



Working with Trauma Sufferers

About one-half of adults in the U.S. experience at least one traumatic event during their lives. It might be a violent attack, accident, military combat, natural or human-caused disaster, or physical, verbal, or sexual abuse. People who have experienced trauma, whether or not they get diagnosed with post-traumatic stress disorder (PTSD), may suffer from long-term symptoms like anxiety, fear, flashbacks, insomnia, self-destructive behaviors, irritability, hostility, emotional detachment, or social isolation.

Traumatized people tend to either shut down and become unaware of their physical sensations, or become overwhelmed by them. Their nervous systems are stuck in the past and unable to accurately sense what is happening within their minds and bodies in the present moment. Memories of past events constantly activate their stress response, keeping their blood pressure high, their breathing shallow, and their muscles tense. They commonly experience either chronic muscle tension or numbness in certain parts of their body, leading to muscle spasms, fibromyalgia, migraine headaches, and other types of chronic pain.

Fortunately, body-centered therapies are becoming more widely used in treatment for post-traumatic stress, and they are proving to be highly successful. In this section I'll discuss four important ways in which body-centered therapies are helpful in treating trauma, and some general guidelines for working with people who have experienced trauma.

If you're interested in learning more about this topic, I recommend reading:

The Body Keeps the Score by Bessel van der Kolk (the "Four Ways" below are taken from this book)
In An Unspoken Voice by Peter Levine
The Body Remembers by Babette Rothschild

Four Ways in Which Body-centered Therapies Help to Treat Trauma

1. Movement increases sensation and reduces over-reactivity to internal sensations

Brain scans of patients suffering from PTSD show very low activation of areas of the brain that allow us to sense our internal state. In response to the trauma they experienced, people learn to shut down the areas of their brain that sense their internal state and emotions so that they can avoid feeling the terror of past events. Sadly, this results in not being able to sense the body accurately, sometimes to the point of not being able to feel entire areas of the body.

Another adaptation of the sensory system in response to trauma is becoming over-reactive to internal physical sensations. A slight speeding up of the pulse or shallowing of the breath in

response to a mild stressor can quickly escalate into a full-blown panic attack or asthma attack. People with PTSD sense their physiological stress response kicking in, and feel as though they are experiencing the traumatic event all over again.

Learning how to sense the body internally, and learning how to correctly interpret those sensations, is a critical part of recovery from trauma. Recognizing what we feel and why we feel that way gives us the ability to regulate our emotions and control our lives. Having conscious awareness of what's going on in our minds and bodies allows us to choose something other than our habitual reactions; we can notice our physiological sensations for what they are and allow ourselves to calm down instead of becoming overwhelmed. And being in tune with our interoception (our sense of the internal state of our body) allows us to know what we need and to take care of ourselves.

Sensory neurons in our body respond to stimuli, like changes in heart rate or breathing, damage to cells, movement in our joints, and contraction or stretching of our muscles. These sensory receptors then send information about the change in our internal state to our brain for processing. If I ask you to notice how your second and third toes feel, can you? Did you instinctively move your toes in order to feel them?

So in order to improve internal awareness, it is most effective to create change within the body, because change stimulates the sensory system; this is one reason why movement helps in trauma recovery. Slow, conscious movement that creates gentle change within the body and gives time to process the sensations is best. Fast or intense movement can be overwhelming and stress-inducing, and does not allow the time for noticing and processing internal sensations.

2. Dual awareness brings trauma sufferers into the present

When someone has experienced trauma, two areas in the front of the brain called the right and left dorsolateral prefrontal cortex (DLPFC) may shut down. The DLPFC gives us a sense of time, and when it is deactivated we can become trapped in past trauma, feeling as though it will last forever.

Therapies involving dual awareness are used in trauma therapy in order to reactivate the DLPFC and bring trauma sufferers into the present. Dual awareness is the ability to maintain awareness of two or more aspects of experience simultaneously. One example of dual awareness is paying attention to both internal and external senses at the same time; activities involving balancing and moving through space use dual awareness.

Another example of dual awareness is focusing on present internal sensations and external environment (noticing the tension in your shoulders, how your bottom feels in your chair, the light in the room, and any background noise) while talking about past events with a therapist. This helps you to feel safe in your present environment, and recognize that past events happened in the past and are not occurring right now. Practicing dual awareness allows people to understand that the present is safe and to live in the present moment.

3. Body-centered practices recalibrate the threat detection system from the top-down and bottom-up

The amygdala is a part of our brain central to our stress response. If the amygdala detects a threat, it triggers a full-body stress response. All of this occurs immediately and without our conscious awareness. Once our brain's frontal lobes become aware of the situation, we can decide how we want to react. But by that time, our physiological stress response is already in full swing.

