

## **Brief Yoga Interventions for Pediatric Populations Experiencing Anxiety Disorders**

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Anxiety disorders are the most common mood disorders among the pediatric population with between six and 13 percent of children and adolescents diagnosed annually in the United States (Ramsawh, Chavira, & Stein, 2010). Recently, yoga has been used as a clinical practice providing a sense of calm to combat anxiety. This article reviews the current research on yoga and mindfulness techniques that can be applied in brief settings, such as integrated behavioral health and school settings.

*Keywords:* yoga interventions, pediatric, childhood anxiety disorders.

### **Anxiety Disorders in Pediatric Populations**

Although fear is a normal reaction to stress, which can be beneficial under certain circumstances, anxiety can become problematic when it is excessive and hinders functioning (Beesdo, Knappe, & Pine, 2011). Unfortunately, anxiety is a common occurrence among the pediatric population. The prevalence rate for anxiety disorders among the general pediatric population under the age of 18 is estimated at 5.7-12.8% (Ramsawh, Chavira, & Stein, 2010), and anxiety disorders are found to be more prevalent in females by a ratio of 2:1 (Beesdo et al., 2011).

Anxiety disorders are often one of the first disorders to develop within childhood with a median onset age of 11 years old (Ramsawh et al., 2010). Anxiety disorders are more prevalent than ADHD and mood disorders, such as depressive disorders, and they are often co-morbid with other disorders (Ramsawh et al., 2010). Given this co-morbidity, other diagnoses in children can sometimes mask underlying anxiety (Anguita, 2014). Anxiety symptoms can be emotional, behavioral, and somatic. Somatic symptoms of anxiety in children include gastrointestinal distress, headaches, dizziness, chest pain, increased heart rate, difficulty breathing, sleep issues, irritability, and difficulty concentrating (Anguita, 2014; Ramsawh et al., 2010). Somatic symptoms can increase anxiety within the child and lead to school absences, refusal to attend school, and lower academic performance (Ramsawh et al., 2010). Untreated childhood anxiety increases the chances of adult psychiatric disorders and substance abuse (Ramsawh et al., 2010).

Children may also experience anxiety disorders in relation to physical disorders. Common co-morbid medical diagnoses include allergies, asthma, gastrointestinal disorders, migraines, and skin disorders (Ramsawh et al., 2010). A bi-directional cause of medical and anxiety disorder co-morbidity, as having co-morbid diagnoses can make both the anxiety and medical disorder worse (Ramsawh et al., 2010). Ramsawh et al. (2010) reported that children with co-morbid medical and anxiety disorders have higher rates of using medical services. Some of the cognitive symptoms of anxiety include self-defeating, obsessive thoughts that can affect motivation, as well as compulsive behaviors (Khalsa, Butzer, Shorter, Reinhardt, & Cope, 2013).

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These behaviors and effects can be profoundly debilitating to children, as anxiety disorders can interfere with children's emotional, academic, and physical functioning.

However, it is important to distinguish between normal developmental fear reactions and anxiety disorders, as some children may exhibit anxious behavior but not have an anxiety disorder. Some children may developmentally "grow out of their anxious behavior." Other children may need treatment for their anxiety symptoms. Understanding the difference between normal fear and an anxiety disorder is helpful for professional counselors to tailor treatment plans and interventions. Disordered behavior is characterized as being more extreme and persistent (Ramsawh et al., 2010). The most significant anxiety disorders diagnosed in children, include Separation Anxiety Disorder, Generalized Anxiety Disorder (GAD), Social Anxiety Disorder, Panic Disorder, Agoraphobia, Obsessive-Compulsive Disorder (OCD), specific phobia, and performance anxiety (Khalsa et al., 2013; Ramsawh et al., 2010). Generalized Anxiety Disorder (GAD) was diagnosed among 10% of children with average onset age of 8.5 years. Social Anxiety Disorder (SAD) was found to be under-diagnosed in children (Anguita, 2014). Based on the prevalence of anxiety disorders in the pediatric population and the impact of anxiety disorders on children, it is important to treat anxiety disorders effectively and promptly.

One approach to working with anxiety disorders is incorporating yoga techniques into the counseling process, by either teaching clients yoga techniques during sessions or by giving the techniques as homework to be done at home or school (Kaley-Isley, Peterson, Fischer, & Peterson, 2010). There has been a trend to incorporate yoga as an intervention for children with mental health disorders (Kaley-Isley, et al., 2010). As a result, yoga techniques may be useful for counselors to consider when working with youth with anxiety disorders. Yoga has recently received attention as being good treatment option for anxiety (Kaley-Isley, Peterson, Fischer & Peterson, 2010). Yoga is described as being particularly helpful for stress and anxiety, as it includes elements of self-acceptance, grounding activities, and mindfulness.

