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Review Articles

Critical Analysis of the Efficacy of Meditation Therapies for Acute and Subacute Phase Treatment of Depressive Disorders: A Systematic Review

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Background: *Recently, the application of meditative practices to the treatment of depressive disorders has met with increasing clinical and scientific interest, owing to a lower side-effect burden, potential reduction of polypharmacy, and theoretical considerations that such interventions may target some of the cognitive roots of depression.* **Objective:** *We aimed to determine the state of the evidence supporting this application.* **Methods:** *Randomized controlled trials of techniques meeting the Agency for Healthcare Research and Quality definition of meditation, for participants having clinically diagnosed depressive disorders, not currently in remission, were selected. Meditation therapies were separated into praxis (i.e., how they were applied) components, and trial outcomes were reviewed.* **Results:** *18 studies meeting the inclusion criteria were identified, encompassing 7 distinct techniques and 1173 patients. Mindfulness-Based Cognitive Therapy comprised the largest proportion of studies. Studies including patients having acute major depressive episodes ($n = 10$ studies), and those with residual subacute clinical symptoms despite initial treatment ($n = 8$), demonstrated moderate to large reductions in depression symptoms within the group, and relative to control groups. There was significant heterogeneity of techniques and trial designs.* **Conclusions:** *A substantial body of evidence indicates that meditation therapies may have salutary effects on patients having clinical depressive disorders during the acute and subacute phases of treatment. Owing to methodologic deficiencies and trial heterogeneity, large-scale, randomized controlled trials with well-described comparator interventions and measures of expectation are needed to clarify the role of meditation in the depression treatment armamentarium.*

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INTRODUCTION

Depressive disorders, including major depressive disorder (MDD) and dysthymia, have a 12-month prevalence of approximately 7%[1] in the general population, and the prevalence is higher in hospitalized patients with medical illness[2] and ambulatory medical patients.[3,4] However, initial trials of currently available pharmacologic and psychotherapeutic treatments result in depression remission less than 50% of the time with multiple trials[5,6] and overall have

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moderate effect sizes.[7] Furthermore, in patients with comorbid medical illness, pharmacotherapeutics for depression carry the risk for polypharmacy, drug-drug interactions, and increased side effects. There is a need for new depression treatments with a more favorable risk/benefit profile and different mechanisms of action from existing treatments. Interest in the use of mind-body therapies for MDD and other psychiatric disorders is high among patients[8] and increasing among practitioners: for example, "mindfulness" is highest among the therapeutic orientations rated most likely to increase in use over the coming decade by psychotherapy experts.[9]

Definition of Meditation

The term meditation refers to a broad set of psychosomatic practices that involve training and regulating attention toward interoceptive or exteroceptive foci, or intentionally created mental images, while observing or redirecting attention from distracting thoughts.[10–15] Examples of interoceptive foci are sensations associated with the breath or other parts of the body, or "awareness itself"; exteroceptive foci may include such things as a statue or flame; and mentally generated imaginal representations may include verbal mantras (repetitive words or sets of syllables) or visual images.[16,17] Those meditation techniques involving sustained attention to a specific focus or limited range of inner or outer experience have often been referred to as concentrative or focused attention practices, whereas those incorporating a broader attentional spotlight to an array of changing stimuli have been called mindfulness, open-awareness, or open monitoring practices.[18–20] Open monitoring practices de-emphasize delineation of an explicit focus in favor of nonreactive but clear and vivid observation of moment-to-moment experiences.[19]

There is disagreement about which therapies are based on meditation and are comparable in mechanism of action. In attempting to address this controversy, the Agency for Healthcare Research and Quality proposed a consensus definition of meditation using a modified Delphi process.[21] This definition suggested that there are 3 principles essential to meditation: a defined technique, logic relaxation, and a self-induced state or mode. "Defined technique" denotes a describable set of instructions; "logic relaxation" refers to a lack of "intent" to analyze, judge, or create expectations regarding the practice; and "self-induced state" distinguishes meditation from hypnosis or guided imagery practices. A few examples of practices identified as meditation-based included mindfulness, many types of yoga, Tai Chi, Transcendental Meditation, and qigong. However, this definition met with some criticism owing to its relative nonspecificity.[22] A more recent iteration from the Agency for Healthcare Research and Quality was to dissociate "purely meditative" techniques, done while maintaining a stationary posture, from those that used a meditative awareness during movement; however, a detailed rationale for excluding the movement practices while retaining stationary meditation groupings was not provided.[23]

Meditation and Acute Psychologic Symptoms

When performing meta-analysis of the clinical literature on meditation techniques used as therapeutics for psychologic symptoms, many authors have collapsed across different meditation therapies using the same type of meditation (e.g., Mindfulness-Based Stress Reduction and Mindfulness-Based Cognitive Therapy [MBCT]), or broad categories of meditation or mindfulness techniques, such as focused attention and open monitoring, or with and without movement, and tried to draw conclusions about the effect size of meditation or mindfulness techniques as a group.[24–29] These meta-analyses have generally concluded that meditation techniques provide small to moderate salutary benefits for symptoms of depression or anxiety, and for patients with comorbid medical illnesses such as cancer, rheumatoid arthritis, fibromyalgia, and heart disease. Of these meta-analyses, 2 also analyzed meditation therapies by technique, but when doing so collated subjects with divergent symptom types (anxiety and mood) and severity, potentially confounding the results.[28,29]

There are difficulties in identifying the efficacious components across meditation therapies for several reasons. First, a rigorous comparison of the praxis elements of individual meditative therapies has not been undertaken, and thus the extent of commonality is not known. Because there is evidence to suggest that different meditative practices involve different neuronal substrates, it is likely that meditation therapies that incorporate different practices affect the biologic substrates of target psychologic symptoms differently.[20,30]