Digital and Brief Intervention Accessibility

Digital delivery has expanded the accessibility of BMIs, overcoming time and logistical barriers. (Osborne *et al.*, 2025) ^[54, 55] developed a digital mindfulness intervention to improve body image and reduce disordered eating risk in youth, emphasising user engagement, feasibility, and scalability. In professional contexts (Jaiswal *et al.*, 2025) ^[52] implemented the “Well Mind” app was implemented for healthcare professionals, reporting improvements in self-compassion, state mindfulness, and neurophysiological attention markers over three months.

Digital interventions have also benefited caregivers and students. (Osborn *et al.*, 2025) ^[55] found that parents of children with developmental disabilities reported reduced distress and enhanced mindfulness following a brief online program. Similarly, (Fagioli *et al.*, 2023) ^[56] reported that a short online BMI for university students improved attention, academic self-efficacy, and sense of belonging. These findings indicate that brief and digital MBIs can broaden access while maintaining effectiveness across populations.

7.3 Implementation Strategies and Challenges

Successful implementation of BMIs requires careful planning to optimise engagement, adherence, and effectiveness. Key strategies include adapting intervention duration to participants' schedules, integrating sessions into daily routines, and creating supportive environments. (Seidel *et al.*,

2021) ^[50] demonstrated that tailoring an abbreviated mindfulness course to nurses' work schedules improved mindful awareness and reduced burnout. (Jaiswal *et al.*, 2025) ^[52] emphasised flexible, short-duration sessions to enhance selective attention in medical scientists. (Server *et al.*, 2022) ^[49] highlighted the feasibility of an 8-week program for healthcare staff, showing high adherence when workload and organisational context were considered.

Challenges remain, including variability in participant motivation, adherence, and engagement. (Miller-Matero *et al.*, 2019) ^[48] noted that limited exposure and patient motivation could affect outcomes. (Ameli *et al.*, 2020; Arredondo *et al.*, 2017) ^[10, 47] Similarly observed that attrition and baseline motivation influenced program effectiveness. Digital platforms can address some logistical challenges (Server *et al.*, 2022; Jaiswal *et al.*, 2023) ^[49], noted scalable delivery and flexible engagement, while (Osborn *et al.*, 2024) emphasised user-friendly design, clear instructions, and ongoing support to maintain adherence. Overall, tailoring interventions to participant needs, ensuring contextual adaptation, and providing ongoing support are essential for successful BMI implementation and sustainability.

Discussion

The present review synthesised evidence on the effectiveness, psychological mechanisms, and implementation of Brief Mindfulness Interventions (BMIs) across diverse populations and contexts. Overall, the literature indicates that BMIs consistently improve psychological wellbeing, reduce emotional distress, and strengthen adaptive regulatory processes. These benefits appear robust across brief formats, including single-session practices, multi-session workshops, online programs, and app-based delivery platforms. The findings collectively suggest that mindfulness does not require lengthy programs such as MBSR or MBCT to produce measurable psychological benefits; rather, even short, accessible practices can meaningfully influence emotional balance and coping.

A central pattern across studies is the reliable reduction in stress, anxiety, depressive symptoms, and burnout following BMI participation. These improvements were observed in school students, university populations, healthcare professionals, older adults, and individuals under situational or chronic stress. BMIs also supported cognitive and emotional processes such as attention regulation, resilience, self-compassion, and psychological flexibility. The consistency of these outcomes across demographic groups underscores the scalability and adaptability of brief interventions, making them suitable for high-demand environments where time constraints limit engagement in longer programs.

The review further highlights three core psychological mechanisms through which BMIs exert their effects: enhanced emotion regulation, improved cognitive reappraisal and acceptance, and strengthened capacities for nonattachment and distress tolerance. These mechanisms converge to reduce automatic emotional reactivity, interrupt maladaptive cycles of rumination or avoidance, and promote healthier engagement with internal experiences. Mindfulness fosters meta-awareness and non-reactivity, enabling individuals to observe emotional and cognitive events

without becoming entangled in them. This shift in internal processing offers a plausible explanatory pathway for the observed reductions in psychological distress across studies. Despite the strong evidence base, several methodological limitations emerged. Heavy reliance on self-report measures reduces objectivity, while homogeneous samples, often predominantly female, limit generalizability. Variability in intervention design, duration, instructor training, and control conditions makes it difficult to isolate mindfulness-specific effects. High attrition rates in digital programs and a lack of adherence monitoring also threaten internal validity.

