03

TRAUMA AND MENTAL HEALTH

3.1

AN INTRODUCTION TO TRAUMA

Trauma affects the whole person. Understanding the impact of stress and trauma on the body, mind, and emotions will enable you to help yourself and others make more conscious decisions to support well-being. It is possible to heal from trauma and move from survival to vitality and thriving.

AN INTRODUCTION TO TRAUMA

In this lesson you will:

- Explore how trauma affects us
- Understand the importance of listening to our bodies
- Learn about attachment styles and trauma
- Discover how stress can affect our body and brain
- Examine what epigenetics is about and how to rewire the brain

AN INTRODUCTION TO TRAUMA

How Trauma Affects Us

In the past, trauma was thought of as something scary, stressful, and hard to handle. It was something that happened to you and was out of your control. But now it's understood that trauma is not just the event itself, but more importantly, how you respond to the event. It's like an imprint that stays with you as a result of the traumatic event.

When something traumatic happens, you may not have the tools or support to process the energy that comes up. This is especially true for kids, who rely on their caregivers for regulation. If your caregivers don't have good ways to handle their own emotions, they can't help you process your trauma. So whether or not a traumatic event becomes stuck in your body, mind, and emotions depends on the resources you have and the support you receive. The Polyvagal Theory (pictured in Fig.1) helps to explain the response to trauma.

Fight or Flight

When you are feeling connected and safe, you are in the ventral vagal part of your nervous system. In this state, it's easy to be curious, open, grounded, mindful, and compassionate. When life becomes

