

## Second-Generation Mindfulness Interventions: Concepts, Empirical Developments, and Theo- retical Controversies

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### Abstract

Recently emerged second-generation mindfulness interventions emphasize that the concept of mindfulness is active, discriminating awareness, introduce practices such as compassion meditation and emptiness meditation, and stress ethical cultivation and a lifestyle beyond therapy. Empirically, preliminary research has supported the positive effects of several second-generation mindfulness interventions, but the number of studies remains very limited; among the newly introduced practices, only the effects of compassion meditation are supported by extensive research, while other contents have been scarcely studied. Theoretically, second-generation mindfulness interventions have faced ethical questioning due to the incorporation of more Buddhist content, and have also highlighted the long-standing philosophical issues of mindfulness interventions by emphasizing mindfulness as a daily lifestyle.

### Full Text

#### Preamble

#### Second Generation Mindfulness-Based Interventions: Concepts, Empirical Research, and Theoretical Debates

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**Abstract:** The “Second Generation Mindfulness-Based Interventions” (SG-MBIs) that have emerged in recent years conceptualize mindfulness as an active and discriminative form of awareness, incorporate practices such as loving-kindness meditation and emptiness meditation, and emphasize ethical cultivation and a lifestyle beyond therapeutic contexts. Empirically, preliminary stud-

ies have supported the positive effects of several SG-MBIs, though research remains scarce. Among the newly introduced practices, only loving-kindness and compassion meditations have received substantial empirical support, while other components have been minimally studied. Theoretically, SG-MBIs face ethical questions due to their inclusion of more Buddhist elements, and their emphasis on mindfulness as a daily lifestyle highlights longstanding philosophical issues in mindfulness-based interventions.

**Keywords:** Second Generation Mindfulness-Based Interventions; loving-kindness and compassion meditations; four immeasurables; emptiness; ethics

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## 1.1 The Concept of Mindfulness and Early Mindfulness-Based Interventions

The term “mindfulness” originates from Buddhist mindfulness meditation. In psychological research, Kabat-Zinn (2003) described mindfulness as purposeful, non-judgmental attention to the present moment, while psychologists later proposed a two-dimensional operational definition: the first dimension concerns attention—awareness of present-moment experiences and events; the second concerns attitude—adopting an accepting, curious, and open stance toward these experiences (Bishop et al., 2004). The benefits of mindfulness for mental health primarily derive from these two dimensions: attending to the present moment reduces rumination about past negative events and anxiety about future events, while allowing painful experiences to exist with an accepting attitude avoids the psychological pathological consequences of experiential avoidance (inappropriately escaping painful experiences) (Ren et al., 2019).

Due to these mental health benefits, a series of Mindfulness-Based Interventions (MBIs) were developed. Early MBIs include Mindfulness-Based Stress Reduction (MBSR), developed in the 1970s (Kabat-Zinn, 1982), and interventions proposed around 2000 such as Mindfulness-Based Cognitive Therapy (MBCT; Segal, Williams, & Teasdale, 2002), Acceptance and Commitment Therapy (ACT; Hayes, Strosahl, & Wilson, 1999), and Dialectical Behavior Therapy (DBT; Linehan, 1993). Because mindfulness emphasizes accepting psychological events—changing one’s relationship with thoughts and emotions rather than changing their content—these interventions differ from traditional cognitive-behavioral therapy and are considered “third-wave behavior therapies” following behavior therapy and cognitive therapy (Hayes, 2004). Since then, MBIs have developed rapidly: the efficacy and mechanisms of these interventions in treating various psychological disorders have been supported by numerous studies (e.g., Ren et al., 2019), and specialized MBIs have been developed for specific psychological

problems (e.g., Wanden-Berghe, Sanz-Valero, & Wanden-Berghe, 2010). Moreover, MBIs are no longer limited to treating psychological disorders but are widely applied to subclinical issues such as occupational and academic burnout (Su, Zhou, & Li, 2019; Pang, Bai, Tang, & Luo, 2010), as well as enhancing well-being, positive psychological capacities, and work efficiency (Gao, Geng, & Liu, 2014).

