Module 4
Section 5

UNDERSTANDING TRAUMA

Trauma affects the body and mind. Understanding how stress and trauma impacts you can help empower you to move towards vitality and thriving instead of just surviving.

IN THIS SECTION YOU WILL:

Explore how trauma affects us.

Understand the importance of listening to your body.

Discover how stress can affect our body and brain.

Learn about attachment styles and trauma.

Examine what Epigenetics is about and how to rewire the brain.

UNDERSTANDING TRAUMA

How trauma affects us

In the past, we thought of trauma as something that was scary, stressful, and hard to handle. It was something that happened to us and was out of our control. But now we understand that trauma is not just the event itself, but also how it affects us inside. It's like an imprint that stays with us because of what happened.

When something traumatic happens, we 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 our caregivers don't have good ways to handle their own emotions, they can't help us process our trauma. So whether or not a traumatic event becomes stuck trauma depends on the resources we have and the support we receive. Here's a visual that comes from the Polyvagal Theory by Dr. Steven Porges.

Fight or Flight

Sometimes we feel connected and safe, and that's when we are in the ventral vagal part of our nervous system. In this state, it's easy to be curious, open, grounded, mindful, and compassionate. But life can be challenging and stressful things happen. When stress happens, ideally, we can deal with it and go back to feeling calm and safe. Learning something new can also be stressful because our brain is not familiar with it. A little bit of stress is normal and can help us build resilience. However, if we can't go back to feeling calm, we might activate the fight-flight response and feel worried, concerned, frustrated, irritated, anxious, or even fearful, panicked, enraged, or angry.

Now one of the important things about this state is that we still feel like we can do things. We believe that we can figure things out, run away from problems, and fight against them. We have a sense of control in this state.

Freeze

But sometimes we can't run or fight. In those situations, our best option for survival is to go into a different part of our nervous system called the dorsal vagal. This is called the freeze response. Our body starts to shut down and we begin to feel numb because we can't handle the overwhelming distress. It's like our body is trying to protect us by making us feel nothing.

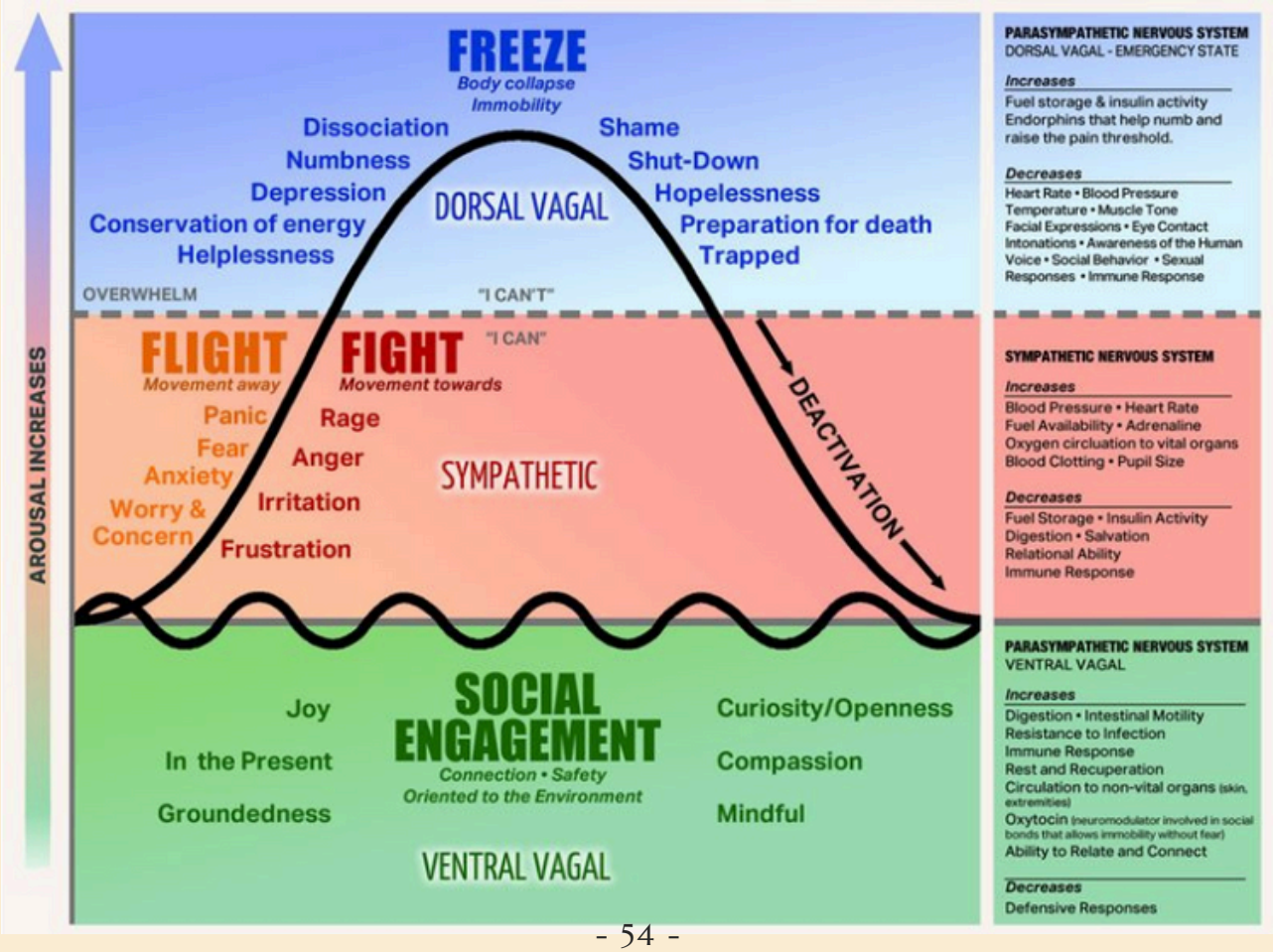
In this state, we might feel emotions like depression, helplessness, hopelessness,

