

## Integrative Health for Anxiety, Part III

### Professional Care: Conventional Approaches

The focus of this document is primarily to emphasize approaches that can be used as adjuncts to conventional care (e.g., prescribing medications for anxiety). (Note that psychotherapy could also be considered a conventional approach by most, but it was featured in the previous section.) Conventional care is reviewed extensively elsewhere.<sup>1,2</sup>

Antidepressants benefit 50%-65% of people with anxiety disorders, and medications are considered a first-line treatment. A 2019 review of 89 trials (n=25,441 people) looking at treatments for generalized anxiety disorder found that duloxetine, pregabalin, venlafaxine, and escitalopram were more efficacious than placebo and relatively well tolerated.<sup>3</sup> Smaller sample sizes also indicated potential benefit from mirtazapine, sertraline, fluoxetine, buspirone, and agomelatine. Quetiapine had the largest effect but was not well tolerated. The same was true for paroxetine and benzodiazepines.

In working with people with anxiety, keep in mind that anxiety tends to be linked to a number of other medical and mental health conditions as well, especially for women and those with poorer health-related quality of life.<sup>4</sup> Keep comorbidities in mind. For instance, anxiety has a bidirectional relationship (it both causes and is caused by) with arthritis, and having it is a strong predictor of future gastrointestinal disease. Panic disorder is linked with up to a 45% rate of comorbidities, with 1½ to 2 times the risk of conditions like diabetes, IBS, respiratory diseases (asthma and COPD), and cardiovascular disease.<sup>5</sup> Before diagnosing anxiety, clinicians should rule out other health issues that can mimic it, such as thyroid problems, adrenal tumors, insomnia, and substance use.

### Prevention

A 2018 poll by the American Psychiatric Association found that nearly 40% of Americans reported being more anxious now than they were a year ago.<sup>6</sup> Safety, health, and finances were their largest concerns. Bearing this in mind, it is important to focus not only on treating anxiety disorders, but also on preventing them, helping people to bolster resilience and manage stress. Using mind-body approaches should ideally be something everyone does, not just something that is considered after problems arise.<sup>7-13</sup>

## Professional Care: Complementary Approaches

### Dietary Supplements<sup>14</sup>

**Note:** Supplements are not regulated with the same degree of oversight as medications, and it is important that clinicians keep this in mind. Products vary greatly in terms of accuracy of labeling, presence of adulterants, and the legitimacy of claims made by the manufacturer.

A number of dietary supplements are used by patients for anxiety, and it is helpful for clinicians to be familiar with them, whether or not they choose to recommend the supplements themselves. [Natural Medicines](#), a subscription site, maintains up-to-date reviews of the literature for supplements, and some of the following information is based on its summaries, as well as several other reviews.<sup>15,16</sup> Keep in mind that some supplements can trigger anxiety symptoms (e.g., ephedra and other sympathomimetic herbals that are used for weight loss). The following list features supplements that have been studied the most for use with anxiety. Note that most herbals for anxiety work by modulating GABA activity.<sup>17</sup> Adaptogenic herbs may also be used, but these are not a focus in this overview.<sup>18</sup>

### Cannabis

Anxiety ranks as one of the top five reasons for which people report using medical marijuana.<sup>19</sup> A 2019 systematic review concluded that medical cannabis is safe and likely helps with some anxiety symptoms, but it does not bring about remission.<sup>20</sup> Of course, it should only be used legally.

### Folic Acid and Other Vitamins

Folic acid mostly helps antidepressant medications work optimally. It can be given in conjunction with SSRIs for anxiety as well. The dose is 400-800 µg daily, though no direct research has been done to evaluate its effects on anxiety. It may be given as L-methylfolate, which crosses the blood-brain barrier more effectively. Other B vitamins, such as B6 which are linked to the production of neurotransmitters, may also be worth supplementing.

### *Galphimia glauca*

This evergreen shrub, endemic to Mexico, has been used traditionally as an anxiolytic for centuries.<sup>21</sup> A 2018 review concluded it had good research to support its use.<sup>22</sup> It seems to be safe to use, at least in research conducted for up to 15 weeks. A typical dose is 310 mg of dried extract twice a daily. It is best not to use it with other central nervous system depressants.

### 5-Hydroxytryptophan (5-HTP)

5-HTP is converted into serotonin. It crosses the blood-brain barrier into the central nervous system. It is more commonly used for the treatment of depression, but it is also used for anxiety. In two trials involving 5-HTP, it did reduce symptoms of anxiety when given over several weeks. Research on 5-HTP orally for anxiety is limited. Natural Medicines recommends caution with its use due to concerns of eosinophilia-myalgia syndrome, which has been caused—perhaps by contaminants—by some formulations of L-tryptophan.

