

# Mindfulness-based Interventions: Can They Improve Self-care and Psychological Well-being?

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## BACKGROUND

Mindfulness was first described 2500 years ago as “Sati” by the Buddha. This is recorded as the “Satipatthana Sutta” (Discourse on the Foundations/Establishment of Mindfulness) and subsequently as the “Mahasatipatthana Sutta” (The Great Discourse on the Foundations/Establishment of Mindfulness) in the Pali canon of Theravada Buddhism.<sup>1</sup>

The four foundations of mindfulness as the Buddha described them are as follows:

- Related to the body and breathing,
- Related to the feelings aroused by perceptions from the various senses,
- Related to the mind,
- Related to the objects of the mind.<sup>2</sup>

The Buddha referred to mindfulness as the path that could help every human being overcome suffering and attain complete understanding. The practice of mindfulness was described by the Buddha as—observing the breath (as a naturally occurring body process that is easily observable), the body during various daily activities (not just during meditation), the feelings that arise either from the senses or from the mind in a nonjudgmental and nonreactive fashion, the thoughts or mental states (mind) that arise from moment to moment and the contemplation of the objects of the mind which referred to various aspects of the Buddha’s teaching.<sup>2</sup> Over centuries, the teaching of mindfulness has remained a central tenet of Buddhism and programs like Vipassana mindfulness meditation are extremely popular all over the world.

## MINDFULNESS-BASED INTERVENTIONS AND APPROACHES

The resurgence of Buddhism in the West in the last century has been accompanied not only by mindfulness teaching and practice for the lay public but also by its secular adaptation for treating patients with psychological problems. Foremost among these secular adaptations are Mindfulness-based Stress Reduction (MBSR) founded by Jon Kabat Zinn in 1982 and Mindfulness-based Cognitive Therapy (MBCT) described by Segal, ZV, Williams, and Teasdale in 2002.<sup>3,4</sup> Together these are described as Mindfulness-based Interventions (MBIs) and there is an extensive body of literature describing the use of these techniques in a wide variety of disorders including anxiety, depression, and posttraumatic stress.<sup>5,6</sup> Mindfulness has also been used in healthy people in their workplace including healthcare professionals working in

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high-stress environments like intensive care units (ICUs) with high rates of burnout. Adaptations of MBIs include therapies that use mindfulness skills like acceptance and commitment therapy (ACT), dialectical behavior therapy (DBT), shorter retreats and residential programs (typically 3 days), brief mindfulness interventions (2–3 weeks), lab-based mindfulness training (3–4 days), and Internet and smartphone-based applications.<sup>7</sup>

## MINDFULNESS AND THE COVID-19 PANDEMIC

Mindfulness-based approaches have been recently appraised in the context of the stressors, demands, and challenges of the coronavirus disease-2019 (COVID-19) pandemic.<sup>8</sup>

Several studies have documented the wide range of psychological problems faced by people and healthcare workers during the COVID-19 pandemic.<sup>9,10</sup> Studies, especially randomized ones, on the scientific use of MBIs or their adaptations in mitigating the effect of the COVID-19 pandemic on patients or healthcare workers are relatively few.

An observational study from China by Zhu et al. comparing mindfulness practitioners and nonpractitioners during the first wave demonstrated a significant decrease in pandemic-related stress among mindfulness practitioners but not in depression or anxiety.<sup>11</sup>

In this context, the current randomized study on the role of MBSR in improving the psychological well-being of COVID-19 patients is timely and appropriate. One would have liked to know a little more about the severity of illness and the duration of COVID-19 in these patients. It would also have been informative to know the effect of the intervention on the aspects of mindfulness measured by the Five Facets of Mindfulness Scale or the Toronto Mindfulness Scale and also on outcomes such as anxiety, depression, and stress that the COVID-19 patients may have experienced.<sup>12</sup>

## MEASUREMENT OF THE EFFECT OF MINDFULNESS-BASED INTERVENTIONS

The effect of mindfulness and MBI has been studied using self-reported scales, measurement of biomarkers, and measurement of the neural correlates of mindfulness.<sup>13–15</sup> Self-reported scales have been used to study both state mindfulness (the temporary state that you attain during a session) and trait mindfulness (a more long-lasting effect of mindfulness practice that manifests as a trait). They are used commonly in clinical studies evaluating the effects of MBIs. The measurement of biomarkers and the neural correlates are used in basic science research that enhances our understanding of mindfulness.

## MECHANISMS OF MINDFULNESS

Given the fairly large database of solid evidence for MBIs for anxiety, stress, and depression, several researchers have used techniques of mediation analysis to study the mechanisms underlying the treatment benefits of MBIs on several psychological outcomes in MBI studies. A recent systematic review and meta-analysis of such mediation studies has addressed the question of how MBIs improve mental health and well-being.<sup>16,17</sup>

Mindfulness is commonly defined as “the quality of consciousness or awareness that arises through intentionally attending to present moment experience in a nonjudgmental and accepting way.” Mindfulness skills are taught in both MBIs (structured 8-week program) through a range of techniques that include awareness of breath, body sensations, thoughts, sounds, and routine daily activities. Several studies have shown a significant improvement in comparison with control in a wide variety of clinical and nonclinical psychological outcomes like anxiety, risk of relapse of depression, current depressive symptoms, chronic pain, psychological symptoms in cancer patients, and retrieval of specific autobiographical memories (a cognitive marker of depression).<sup>16</sup>

The postulated mechanisms for this therapeutic effect include the nonjudgmental and nonreactive acceptance of all “experience” that mindfulness skills engender.<sup>2,3</sup> Other mechanisms include awareness of and disengagement from repetitive negative thinking and assisting recall of unpleasant memories (termed as autobiographical memory specificity). Several models and summaries have identified numerous other putative mechanisms for how mindfulness works.<sup>16</sup>

## FUTURE DIRECTIONS

The current study demonstrates the benefit of MBSR in recovered COVID-19 patients. The COVID-19 pandemic has brought into sharp focus the stress that is faced by ICU patients, their families, and the healthcare professionals involved in their care. Further studies are urgently needed in Indian ICUs to identify stress and burnout and design interventions like MBIs or other mindfulness-based approaches to address and mitigate this emerging mental health crisis.

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