and feeling trapped. It's like we're closing ourselves off from the world. Our energy becomes more contracted, and our muscles get tight. It's hard to move and we feel frozen.

It can be helpful to think about our energy and how our muscles feel. Are they tight and constricted, or do we feel open? By tuning into our body a few times a day, we can see if we're in a good place (green), feeling stressed (red), or feeling frozen (blue). Based on that, we can figure out what might help us feel better and bring us back to a good place.

One more thing to mention is that when we go from the frozen state back to feeling good, we often have to face the things that made us feel overwhelmed in the first place. If we don't have the right support or resources, we might end up going back to feeling stressed again. It's like we're stuck in a cycle of fight, flight, freeze, fight, flight, freeze. This is called the trauma cycle.

And that's why it's important to have support from others and take care of ourselves. It helps us feel calm and open and makes it easier to connect with others and feel happy in the present moment.



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

The more we shut down these parts of ourselves, the harder it is to connect with others and the world around us. Our bodies are like tools that help us connect with others.

Listen to your body

Think of the body's language as sensations. It's important to be aware of the sensations we feel on our skin, inside our bodies, and the support we feel from the floor. Our bodies are constantly sending us messages through these sensations. The question is, do we listen?

Sometimes, when we've experienced a lot of traumas, we don't listen to our bodies. This can be challenging for two reasons. First, it can make us overly alert and think there's danger everywhere. Second, it can make us unaware of actual danger and put ourselves in harmful situations.

I think of the mind's language as our thoughts. Our thoughts come from the things we experience and the way our families and society teach us. Our brains are like a computer program that gets created through these experiences. This programming happens a lot when we are between the ages of zero and five.

During this time, our beliefs and how we see the world start to form. Our brains are very flexible and open to learning at this age. We want to understand the world and figure out how to survive in it.

Sometimes, if we go through traumatic experiences or have a lot of stress, our brains get wired to be constantly worried. This can make us feel anxious because we are always thinking about what might happen in the future. Our brains are trying to protect us, but it can be tiring to always be anxious.

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

Our brains also try to predict what will happen based on our past experiences. When we are not focused on the present, our brains start guessing what might happen next.

Sometimes when I'm not paying attention, my brain makes predictions about things. Like when I take a bite of an apple, my brain already knows what it will taste like. This helps me save energy and stay safe. But if my brain is always focused on past traumas and survival, it's hard for me to be present and learn new things.

Dissociating

When we have a lot of unprocessed traumas, we might dissociate. This

means we're physically here, but our minds are somewhere else. We're not in the past or the future, we're just checked out. When we're dissociating, our brains don't process information like they should. This makes it hard to remember things. We might have big parts of our lives that we can't remember.

Dissociation makes us feel like we're not really living. We miss out on both the hard and beautiful parts of life. We can't enjoy the love of a family member, the colors of a sunset, or the taste of delicious food. Anxiety, depression, and dissociation take us away from the present moment.

