Yoga Therapy in Practice

Trauma-Sensitive Yoga: Principles, Practice, and Research

David Emerson, E-RYT, Ritu Sharma, PhD, Serena Chaudhry, Jenn Turner

Trauma Center at Justice Resource Center, Brookline, MA

Abstract: Since 2003, the Trauma Center Yoga Program at the Justice Resource Institute in Brookline Massachusetts has been providing Yoga to a variety of trauma survivors, including war veterans, rape survivors, at-risk youth, and survivors of chronic childhood abuse and neglect. Pilot study results have demonstrated the benefits of Yoga for individuals suffering from post-traumatic stress disorder. The Trauma Center Yoga Program also trains Yoga instructors and clinicians in how to offer Yoga to trauma survivors. This paper describes best principles and practices of teaching Yoga to survivors of trauma.

Keywords: Yoga, trauma, PTSD, psychology, anxiety, stress

Correspondence: David Emerson at 1269 Beacon Street Brookline, MA 02446. (617) 232 – 1303. Email: demerson@jri.org

Trauma and Post-Traumatic Stress Disorder (PTSD)

Trauma exposure is ubiquitous in our society. Over half the general population report having had exposure to at least one traumatic event over their lifetime, with 5% of men and 10.4% of women developing post-traumatic stress disorder (PTSD). As described in the DSM-IV-TR, PTSD is characterized by persistent reexperiencing of the traumatic event (intrusions), persistent avoidance of stimuli associated with the trauma, numbing of general responsiveness, and persistent symptoms of increased physiological arousal. Individuals with PTSD have a difficult time calming down or self-regulating, reflected in higher levels of sympathetic nervous system activation and lower heart rate variability, a marker of the autonomic nervous system's flexibility. ²⁻⁴

PTSD has a debilitating negative impact on the overall quality of life of the individual. Seventy-four percent of the individuals diagnosed with PTSD are symptomatic for more than six months and may experience symptoms for years. Individuals diagnosed with PTSD have a high likelihood of also being diagnosed with another psychological disorder. The U.S. National Comorbidity Survey found that an estimated 88% of people with PTSD had at least one other co-occurring psychiatric illness. In an Australian study with 10,000 participants, women diagnosed with PTSD were 23 times more likely to develop depression, 10 times more likely to develop generalized anxiety disorder, and 10 times more likely to develop panic disorder.

Given the prevalence of trauma exposure in our society, effective treatment interventions for individuals who develop PTSD are essential. Unfortunately, trauma has long-lasting effects on mental health and is extremely treatment-resis-

tant. Bradley and Westen's meta-analysis of 26 studies found that 45% of therapy clients with PTSD remain significantly symptomatic after treatment, and two-thirds of those who initially responded to treatment relapsed six months after treatment. There is a great need to continue to explore more effective treatment interventions and adjunctive therapies for trauma survivors.

Yoga for PTSD

An essential aspect of recovering from trauma is learning ways to calm down, or self-regulate. For thousands of years, Yoga has been offered as a practice that helps one calm the mind and body. More recently, research has shown that Yoga practices, including meditation, relaxation, and physical postures, can reduce autonomic sympathetic activation, muscle tension, and blood pressure, improve neuroendocrine and hormonal activity, decrease physical symptoms and emotional distress, and increase quality of life. 10-21 For these reasons, Yoga is a promising treatment or adjunctive therapy for addressing the cognitive, emotional, and physiological symptoms associated with trauma, and PTSD specifically.

Overview of the Trauma Center Yoga Program

The Trauma Center Yoga Program works with traumafocused clinicians to provide ongoing Yoga classes to women and men who are survivors of physical, emotional, and sexual abuse and neglect, or other severe traumas. Group Yoga classes are offered in a variety of settings, from the Trauma Center itself to veterans centers, residential schools for teens, domestic violence shelters, rape crisis centers, and other community and residential facilities.

Our work at the Trauma Center Yoga Program is based on the clinical premise that the experience of trauma affects the entire human organism—body, mind, and spirit—and that the whole organism must be engaged in the healing process. ¹⁻² Traditional trauma therapy is talk-based and focuses on the mind, the story, tending to neglect the physical, visceral, and body-based dimension of trauma. Yoga, when skillfully employed, can uniquely address the physical needs of a trauma survivor, and provide a way for a trauma survivor to cultivate a friendly relationship to his or her body through gentle breath and movement practices.