## Kava

Kava (*Piper methysticum*) is a drink that has been historically used for ritual purposes by Pacific Islanders for centuries. Many animal models show kava's efficacy for anxiety; kava has been postulated to act on many neurotransmitters, including GABA. Kava does not seem to cause sedation or mental impairment. The majority of studies have found kava decreases anxiety, as measured by subjective scales.<sup>23</sup> A 2018 review concluded kava appears to be a short-term treatment for anxiety, but not something that replaces other long-term options (no liver toxicity was noted in this study).<sup>24</sup> Another 2018 study concluded Kava has promise but cannot clearly be said, based on the current body of research, to be more effective than placebo for GAD.<sup>25</sup>

Kava has the rare side effect of liver toxicity, and for this reason, several countries banned it. People with liver problems should avoid Kava, and liver function testing is recommended if it is used. Taking doses less than 400 mg daily does not cause serious side effects. A standard dose is 100 mg (70 mg kava lactones) three times daily. It may be necessary to use it for up to eight weeks before an improvement in anxiety is noted.

## Lysine

The amino acid lysine has been shown in animals to act as a partial serotonin receptor antagonist. It seems to decrease the brain-gut response to stress as well as reduce serum cortisol levels. A handful of RCTs suggest that L-lysine combined with L-arginine effectively reduces anxiety scores with virtually no reported side effects.<sup>26</sup> The dose is 2-4 gm daily.

## Omega-3 Fatty Acids

Omega-3s mostly have been researched in studies on depression and have been found to improve overall nervous system function because they optimize cell membrane fluidity and modulate neuronal communication. Low omega-3 levels have been linked to both depression and anxiety disorders. A 2018 review and meta-analysis concluded that they may favorably affect clinical anxiety symptoms.<sup>27</sup> Omega-3s are generally well tolerated, and side effects reported, such as nausea and a fishy aftertaste, are mild and can be overcome by freezing the capsules. Doses range between 2 and 3 gm daily. A study in students found a 20% reduction in anxiety symptoms for people who received omega-3 supplementation.<sup>28</sup>

## Passion Flower

Passionflower (*Passiflora incarnata* Linn.) carries a possibly effective, possibly safe rating. It contains apigenin, which is thought to bind to GABA receptors. In mice, its effects have been well documented. One double-blind, placebo-controlled study showed similar efficacy between oxazepam and passionflower.<sup>29</sup> Two other RCTs also showed benefit. Mild adverse events have been reported, including dizziness, drowsiness, and confusion. The typical dose of crude passionflower herb is 0.25-2 gm of the dried, above-ground parts three times daily, or a person can drink a cup of the tea two to three times daily including 30 minutes before bedtime.

## St. John's Wort

St. John's wort (*Hypericum perforatum*) has a long history of use and benefit for anxiety problems, though it is best known for depression benefits. It affects levels of multiple neurotransmitters. There have been many trials, and their findings are mixed. Only mild to moderate adverse effects were reported; most often these were gastrointestinal upset, dizziness, sleep disturbances, and headaches. Note, however, that St. John's wort is an

inhibitor of cytochrome P450 3A4, which can lead to multiple drug interactions.<sup>30</sup> The dose of St. John's wort is 100-300 mg of the above-ground parts up to three times daily. Like serotonin specific reuptake inhibitor (SSRI) medications, it may take time for it to take effect.

## Skullcap

Preliminary evidence indicates that skullcap (*Scutellaria lateriflora*) leads to relaxation in healthy people who take a single dose. It is added to many combinations of supplements used for anxiety. A dose of 100 mg (often steeped as a tea) does not seem to have significant side effects, but 200 mg can cause cognitive impairment. Effects of taking repeated doses are not known.

## Theanine

Theanine has gained popularity as an anxiety remedy. The main amino acid found in tea, this supplement seems to increase levels of GABA and serotonin. Preliminary evidence suggests taking 200 mg might lead to improved subjective feelings of tranquility. No adverse effects have been reported.

## Valerian

Valerian (*Valeriana officinalis*) contains sesquiterpenes and other compounds that can stimulate GABA receptors and change activity at the serotonin 5-HT<sub>5A</sub> receptor. It is known from EEG studies to alter activity in different areas of the brain.<sup>31</sup> Valerian has primarily been studied for its use in insomnia, but it has also shown promise for anxiety at doses ranging from 50 mg three times a day to 150-300 mg in the morning and 300-600 mg at night. It can take weeks to take effect. Research supporting its use for anxiety is limited.

## Other Complementary Approaches

### Aromatherapy

The effectiveness of aromatherapy for anxiety remains unclear. A 2019 review did not find benefit for aromatherapy massage for anxiety in palliative care patients, and a 2019 trial did not find rose oil to help anxiety for people undergoing heart bypass surgery.<sup>32,33</sup> A 2014 review of aromatherapy for elderly patients with chronic pain did note an improvement in anxiety and stress levels.<sup>34</sup> A 2011 systematic review based on 16 studies concluded that aromatherapy was generally safe and effective in reducing anxiety symptoms.<sup>35</sup> Those with higher levels of anxiety benefited the most.