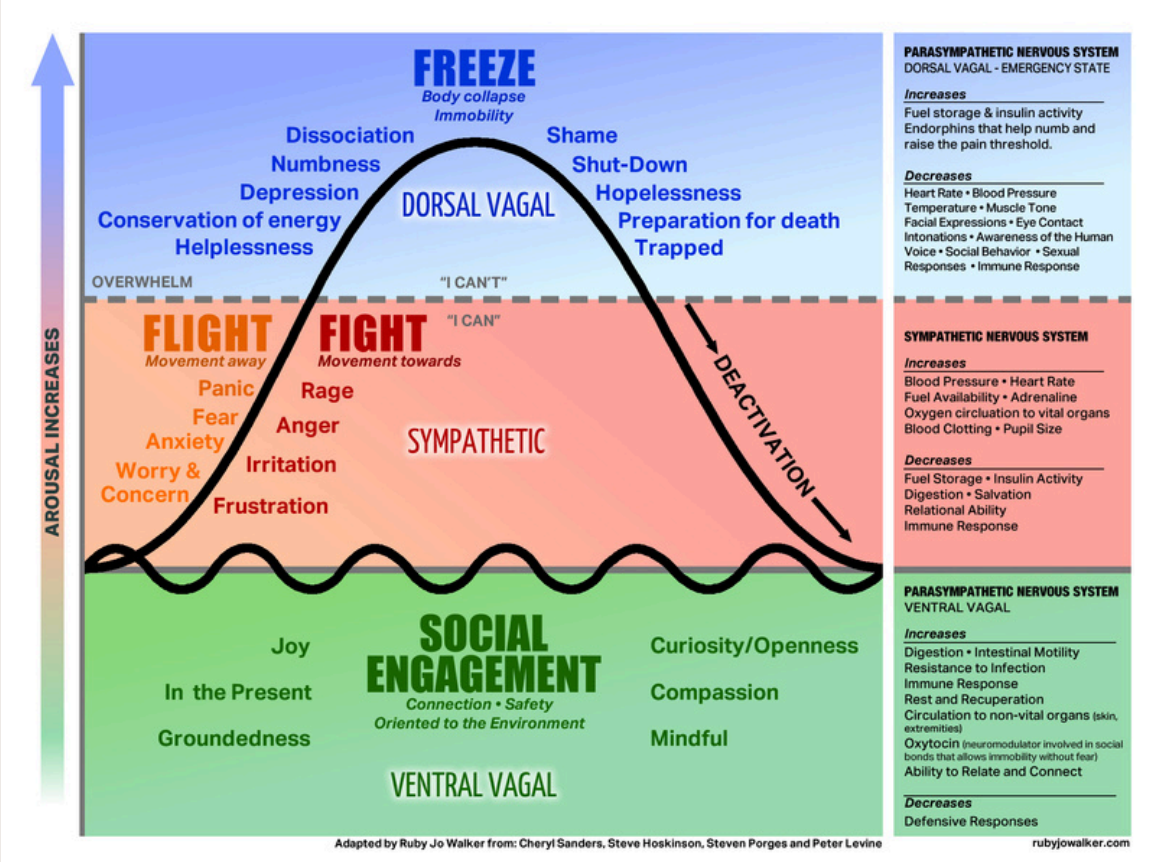


Figure 1

challenging, and stressful things happen, ideally, you handle it and go back to feeling calm and safe. For example, learning something new can be stressful because your brain is not familiar with it, but that little bit of stress is normal and can help us build resilience. However, if you can't go back to feeling calm, you might activate the fight-flight response and feel worried, concerned, frustrated, irritated, anxious, or even fearful, panicked, enraged, or angry.

One of the important things about the fight or flight state is that you still feel like you can take action. You still believe that you can figure things out, run away from the problem and fight against it. You have a sense of control in this state.

Freeze

If you cannot run or fight, then your best option for survival is to go into a different part of your nervous system called the dorsal vagal. This is called the freeze response. Your body starts to shut down and you begin to feel numb because you can't handle the overwhelming distress. It's like your body is trying to protect you by making you feel nothing.

In this state, you might feel emotions like depression, helplessness, hopelessness, and feeling trapped. It's like you're closing yourself off from the world. Your energy becomes more contracted, and your muscles get tight. It's hard to move and you feel frozen. It can be helpful to think about your energy and how your muscles feel. Are they tight and constricted, or do you feel open?

By tuning into your body a few times a day, you can see if you're in a good place (green), feeling stressed (red), or feeling frozen (blue). Based on that, you can figure out what might help you feel better and bring you back to a good place.

However, when you go from the frozen state back to feeling good, you often have to face the things that made you feel overwhelmed in the first place. If you don’t have the right support or resources, you might end up going back to feeling stressed again. You can become stuck in a cycle of fight, flight, freeze, fight, flight, freeze. This is called the trauma cycle.

To stay out of that cycle, it's important to have support from others and take care of yourself. This enables you to feel calm and open making it easier to connect with others and feel happy in the present moment.

When you go through difficult experiences and don't have the resources to handle them, you tend to shut down. If the pain is in your body, you stop paying attention to how your body feels. If it's emotional pain, you ignore your feelings. And if it's about your thoughts, you lose track of what you're thinking.

The more you shut down these parts of yourself, the harder it is to connect with others and the world around you. Your body is like a tool that helps you connect with others.

Listen to Your Body

Think of the body's language as

sensations. It's important to be aware of the sensations you feel on your skin, inside your body, and the support you feel from the floor. Your body is constantly sending you messages through these sensations. The question is, do you listen?

Sometimes, when you've experienced a lot of trauma, you don't listen to your body. This can be challenging for two reasons. First, it can make you overly alert and think there's danger everywhere. Second, it can make you unaware of actual danger and put you in harmful situations.

Be Mindful of Your Thoughts

Think of the mind's language as your thoughts. Your thoughts come from the things you experience and the way your family and society teaches you. Your brain is like a computer program that gets created through these experiences. This programming happens a lot when you are between the ages of zero and five. During this time, your beliefs and how you see the world starts to form. Your brain is very flexible and open to learning at this age. You want to understand the world and figure out how to survive in it.