Our primary mentor from within the clinical community is Dr. Bessel van der Kolk, a world-renowned leader in the research and treatment of PTSD. Dr. van der Kolk was

among those responsible for codifying the original diagnosis of PTSD after the Vietnam War. The Yoga program was developed by Yoga teacher David Emerson in consultation with Dr. van der Kolk. Over the years, we have had several Yoga teachers from the Boston area teaching classes with us and contributing their thoughts and experiences. Many of our most successful trauma-sensitive Yoga teachers have Kripalu training, and we have noticed that this particular training seems to be especially conducive to developing a trauma-sensitive perspective on Yoga. We also used feedback from students as a primary driving force behind the development of the Trauma Center Yoga Program.

All Trauma Center Yoga teachers are registered with the Yoga Alliance at the 200-hour level or higher and have also completed our 40-hour certificate program. This intensive training includes presentations by Dr. van der Kolk and other senior trauma clinicians, as well as an in-depth investigation into the principles and practices of trauma-sensitive Yoga outlined below. The 40-hour certificate program empowers trained Yoga instructors to integrate trauma-sensitive principles into their existing classes or to start new trauma-sensitive classes. We have also developed a two-day training program for clinicians who are interested in bringing some Yoga into their clinical practice. Over the past two years, we have trained hundreds of clinicians from all over the United States and beyond working with trauma survivors.

Research on Yoga at the Trauma Center

The Trauma Center conducted a pilot study to examine the impact of its Yoga program on PTSD symptoms. The aim of this study (also described in van der Kolk & Yehuda 2006)¹ was to investigate the feasibility of having trauma survivors participate in Yoga and to compare the effects of group Yoga classes to a structured group-treatment intervention. The participants (16 women between the ages of 25 and 55) were randomly assigned to either eight sessions of a gentle 75-minute Hatha Yoga class or to a Dialectical Behavior Therapy (DBT) group. Changes in symptoms were assessed through self-report inventories measuring the severity of PTSD symptoms, positive and negative affect, and body awareness.

After eight weeks, the Yoga participants showed improvements in all dimensions of PTSD, an increase in positive affect and decrease in negative affect, and an increase in their physical vitality and body attunement. Compared to DBT participants, Yoga participants reported a greater reduction in frequency of all PTSD symptoms and severity of hyperarousal symptoms, as well as greater gains in vitality

and body attunement. Although the results of this study did not reach statistical significance due to small sample size, Yoga appears to positively affect self-regulation and decrease hyperarousal, and these benefits may match or exceed those of the more commonly utilized DBT-skills intervention.

Given the positive initial findings of the pilot study, we are currently studying the effects of Yoga on heart rate variability among trauma survivors, as well as conducting a larger randomized, single-blind, controlled study examining the efficacy of Yoga in comparison with a women's health awareness control group. This current study is looking at women with PTSD who have been treatment resistant even after several years of some type of PTSD intervention, such as traditional talk therapy. We are examining whether Yoga can improve the constellation of PTSD symptoms, multiple somatic complaints, social and occupational impairment, and high healthcare utilization that has been documented in hundreds of thousands of female trauma survivors in the United States. Overall, we hope these research projects will provide more evidence about whether Yoga can not only help individuals reduce PTSD symptoms but also improve their overall health and functioning.

Principals and Practice of Trauma-Sensitive Yoga

To make Yoga accessible to trauma survivors, we have modified the average Yoga studio-style class. To guide us in these modifications, we have identified at least five aspects of a Yoga class that may require special consideration: Environment, Exercises, Teacher Qualities, Assists, and Language. Each of these domains must be modified to accommodate a trauma-sensitive Yoga class.

Environment

The Trauma Center's Yoga Program is offered in a number of different environments. However, we strive to make each environment as welcoming as possible for trauma survivors. The main concern is providing a space in which participants feel safe and less vulnerable. The following simple suggestions can help to ensure this.

- If there are publicly exposed windows, cover them.
- Lighting should be soft, but not too dark.
- Mirrors can be an unhelpful distraction. There may be mirrors present, but you can arrange the class space so that participants are not facing them.
- Do your best to minimize external noise. If you are in a city and there is traffic sound, that's OK—just do your best.

- Make sure that no one will be walking in and out of the room inadvertently during the class (e.g., UPS or maintenance).
- Make sure you have enough props for everyone, including chairs for any chair-based work.

Exercises

There are many ways to structure a Yoga practice. A typical Trauma Center Yoga class begins with a seated centering and series of warm-ups, including gentle neck stretches and shoulder rolls. The goal of the teacher during the opening of the class is to set a tone of safety, gentleness, and nonjudgmental self-study that can be maintained throughout the session and eventually beyond the mat.

