

am in recovery from bipolar disorder and substance abuse. I have a history of trauma and was homeless for periods during my transition age years. I have worked in the mental health field for eighteen years and am a National Yoga Alliance registered yoga teacher. Yoga was part of my recovery and is now part of my wellness plan. In this brief article, I will introduce the practice of yoga and review some of the available literature related to its use by youth who may be classified as at risk or have trauma histories. In addition, I will offer some guidance regarding pursuing a yoga practice.

INTRODUCTION TO YOGA

Yoga is a mind-body practice believed to have originated thousands of years ago in India. The term "yoga" translates from Sanskrit as "to unite." Its practices include both physical and mental techniques for calming the nervous system; developing self-awareness and grounding; and building flexibility, balance, and strength. Yoga classes invite individuals to check in with their bodies and feelings, notice any sensations or experiences, direct attention, and return again and again to the breath which is always present. Movements in yoga may be coordinated with the breath and emphasis is placed on full awareness of moment-tomoment experience.

By attending to immediate experience, one may become aware of sensations, thoughts, and emotions that are present. In a yoga class, participants are invited to "direct attention," or simply observe experience without judging or trying to change what is in the moment. A yoga instructor might begin a session by saying something resembling the following:

Place your awareness at the belly and begin to notice your breath... Notice the rise with each inhale and the fall with each exhale... Do not try to change your breathing... Just attend to the breath... Continue to breathe...The breath coming in, the breath going out... As you breathe, sensations, thoughts, or emotions may arise... Simply allow the sensation, thought, or emotion... Do not focus on it, do not push it away... Simply notice it without judgment and return to your breathing... Keep breathing... The breath coming in, and the breath going out... As you continue to breathe, you may notice another thought or feeling... You might say to yourself, "That is a thought," or "That is a feeling," and return to your breathing... Breathing slowly, breathing deeply... The breath always present... Whatever arises, arises... Breathe in and breathe out... Return your attention again and again to the breath.

LITERATURE REVIEW

Studies that evaluate the benefits of yoga for youth are limited. One systematic review of the clinical literature on yoga and youth concluded that, while controlled studies appeared to provide evidence of yoga benefits for mental health and behavioral issues, methodological issues prevented strong conclusions.2 Another review of the literature concluded that the development of self-regulation abilities is a key component of the effectiveness of yoga for youth. Yoga practice helps youth develop skills to regulate and calm their bodies and emotions.³ Two notable studies found statistically significant effects of yoga on participants' perceptions of well-being, positive self-regard, and emotional regulation skills compared to those in control groups. Improvements in such perceptions and skills may reduce the risks of developing symptoms of depression and anxiety. Both studies were pilots of school-based yoga programs being evaluated as prevention strategies.^{4,5}

YOGA FOR TREATING TRAUMA

The practice of yoga for treating trauma issues is based on the premise that trauma affects the body, mind, and spirit and that all must be engaged in the healing process. Yoga is a technique for addressing trauma holistically and for developing a compassionate relationship with the body.⁶

The Trauma Center at Justice Resource Institute in Massachusetts has adapted a form of yoga for traumatized youth in residential treatment and has facilitated groups in three programs since 2003. A central adaptation consists of instruction to participants that they do not have to do any postures that they do not want to do. The teachers believe that an important aspect of trauma recovery is the exercise of choice to reclaim ownership of one's experience.⁷

Street Yoga is a Portland, Oregon-based organization whose volunteer teachers lead yoga classes for youth who are homeless, at-risk, or in shelters. Street Yoga has additional sites in Seattle, New York, and San Diego. Instructors, who must go through a special training, are told that most of the individuals served have a history of trauma and have trauma memories or effects stored in their bodies. The philosophy behind Street Yoga is that people need to be at home in their bodies in order to live well and that through a voga practice, youth can create quiet, safe places to experience their bodies, minds, and feelings.8 Their approach emphasizes building strength and assertiveness with a sense of safety as the first priority. Safety is created by a slow and mindful practice of yoga that allows practitioners to become aware of their physiological experiences and regain a sense of control over their bodies. Participants are urged to exercise choice and regard directions provided in class as suggestions that they may choose to decline. In one outcome study of a class for female youth who had survived sexual trauma, 85% of participants reported that yoga had led

them to feel more energetic, happier, more focused, and

less nervous and tense; 85% also agreed with statements that yoga helped them learn to feel safe in their bodies.⁹

The National Child Traumatic Stress Network (NCTSN), funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), consists of 69 sites in which researchers and clinicians work on trauma-specific Evidence Based Treatments (EBTs) and promising practices. The NCTSN has identified core components of complex trauma intervention that include restoring a sense of safety, enhancing self-regulation, and developing ability to direct one's attention. A focus group of NCTSN clinicians spoke to the need to engage in pretreatment work or stabilization of youth with trauma histories before administering EBTs. Most pretreatment strategies named by these clinicians involved building self-regulation skills through such practices as yoga. 11

THE SCIENCE OF YOGA

Three recent studies have explored the neurochemistry of yoga practice. One assigned individuals to one of three experimental conditions: yoga, dance, or a control group of no intervention. The researchers then measured changes in salivary cortisol levels (high levels of the hormone cortisol are associated with stress and anxiety). Only in the yoga intervention were participants found to have significantly decreased cortisol levels. 12 In a study that com-

pared individuals who participated in yoga

for eight weeks to a control group, anatomical magnetic resonance (MR) images showed increases in brain gray matter in the hippocampus and cerebellum, brain regions involved in memory and emotional regulation. Depression, anxiety, and posttraumatic stress disorder are among the mental health conditions that are associated with decreased density or volume of the hippocampus. While the cerebellum is best known for functions related to coordination and motor control, it plays a significant role in the regulation of emotion as well.13 Another study found that, compared to a control group, yoga participants

experienced a statistically significant

increase in brain GABA levels after each one hour session of yoga (lower GABA levels are associated with mood and anxiety disorders). ¹⁴ These studies are providing objective documentation of what yoga practitioners have been reporting for centuries: yoga leads to beneficial changes. The science appears to be catching up to the wisdom in the yoga communities.

ADVICE IN PURSUING A YOGA PRATICE

Yoga practice can be challenging, and full benefits require a disciplined practice. It took me years to develop a regular practice, which continues to take effort to maintain. When I have been away from my practice for too long, I actually find myself craving yoga. This craving speaks to a need that I should meet and is vastly different than past cravings that were destructive. I no longer identify with the difficulties in my past. Yoga has enabled me to respect myself and make better decisions. If you take on a yoga practice, you may find that you struggle at times in certain poses and with emotions that may be stored in your body. When this happens, I advise you to think of someone you highly You might respect. choose a family member, teacher, or community or spiritual leader. Ask yourself what you would say to such a person and then say it to yourself. You might say, "I think so well of you for all that you are, what you have done, and what you will do. You are an inspiration and a guide. You are a lovely person. Don't change, just continue. Breathe here.

Breathe again. Namaste.*"

*Namaste is a Sanskrit term that translates as, "The light within me bows to the light within you."

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