

## What Can CAM Do for Anxiety?

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### Case Presentation

Ms Johnson is a divorced 45-year-old woman who has recently moved to your practice location to start a new job. She reports that her divorce was traumatic and that she had been in cognitive-behavioral therapy once monthly for 1 year until her move. She found the therapy to be helpful but somewhat expensive.

Ms Johnson denies being depressed, and a depression screen is negative. However, she suffers from poor sleep (difficulty falling asleep because of recurrent negative thoughts), neck tension, and occasional headaches.

To function well at work, Ms Johnson would like to minimize her anxiety symptoms—and, she adds, without medications. She has no history of chronic anxiety or a primary anxiety disorder, and she describes herself as transitioning well to her new life situation, although she feels a bit isolated and lonely without her former social network. Her general health is good, and her well-woman examination and routine laboratory tests are normal. She has heard about herbals and acupuncture and would like your opinion about what alternative modalities to try.

Which of the following would you suggest, on the basis of valid evidence for efficacy in the management of anxiety disorders? (Select all that apply)

- Acupuncture
- Yoga
- Kava kava
- Meditation
- All have varying amounts of evidence

Save and Proceed

### Alternatives for Anxiety

Generalized anxiety disorder (GAD) is characterized by worry that is difficult to control and that negatively affects quality of life; symptoms include poor sleep, headaches, and muscle tension.<sup>[1]</sup>

The lifetime prevalence rate of GAD ranges from 6% to 17% worldwide, and in any given year, up to 40 million US adults meet criteria for an anxiety disorder.<sup>[1,2]</sup> Remission rates are low even with pharmacotherapy, and up to 60% of patients do not achieve remission.<sup>[3]</sup> Cognitive-behavioral therapy has been found to be helpful in the long term.

Other primary anxiety disorders include phobias, post-traumatic stress disorder, and obsessive-compulsive disorder, all of which can cause distress and disability. Anxiety is often also a comorbidity associated with primary conditions, such as migraine and irritable bowel syndrome, and stressful situations, such as surgery or the loss of a loved one.

Many patients avoid professional care because of stigma and instead seek alternative therapies. Complementary and self-help options—often without strong evidence for efficacy—are widely available online and in health food stores. Categories of therapies

include lifestyle management and stress reduction strategies, mind/body interventions, herbals, acupuncture, aromatherapy, and homeopathy.<sup>[4,5]</sup>

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## A Case for Kava Kava

Among herbal therapies, kava kava appears to be the most researched for its anxiolytic effect. And, according to a **Cochrane review of 11 randomized controlled trials (RCTs) with 645 patients, kava extract is effective at reducing anxiety** compared with placebo.<sup>[6]</sup>

Kava kava is a drink derived from the plant *Piper methysticum* and is not sedating. Although its mechanism of action are unclear, it is proposed to modulate gamma-aminobutyric acid (GABA) activity via alteration of lipid membrane structure and sodium-channel function; inhibit monoamine oxidase B; and block noradrenaline and dopamine reuptake.<sup>[7]</sup> Doses of up to 400 mg daily have been reported to be safe.<sup>[6]</sup> Although the drink remains available over the counter in the United States, Australia, and New Zealand, the US Food and Drug Administration has warned about kava kava's potential liver toxicity, and it is banned in some countries because of this concern.<sup>[8]</sup>

In a review published in 2010, researchers showed that kava kava may be more tolerable and have fewer side effects than benzodiazepines and antidepressants.<sup>[9]</sup> In particular, **five of the reviewed studies demonstrated the drink's therapeutic potential as a standalone therapy in patients with anxiety disorder, GAD, and those being tapered off benzodiazepines; conversely, four studies showed no efficacy in reducing anxiety compared with placebo.**

Another review,<sup>[7]</sup> which reported efficacy for anxiety in 4 of 6 RCTs, recommended checking liver function tests before initiation of kava kava use. This article also advised that patients **avoid alcohol and sedatives** while using kava kava. In addition, **only traditional water-soluble extracts of the rhizome (root) of appropriate kava cultivars should be used.**

The most recent RCT<sup>[10]</sup> of kava kava supports its use. Using the Hamilton Anxiety Rating Scale (HAM-A) as the primary clinical outcome, researchers found a **significant reduction in anxiety in 58 participants with GAD** who were taking kava compared with those taking placebo, with a moderate effect size. Depending on patients' responses, the liquid kava kava used in the study contained **120-240 mg/day of the active ingredient, kavalactones. No hepatotoxicity** was found among the participants.

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## Emergence of Mindfulness-Based Stress Reduction

Compared with kava kava, mindfulness-based stress reduction (MBSR) therapies have generated less controversy, and in recent years, more evidence has emerged to support their efficacy in treatment of anxiety disorders.