The heart and mind are connected

We talked about the body and the mind. The body speaks through sensations, the mind speaks through thoughts, and the heart speaks through emotions. Emotions are how our heart communicates with us.

It's interesting because the heart and mind are closely connected. When something happens, like if someone cuts me off in traffic, I might have a thought like, "They're 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 a different emotion. Our thoughts and emotions are linked.

Sometimes we feel an emotion and then our mind creates a story about why we feel that way. It's important to understand how our mind and heart are connected 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 had ways to help process those difficult emotions, but 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.

Sometimes we just know things without really thinking about them or feeling a connection. But when something bad happens and it stays with us, it can make it hard to think clearly or feel connected to the world around us. It can be hard to appreciate the beauty of nature or feel its energy. This is important because when we can't understand ourselves, it's difficult to connect with others in a genuine way. It's important to reconnect with ourselves, so that we can connect with others.

Stress affects our body

Let's at how stress affects our bodies and brains. This is important to know because it can help us understand how we're feeling. When we start to feel stressed, our bodies go into survival mode. Our hearts beat faster, we breathe faster, and our muscles get ready to run or fight. Our digestion slows

down because our body is focused on surviving. Our brain doesn't know the difference between physical danger and emotional stress, so it reacts the same way in both situations.

When we feel stressed, our body goes into fight-flight mode. This takes a lot of energy. Digestion also takes a lot of energy. So, if our body thinks we are in danger, it stops digesting food. Our immune system also gets ready to protect us in case we get hurt. But this also takes a lot of energy. So, our immune system gets weaker when we are under a lot of stress. That's why people who are always stressed often get sick. They can get sick for a long time or get sick many times. These are some things that happen to our body when we are stressed.

There are also chemicals in our body that are related to stress, like adrenaline and cortisol. If we are always stressed or have had a lot of bad experiences when we were younger, our body gets used to having these chemicals. It's like an addiction. Some people even become addicted to the feeling of adrenaline.

They always want to feel that rush. This happens because their body and brain were wired to be in fight-flight mode because of what happened to them when they were kids. It's important to understand this.

Our bodies were not made to be under stress all the time. They were made to handle stress for about 20 minutes at a time. That was enough time for our ancestors to run away or fight when there was danger. But now, in our society, we are often under stress for a long time. This can lead to sickness, disability, and even early death. Studies show that people who have had a lot of bad experiences when they were young and haven't had a chance to heal from them can die 20 years earlier than people who 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

Our brain develops in a certain order, starting from when we're in our mother's womb. The spinal cord and the base of the brain are there, but they aren't fully connected until after we're born and start having experiences. When information comes into our brain, it travels from the bottom to the top. If the amygdala and hippocampus, which are parts of the brain, see it as a threat, we "flip our lid." This means that the thinking part of our brain shuts down because our brain thinks we're in danger and need to act quickly. This response has helped humans survive in the past, but in today's world, where we have a lot of unresolved traumas, it's easy for us to get stressed and make it hard to think clearly and make good choices.

We also looked at different ways our bodies respond to stress, like fighting, running away, freezing, feeling faint, or feeling disconnected.

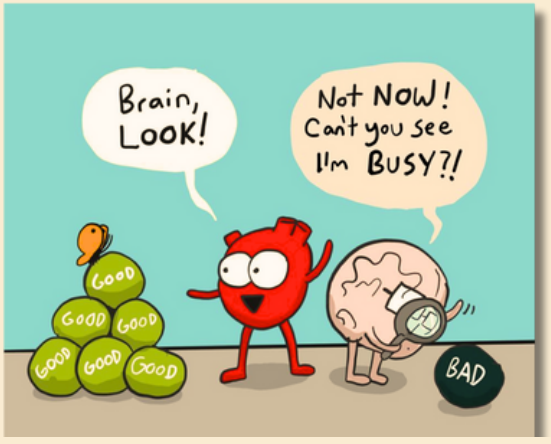
When we are constantly in this fight or flight mode, our brain focuses on short-term survival instead of long-term connections. Long-term connections help us thrive as individuals and as a group. Trauma stops us from forming these long-term connections and healthy relationships that help us thrive.

One interesting thing to note is that all of this is about survival, not whether things are good or bad. It's important to understand how our brain is wired to keep us alive.

Negative Bias

We also have something called a negativity bias. This means that our brain tends to remember bad things so we can avoid them in the future and stay safe. Because of this bias, we have to make an extra effort to notice the good things.