The longest portion of the class is made up of typical Yoga postures. Because we have such a variety of groups, from young Marines just back from Iraq to older adult survivors of chronic childhood abuse and neglect, the posture choices will vary. We might emphasize strength-oriented postures with the Marines; we will tend toward gentler poses for students who have been less physically active prior to starting Yoga. The important thing is that whatever we offer, we do so in a trauma-sensitive way.

The ending of the class may vary as well. In some cases, we end with *savasana* (relaxation pose) if folks are comfortable lying down with their eyes closed. In other cases, such as if the group is particularly hypervigilant or hyperaroused, we might end in a seated rest. In every class, we always give students the option to choose a resting posture that works best for them. In most classes, there will be some folks lying on their back, others lying on one side, and still others sitting with their eyes open. Our intention here is for our students to take some control over their experience, and to find what is most restful for them.

We always want to give several options, not just in relaxation but in any posture: "If this doesn't work, try this or this." The big constant in trauma-sensitive Yoga is the instruction "If this is uncomfortable to you for any reason, you can always come out of the posture and come back to your mindful breathing." We are teaching trauma survivors to identify what is happening right now in their bodies. If they detect pain on any level, we hope they become willing and able to say "No, I will not be in pain. My opinion about what is happening to me matters, and I can take control." These are the therapeutic moments in class, and they are extremely valuable.

Our experience suggests that trauma-sensitive Yoga is more about the "how" than the "what." That said, there are some posture groups, especially hip openers, that have been particularly difficult for many trauma survivors in our classes. Because hip openers can be very important postures, we don't want to rule them out, but we have learned to present them in a progressive fashion. For example, we would not introduce happy baby pose, or any other supine hip opener, to a new group. We might start with a seated pose like *janu sirsasana* (head-to-knee pose) for many weeks and then move to *baddha konasana* (bound-angle pose). The next step might be something like supine knees-to-chest, one leg at a time at first. Finally, it is always important to give students control over what they are doing with their body, so a simple "If this is uncomfortable for any reason," is a necessary part of hip openers as with every other posture.

Teacher Qualities

We have found that a successful trauma-sensitive Yoga teacher is one who is present and positive; one who is engaged, welcoming, and approachable; one who is very competent and at ease with the Yoga material, but invites feedback and is willing to listen; and most importantly, one who makes changes when things are not working. A teacher who can be directive but also extend an open invitation to the students to have their own experience ("Try lifting your arms up, and if that is uncomfortable for any reason, you may bring your arms back to your sides") will do well in this setting.

Problems arise when the Yoga teacher tries to be a trauma expert, or tries to control the experience of the student, for example, by stating things like "This posture is difficult for trauma survivors," or "This posture should feel really good."

We also recommend some basic things teachers can do to make students more comfortable:

- Dress conservatively to minimize any distraction.
- Be in the room before anyone arrives if possible, and extend a verbal "welcome" to each student each class.
- Do not move around a lot; make it easy for students to know where you are at any point throughout the class (no surprises).
- Demonstrate a welcoming and accepting attitude throughout class, for example, by smiling and keeping things light, rather than being strict and critical.
- Consider your pace of instruction. In general, a slow pace works better than a rapid pace. We are teaching folks to take some time with their bodies, and we don't want to rush them through it. There is also such a thing as too much time in a pose, so aim for a good rhythm where students have time to understand and experience the pose, without the time to dissociate or drift off.

Assists

For many trauma survivors, physical assists are a clinical issue and should be treated with great care and attention. We do not offer physical assists for the first several months of an open Yoga class and would suggest not doing physical assists at all if your class is limited to several weeks in duration. Verbal assists, however, can be very valuable and will show that you are attending to your students in a nurturing way, while respecting their physical space and the integrity of those boundaries. For example, rather than physically adjust a student's posture, you might suggest that the student try a block or blanket to make a posture more accessible. We recommend that instructors focus first on assisting for safety and then comfort/accessibility. We do offer physical assists in some of our long-term classes, and we have found these can have therapeutic value, such as helping people tolerate nurturing, positive touch from another. However, we are primarily helping people develop self-knowledge and friendliness toward their own bodies. After some time, physical assists might serve these ends, but not necessarily.

Language

Most Yoga classes involve a considerable amount of talking by the Yoga teacher. At the Trauma Center Yoga Program, we believe that what the Yoga teacher says and how he or she says it is of utmost importance.