Most crucially, the scarcity of long-term follow-up data prevents firm conclusions about the sustained impact of BMIs. Although some studies report maintained effects over months or years, others find diminishing benefits, suggesting that contextual factors, population characteristics, and continued practice may influence long-term outcomes.

Implementation research highlights both opportunities and challenges. Successful programs tailor session duration and delivery format to participant needs, integrate mindfulness into daily routines, and provide supportive environments. Workplace, healthcare, and educational settings have shown particular success when interventions fit existing schedules and responsibilities. However, engagement and motivation remain recurring challenges, especially in digital interventions where user adherence depends on platform design, clarity, and ongoing support. These findings emphasise that implementation quality, not only intervention content, plays a key role in determining effectiveness.

Conclusion and Future Directions

Brief mindfulness interventions (BMIs) demonstrate strong potential as practical, scalable tools for enhancing psychological well-being across diverse settings, including workplaces, schools, and healthcare environments. The reviewed evidence indicates that even short-duration mindfulness practices can reduce stress, anxiety, emotional reactivity, and burnout while improving mindfulness skills, emotional regulation, attention, and self-compassion. Digital and app-based formats further expand accessibility, making BMIs feasible for individuals with demanding schedules or limited access to in-person programs. Collectively, these findings suggest that BMIs offer a flexible, efficient, and effective approach to promoting well-being in both clinical and nonclinical populations.

However, despite these promising outcomes, several limitations persist in the current research landscape. Future research on Brief Mindfulness Interventions (BMIs) must address these gaps to strengthen the evidence base and enhance practical applicability. First, the continued reliance on self-report instruments limits construct validity and increases susceptibility to method bias; future studies should incorporate multimethod assessment strategies, including behavioural indicators, physiological markers, and assessments conducted by trained clinicians (Davidson & Kaszniak, 2015; Goldberg *et al.*, 2019) ^[39, 40]. Second, high attrition rates, particularly in digital and app-based interventions, highlight the need for developing engagement-enhancing strategies, such as personalised reminders, user-tailored content, and improved technical support (Linardon *et al.*, 2023) ^[41]. Addressing these barriers may improve adherence and strengthen the internal validity of BMI trials.

Third, many studies still employ wait-list or structurally weak control groups, which restrict the ability to isolate mindfulness-specific effects. Future studies should place greater emphasis on using active control conditions that are structurally comparable, so that nonspecific therapeutic influences, such as participants' expectations and the attention provided by instructors, are more effectively controlled (Dimidjian & Segal, 2015) ^[42]. Fourth, despite growing evidence of BMI effectiveness, there remains a limited understanding of the psychological mechanisms driving change. More rigorous mediation and longitudinal modelling are needed to clarify pathways related to emotion regulation, cognitive reappraisal, acceptance, distress tolerance, and nonattachment (Creswell, 2017) ^[5].

Finally, long-term outcomes are insufficiently explored. Most BMI studies include only short follow-up periods, leaving questions about the durability of benefits unresolved. Existing longterm research shows mixed findings across populations, underscoring the need for extended follow-up windows of 6-12 months or longer to assess sustained psychological and behavioural change (Rigas *et al.*, 2022; de Vibe *et al.*, 2018; Karing *et al.*, 2024; Shomaker *et al.*, 2019) ^[43, 44, 45, 46]. Expanding follow-up assessments will help determine whether BMIs provide temporary relief or produce lasting improvements in well-being.

Overall, future research should aim for greater methodological rigour, more representative samples, clearer identification of mechanisms, and stronger designs that enable robust causal inference. These advancements will support the development of more effective, scalable BMIs suitable for diverse settings and populations.

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