### **Yoga in Counseling**

Yoga is a mind-body practice that includes postures, breathing techniques, relaxation techniques, mindfulness, and meditation (Khalsa, Hickey-Schultz, Cohen, Steiner, & Cope, 2012; Butzer et al., 2015). Yoga is an ancient practice not designed to be a conventional therapy practice, however, it has received attention as being helpful for psychiatric disorders, including anxiety. Yoga has been used with adults, adolescents, and children to enhance mental health (Khalsa et al., 2012). As children typically cannot remain still for long sessions of talk therapy, alternative ways of connecting with children are essential. Mind-body therapies and movement therapies are one way to work with children who counselors find sitting for long periods of time ineffective. Yoga is the most commonly used mind-body therapy used with children (Noggle, Steiner, Minami, & Khalsa, 2012).

There is a significant amount of research corroborating the use of yoga in counseling (Rybak & Deuskar, 2010; Adams & Puig, 2008; Duros & Crowley, 2014; Milligan, 2006). This literature suggests yoga is beneficial for psychosomatic, psychological, psychiatric, or stress-related disorders (Conboy, Noggle, Frey, Kudesia, & Khalsa, 2013). It is suggested that yoga counteracts psychological and physical stressors, enhances self-regulation, assists stress management, and elevates positive mood (Khalsa et al., 2012). Yoga has also been found to increase strength, flexibility, respiratory function, attention, and emotional regulation (Butzer et al., 2015; Noggle et al., 2012). An essential element of yoga is a meditative practice, and meditation can help with paranoia, assertiveness, acceptance, and emotional maturity (Rybak &

Deuskar, 2010). Khalsa et al. (2012) indicated yoga is beneficial for reducing the symptoms of anxiety and depressive disorders. Yogic breathing has been found to reduce stress-related and depressive symptoms and decrease the cortisol stress response (Adams & Puig, 2008; Rybak & Deuskar, 2010; Butzer et al., 2015).

In addition, yoga has been found to be beneficial among diverse groups of population with varied symptoms and ailments. Several studies have found positive results when integrating yoga into the treatment of eating disorders, and the positive effects include increased body satisfaction, reduced preoccupation with dieting and thinness, decreased fear of weight gain (Rybak & Deuskar, 2010; Adams & Puig, 2008). Also, participants noticed increased body responsiveness, decreased self-objectification, and increased body awareness (Adams & Puig, 2008). A study conducted with adolescent musicians found that relaxation techniques, meditation, and guided imagery lead to lower levels of general anxiety, tension, depression, anger, and performance anxiety (Khalsa, Butzer, Shorter, Reinhardt, & Cope, 2013). These studies offer preliminary evidence that yoga can be a useful technique for counselors to consider when treating anxiety disorders.

### **Brief Interventions Tailored to Children with Anxiety**

Yoga Therapy has been increasing in popularity and acceptance in treatment (Kaley-Isley, Peterson, Fischer & Peterson, 2010). Utilizing yoga in therapy consists of tailoring the practice to specific physical or psychological disorder symptomology (Khalsa et al., 2013). In 2007, Field (2012) reported that 1.5 million children had participated in yoga, and another study found that 2.1% of the population under 18 years old practice yoga (Butzer et al., 2015; Conboy et al., 2013; Khalsa et al., 2013). Yoga used with children in schools was found to improve mood (Felver, Butzer, Olson, Smith, & Khalsa, 2015; Khalsa et al., 2012). Some yoga techniques used include: relaxation techniques, breathing regulation, postures, visualization, mindfulness, and self-awareness.

These yoga practices yielded positive effects such as reduced test anxiety, increased academic performance, increased concentration, increased coping ability with stress, reduced aggression, improved ability to handle pressure from academia, lowered levels of rumination, less intrusive thoughts, increased emotional regulation were reported among children (Khalsa et al., 2012; Butzer et al., 2015). In addition, researchers have shown children experience improved moods and lower levels of the stress hormone cortisol when using yoga techniques (Field, 2012; Conboy et al., 2013; Khalsa et al., 2013; Butzer et al., 2015). There has also been evidence of yoga leading to reduced levels of tension-anxiety, improved well-being, increased resiliency to stress, lowered negative affect, and increased anger control (Noggle, Steiner, Minami, & Khalsa, 2012; Conboy et al., 2013).

