

## Critical Appraisal Form-Quantitative Study

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Does Mindful-Based Stress Reduction (MBSR) therapy reduce the symptoms of anxiety and depression?

### Study Level of Evidence, What Type of Study?

Level I:  RCT

Level II:  Cohort trial  Case-control trial  Non-randomized control trial

Level III:  Case-control  no pre-post test

Level IV:  Single case study  Case series  No comparison group

Level V:  Descriptive study  Narrative review  Expert opinion

**Purpose of Study: Is purpose clear?**  yes  no

### Describe researchers question/purpose:

Does Mindfulness-Based Cognitive Therapy (MBCT), a treatment derived from Mindfulness-Based Stress Reduction (MBSR), help those with Generalized Anxiety Disorder (GAD)?

## METHODS

### Were there any biases or ethical concerns in the study design?

The findings may not generalize to either individual with GAD who also often suffer from major depression/ or the general population since this was highly educated and self-selected sample.

## POPULATION

### Who was the sample, how many subjects?

- Subjects with Generalized Anxiety Disorder
- N=11, n= 6 female, n= 5 male

### Inclusion Criteria:

- 18–80 years of age
- English speaking
- Medically stable

- Meet criteria for GAD symptoms

**Exclusion Criteria:**

- Co-morbid current major depression
- Substance abuse and/or dependence
- Psychosis
- Current suicidal and/or homicidal ideation
- Dissociative states

**What was the intervention? Frequency, setting?**

To begin participants completed self report measures of anxiety, worry, depressive symptomatology, and mindful awareness. The intervention was mindfulness based stress reduction (MBSR). Participants met for eight consecutive weeks for two hours in a group format. The group was in an educational format and was consistent with MBSR groups. There was a concentration on intensive training in mindfulness meditation including body scan meditation, sitting meditation, hatha yoga, and mindful eating and walking. Each session followed an agenda and focused on formal and informal techniques. Cognitive exercises were also incorporated in the form of Mindfulness-Based Cognitive Therapy (MBCT). Exercises such as observing the association between worried thoughts, mood and behavior were introduced and subjects practiced the new techniques in the form of homework. At the end of the eight sessions, subjects completed self-report measures.

**Relevant outcomes to OT?**

1) This study concluded that individuals with GAD showed a decrease in anxiety, tension, worry, and depressive symptoms after completing an 8-week mindfulness-based cognitive course. Occupational therapists can incorporate MBCT in their intervention for their patients with GAD.

**How measured?**

2) MBCT was measured through self-reports of anxiety, worry, and depressive symptoms. Self-reports included Beck Anxiety Inventory, Beck Depression Inventory-II, Penn State Worry Questionnaire, Profile of Mood States, The Mindfulness Attention Awareness Scale, and AMNART.

**Relevant outcomes to OT?**

2) Subjects concluded with a positive experience from using a mindfulness-based therapeutic approach. Subjects reported changes in different aspects of their life such as an increase in mindfulness-eating, improved marital relationship, better awareness of the self, and gaining acceptance of self and emotions.

**How was it measured?**

Mindfulness was measured through the Mindfulness Attention Awareness Scale (MAAS) and anecdotal data from the subjects regarding their own experience.

**Were the tests valid? Explain**

Yes, the tests are standardized and valid to reflect the outcome behaviors under study.

**Were the tests reliable? Explain**

It appears the tests have established reliability as they are standardized tests.

**RESULTS, CONCLUSIONS, CLINICAL IMPLICATIONS:**

**What were the findings? Was there:**

**Statistically significant change?**

There were statistically significant reductions in the BAI ( $p < 0.01$ ), PSWQ ( $p < 0.01$ ), POMS ( $p < 0.01$ ) and BDI ( $p < 0.05$ ) from baseline to end of treatment. While there was a mean increase in mindful awareness in everyday life pre- to post-intervention, this difference did not reach statistical significance. This lack of significance may have been due to the small sample size.

**Clinically significant change? Explain.**

As a group, the participants experienced a significant decrease in their anxiety, tension, worry and depressive symptoms. These outcomes are important to facilitating a positive experience in carrying out daily life activities.

**What did the author conclude?**

In addition to decreasing anxiety, tension, worry, and depressive symptoms, overall, participants noted increased mindful awareness in daily life. However, the authors caution against over-interpretation of the results given the fact that this was a small, nonrandomized, cross-sectional trial.

**My Brief Summary:**

**What I see as study strengths:**

They were able to maintain all eleven participants for the duration of the eight-week program. Although they had a small sample size, their results showed a reduction of anxiety and depressive symptoms after receiving mindfulness-based cognitive therapy.

**What I see as limitations:**

This study used a small sample size. It was a nonrandomized, cross-sectional design study, which is low on the level of evidence spectrum. The population was highly educated, self-selected, and may have had comorbidities (like major depression). Although the statistical measurements prove that MBCT does have a positive effect on the subjects, the assessments were self reported which may affect the validity of this study. Subjects may have been untruthful

with self-report or other factors including the subjects mood or amount of sleep may have altered their answers to the assessments.

**How is the study's findings relevant to OT?**

By reducing the harmful effects of GAD on individual's daily life experiences through MBSR, quality of life would most likely increase. As occupational therapists, we strive to help people regain meaning in their lives, which is typically diminished in people who have anxiety and/or depression disorders.

**How do I intend to use these results?**

We intend to use these results to inform our future clients of available treatments for Generalized Anxiety Disorder and associated symptoms, like depressive tendencies. As mentioned above, one of the limitations of the study was a small sample size, which may have been responsible for the lack of statistically significant improvement of mindfulness. In the future, OTs may develop a new study with a larger sample size, to determine if the effect of MBSR on mindfulness in GAD would be significant.