## 1.2 The Emergence of Second Generation Mindfulness-Based Interventions

The success of MBIs prompted psychologists to further examine the entire Buddhist training system, during which they recognized several limitations of existing interventions. First, MBIs have weak theoretical foundations: they extract mindfulness meditation as a technical tool from the complete Buddhist training system, ignoring its philosophical foundations, assumptions about human nature, and training goals (Xiong, 2010). Scholars have noted that these theoretical foundations are crucial for maximizing the effectiveness of mindfulness meditation (Xiong & Yu, 2011); some even argue that continuing to call these decontextualized technical practices “mindfulness” is inaccurate and potentially misleading (Van Gordon, Shonin, & Griffiths, 2015). Second, the practice system of MBIs is incomplete: the Buddhist Noble Eightfold Path includes right view, right intention, right speech, right action, right livelihood, right effort, right mindfulness, and right concentration—mindfulness is only one component. Early MBIs not only limited their practices to mindfulness itself but also lost the complex connotations of mindfulness by severing its connection with other components, which hinders the full potential of mindfulness (Phang & Oei, 2012). Therefore, researchers recommend integrating more complete training systems and other Buddhist-emphasized concepts (such as forgiveness and gratitude) into MBIs (Rosenzweig, 2013). Additionally, MBIs lack emphasis on morality: Buddhism places great importance on ethics, believing that immoral mental states and behaviors ultimately lead to suffering, and thus emphasizes precepts and ethics in its training system (Harvey, 2000). Early MBIs aimed to detach from religious contexts and emphasize value neutrality in psychological interventions, and their emphasis on “acceptance” and “non-judgment” conveyed an ethically neutral stance (Bodhi, 2011; Purser & Milillo, 2015). Some scholars worry this may encourage self-indulgence or limit MBIs’ health-promoting capacity by failing to address immoral concepts that may contribute to illness (Greenberg & Mitra, 2015; Monteiro, Musten, & Compson, 2015).

Addressing these limitations, Van Gordon and colleagues proposed the concept of “Second Generation Mindfulness-Based Interventions” (SG-MBIs), identifying three key distinctions from early MBIs (“first-generation MBIs”) (Van Gordon, Shonin, & Griffiths, 2015): First, conceptually, SG-MBIs describe mindfulness as “the process of engaging full, direct, and active awareness of experiential phenomena, which is spiritual and sustained” (p. 389, Shonin, Van Gordon, & Griffiths, 2014a). Specifically, Van Gordon et al. argue that first-generation

MBIs understand mindfulness as emphasizing non-judgmental, passive awareness—merely noticing what happens without evaluation or active processing—whereas the new definition advocates discriminative, active awareness that includes analysis and judgment of what is observed, enabling practitioners to ethically recognize potential consequences of their actions. In other words, while previous definitions emphasized attention to the present moment, the new definition further emphasizes active engagement with the present moment. The definition explicitly uses the term “spiritual” to help participants recognize mindfulness as a spiritual lifestyle rather than merely a therapeutic technique applied in certain situations (Van Gordon, Shonin, & Griffiths, 2016c). Second, in terms of intervention content, SG-MBIs incorporate Buddhist meditation practices and concepts beyond mindfulness meditation, which will be detailed below in relation to specific interventions. Third, philosophically, SG-MBIs emphasize ethical instruction as an essential component of training, addressing the aforementioned lack of ethical emphasis in first-generation MBIs. Simultaneously, SG-MBIs explicitly promote mindfulness as a lifestyle rather than a simple psychological technique. As noted earlier, first-generation MBIs, particularly early ones, were designed for treating psychological disorders. Although they encouraged practitioners to bring mindfulness into daily life, they maintained an ambiguous stance on whether mindfulness should be promoted as a lifestyle, facing criticism and questioning (Van Gordon, Shonin, Griffiths, & Singh, 2015). Therefore, SG-MBIs clearly clarify that they cultivate a lifestyle, not merely teach psychotherapeutic techniques (Van Gordon, Shonin, & Griffiths, 2015).