When we sat down as a group of Yoga teachers beginning to build the program, we discussed examples of instructions we had been given in actual Yoga classes at good, reputable studios and health clubs. Here are some examples: "Push just a little further," "Hold just a little longer," "Shine your nipples to the front of the room," and "Imagine I am going to come up and punch you in the stomach—I really want to feel that strong belly." You may have heard instructions like these in your own Yoga classes. Maybe they made a strong impression and made you cringe, or maybe not. For trauma survivors, however, these kinds of instructions could trigger trauma-related symptoms and would probably spell the end of Yoga for them.

It was easy for us to decide that we weren't going to use the word "nipple" in class, and we wouldn't threaten to punch our students. What was more interesting to us was that we realized much of the language used by Yoga teachers involves the teachers trying to get students to do something, to push a little farther, or to try a little harder. We decided that trauma-sensitive Yoga was not so much about *getting students to do something* but more about *inviting them to try something*. As a result of this decision, we came up with what we call Invitatory Language.

Invitatory Language involves phrases such as "when you are ready," "if you like," and "as you like." Students are invited to try something, but are not required, coerced, or pushed. We do not place value so much on students doing exactly what we say or pleasing us, but in being willing to listen to their own bodies and acting accordingly. This takes time and patience to develop, but it is one of the ways we have found Yoga to be most therapeutic for trauma survivors.

Our instructions are clear and simple, but we make an effort to invite students rather than command them. Consider the following two sets of instructions: "Stand up tall," and "If you like, try standing up tall." Try giving yourself each of these instructions out loud. Get a feeling for the differences between these two simple instructions, and you will have a clearer understanding of a key principle of trauma-sensitive Yoga.

Invitatory Language supports the primary clinical goal of helping trauma survivors develop a friendly, nondemanding, gentle relationship with their bodies. Trauma survivors tend to have a deeply antagonistic relationship with the body.³ The trauma clinicians we work with have concluded that for trauma survivors to heal, they must develop a friendly relationship with their body. This is a long and challenging path and takes great patience. For some trauma survivors, becoming friendly with the body might start with not utterly hating it. Yoga teachers need to be prepared to help people wherever they are at in the process.

Choices and Community

Along with the principals discussed above, Trauma Center Yoga teachers keep in mind the healing benefits of two key elements of a group Yoga practice: making choices and community.

The process of being traumatized involves a fundamental lack of choice—you were in the wrong place at the wrong time. Your choices as an individual did not matter. What happened happened, despite your complete insistence that it not happen. This can result in a deeply damaged sense of agency in the world and a complete lack of faith that you can do anything to improve your situation or change things to better suit yourself.

In our Yoga classes, along with utilizing invitatory language, we explicitly invite students to make choices around what feels best. We acknowledge that some of the poses we invite them to try may not actually work for their unique body. For many students, the invitation to make these choices feels brand new and even radical. They may have never before been empowered in this way. Discovering what

does and does not feel good or comfortable in their body is very challenging and takes a lot of patience. Identifying how the body feels is very difficult for trauma survivors who have, in many cases, been avoiding noticing their bodies or neglecting to care for their bodies for a prolonged period of time. Making choices to lessen pain, strain, or discomfort may be more challenging still.

As an example, sometimes in class we might hold *virabhadrasana* (warrior pose) for a slow descending count of four. The slow counting by the instructor provides a thread for students to hold on to, letting them know that the holding will not last indefinitely. While students are breathing in the pose, the instructor might say, "If you are experiencing any discomfort or pain, please be willing to come out of the pose" or, "As we hold the pose, remember that you are welcome to bring yourself out of the pose whenever you are ready."

While this kind of instruction might occur in any Yoga class, we have found it to be an essential aspect of a traumasensitive class. For this reason, these gentle reminders might be given multiple times during a session, posture after posture, helping to support students in making clear, effective choices based on their own experience right in the moment. As students develop the ability to make choices for themselves based on their own internal feedback, they are learning that their feelings matter and that they can take effective action to make themselves feel better.

Finally, nurturing an environment of choice can give students the freedom to try new poses or experiences. When the culture of a class honors the students' right to make choices, students can try poses or practices that might once have been out of their comfort zone because they know they can always say no.

As with other Yoga classes, we hope that the lessons learned on the mat can be nurtured by the student and eventually applied to other settings and experiences. For example, a young woman who had been attending Trauma Center classes for a few months reported trying a Yoga class at her local studio. She said, "I finally felt like it really was OK for me to sit quietly or rest, and not do the poses that usually hurt my back and hips. I just went into child's pose or something, and joined the class when I was ready." This student was clearly able to internalize the practice of choice and found it helpful in allowing her to take a class at a public Yoga studio.