For example, a 2012 systematic review and meta-analysis of mindfulness- and acceptance-based interventions for anxiety disorders found a positive treatment effect, with an advantage of individual over group treatment.<sup>[11]</sup> The four most rigorous RCTs cited in the analysis, which used proper randomization procedures, demonstrated superiority of the intervention over wait-list and placebo controls. For the 8-week-long MBSR interventions, Buddhist meditation practices were adapted to a secular format. Participants practiced mindfulness between sessions, aided by an instructor and audio recordings. The acceptance-based therapies that combined mindfulness with cognitive-behavioral therapy components were similarly effective in anxiety reduction.

Another review focused on meditative approaches that included transcendental meditation, yoga, qigong, tai chi, and guided imagery among patients with anxiety as a secondary rather than a primary diagnosis.<sup>[12]</sup> Included in that analysis were 36 RCTs conducted in the United States, Asia, Europe, and elsewhere; 40% of these studies were considered of good quality. Comparator groups included relaxation practice, attention control, exercise, and music therapy. Of the 36 RCTs reviewed, 25 reported statistically significant improvement in participants' anxiety symptoms after meditative approaches compared with control groups.

Not surprisingly, meditative and mindfulness-based therapies have also been found to be useful adjuncts to pharmacotherapy in the management of anxiety disorders,<sup>[13,14]</sup> and as standalone therapies without adverse effects in pregnant women with anxiety.<sup>[15]</sup>

Studies have shown the potential of yoga for alleviating anxiety. For instance, a systematic review of 16 RCTs and seven prospective controlled trials found yoga to be a viable alternative for managing anxiety symptoms among patients with medical conditions ranging from breast cancer to perimenopause, migraine, and multiple sclerosis, compared with healthy persons.<sup>[16]</sup>

In another recent review<sup>[17]</sup> of 27 studies published between 2010 and 2012, 19 studies showed lower state or trait anxiety among yoga participants. The review encompassed many conditions, from anxiety as a primary diagnosis to anxiety secondary to cancer, depression, fibromyalgia, eating disorders, and arthritis. The duration of yoga as an intervention varied from a single session to 3 years of practice; overall, the evidence suggested that an average of 2-3 months of yoga practice was needed to sustain anxiety decline.

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## Acupuncture for Anxiety?

Acupuncture has also been advocated for the management of anxiety disorders or situational anxiety. A systematic review<sup>[18]</sup> reported some benefits for perioperative anxiety. Although there were methodological flaws in many of the studies, the review found that auricular acupuncture was potentially effective, whereas acupuncture in general needed further study.

An updated review published in 2010 cited similar concerns about the quality of studies and the lack of evidence for acupuncture in treating primary anxiety disorders, with some evidence for benefits in secondary anxiety disorders.<sup>[19]</sup>

The British Acupuncture Council<sup>[20]</sup> proposed several potential mechanisms of action of acupuncture, including down-regulation of neurotransmitters; stimulation of opioid receptors to counteract the sympathetic response to stress; reversal of inflammatory cytokine levels that are associated with anxiety; and reversal of stress-induced changes in behavior and biochemistry. Because of its minimal side effects, acupuncture may be used as an adjunct to other therapies, such as cognitive-behavioral therapy and psychoeducation for anxiety disorders, according to the Council.

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## Summary and Case Resolution

In summary, among the herbal therapies, kava kava remains the most promising for the treatment of anxiety disorders. There is expanding evidence on the benefits of different types of meditative therapies, whereas the evidence for the efficacy of acupuncture remains to be proven for primary anxiety disorders.

Ms Johnson's current anxiety symptoms appear to be secondary to the recent stress and trauma of a divorce rather than to a primary anxiety disorder. Because she is adjusting well to her new life and her anxiety is secondary, a trial of alternative therapy is reasonable.

The choice of activities is diverse—from yoga and mindfulness-based stress reduction classes to imagery and self-meditation using tapes—and relatively low in cost, with minimal side effects compared with medications. It is likely that she can find something within this range that suits her schedule and lifestyle preferences.

Exercise of any kind in groups (hiking, or gym activities, such as yoga or biking) would be a simple starting recommendation to expand her current social contacts and to maintain mental health. Among the complementary and alternative therapies for anxiety symptoms, the meditation and mindfulness-based approach may be best suited to her. This approach also has other medical and physiologic advantages.<sup>[21]</sup>

Acupuncture is likely to be more costly and could be a second option. Although shown to be effective, kava kava, with its potential liver toxicity, may be reserved for a later time if these other choices fail. The physician should follow up with Ms Johnson within 1-2 months to reassess her symptoms and her chosen modality. If symptoms persist or worsen, then consider a referral for continuation of cognitive-behavioral therapy.

### Editors' Recommendations

- [Yoga and Arrhythmia Burden in Paroxysmal Atrial Fibrillation](#)
- [Sleep Disorders: Can CAM Help?](#)
- [Kava May Cause Liver Damage](#)

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