Since the proposal of “SG-MBIs,” many scholars have embraced the concept, with recent studies emphasizing that their newly developed interventions belong to this category (e.g., Bayot, Vermeulen, Kever, & Mikolajczak, 2018; Monteiro, Musten, & Leth-Steensen, 2019), and more new interventions are expected to emerge. Given this trend, this paper does not aim to comprehensively overview all SG-MBIs but instead selects two intervention programs described below. These programs were developed early, have multiple empirical studies, and are representative in content. This paper aims to illustrate the characteristics of SG-MBIs and the empirical research on these interventions as a whole and on their specific components.

## 2.1 Meditation Awareness Training

Meditation Awareness Training (MAT) was developed by the research group that proposed SG-MBIs (Van Gordon, Shonin, Sumich, Sundin, & Griffiths, 2014). In addition to mindfulness, MAT includes techniques to enhance civic awareness, ethical awareness, perceptual clarity, meditative insight (such as insight into subtle concepts like impermanence and non-self), patience and perseverance, generosity, and perspective-shifting abilities and qualities (Van Gordon et al., 2014).

MAT is an eight-week program with weekly group sessions lasting two hours

each (approximately 45 minutes of teaching, 35 minutes of discussion, 30 minutes of meditation, and 10 minutes of break). Between the third and seventh weeks, each participant receives a 50-minute one-on-one Q&A session following Buddhist meditation traditions. Participants receive a guided CD and course booklet for daily practice. The eight weekly themes are: (1) introducing meditation and concentration, (2) introducing impermanence and emptiness, (3) cultivating joy and peace, (4) generosity toward self and others, (5) ethical awareness and patience, (6) reviewing impermanence and emptiness, (7) kindness and compassion, and (8) letting go and course review (Van Gordon et al., 2014). Thus, while mindfulness is an important component of MAT, it is not the sole focus; and MAT maintains Buddhist ethical principles while secularizing the delivery of themes through concepts like “civic awareness” (Van Gordon et al., 2014).

Currently, numerous studies have validated MAT’s effects across diverse participant populations and research methods. Van Gordon et al. (2014) selected subclinical university students with stress, anxiety, and low mood, matching them into two equivalent groups based on demographic variables such as education level, age, gender, and ethnicity. Through pre-post comparisons, they found that MAT significantly improved mental health (stress, anxiety, low mood) and emotional regulation capacity, as well as mindfulness disposition levels in the intervention group (n=14). Another study by Shonin, Van Gordon, Dunn, Singh, and Griffiths (2014) used 152 office middle managers as participants, randomly assigning them to either MAT or an equivalent-duration cognitive-behavioral theory learning control group. Results showed that MAT participants demonstrated significant and sustained improvements in work-related stress, job satisfaction, psychological distress, and work performance. The qualitative component of this study also supported that MAT enhanced employees’ work performance, changed attitudes toward work and job satisfaction, and helped employees achieve self-release and take responsibility for their spiritual growth (Shonin & Van Gordon, 2014). Van Gordon, Shonin, Dunn, and Griffiths (2017) conducted another randomized controlled trial with fibromyalgia syndrome patients, comparing MAT with cognitive-behavioral therapy. Results indicated that MAT significantly improved clinical symptoms, pain perception, sleep quality, psychological distress, non-attachment (acceptance of self, symptoms, and environment), and civic engagement. Phenomenological analysis based on interviews also showed that MAT enhanced these patients’ physical and mental health, promoted spiritual growth, and particularly improved their understanding of civic awareness and impermanence (Van Gordon, Shonin, & Griffiths, 2016b). Van Gordon, Shonin, Dunn, and Gracia-Campayo et al. (2017) conducted a randomized controlled study on workaholism, finding that compared to a waitlist group, the MAT group showed significant and sustained improvements in workaholism symptoms, job satisfaction, work engagement, work duration, and psychological distress, with MAT participants working significantly fewer hours but without decreased work performance. Additionally, several case studies have found that MAT can improve individuals’ sex addiction behavior

(Van Gordon et al., 2016c), help patients with co-occurring schizophrenia and pathological gambling (Shonin, Van Gordon, & Griffiths, 2014b), and improve workaholism-related issues (Shonin, Van Gordon, & Griffiths, 2014c), among others.