Another important aspect of the Yoga classes at the Trauma Center is the development of community. As the author and trauma clinician Judith Herman has noted, trauma survivors typically feel deeply alienated from society.

It is as if the only way to make sense of a terrible experiences is to believe oneself to be so different from everyone else that there really is no way to relate.²² We often hear from our students that the supportive presence of peers, people in the same boat, people who have had similar experience and are practicing Yoga for similar reasons is a very powerful benefit of the Yoga classes at the Trauma Center.

Conclusion

At the Trauma Center Yoga Program, we believe that Yoga can support the process of healing for survivors of trauma and those suffering with PTSD. We hope to make further contributions in both training and research, so that Yoga can become more available as part of a holistic healing process for millions of men and women who have survived trauma.

References

- 1. Kessler RC et al. Posttraumatic stress disorder in the National Comorbidity Survey. *Archives of General Psychiatry*. 1995;52(12):1048-1060.
- 2. Cohen H et al. Power spectral analysis of heart rate variability in post-traumatic stress disorder patients. *Biological Psychiatry*. 1997;41(5):627-629.
- 3. Cohen H et al. Analysis of heart rate variability in posttraumatic stress disorder patients in response to a trauma-related reminder. *Biological Psychiatry*. 1998;44(10):1054-1059.
- 4. Cohen H et al. Power spectral analysis of heart rate variability in psychiatry. *Psychotherapy and Psychosomatics*. 1999;68(2):59-66.
- 5. Warshaw MG et al. Quality of life and dissociation in anxiety disorder patients with histories of trauma or PTSD. *American Journal of Psychiatry*. 1993;150(10):1512-1516.
- 6. Breslau N. Outcomes of posttraumatic stress disorder. *Journal of Clinical Psychiatry*. 2001;62:55-59.
- 7. Kessler RC et al. The US National Comorbidity Survey:

- Overview and future directions. *Epidemiologia e Psichiatria Sociale*. 1997;6(1):4-16.
- 8. Creamer M, Burgess P, McFarlane AC. Post-traumatic stress disorder: Findings from the Australian National Survey of Mental Health and Well-Being. *Psychological Medicine*. 2001;31(7):1237-1247.
- 9. Bradley R et al. A multidimensional meta-analysis of psychotherapy for PTSD. *American Journal of Psychiatry*. 2005;162(2):214-227.
- 10. Sarang P, Telles S. Effects of two yoga based relaxation techniques on heart rate variability (HRV). *International Journal of Stress Management*. 2006;13(4):460-475.
- 11. Benson H, Alexander S, Feldman CL. Decreased premature ventricular contractions through use of the relaxation response in patients with stable ischaemic heart-disease. *Lancet*. 1975;2:380-382.
- 12. Mandle CL, Jacobs SC, Arcari PM, Domar AD. The efficacy of relaxation response interventions with adult patients: A review of the literature. *Journal of Cardiovascular Nursing*. 1996;10:4-26.
- 13. Delmonte MM. Meditation as a clinical intervention strategy: A brief review. *International Journal of Psychosomatics*. 1986;33(3):9-12.
- 14. Miller JJ, Fletcher K, Kabat-Zinn J. Three-year follow-up and clinical implications of a mindfulness meditation-based stress reduction intervention in the treatment of anxiety disorders. *General Hospital Psychiatry*. 1995;17(3):192-200.
- 15. Reibel DK et al. Mindfulness-based stress reduction and health-related quality of life in a heterogeneous patient population. *General Hospital Psychiatry*. 2001;23(4):183-192.
- 16. Schmidt T, Wija A, von Zur M, Brabant G, Wagner TO. Changes in cardiovascular risk factors and hormones during a comprehensive residential three month kriya yoga training and vegetarian nutrition. *Acta Physiologica Scandinavica Supplementum*. 1997;640:158-62.
- 17. Wenger MA, Bagchi BK. Studies of autonomic functions in practitioners of yoga in India. *Behavioral Science*. 1961; 6:312-323.
- 18. Davidson JM. The physiology of meditation and mystical states of consciousness. *Perspectives in Biology and Medicine*. 1976;19(3):345-379.
- 19. Delmonte MM. Meditation practice as related to occupational stress, health, and productivity. *Perceptual and Motor Skills*. 1984;59(2):581-582.
- 20. Richmond J et al. Integration of behavioral and relaxation approaches into the treatment of chronic pain and insomnia. *Journal of the American Medical Association*. 1996;276:313-318.
- 21. West M. Meditation. British Journal of Psychiatry. 1979;135:457-467.
- 22. Herman JL. *Trauma and Recovery*. New York (NY): Basic Books; 1992.