If you go through traumatic experiences during that developmental stage or have a lot of stress, your brain gets wired to be constantly worried. Anxiety results from a tendency to focus on what might happen in the future. Your brain is trying to protect you, but it can be tiring to always be anxious.

On the other hand, if you have experienced something really painful in the past, your brain might keep replaying those memories. It can be hard to be in the present moment because you are stuck thinking about the past.

Your brain also tries to predict what will happen based on your past experiences. When you are not focused on the present, your brain starts guessing what might happen next. If you are not mindful of the present moment, your brain can make inaccurate predictions about your circumstances and inhibit learning from new information.

For example, when you take a bite of an apple, your brain has an expectation of what it will taste like. This helps you save energy and stay safe. But if your brain is always focused on past traumas and survival, it's hard for you to experience and enjoy a new sensation (taste or other) and learn new things about your world.

Dissociation can happen in your mind when you have experienced traumatic circumstances in which you cannot run or fight. You felt trapped and helpless and your brain opted to disconnect as much as possible from the body, mind, and emotions in order to survive. This means you're physically present, but your mind

is somewhere else. You're not in the past or the future, you're just checked out. When you're dissociating, your brain doesn't process information like it should. This makes it hard to remember things. You might have large parts of your life that you can't remember.

The Heart and Mind are Connected

While the body speaks through sensations and the mind speaks through thoughts; the heart speaks through emotions. Emotions are how your heart communicates with you.

However, the heart and mind are closely connected. When someone cuts me off in traffic, I might have a thought like, "What a jerk!" This thought creates an emotion. But if I thought, "They must be in a hurry. I wonder what's happening to them," it would create an entirely different emotion. Your thoughts and emotions are linked. Sometimes you feel an emotion and then your mind creates a story about why you feel that way. It's important to understand this connection between your mind and heart and how they affect each other. In our society, many of us weren't taught how to handle emotions like fear, anger, grief, and sadness in healthy ways. Our ancestors may have had ways to help process those difficult emotions but, for most of us, we don't have good ways now. We need to learn how to work with these emotions in better ways - in our families, communities, and the world.

When you are emotionally healthy, you may experience intuitive knowing, feeling connected to a spiritual realm, and a sense that you are not alone. This ability can be blocked by trauma. When something bad happens and it stays with you, it becomes hard to think clearly or feel connected to the world around you. It may be hard even to appreciate the beauty of nature or feel the energy of creation.. This is important because when you can't understand yourself, it's difficult to connect with others in a genuine way. Reconnecting with the parts of yourself - body, soul, spirit - is important so that you can be in healthy relationships with others.

Stress Affects Your Body

Let's look at how stress affects your body and brain. An understanding of the neurophysiology of stress will help you understand what you’re experiencing and have more control over it. When you start to feel stressed, your body goes into survival mode. Your heart beats faster, you breathe faster, and your muscles get ready to run or fight. Your digestion slows down because your body is focused on surviving. Keep in mind your brain doesn't know the difference between physical danger and emotional stress so it will react the same way in both situations.

When you feel stressed, your body goes into fight-flight mode which requires a lot of energy. Digestion also takes a lot of energy so if your body thinks you are in danger, it will stop digesting food. Your immune system which protects you from injury also requires a lot of energy. When your body is redirecting energy to the

fight-flight process as a result of stress, your immune system will weaken. People who are experiencing constant stress are more prone to sickness. They can get sick for a long time or get sick more frequently as a result of stress.

There are also chemicals in your body that are related to stress, like adrenaline and cortisol. If you are always stressed or have had a lot of bad experiences when you were younger, your body gets used to having these chemicals. It's like an addiction. People can become addicted to the feeling of adrenaline - they always want to feel that rush. This wiring of the body and brain to be in fight-flight mode can be a result of childhood experiences. Understanding this effect of trauma will enable you to have compassion for those individuals. Your body was not made to be under stress all the time. It was made to handle stress for about 20 minutes at a time. In today's society, we are often under stress for longer times. This can lead to sickness, disability, and even early death.