### **Specific Yoga and Yogic Breathing Techniques**

#### **Unilateral Nostril Breathing**

There are various brief yogic breathing techniques that can be utilized in-session and outside the counseling setting with children who may be experiencing anxiety. The first type of pranayama is called *unilateral nostril breathing (UNB)*; the technique consists of using the ring finger of the right hand to close one nostril while inhaling and exhaling through the other. Controlled yogic breathing such as UNB can decrease stress and anxiety (Marshall, Basilako, Williams, & Love-Myers, 2014). This simple breathing technique can help deescalate a clients acute anxiety symptoms in a counseling session. Children may easily learn this technique and

use it outside of the counseling setting as well. It is a technique that can be used conspicuously by children in the classroom and home. Parents can be instructed to prompt children to use the technique during time of distress.

### **Diaphragm Breathing (Belly Breathing)**

Another breathing technique that can easily be taught and utilized with children experiencing anxiety is *diaphragm breathing*, in which the lungs are filled more fully and more oxygen is allowed into the bloodstream. Diaphragm breathing has also been successfully utilized with student athletes experiencing performance anxiety (Garza & Ford, 2009). Belly breathing can be taught by instructing clients to place his or her hand on his or her belly and proceeding to breathe deeply and slowly to fill the belly. The client is then instructed to exhale slowly and feel his or her belly deflate as the carbon dioxide leaves the body.

### **Hand Mudras**

Hand *mudras* can be used with children in a brief setting. Hand mudras are finger and hand positions utilized to create a sense of well-being and peace within a person (Hirschi, 2000). Children can be taught a hand technique in which they tap each finger, one at a time, to their thumb while repeating the phrase “I am at peace” or “I can be calm.” With each finger tap, the child repeats one word at a time. This technique can be used when they feel distressed in school or at home (Hartig, 2011).

### **Tree Pose (Modified)**

The tree pose is one yoga technique that can be used to reduce stress (Smith, et al., 2007). It can be helpful to remind the child that the goal is not to increase yoga skills, but to be physically present in his or her body. The clinician can ask the child to start by standing with both legs together and arms straight down at the sides of the body. The child then envisions growing roots into the ground from the soles of their feet, literally grounding them. The child then slowly lifts his or her arms out to either side, stretching them overhead, fingers toward the ceiling, palms together. While making soft wind sounds, the child sways his or her arms back and forth like a tree in wind, continuing to focus on rooting the soles of the feet. This technique offers the child an opportunity to ground and to let go of stress.

### **A Quiet Place**

A Quiet Place technique is a practice of connecting the mind and body. It allows children the opportunity to feel connected to their feelings (Saltzman & Goldin, 2008). To begin, the clinician can ask the child to close his or her eyes and take slow deep breaths. The clinician can help the child identify that the calm feeling he or she feels is his or her “still quiet place.” The child should be reminded that he or she can visit this place anytime and this is a place to talk with his or her feelings. This technique can also be done in a lying pose with palms facing the ceiling. A general rule for this intervention is to limit the length of the technique to a minute or less per age of child (Saltzman & Goldin, 2007).

### **Positive Mantras**

While using yoga techniques, the counselor can instruct the client to identify a helpful mantra to repeat during the technique or during times of stress (Kaley-Isley, et al., 2010). Examples of positive mantras could be “I accept myself as I am”, “I can be calm”, “I deserve to feel happy”, and “I am capable.” Helping identify meaningful mantras or affirmations can assist the child with counteracting negative ruminations.

## **Implications for Counseling**

Although many approaches exist to treat anxiety, yoga has been used as a complementary therapy intervention for anxiety disorders for children and adolescents (Kaley-Isley, 2010). As this trend progresses, more research is needed on the effect of yoga on anxiety disorders. In particular, there is a need for additional randomized controlled studies to better inform the counseling field of the benefits or risks associated with yoga interventions in counseling practice. It is crucial for counselors to operate within the scope of their expertise therefore, counselors should use yoga techniques they feel confident teaching and demonstrating. When choosing techniques the counselor should take into consideration any physical or developmental limitations of the clients. As with all techniques introduced in counseling, a strong therapeutic alliance should be established as well as an evaluation of the client's needs prior to implementing any intervention.

### Conclusion

As highlighted above, the prevalence of anxiety within the pediatric population is significant (Ramsawh et al., 2010). In addition, research suggests there is a link between adult functioning and childhood anxiety (Ramsawh et al., 2010). Therefore, it is crucial that anxiety disorders are treated within childhood. Integrating yoga techniques into counseling may be one useful approach for children and adolescents who have anxiety disorders. Yoga techniques can be taught in the session with the client and used in a variety of settings, including schools and clinics. The yoga techniques described in this article are simple and easy for a child or adolescent to use, both in session and in other settings. For clinicians comfortable with using yoga techniques in counseling, yoga can provide a complementary treatment for children and adolescents struggling with anxiety.

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