## 2.2 Mindfulness-Based Positive Behavior Support

Mindfulness-Based Positive Behavior Support (MBPBS) integrates mindfulness with Positive Behavior Support, primarily used in caregiver training to change caregivers' attitudes and behaviors through the integration of these concepts and techniques, thereby reducing patients' problem behaviors (Singh, Lancioni, Karazsia, & Myers, 2016). This intervention lasts ten weeks and includes seven full-day (8-hour) intensive sessions divided into three phases: Phase 1 is a one-day training in Week 1, Phase 2 is five consecutive days of training in Week 5, and Phase 3 is a one-day training in Week 10 (Singh, Lancioni, Winton et al., 2014). In terms of content, Phase 1 covers three basic meditations (concentration meditation, walking meditation, insight meditation) and the Five Hindrances (desire, aversion, sloth-and-torpor, restlessness-and-worry, and doubt as obstacles in meditation). Phase 2, spanning five days, reviews previous content each day before introducing new practices, including loving-kindness meditation and Positive Behavior Support exercises. Phase 3 focuses on emotional management learning, Positive Behavior Support practice, and course review with Q&A. In addition to these core components, other Buddhist concepts such as the Three Poisons (desire, aversion, and ignorance) are also extensively discussed (Singh, Lancioni, Karazsia, Chan, & Winton, 2016).

A series of studies have confirmed MBPBS' s effectiveness. Patients with certain developmental disabilities often exhibit aggressive behavior, exposing their caregivers to significant stress and even risk of physical harm. Researchers conducted a series of MBPBS intervention studies on caregivers of individuals with developmental disabilities: Singh, Lancioni, and Karazsia et al. (2014) used a multiple-baseline design with nine caregivers; Singh, Lancioni, Karazsia, and Myers (2016) used a single-group pre-post design with 33 caregivers; Singh, Lancioni, Karazsia, and Chan et al. (2016) conducted a randomized controlled trial with 77 caregivers comparing MBPBS with facility-based in-service training (behavioral analysis, behavior management, Positive Behavior Support); and Singh et al. (2018) used a randomized controlled trial with 123 caregivers comparing MBPBS with traditional Positive Behavior Support. These studies measured largely the same variables and consistently supported that MBPBS effectively reduces caregiver stress and burnout, decreases use of physical restraints and sedative medications on patients, reduces patients' aggressive behavior, and is highly cost-effective. Additionally, Singh, Lancioni, and Winton et al. (2014) used a multiple-baseline design to provide MBPBS to three mothers of children with autism spectrum disorder, finding that the intervention effectively reduced maternal stress, increased positive mother-child social interactions, decreased children' s challenging behaviors, and increased children' s compliance.

### 3.1 The Four Immeasurables and Loving-Kindness/Compassion Meditations

Loving-kindness and Compassion Meditations aim to cultivate four prosocial attitudes—loving-kindness, compassion, appreciative joy, and equanimity—collectively known as the “Four Immeasurables,” hence these meditations are also translated as “Four Immeasurables Meditations” (Zeng, Chiu, Wang, Oei, & Leung, 2015). In these practices, practitioners visualize or recall specific individuals and repeat well-wishes such as “May you be healthy and safe, may you be happy and joyful,” sometimes imagining blessings flowing from their heart to the other person, to generate prosocial attitudes. The objects of meditation typically progress from easy to difficult, from self and friends to strangers, disliked individuals, and all beings. Details vary depending on which prosocial attitude is being cultivated: for example, compassion meditation visualizes suffering people and wishes for their liberation to cultivate compassion, while appreciative joy meditation visualizes happy people and wishes for their continued happiness to cultivate joy (Zeng, Chio, Oei, Leung, & Liu, 2017). Loving-kindness and compassion meditations are present in both SG-MBIs described above, comprising over half of MBPBS content and becoming an important component beyond mindfulness. Notably, first-generation MBIs like MBCT also “implicitly” convey compassionate attitudes when cultivating mindfulness (Brito-Pons, Campos, & Cebolla, 2018); in contrast, SG-MBIs directly cultivate and explicitly emphasize prosocial attitudes through loving-kindness meditation, reflecting their emphasis on moral issues. This explicit exploration of prosocial attitudes also provides specific criteria for discriminative judgment from an ethical perspective. Thus, for SG-MBIs, loving-kindness meditation is not merely another meditation practice beyond mindfulness but a core component that highlights the distinctive features of SG-MBIs.

