LESSON SEVEN

Trauma & Addiction

While the teachings of Ayurveda have long supported the profound impact of the history of a person's ancestors on its life and the life of its own future offspring, recent developments in the understanding of genetics are beginning to transform our understanding of the origins of stress, and imbalances in the brain chemistry leading to depression, suicide and addiction. The term ***transgenerational trauma*** refers to ***trauma*** *that is transferred from the first generation of* ***trauma*** *survivors to the second and further generations of offspring of the survivors via complex* ***post-traumatic stress disorder*** *mechanisms.*

The studies show that second and third generations of offspring of the survivors of traumatic situations (like those of the holocaust, and residential school programs with indigenous peoples in Canada), are born with altered stress hormones including lower levels of cortisol. These studies provide evidence to prove the theory of epigenetic inheritance: the idea that environmental factors can affect the genes of future generations.

Given that many generations have experienced trauma from colonialism, war, violence, abuse, poverty and so on, we can theorize that the effects of this trauma affects the genes of future generations, altering their ability to handle stress and increasing the manifestations of addictive behaviours. You can begin to understand how these behaviours "carry" from one generation to the next. To break the cycle is to understand that it is possible to heal these patterns in the mind, body and spirit; that we are not "doomed" to repeat these cycles.

What is PTSD?

(material adapted from the Diagnostic and Statistical Manual of Mental Disorders)

Post Traumatic Stress Disorder is a trauma and stressor related disorder. The onset of PTSD results from exposure to actual or threatened death, serious injury or sexual violation. The exposure must result from one or more of the following scenarios, in which the individual:

- Directly experiences the traumatic event
- Witnesses the traumatic event in person
- Learns that the traumatic event occurred to a close family member or close friend (with the actual or threatened death being either violent or accidental)
- Experiences first hand repeated or extreme exposure to aversive details of the traumatic event (not through media, pictures, television or movies unless work-related)

When a traumatic event overwhelms the person's ordinary coping mechanisms or survival responses, this can overload the nervous system, leaving the person unable to process or integrate the ideas and emotions associated with the traumatic event. This can result in PTSD if diagnostic criteria are met, but traumatic stress responses occur on a spectrum and many people may experience traumatic stress symptoms of one kind or another following a distressing event and/or have trouble "rebounding" (without being diagnosed with PTSD).

The disturbance, regardless of its trigger, causes clinically significant distress or impairment in the individual's social interactions, capacity to work or other important areas of functioning. It is not the physiological result of another medical condition, medication, drugs or alcohol.

There are four distinct diagnostic symptom "clusters" for PTSD:

1. **Re-Experiencing**

Spontaneous memories of the traumatic event, recurrent dreams related to it, flashbacks or other intense or prolonged psychological distress

2. **Avoidance**

Refers to distressing memories, thoughts, feelings or external reminders of the event. This category would also include symptoms such as confusion; dential (rejection of idea that something is wrong); and numbing (inability to feel your body or your emotions).

3. **Negative Cognitions & Mood**

Represents myriad feelings, from a persistent and distorted sense of blame of self or others, to estrangement/isolation from others or a markedly diminished interest in activities, to an inability to remember key aspects of the event.

4. **Arousal**

Marked by hypervigilance, aggressive, reckless or self-destructive behaviour and sleep disturbances.

Physical stress responses can include muscle tension, fatigue/weakness, headaches and digestive problems. Difficulties in relationships can arise, including difficulty/inability to trust; problems with boundaries; compromised ability to love/nurture/bond with others; difficulty making commitments; feelings of detachment, alienation, and isolation; vulnerability to re-victimization; fear of victimizing others. Alterations in “Systems of Meaning” can arise, including loss of religious beliefs, spiritual faith, hope.

Trauma & The Brain

Of the limbic structures, the hypothalamus, hippocampus and amygdala, it is the amygdala which is chiefly implicated in PTSD. The amygdala consists of two almond-shaped masses of neurons on either side of the thalamus at the lower end of the hippocampus. Exposure to trauma activates the amygdala and related structures. At the same time, the medial prefrontal cortex, which includes the anterior cingulate cortex, subcallosal cortex, and medial frontal gyrus, can inhibit the activation of the amygdala and restore normal levels of dopamine, norepinephrine and serotonin.

The amygdala is responsible for fear responses and fear conditioning and is hyper-responsive in PTSD, resulting in hypervigilance and inappropriate fear responses. The medial prefrontal cortex, when functioning correctly, will extinguish fear conditioning, preventing inappropriate fear responses and hypervigilance. Its activity is found to be impaired in PTSD.

Trauma, Addiction & Ayurveda

From what we’ve learned so far, we can begin to connect the dots between trauma, post-traumatic stress disorder and addictive behaviour. So how can we relate this to the ancient wisdom of Ayurveda? We can see pretty clearly that PTSD manifests as a major vata imbalance, affecting the mano vaha srotas and majja dhatu, channels of the mind. Hyperarousal is an important vata condition leading to disproportionate responses to stimuli. For example, the sound of a car backfiring may cause someone suffering from PTSD to react strongly by jumping, or hiding and even having physiological responses such as raised heart rate and anxiety. For someone without PTSD, this incident may startle them for a moment, but the incident is soon rationalized and normalized and they are able to move on with their day.

