

Anxiolytic Efficacy: Mindfulness vs. Medication

Introduction

Generalized anxiety disorder (GAD) is a debilitating disorder of ongoing anxiety and worry about many events or thoughts that the person generally recognizes as excessive and inappropriate. 1 in 5 American adults are affected by an anxiety disorder, which equates to 42 million patients diagnosed. Pharmaceutical therapies and mindfulness approaches have both been implemented as interventions to reduce the symptoms of GAD.

PICOT Question

In adults with GAD, does mindfulness practice provide more relief of self-reported anxiety-related symptoms when compared to treatment with pharmacotherapy?

Design/Sample

An extensive search strategy was conducted that focused on finding healthcare research related to the PICO question. All articles analyzed were published within the last 6 years to ensure data collected reflects the newest theories, developments, and practices. Articles that were selected for literature review were required to involve mindfulness as an intervention for anxiety-related symptoms and include information regarding the application, efficacy, or comparison with pharmacotherapy. Literature searches were performed through the UC Davis Library database using the CINAHL, PubMed, JSTOR, and Web of Science websites. The main keywords associated with the PICO question were used to find relevant literature sources.

Analysis

Our search revealed multiple studies related to our topic with mixed results and several barriers were encountered. Because mindfulness-based cognitive therapy (MBCT) can potentially include several modalities such as MBSR, MABI, or MSC, it is hard to compare these practices across studies as each study portrays the activity of mindfulness differently. In addition to this, recent research also lacks consistency in regard to which medications are being studied and compared to mindfulness practices. Lastly, the research has yet to come to an agreement in regard to which populations may see the most benefit from mindfulness therapies and practices.

Results

Article Titles / Authors	Findings
1. The Effectiveness of Mindfulness-Based Interventions on Anxiety Disorders: A Systematic Meta-Review (Fumero et al., 2020)	<ul style="list-style-type: none"> - A total of 9 of the 12 (75%) reviews indicated a positive effect of MBIs, comparing pre-post intervention anxiety scores & compared with a control group. - Additional clinical trials are needed to establish a more conclusive determination of MBI effectiveness.
2. Efficacy of treatments for anxiety disorders (Borwin et al., 2015)	<ul style="list-style-type: none"> - All drug treatments, except for citalopram, opipramol and moclobemide, were significantly more effective compared to the placebo pill. - Individual therapy including MBCT were overall more effective than waiting lists & placebo pills. - In the end, medications were more effective than any form of psychotherapies.
3. Mindfulness: An Effective Prescription for Depression and Anxiety (Duff & Maxwell, 2016)	<ul style="list-style-type: none"> - MBCT has been determined to be overall effective, by increasing mood stability & decreasing negative symptoms related to mental health disorders.
4. Treatment for anxiety: Mindfulness meditation versus escitalopram (TAME): Design of a randomized, controlled non-inferiority trial (Hoge et al., 2020)	<ul style="list-style-type: none"> - Study in progress: goal of the study is to determine the benefits of MBSR compared to first line medication for anxiety related disorders to better assist patients, medical care providers, healthcare insurers & other stakeholders.
5. Effectiveness of mindfulness-based cognitive therapy in patients with anxiety disorders in secondary-care settings: A randomized controlled trial (Fujisawa et al., 2020)	<ul style="list-style-type: none"> - MBCT was found to be effective in patients with anxiety disorders when pharmaceuticals were not effective in past treatments.
6. Discontinuation of antidepressant medication in primary care supported by monitoring plus mindfulness-based cognitive therapy versus monitoring alone: design and protocol of a cluster randomized controlled trial (Adang et al., 2019)	<ul style="list-style-type: none"> - Study in progress: one goal of this study is to determine the effectiveness of MBCT in the management of discontinuing antidepressants for patients who experience anxiety related symptoms.
7. Mindfulness-based cognitive therapy for youth with anxiety disorders at risk for bipolar disorder: a pilot trial (Blom et al., 2015)	<ul style="list-style-type: none"> - MBCT appears to be associated with lower levels of anxiety symptoms and improved emotion regulation in these children.
8. Enduring effects of psychological treatments for anxiety disorders: meta-analysis of follow-up studies (Borwin et al., 2018)	<ul style="list-style-type: none"> - Overall, patients who underwent treatment with medication and MBCT did not have better outcomes of anxiety symptoms compared to those who had just medication therapy. - The control group, who did not receive medication nor MBCT had worsening anxiety symptoms during the follow up.
9. A Three-Arm Randomized Clinical Trial Comparing the Efficacy of a Mindfulness-Based Intervention with an Active Comparison Group and Fluoxetine Treatment for Adults with Generalized Anxiety Disorder (Costa et al., 2018)	<ul style="list-style-type: none"> - Improvement was seen in all 3 groups, comparing baseline results to end of treatment results when using HAM-A & PSWQ scores. - Results from the generalized estimating equation (GEE) showed that BMT was not as effective compared to QoL. BMT was not more or less effective compared to FLX.
10. The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review (Hofmann et al., 2010)	<ul style="list-style-type: none"> - The results suggest that mindfulness-based therapy is an effective treatment for treating anxiety & mood problems in a primary care setting.
11. The Relationship Between Doses of Mindfulness-Based Programs and Depression, Anxiety, Stress, and Mindfulness: A Dose-Response Meta-Regression of Randomized Controlled Trials (Strohmaier, S., 2020)	<ul style="list-style-type: none"> - Mindful-based programs were considered effective compared to control groups. - There is no evidence that an increase in time, duration or length of Mindful-based programs was significant in improving mood & related symptoms.
12. The effect of mindfulness meditation training on biological acute stress responses in generalized anxiety disorder (Bui et al., 2018)	<ul style="list-style-type: none"> - Mindfulness meditation training may be a helpful strategy to decrease stress biomarkers after 8 weeks of therapy.
13. Feasibility of a mindfulness-based cognitive therapy group intervention as an adjunctive treatment for postpartum depression and anxiety (Breau et al., 2018)	<ul style="list-style-type: none"> - Levels of depression and anxiety decreased while mindfulness levels increased in the MBCT group. Yet, in the control group depression & anxiety levels did not decrease & mindfulness levels did not increase.
14. Mindfulness-based stress reduction for patients with anxiety disorders: Evaluation in a randomized controlled trial (Nielsen et al., 2011)	<ul style="list-style-type: none"> - Mindfulness training has beneficial effects on anxiety disorders & related symptoms when compared to a waiting-list control group.

Summary

MBCT of any type was found to be effective at treating symptoms of anxiety in all the studies we reviewed. While it was not found to be superior to pharmacotherapy, it was found to have the benefit of low risk of side effects, improvement of symptoms with a short duration of mindfulness practice, and broad accessibility and acceptance by diverse patient groups.

Conclusions/Further Study

We can confidently recommend MBCT to patients as a treatment for anxiety symptoms. Further study is needed to compare types of mindfulness practices, the ideal duration of mindfulness practice, and their use in treating specific anxiety disorders.

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