Studies show that people who have had a lot of traumatic experiences when they were young and haven't had a chance to heal from them can die 20 years earlier than people who've had no bad experiences. Living with constant stress or being constantly in fight-flight mode can cause sickness, disability, and even early death.

Stress Affects Our Brain

Your brain develops in a certain order, starting from when you're in your mother's womb. The spinal cord and the base of the brain are there, but they aren't fully connected until after you're born and start having experiences.

When information comes into your brain, it travels from the bottom to the top. If the amygdala and hippocampus, the parts of the brain near your temples, see it as a threat, you "flip your lid." This means that the thinking part of your brain - the front of your brain behind your forehead - shuts down so that you can quickly react to the perceived danger. This response may have helped humans survive in the past but in today's world, being stuck in this cycle as a result of unresolved trauma and stress, can make it hard to think clearly and make good choices on a day to day basis.

When you are constantly in a stress response mode - fighting, running away, freezing, feeling faint or disconnecting - your brain is being wired for short-term survival. The long-term connections and healthy relationships that will help you thrive, as an individual and in community,

are difficult to form when you have unresolved trauma. When in the fight or flight mode, your brain will focus on short-term survival instead of long-term connections. Bottom line: trauma stops you from forming the long-term connections and healthy relationships that will help you thrive.

Negative Bias

Your brain is also naturally wired with a negativity bias. This means you have a tendency to look for threats, danger, and scarcity; and retain the memory of those things in order to avoid them in the future and stay safe. Noticing the good things requires an intentional effort on your part and a rewiring of your brain. The negativity bias is greatly increased when you have experienced a lot of trauma. Seeing and enjoying what is good around you and feeling the presence of safety becomes extremely difficult.

Attachment and Trauma

When you are a baby, you rely completely on your caregivers. The experiences you have with them shape your brains.

With inconsistent caregivers - sometimes caring and meeting your needs, sometimes not - as a kid, you can develop anxiety and people-pleasing tendencies. You will try hard to please the people caring for you. This can become a habit of doing whatever is needed to ensure others are happy. In this situation, many children will not develop strong boundaries because their focus is on what others need instead of what they need. This can lead to codependence - being overly reliant on a relationship(s) with another person for a sense of self-worth and enabling the unhealthy behavior of another.

If caregivers are not very present and your needs are not often met, you may develop an **avoidant and dismissive attachment** style. This shows itself as hyper-independence - a preference to do things on your own. As a result of people not having been reliable for you when you were young, you have decided you don't need other people because they can not be relied on.

Another attachment style is called **disorganized**. If you, as a child, grow up in a scary environment where your caregivers are also the ones who hurt you, you may develop a disorganized attachment style. Although you want to be close to your caregivers, you also feel like you should stay away because these people who were supposed to love and protect you actually hurt you the most. This can lead to either relying too much on others or being overly independent The situation and the relationship will determine the

response. Disorganized attachment styles are really challenging to work with.

The last attachment style is when your needs are consistently met, and you feel safe with your caregivers. You can trust them to take care of you. This creates a **secure attachment**, and secure attachments mean you can depend on each other. You do things together. You are in a relationship together.

Epigenetics

Lastly, let's take a look at epigenetics. Epigenetics refers to what sits on top of your genetic code. In the past, there was much debate about whether traits came from nature or nurture. Now we know it's a combination of both. Epigenetics helps us understand how nature and nurture are connected.

We each have a special genetic code but your experiences can turn certain genes on or off. A quick story about research that was done on this topic will make this clear. Dr. Brian Dias, one of the original researchers in epigenetics. did an experiment with male mice. They put mice in cages with shock pads at the bottom. Every time they released the scent of cherry blossoms, the cage would give the mice a little shock on their feet. They repeated this process many times, creating a connection between the smell of cherry blossoms and pain.