When we have experienced a lot of trauma, our brain is always looking for threats, danger, scarcity, and other bad things. This makes it difficult to notice and feel safe when there is actually something good happening.



Attachment and trauma

When we are babies, we rely completely on our caregivers and the experiences we have shape our brains.

If our caregivers are not very present and our needs are not met often, we may develop an **avoidant and dismissive** attachment style. This means we believe we don't need other people and that they can't be relied on, so we prefer to do things on our own. This is called hyper independence, and it happens because people haven't been reliable for us.

For kids who grow up with caregivers who sometimes take care of them and meet their needs, but other times don't, those kids can feel really **anxious**, or they might try really hard to please others.

It's like they think, "If this person is happy, then I'll probably get what I need. If this person is happy, then I'll probably be safe." They become very anxious and try really hard to make others happy. They don't have strong boundaries because they're always focused on what others need instead of what they need. This can lead to codependence, which means relying too much on others.

Another attachment style is called **disorganized**. When a child grows up in a scary environment where their caregivers are also the ones who hurt them, they often develop a disorganized attachment style.

The hard thing about this is that we all need connection and relationships with others. But with disorganized attachment, we also feel like we should stay away because the people who are supposed to love and protect us actually hurt us the most. Disorganized attachment styles are really challenging to work with.

This style can also lead to either relying too much on others or being overly independent, depending on the situation and the relationship.

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

Epigenetics

Lastly, let's take a look at epigenetics. Epigenetics means what sits on top of our genetic code. There have been debates about whether our traits come from **nature or nurture**. Now we know it's a combination of both. The truth is epigenetics helps us understand how everything is connected.

We have a special genetic code, but our experiences can turn certain genes on or off. Here's a quick story about some research on this topic. 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 is all about survival. You see, 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

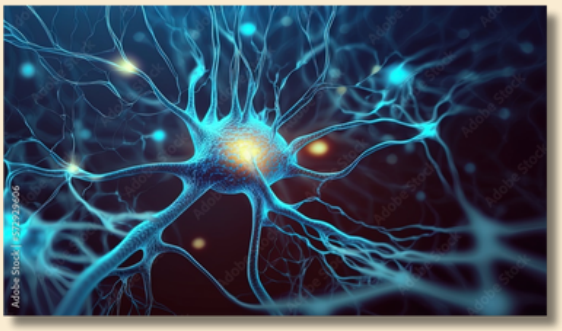
off, helping the next generation survive.

It's important to note that epigenetics doesn't just pass down trauma. It also passes down resilience and the strength of our ancestors.

There is so much hope and so many things 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 our physical, mental, emotional, and spiritual well-being, we can influence our genetic code. **This helps us move towards vitality and thriving instead of just surviving.**

Making new pathways in our brain

Our brain is like a computer that can change and grow. When we have new experiences, our brain creates new pathways. This is called neuroplasticity. If we want to create something new, we need to have new experiences to make new pathways in our brain. We can be more aware of this by being present in the moment. When we are present, our brain is more open and curious, which makes it easier to create new pathways. Our heart also plays a role. If we feel unsafe or can't express our emotions, we will shut down. This makes it hard to be ourselves and connect with others. Being authentic is important because it helps us feel safe and creates a sense of trust. Emotions are a normal part of life, and we can learn to work with them. Instead of getting stuck in the past or worrying about the future, we can learn to surf the waves of our emotions. Understanding trauma can help us understand ourselves, our loved ones, and the world we live in. By learning how to work with trauma, we can heal and grow.



In our bodies, sometimes our emotions get stuck and our hearts get stuck in our minds. Our spirits can also get stuck. But we have the power to change the direction, the quality, and even the reality of our lives. In the next section, we will learn about practices, processes, and support that can help us process the trauma we carry and move from survival mode to thriving mode.

NOTES

DISCUSSION 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?

5

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

6

How can understanding trauma help us understand ourselves and the world we live in?

PRACTICE, ROLE PLAY, OR JUST MORE TO CONSIDER

Soft Belly Breathing

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

Get yourself into a comfortable position, maybe 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 how quick is your breath and maybe the depth of your breath.

Noticing 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 is your breath going.

Breathe in deeply into 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.

Take the exhale. Take one or two more slow deep belly breaths. Then, allow your body to just breathe itself again.

Notice how quick your breath is now. What is the depth of your breath? Notice any shifts that happened in how your body is breathing itself 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.