We’ve learned that those with vata imbalance will attempt to manage their anxiety and in the case of PTSD, hypervigilance, by using “downers”, or substances and/or behaviours that

provide comfort and relaxation in some form, be it food, alcohol, marijuana, cigarettes or tranquilizers.

Since vata provocation and *majja gati vata* (invasion of vata into majja dhatu) are central to this condition, treatment approaches are likely to involve a vata soothing diet and lifestyle interventions. In chronic PTSD, watch for symptoms of *vata ojo vyapat* (invasion of vata into ojas), such as extreme fatigue, memory issues and reversal of the diurnal cycle (awake by day and asleep by night). However, because the amygdala is involved with anger as well as fear, there may well be a strong pitta component. As always, appropriate diet and lifestyle suggestions will be individually tailored within the prakruti-vikruti paradigm.

Creating Space for Trauma in Class, with Clients

It is relatively safe to assume that a large percentage of your clients and students will be managing some level of stress related to trauma; in this time in our world, it's nearly impossible not to be. Not all will have been diagnosed with PTSD, but it is important to become aware of and recognize a new approach to bringing as much safety to the client/student experience as possible. This may be review for some of you and for others, new information altogether. Also, this is by no means an exhaustive lesson in "trauma yoga". There are particular trainings that you can receive to gain a comprehensive approach to managing marginalized groups that you may be connecting with in yoga and in your one-on-one settings. I want to give you the basics of how best to approach these scenarios.

The knowledge that I'm imparting here is taken from The Trauma Institute in Boston, Massachusets. The three steps are designed to offer trauma survivors (note: survivors, not "victims"), opportunties to practice being in charge of and make choices with their own bodies and to support interoceptive awareness (awareness from within the body, on a somatic level). Another way to describe interoception in this context as "our awareness of what is going on within the boundary of our own skin." - D. Emerson, Bringing Trauma Sensitive Yoga into Treatment. Trauma negatively impacts this type of awareness and severely limits the capacity of a person to be "in touch" with their own body. Because traumatic memory is held "somatically" (within the body, affecting the nervous system), this invitation to "notice" needs to be offered in a gradual, tolerable way. Please keep in mind that your clients/students may be at various levels of the three steps, and as a teacher, you will have to observe and determine what is best in each case.

1. Having a Body

The first step of the journey to help our students reclaim their bodies, requires students to recognize that they have a body. This might sound simple, but for someone managing stress-related trauma, it's one of the most challenging components of healing. In order to facilitate this, we use exercises that are very clear and mechanical. We do not ask students to interpret thei experience in any way; we simply invite them to do something simple and directed with their body. This serves to begin to create safety around being embodied. 'Having a body' describes offering forms in a very simple way with less emphasis on body or breath awareness.

Consider this approach a mellow dose of interoception. We offer up to two choices throughout the practice, but keep things simple.

2. Befriending the Body

Once students have had some practice having a body, they can move onto befriending their bodies. As teachers, we do this through "invitational" language and "The Language of Enquiry." Befriending the body describes us of language that invites a little more attention to sensation and inner awareness, supporting curiosity and mindfulness of embodied experience. As an example, you can say, "I invite you to close your eyes during meditation", instead of saying "Close your eyes during meditation". Some people with trauma-based stress could be triggered by closing their eyes in a setting and it is entirely possible to meditate with one's eyes open. Remember that you want to allow the students the option to act, without demanding any certain action upon them. I now use invitational language in all of my classes, and it has become a regular part of how I guide students and clients.

3. Body as a Resource

"Body as a Resource" describes use of language that invites yet more body and breath awareness and could be thought of as a "high dose" of interoception. This stage may also include clients beginning to identify for themselves, practices that they might draw upon for self-regulation.

When working specifically with marginalized groups and individuals (consider at-risk youth in a correctional institute, people in rehabilitation, sexual abuse survivors), we operate under the idea of a "strengths-based practice". A strengths-based practice operates from the core belief that our students possess the strengths, resources and abilities to resolve their own challenges. As teachers, we become partners with our students, while maintaining boundaries, within this context. This perspective looks at opportunties and solutions instead of seeing problems that require fixing. We work with the students/clients to facilitate an experience and we create the space for our students to have the experience.

Below you can find further articles on specific studies on epigenetic inheritance, trauma and Adverse Childhood Experiences (ACE's):

http://www.scientificamerican.com/article/descendants-of-holocaust-survivors-have-altered-stress-hormones/

https://www.psychologytoday.com/blog/the-me-in-we/201205/how-trauma-is-carried-across-generations

The Pioneer of Epigenetics, Dr. Bruce Lipton: https://www.brucelipton.com

https://acestoohigh.com/2017/05/02/addiction-doc-says-stop-chasing-the-drug-focus-on-aces-people-can-recover/

https://www.scientificamerican.com/article/descendants-of-holocaust-survivors-have-altered-stress-hormones/