Once this connection was strong, they collected semen from the mice. They didn't even let the male and female mice interact. Instead, they artificially inseminated the female mice with the collected semen. These female mice then gave birth to pups. The pups grew up without any special treatment. When they were fully grown, the researchers exposed them to the scent of cherry blossoms. The little mice immediately ran to the corner of their cages, shaking with fear, desperately trying to escape. The researchers then collected semen from this second generation of mice. They artificially inseminated another female mouse, who also gave birth to pups. These pups grew up, and when they were exposed to the scent of cherry blossoms, they showed the same fear response. In fact, they even had more smell receptors in their noses for cherry blossoms, and their brains had undergone structural changes.

Epigenetics seems to be related to survival. The first generation of mice may not be around to warn the second or third generation about the dangers of cherry blossoms so, through epigenetics, these experiences can turn certain genes on or off helping the next generation survive. It's important to note that epigenetics doesn't just pass down trauma. It also passes down resilience and the strength of our ancestors.

Hope for the Future

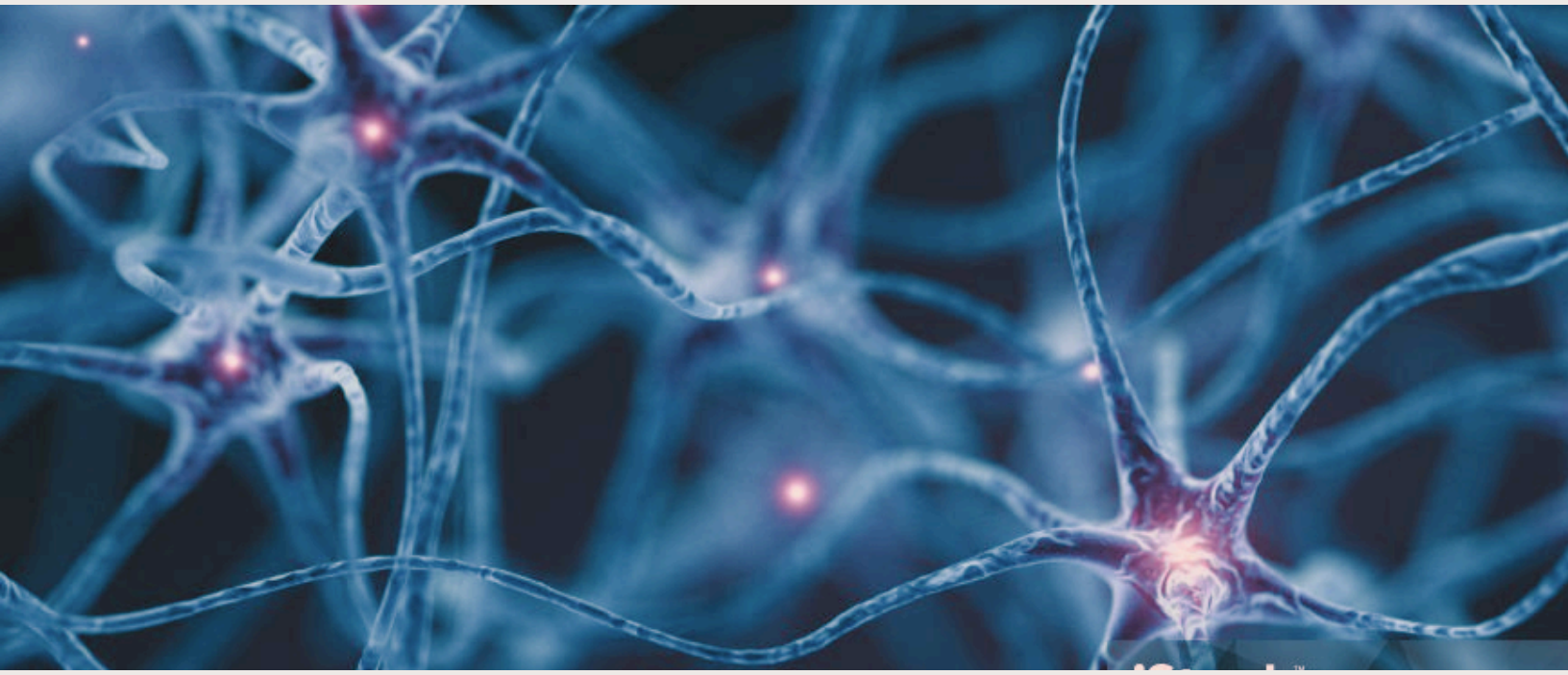
There is so much hope and so many things we now know we can do to change our lives and the lives of future generations. Epigenetics shows us that our experiences can turn on or off parts of our genetic code. This can change the way our code is read and either lead us