Empirically, loving-kindness meditation has long been studied as an independent practice (Zeng, Liu, & Liu, 2013). Meta-analyses have indicated that single-session loving-kindness meditation can effectively generate positive emotions, while multi-week interventions can enhance daily positive emotions (Zeng et al., 2015). A series of studies also support that loving-kindness meditation effectively cultivates prosocial attitudes toward self and others (Kang, Gray, & Dovidio, 2015) and promotes helping behavior (Condon, Desbordes, Miller, & DeSteno, 2013) and cooperative decision-making (Ng, Lai, Zeng, & Oei, 2019). Building on this foundation, loving-kindness meditation interventions have been applied to treat psychological disorders such as depression and PTSD with promising results (see Graser & Stangier, 2018). It should be clarified that loving-kindness meditation interventions often include some mindfulness practice, making it difficult to isolate their independent effects. Recently, scholars have designed pure loving-kindness meditation interventions without mindfulness, preliminarily demonstrating that loving-kindness meditation alone can produce the aforementioned positive effects (e.g., Hofmann et al., 2015; Zeng, Wang, Oei, & Leung, 2019). However, the additional benefits of adding loving-kindness

meditation to mindfulness meditation remain to be thoroughly and rigorously evaluated.

### 3.2 Emptiness and Emptiness Meditation

Emptiness is a crucial Buddhist concept, positing that all phenomena lack inherent existence (Van Gordon, Shonin, & Griffiths, 2016a). This concept is closely linked with dependent origination, non-self, and non-attachment, and is considered important for liberating from suffering and gaining insight into the true nature of self and world (Van Gordon et al., 2019). Emptiness Meditation refers to Buddhist meditation practices for realizing emptiness. It is worth noting that different Buddhist traditions (Theravada, Mahayana, Vajrayana) have slightly different understandings or emphases on “emptiness” (see Cao, 2004), but current psychological empirical research often includes meditators from different traditions without strictly defining the psychological operations of emptiness meditation (Van Gordon et al., 2019). According to Van Gordon et al. (2019), meditators from various traditions can be roughly described as engaging in a two-step psychological process: First, practitioners concentrate on observing their thoughts and other mental events, maintaining awareness and allowing mental events to arise and pass without intervention; second, practitioners begin searching for the “self” and experience that there are only continuously arising and passing mental events, but no permanent, unchanging “self.” Based on these two steps, unique emptiness experiences emerge during meditation, such as experiencing the dissolution of self, time, and space. Thus, the first step of emptiness meditation is similar to mindfulness meditation, involving relatively passive non-judgmental awareness; the second step goes deeper than mindfulness meditation, involving active exploration and analysis to directly experience Buddhist emptiness philosophy at the experiential level and elicit other unique experiences.

Among SG-MBIs, only MAT strongly emphasizes the concept and practice of emptiness meditation, and currently only Van Gordon and colleagues who study MAT have preliminarily explored its effects (Van Gordon et al., 2019). This study conducted quantitative and qualitative research on emptiness meditation effects with 25 advanced Buddhist meditators from various traditions worldwide. The quantitative component used a within-subjects design comparing emptiness meditation with mindfulness meditation, where mindfulness meditation focused on cultivating concentration and mindfulness without involving emptiness or other meditations involving analysis and exploration for insight. Participants completed measures within 24 hours before and after each meditation type and before any other meditation practice. Results showed that compared to mindfulness meditation, emptiness meditation significantly improved non-attachment to self and environment, mystical experiences, compassion, positive emotions, and reduced negative emotions. The qualitative component used semi-structured interviews with advanced meditators to explore emptiness meditation experiences, employing grounded theory to construct preliminary theories regarding

the process, experiences, perspectives, and effects of emptiness meditation. Participants considered emptiness meditation more important than all other meditations and their primary source of spiritual nourishment. Because emptiness meditation experiences break through limitations of self, time, and space concepts, eliminating the limited self and experiencing the interconnectedness of all things, practitioners develop a compassionate sentiment. After meditation, practitioners also attempt to bring these emptiness experiences and insights into daily life.

