

Q. What is mindfulness-based stress reduction?

A. Mindfulness-based stress reduction (MBSR) is one of a number of mindfulness-based interventions (MBIs), which integrate traditional Eastern mindfulness practices with more contemporary psychotherapy practices (Gu, Strauss, Bond, & Cavanagh, 2015). Along with mindfulness-based cognitive therapy (MBCT), MBSR is one of the most commonly used and evaluated MBIs. MBSR is an eight-week, group-based treatment that involves mindfulness meditation, body awareness, and yoga (Kabat-Zinn, 1982). MBSR was originally used to treat chronic pain, but has since been used to treat a range of mental health conditions, such as generalized anxiety disorder (GAD).

Q. What is the theoretical model underlying MBSR for GAD?

A. MBSR is based on mindfulness, defined by Kabat-Zinn, the creator of MBSR, as “the awareness that emerges though paying attention on purpose, in the present moment, and nonjudgmentally to the unfolding of experience moment by moment” (Kabat-Zinn, 2003). In MBSR, mindfulness meditation is taught as a self-regulatory coping strategy. GAD is often characterized by rumination about the past and worry about the future. Mindfulness and decentering (one’s ability to consider their thoughts as “psychological events,” and to disengage and view them with perspective; Hoge et al., 2015), both core features of MBSR, may help to address these components of GAD. Indeed, one analysis found that changes in mindfulness and decentering significantly mediated the effect of MBSR on anxiety (Hoge et al., 2015).

Q. Is MBSR recommended as a front-line treatment for GAD in the Military Health System (MHS)?

A. There is no VA/DoD clinical practice guideline (CPG) on the treatment of GAD.

The MHS relies on the VA/DoD clinical practice guidelines (CPGs) to inform best clinical practices. However, in the absence of an official VA/DoD recommendation, clinicians should look to CPGs published by other recognized organizations, and may rely on knowledge of the literature and clinical judgement.

Q. Do other organizations with CPGs for the treatment of GAD recommend MBSR?

A. **No.** CPGs published by other organizations do not recommend the use of MBSR for GAD.

- A search of the Agency for Health Care Research and Quality’s National Guideline Clearinghouse did not locate any CPGs on the treatment of GAD.
- The United Kingdom’s National Institute for Health and Care Excellence (NICE) does not include MBSR in their GAD CPG (National Collaborating Centre for Mental Health, 2011).
- The Canadian Psychiatric Association does not include MBSR in their GAD CPG (Canadian Psychiatric Association, 2006).

Q. Do other authoritative reviews recommend MBSR as a front-line treatment for GAD?

A. **No.** Other authoritative reviews have not substantiated the use of MBSR for GAD.

Several other recognized organizations conduct systematic reviews and evidence syntheses on psychological health topics using similar grading systems as the VA/DoD CPGs. These include the Agency for Healthcare Research and Quality (AHRQ) and Cochrane.

- AHRQ: No reports on GAD were identified.
- Cochrane: No systematic reviews of MBSR were identified, but a 2009 systematic review of meditation therapy for anxiety disorders found only two eligible randomized controlled trials (RCTs), and the authors were not able to draw any conclusions on the effectiveness of meditation therapy for anxiety disorders

(Krisanaprakornkit, Sriraj, Piyavhatkul, & Laopaiboon, 2009). A 2007 systematic review of psychological therapies for GAD did not include MBSR (Hunot, Churchill, Teixeira, & Silva de Lima, 2007).

Q. Is there any recent research on MBSR as a treatment for GAD?

A. Though the body of literature on MBIs has expanded rapidly in recent years, research on these interventions includes many low-quality, non-randomized trials (Hofmann & Gomez, 2017). Recent systematic reviews and meta-analyses have found that MBIs are effective in treating a number of mental health disorders (Hofmann, Sawyer, Witt, & Oh, 2010; Khoury et al., 2013), but these reviews often group together MBIs (though the majority of the included studies use either MBSR or MBCT), as well as different patient groups, making it difficult to draw conclusions specifically about the use of MBSR for GAD.

A 2010 meta-analytic review of mindfulness-based therapy for anxiety and depression found robust effect sizes associated with mindfulness-based therapy for improving anxiety symptoms in patients with anxiety disorders (Hofmann et al., 2010). However, of the five included studies looking at GAD, only one used MBSR, and three did not have a comparison condition. Similarly, a 2013 meta-analysis of mindfulness-based therapy found “large and clinically significant effects in treating anxiety...” but again, non-randomized studies are included, and the 23 anxiety studies included were not limited to studies of MBSR and GAD (Khoury et al., 2013).

A September 2018 literature search identified a more recent study not included in the above reviews. In this study, the first RCT comparing MBSR with an active control for GAD, 93 individuals diagnosed with GAD were randomized to either eight weeks of MBSR or to an attention control (Stress Management Education) (Hoge et al., 2013). MBSR was associated with a greater reduction in anxiety symptoms on secondary anxiety measures (the Clinical Global Impressions-Severity of Illness and-Improvement Scales and the Beck Anxiety Inventory), but not on the primary outcome measure (Hamilton Anxiety Rating Scale).

Q. What conclusions can be drawn about the use of MBSR as a treatment for GAD in the MHS?

A. Overall, the current literature on mindfulness-based interventions for treating a number of psychiatric conditions is promising. However, additional RCTs, along with systematic reviews that include only RCTs and that grade the strength of the evidence are needed to determine whether MBSR is an effective treatment for GAD.

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