### Massage

Massage is a popular and safe treatment for anxiety. There are many different types of massage, but few studies have evaluated their use specifically for the treatment of anxiety disorders. A 2010 trial of massage for GAD found that all participants who received 10 sessions of massage for 12 weeks showed significant improvement on the Hamilton Anxiety Rating Scale (HAM-A) after 12 weeks and maintained their gains after 26 weeks.<sup>36</sup> Massage Therapy in combination with Myofascial Release (easing tension in the muscle connective tissue) was not found to reduce anxiety in people with fibromyalgia, but it did help with other symptoms.<sup>37</sup>

Moderate pressure massage is known to reduce anxiety, change EEG patterns, increase vagal activity, and decrease cortisol levels; that is, it elicits the relaxation response.<sup>38</sup> There are many

small studies that suggest massage lessens the anxiety associated with various medical conditions.<sup>39</sup>

## Energy Medicine

There is limited research on energy medicine approaches to anxiety, but a 2017 review concluded that "...biofield therapies show safety and promise in reducing anxiety...."<sup>40</sup> A 2015 Cochrane review concluded that data is insufficient to determine whether or not Reiki is useful for anxiety.<sup>41</sup> Several small studies support the benefits of Therapeutic Touch in people with anxiety.<sup>42</sup> However, no RCTs have been done. Many of the small studies of different energy medicine approaches find subjective reductions in anxiety related to having a procedure or dealing with chronic medical conditions.

## Acupuncture

Benefits of acupuncture vary with the type of anxiety disorder. A 2019 review of 10 prior reviews found that acupuncture was more effective than no treatment, noting that study quality was low.<sup>43</sup> In contrast, a 2018 systematic review concluded, "Overall, there is good scientific evidence encouraging [use of ] acupuncture therapy to treat anxiety disorders... with fewer side effects than conventional treatment."<sup>44</sup>

A 2007 review concluded that research was promising for perioperative anxiety and generalized anxiety disorder (GAD), but more studies are needed.<sup>45</sup> In the studies reviewed, people suffering from GAD had added benefit when acupuncture was used to augment medication therapy. People suffering from OCD found acupuncture, in addition to medical therapy, to be no different from medication alone, but treatments were better tolerated when acupuncture was added. A trial on preoperative neurosurgical patients found that acupuncture at one point, "Yintang," significantly reduced preoperative anxiety levels.<sup>46</sup>

A 2014 study found that acupuncture decreased anxiety and craving levels in Veterans with substance use problems.<sup>47</sup> Another 2014 study found that auricular (ear) acupuncture was helpful for reducing stress in health care workers.<sup>48</sup> Acupuncture reduced anxiety and improved working memory in 90 students performing a stressful task.<sup>49</sup> Acupuncture seems to help with anxiety in premenstrual dysphoric disorder.<sup>50</sup> Auricular acupuncture (which is focused on acupoints in the ears) reduces anxiety before dental procedures,<sup>51</sup> and also seems to help people with anxiety disorders in general.<sup>52</sup>

## Follow-Up with Taylor

Taylor talked about a number of options for addressing his anxiety with his psychologist and psychiatrist. He and his care team came up with two shared goals based on his priorities. Based on those, he created two SMART (Specific, Measurable, Action-Oriented, Realistic, and Timed) goals:

1. The first goal was to try a variety of relaxation practices, see which one he found most helpful, and start using it regularly. After exploring several, including biofeedback, self-hypnosis, breathing exercises, meditation, and therapeutic journaling, he chose to start doing meditation. He signed up for a mindfulness-based stress reduction course being offered online through his local university healthcare system. His goal is to meditate at

least 6 days a week, first thing in the morning, for 20 minutes. He finds he prefers seated meditation, even though he still struggles at time to calm his mind, especially when his body is holding still.

2. The second area he chose to focus on was Personal Development. It is clear that supporting his family and moving to a better location are high priorities for Taylor. He set the goal of applying to an online college course that would help him start moving toward a business degree. For starters, he agreed to share a list of the programs he has applied to with a vocational trainer he has hired.
3. In addition, Taylor is going to explore getting therapeutic massage at least once a month because he noted, once he started meditating, that he actually has a fair bit of neck and shoulder pain when he becomes stressed. His enhanced mindful awareness helped him pay closer attention to how anxiety affects his body. He is increasingly optimistic that he can “feel more comfortable in his own skin,” because the anxiety is no longer controlling his life.

## Integrative Health Tools

- [Autogenic Training](#)
- [Biofeedback](#)
- [Breathing](#)
- [Clinical Hypnosis](#)
- [Guided Imagery](#)
- [Meditation](#)
- [Mindful Awareness](#)
- [Progressive Muscle Relaxation](#)
- [Progressive Relaxation](#)
- [The Power of Breath: Diaphragmatic Breathing](#)

## Resources

- [Anxiety Disorders, National Alliance on Mental Illness \(NAMI\) website](#)
- [Anxiety and Depression Association of America](#) guide to finding support groups, plus a page for finding professionals
- “[Anxiety Resources](#),” Joseph Bennington-Castro, [Everyday Health website](#).
- Also consider resources related to the various psychotherapies offered locally, which may include Interpersonal Psychotherapy (IPT), CBT for Depression, and Problem Solving Therapy (PST).

## Author(s)

This handout was adapted for the University of Wisconsin Integrative Health Program by J. Adam Rindfleisch, MPhil, MD building on the original written by Mario Salguero, MD, PhD (2014, updated 2019).

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