### 3.3 Research on Other Concepts

Beyond specific meditation practices, recent researchers have begun examining the potential effects of SG-MBIs' direct emphasis on ethical concepts. Chen and Jordan (2018) conducted a randomized controlled study comparing mindfulness practice with ethical instruction, mindfulness practice without ethical instruction, and a control group (analytical thinking training). All three practices lasted eight days, with 10-minute daily guided practice. The difference between the two mindfulness practice groups was that the ethically-instructed mindfulness practice mentioned ethical themes such as moral consequences and beings' suffering and happiness, while the non-ethical mindfulness practice replaced these with body sensation awareness and emotion observation. Results showed that both mindfulness practices reduced perceived stress and increased life satisfaction and self-awareness, but the ethically-instructed mindfulness practice also enhanced personal growth and increased prosocial behavior more than the non-ethical practice.

Additionally, research has found that discussing concepts of loving-kindness, compassion, appreciative joy, and equanimity without any meditation can enhance prosocial attitudes toward oneself but not toward others (Kang, Gray, & Dovidio, 2015). Using various scales measuring Buddhist concepts, researchers have also explored the positive effects of Buddhist concepts like "non-self" (Herwitz, 2015). While these studies somewhat support the value of incorporating these Buddhist concepts into SG-MBIs, they are far removed from the actual practice of existing SG-MBIs as they are conducted without meditation. Therefore, this paper will not elaborate further on them.

### 4.1 Ethical Controversies from Value Judgments

As described above, SG-MBIs incorporate more Buddhist components and particularly emphasize ethical cultivation, but this is accompanied by ethical controversies. Davis (2015) points out that integrating Buddhist ethics with mindfulness instruction in SG-MBIs means having people who have not accepted Buddhist perspectives engage in mindfulness practices with Buddhist ethics, which itself raises ethical issues. Specifically, SG-MBIs directly use Buddhist principles as the context for mindfulness practice without demonstrating or discussing whether these principles represent the best ethical guidelines, violating

the principle of value neutrality and raising suspicions of religicizing mindfulness interventions. Buddhist ethics are not necessarily universal truths, and integrating Eastern Buddhist ethical concepts into mindfulness practice while ignoring cultural diversity and differences is itself unethical.

The author believes that the fundamental reason SG-MBIs face ethical challenges is the lack of justification for the necessity of added components. First-generation MBIs introduced mindfulness based on its benefits for treating psychological disorders to help clients address their desired problems, which is unobjectionable. However, SG-MBIs introduce more Buddhist content with insufficient justification. As described above, many Buddhist practices introduced by SG-MBIs require further empirical support for their specific effects; even theoretically, MAT and MBPBS introduce numerous Buddhist practices and concepts at once without fully clarifying how these contents benefit clients. This raises suspicion about whether introducing these contents addresses clients' needs or the developers' needs. Davis (2015) emphasizes that Buddhist ethics are not necessarily universal truths; even if we assume these ethics are acceptable, learning and cultivating ethics may not be participants' purpose for joining interventions.

Therefore, SG-MBIs need to justify the necessity of each new component, including ethics, from both theoretical and empirical perspectives, and clarify the intervention's purpose and value stance to participants. For example, some loving-kindness meditation interventions explicitly state that their purpose is enhancing well-being; although the concepts cultivated by loving-kindness meditation are ethical, moral cultivation is not the primary purpose, and participants are not required to accept these concepts (Zeng et al., 2019). In summary, loving-kindness meditation and ethical concepts cannot achieve value neutrality, but there is no need to reject them for this reason; what is important is clarifying value judgments and giving participants the right to choose based on their own needs.

## 4.2 Philosophical Issues in Daily Life

SG-MBIs explicitly propose that interventions cultivate a lifestyle rather than merely a psychological technique for specific problems (Van Gordon et al., 2016c). This advocacy of integrating mindfulness into daily life makes longstanding philosophical issues in MBIs increasingly prominent. For example, scholars note that Mindfulness-Based Cognitive Therapy teaches depressed patients that "thoughts are just thoughts," helping them not to identify with or ruminate on negative thoughts. This technique helps manage pathological negative thoughts in therapy, but in daily life, people cannot avoid being guided by thought content and sometimes struggle to determine whether they should trust a particular thought or feeling (Zeng, Zhou, Wang, & Liu, 2012). Similarly, ACT's "self-as-context" teaches that the self is not the conceptualized self but a background-like observer. This helps clients in therapy not treat negative psychological events as part of the self and dissolves self-esteem issues

(Ren et al., 2019; Zeng, Liu, & Yu, 2011). However, in daily life, self-concept is an important reference for guiding one's behavior, and it is impossible to ask people to abandon self-concept. Moreover, whether ACT's "self-as-context" or MAT's introduced Buddhist "non-self" concept, they represent special metaphysical positions on what constitutes "self," "essence," or "reality," and whether these metaphysical positions should be accepted is debatable.