The research of neuroscientist Joseph LeDoux shows that the rational part of our brain has no conscious connection with the emotional part of our brain (the limbic system, which includes the amygdala). This means that we can't sit around and think our way out of deep-seated emotional memories and habitual stress reactions. There are two ways we can access the emotional, threat-detecting part of our brain: from the top-down through the medial prefrontal cortex, or from the bottom-up through the autonomic nervous system.

The medial prefrontal cortex (MPFC) is located in the frontal lobes of the brain—the areas that give us the ability to choose how we react to a situation. The MPFC also helps to monitor our body's internal sensations. In PTSD the balance between the rational and emotional parts of the brain is off, but recalibrating the MPFC helps bring these parts of the brain back into balance. We can improve the ability of our MPFC to monitor our internal sensations with practices like somatic exercises, meditation, and yoga.

The autonomic nervous system (ANS) regulates functions of the body including heart rate and breathing, and it carries out our physiological stress response. We can recalibrate the ANS using conscious breathing, movement, and touch.

If thinking about all of these parts of the brain is too confusing, the simplest way to think about it is this: mindfulness, movement, and touch recalibrate our sensory and emotional processing systems, bringing the rational and emotional parts of our brain back into balance and allowing us to perceive stressors more accurately.

4. Body-centered practices give trauma sufferers control of their healing

In his book *In An Unspoken Voice*, psychologist and trauma expert Peter Levine describes *pendulation*, our innate rhythm of moving alternately through contraction and expansion, stress and relaxation, bad and good sensations. Being aware of our internal rhythm of pendulation allows us to know that what we are feeling will not last forever.

The principle of pendulation is important in healing from trauma because it allows the trauma sufferer to gradually adapt to new internal states and sensations, and to not be out of their comfort zone for too long. The process of healing from trauma is not a straight forward line. Continually moving in a straight line with any type of therapy will likely result in hyperarousal and a dramatic step backward. People need periodic breaks from working through trauma; they need to pendulate forward and backward, forward and backward, with an overall gradual movement forward over time.

Body-centered practices like yoga, meditation, and somatic exercises are tools that trauma sufferers can use to work through their trauma at their own pace. They can practice when they want to, stay within their comfort zone, and put on the brakes when they need to. As their internal awareness and control improves, they'll know when they can safely move forward, and they can make their own decision to do so. Body-centered practices give people control over their healing, and give them the immediate experience that what they're feeling won't last forever.

Using Clinical Somatics to help heal trauma

Clinical Somatics exercises are an empowering tool for trauma sufferers. The exercises are extremely slow and require constant focus on the internal sensations of muscles gently contracting and releasing. Regular practice creates a high level of awareness and conscious control of the body. And since the slow speed of the movements demands 100% of mental focus, they keep students in the present moment.

When working with a student who has experienced trauma, make sure they feel empowered to be in charge of their healing process. Encourage them to learn and practice Clinical Somatics exercises at their own pace and to stay within their comfort zone. They can lie down and practice one or two exercises for just a few minutes. They can take days off when they want to. They can increase the length of their practice or the number of exercises they do whenever they want to, and it is always up to them.

Pandiculation releases subconsciously held muscle contraction, which directly reduces anxiety. For people who have experienced trauma, working with certain areas of their body may bring up difficult emotions. Again, feeling empowered is important in this regard. Someone who has experienced trauma may feel most comfortable starting the process by working with parts of their body that feel safe and comfortable, and beginning to gradually work with tighter or more emotional areas of their body as they feel ready. There is no need to rush or force this process.

Be sure to talk about the concept of pendulation with your students who have experienced trauma. It is normal to have ups and downs throughout their healing process. They should take the process at their own pace, and put on the brakes whenever they need to. Let them know that when they're experiencing stress or tension, it is only temporary.

If you need to touch your student in order to make an adjustment or provide sensory feedback, make sure to ask them first. As a preferable option to try first, demonstrate the movement if necessary, or have the student use their own hand to touch an area of their body.

Some general rules to follow with all students, and especially those who have experienced trauma:

- Put your student at ease
- Make sure your energy is relaxed, welcoming, and non-judgmental
- Create a safe, positive environment for your student
- Let them know that they're in charge of the session
- Stay in communication, asking them how they're doing and what they're feeling as they do the exercises

- Never force anything
- Teach verbally; demonstrate only if necessary; suggest they put their hand on an area to increase sensation; and only touch them if necessary and they are comfortable with it
- Encourage them to practice the exercises at home in whatever way works for them (5 minutes or one exercise at a time, skip days if needed, and gradually increase as they are comfortable)