towards more disease and suffering or towards better health and vitality. By making conscious decisions to take care of your physical, mental, emotional, and spiritual well-being, you can influence your genetic code. This helps you move towards vitality and thriving instead of just surviving.

The neuroplasticity of your brain allows you to literally rewire your brain through new experiences. Every time you allow yourself to have a new experience and you are present in that moment, you quiet the predictions your brain might be making. A new program is created in your brain with new beliefs about the world. Being intentionally aware of what is happening in the present moment allows your brain to be more open and curious. This facilitates the creation of new pathways and results in a new lens to see the world through.

Your heart also plays a role. If you feel unsafe or can't express your emotions, you will stay shut down. This makes it hard to be yourself and connect with others. Emotions are a normal part of life, and you can learn to work with them. Instead of getting stuck in the pain of the past or worrying about the future, you can learn to surf the waves of your emotions as they unfold moment by moment. Being authentic with people about what you are thinking and feeling allows for healthy relationships and feelings of safety and trust.

Understanding trauma can help you understand yourself, your loved ones, and the world you live in. By learning how to work with trauma, you can heal and grow. Taking time to process the effects of trauma in your body, your emotions, your mind and your spirit can change the direction, the quality, and even the reality of your life.



DISCUSSION OR REFLECTION QUESTIONS

1. Can you think of a time when your early experiences with caregivers influenced how you interacted with others? How did it affect you?

2. Have you ever felt numb or frozen when something bad happened? How did you cope with that feeling?

3. Can you think of a time when your brain got stuck in survival mode? How did it make you feel?

4. In what ways do you see the negativity bias mentioned in the text affecting your own thoughts and feelings? How do you see a negativity bias affecting others around you.

5. Why is it important to focus on the present moment and stay curious?

6. How can understanding trauma help you understand yourself, people around you, and the world you live in?

PRACTICE, ROLE PLAY, OR MORE TO CONSIDER

1. **Soft Belly Breathing**

   This breathing exercise activates the vagal nerve which connects to the brain and the heart and wraps around the stomach. Activating the vagal nerve through this exercise, sends a calming message to the brain.

   Get yourself into a comfortable position with both feet on the ground. Really feel the support of the floor underneath. You can do this with eyes open or closed- whatever feels best to you.

   Tune into how your body is breathing in this moment. Bring some awareness to the quickness of your breath and maybe the depth of your breath. Notice any pauses, maybe at the top of the inhale or at the bottom of the exhale.

   Once you have a good sense of how your body is breathing, begin to bring that breath a little bit deeper into the body. Bring that breath down into the belly. It might even be helpful to place a hand on your belly so you can get a sense of where your breath is going.

   Breathe in deeply through the nose. Fill the belly like a balloon and slowly exhale out through the mouth. Continue to breathe at your own pace but bring that breath deep into the belly.

   Exhale. Take one or two more slow, deep, belly breaths. Then, allow your body to just breathe normally again. Notice how quick your breath is now. What is the depth of your breath? Notice any shifts in how your body is breathing from when you first checked in at the beginning of this practice until now.

   If you had your eyes closed, go ahead and gently open your eyes, bring yourself back into the space.