More deeply, both first- and second-generation MBIs strive to "secularize" or "de-religicize" mindfulness interventions (Van Gordon, Shonin, & Griffiths, 2015). However, MBIs only avoid transcendent topics like "rebirth" and "karma" while rarely exploring and reflecting on metaphysical propositions closely related to mindfulness meditation such as "impermanence" and "non-self." Therefore, SG-MBIs' introduction of more Buddhist content and explicit emphasis on integrating mindfulness into daily life inevitably invites more questioning. On the other hand, SG-MBIs make previously hidden problems more prominent, which undoubtedly has very positive implications for reflecting on the philosophical foundations of MBIs and improving their theories.

## 5 Summary and Research Outlook

Over the past decade, research and application of MBIs in various fields have developed rapidly. The concept of "Second Generation Mindfulness-Based Interventions" reflects new developments in the content and philosophy of MBIs themselves. As described above, this concept both summarizes common characteristics of recent new interventions—where mindfulness meditation is no longer the only or primary practice—and theoretically proposes new understandings and emphases, such as new conceptualizations of mindfulness and emphasis on ethics. This concept has received increasing response from scholars, manifested in the emergence of new interventions and theoretical questions. On the other hand, this new trend in MBI development has brought many unresolved issues, and future research could advance in three different directions.

First, empirical research on the effects of new interventions and new components. Current empirical research is clearly in its initial stages: although preliminary evidence supports the positive effects of SG-MBIs, studies are extremely limited and often use waitlist or no-control designs. Except for loving-kindness meditation, empirical research on other newly imported Buddhist contents is also very limited, making further empirical research unquestionably necessary. Notably, beyond widely used mindfulness and loving-kindness meditation, other components added by various SG-MBIs differ considerably, making it limitedly meaningful to abstractly discuss the effects of "SG-MBIs" or generalize effects from one intervention to another. Therefore, future research should both continue accumulating evidence for specific interventions and, more importantly, validate the effectiveness of specific components (such as emptiness meditation). The latter both supports the validity of existing interventions and provides references for designing new interventions or optimizing existing ones.

Second, developing and optimizing MBIs for specific problems. The term “second generation” can easily imply that it is better than the “first generation” or sufficient to replace it, but this understanding may not be appropriate. First, direct empirical comparisons between SG-MBIs and first-generation MBIs are still needed. Second, from a theoretical perspective, first-generation MBIs were developed for specific psychological disorders or pathological processes; if SG-MBIs provide richer content within similar intervention durations, whether they can treat specific psychological problems with the same depth becomes questionable. The essential issue is that SG-MBIs’ rich content and broad goals may lack specificity for particular problems or psychological processes. For example, MAT targets quite broad populations and problems, while MBPBS, though focusing on patient caregivers, does not adequately explain in the literature the correspondence between its various contents and caregivers’ specific needs. In summary, future research should design new SG-MBIs for clear targets or expand existing first-generation MBIs. Whether treating specific psychological problems or enhancing daily positive psychology, everything should revolve around clear goals rather than blindly introducing new components or simply assuming SG-MBIs are necessarily better.

Third, addressing ethical and philosophical controversies in MBIs. As noted above, SG-MBIs’ inclusion of more Buddhist components and emphasis on ethics has drawn ethical criticism; their explicit advocacy of integrating mindfulness into daily life has also made previously existing philosophical issues increasingly important. Future research should not only emphasize empirical studies but also strengthen theoretical exploration of ethical and philosophical issues to make MBI theories more complete and minimize ethical risks in practice.

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*Note: Figure translations are in progress. See original paper for figures.*

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