

Workbook on How to Regulate Your Nervous System

### TRAUMA IS A PSYCHOLOGICAL WOUND

Trauma is a disease that erodes willpower, causing individuals to live in fear, with the sensation they have no control over their lives. It leaves them combative, hyper-alert, and always on edge.

Humans live in a world where trauma is prevalent in many aspects of their lives. It affects their culture, thinking, personal functioning, relationships, education, healthcare system, economy, popular culture, and politics. As a result, individuals often question where they stand on the broad trauma spectrum.

The term "trauma" is often misused in society, so it's important to clarify what it really means.

The term "trauma" originates from the Greek word traumata, which means wound. Trauma, in addition to physical injury, can also be an emotional injury, where a hurtful event causes a psychological injury that shatters an individual's sense of self into pieces. Trauma is not only about the event itself but also about the physiological changes that occur within an individual as a result of past events.

According to Dr. Gabor Maté, author of *The Myth of Normal: Trauma*, *Illness, and Healing in a Toxic Culture*, trauma is a psychological wound. When a wound fails to heal on its own, it can either remain an open sore or be replaced by a layer of scar tissue.

An open sore can be a continuous source of pain, and even the slightest touch can hurt. It makes us cautious and limits our ability to move and act confidently.

A scar, on the other hand, provides protection and holds tissues together. However, it has its drawbacks. It is tight, rigid, and inflexible, and cannot grow. Additionally, it may cause numbness in the affected area, and the healthy flesh is not regenerated.

The psychological wound, when unprocessed, becomes a disease of the body. It weaves itself into the very core of a human being, leaving one with a crushing sensation in the chest often mislabeled as depression or anxiety.

Trauma is a disease that erodes willpower, causing individuals to live in fear, with the sensation that they have no control over their lives. It leaves them combative, hyper-alert, and always on edge.

Individuals with trauma detach from their bodies to avoid flashbacks, nightmares, and the mental fog that keeps them stuck in the past, preventing them from living in the present where they can fully open their hearts to deep human connections. They are haunted by the toxic shame of what happened to them and loathe themselves for feeling terrified, overwhelmed, and helpless. "Big T" and "Little t" events To have a clear understanding of psychological trauma, the mental health community categorizes trauma into

#### "Big T" and "Little t" events.

Big T events can involve a single or series of repetitive exposures to an experience in which emotional distress dictates one's common sense.

Examples of Big T events include war, natural disasters, displacement, sexual and/or domestic violence.

All these can lead to a wide range of symptoms such as anxiety, depression, numbness, and shock. Those who experience these symptoms often suffer from post-traumatic stress disorder (PTSD).

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Little t experiences are more difficult to recognize, and their impact on the individual is harder to determine. Little t events are individualized, and something that is traumatic to one person may be normal to another. Examples of Little t are non-life-threatening injuries, emotional abuse, death of a pet, bullying or harassment, and loss of a significant relationship.

It is important to note that categorizing an event as Little t does not mean the emotional impact of the event is insignificant when compared with Big T experiences. A person experiences trauma when exposed to events that are too much, too soon, and too fast for their nervous system to process.

#### The "Three Es" to Define Trauma

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The Substance Abuse and Mental Health Services Administration (SAMHSA) uses the "three Es" to define trauma: event, experience, and effect. "The complexities of these three interrelated components are what should be considered in clinical work," says Dr. Bruce Perry, clinical psychiatrist, and author of What Happened to You?: Conversations on Trauma, Resilience, and Healing. Trauma can be induced by a variety of experiences, including toxic shaming, emotional abuse, or marginalization and dehumanization of a minority group.

Most people view the effect of trauma as a mental disorder or brain disease. However, because it is a disease of the body, trauma produces a variety of physiological changes experienced on a visceral level. A person may become scared, numb, or overwhelmed, and collapse.

Patrick Carnes, an expert in addiction and recovery and author of *The Betrayal Bond: Breaking Free of Exploitive Relationships*, says those who experience trauma might react to minor triggers, freeze when frustrated, or become helpless in the face of simple challenges.

They become out of touch with their reality, feelings, bodies, and needs, which in turn makes it extremely difficult to attend to an acquaintance or partner's reality, feelings, sensations, and needs.

This intense reaction diminishes the individual's ability to form intimate relationships, make decisions (particularly when under pressure), and often leads them to take things out of context. Their behavior can be seen as neurotic or out of control. Most trauma occurs in the context of interpersonal relationships.

Interpersonal relational trauma comes from the same sources meant to provide love and security. This could mean abuse by a partner in an intimate relationship, a family caregiver, or a supervisor in a work setting. Bessel van der Kolk, trauma specialist and author of *The Body Keeps the Score: Brain, Mind, and Body in the Healing of Trauma*, explains that trauma in the context of interpersonal relationships may involve boundary violation, loss of autonomous action, and loss of self-regulation. When people lack sources of support and sustenance, they are likely to learn to respond to abuse and threats with mechanistic compliance or resigned submission. This is often seen in abused children, women trapped in domestic violence situations, and people who are incarcerated.

A person experiences symptoms of trauma when exposure to a stressful event is not properly processed, and they have difficulty recovering from it. Symptoms might last months or years with triggers bringing back memories often associated with intense emotional and physical reactions. This may result in flashbacks, nightmares, anxiety, depression, and more.

In *The Boy Who Was Raised as a Dog*, Dr. Bruce Perry, an expert in child trauma, explains "...trauma at its core is an experience of utter powerlessness and loss of control." Because of the feeling of powerlessness, a person fails to feel safe within their own body and grows up believing something is off but is unable to put a finger on what causes this insecurity, often assuming they are the problem.

#### Negative health outcomes and early exposure to trauma

Extensive scientific literature now links negative health outcomes to early exposure to trauma. One study that is often overlooked is the *Adverse Childhood Experience* (ACE) study by the Centers for Disease Control and Prevention (CDC). The study began after the lead investigator, Dr. Vincent Felitti, listened to the life stories of patients at the obesity clinic where he served as a medical director. The goal of the study was to determine a patient's level of exposure to trauma by asking if they experienced any of the following before the age of 18: abuse (emotional, physical, sexual); neglect (physical, emotional); and household dysfunction (mental illness, mother treated violently, divorce, incarcerated relative, addiction). The study found a dose-response relationship between adverse childhood experiences and poor health outcomes. The higher a person's score, the greater the risk to their health.

According to Dr. Bruce Perry, and contrary to the findings of the study, the level of a child's connection to their family, community, and culture is more predictive of their future well-being than a history of adversity. Also, the timing of adversity is key in determining the overall effects of trauma on a child's well-being. Because most brain growth occurs within the first 3 years of life, the earlier a child is exposed to adversity, the greater the likelihood that trauma will have an impact on the child's mental health in adulthood.

#### **Trauma and Childhood**

Children often turn to their parents for guidance and emotional validation. During stressful situations, children mirror their parents' reactions. If a parent's response is calm and cool, the child learns to react similarly and survives traumatic incidents with fewer psychological imprints. The mirror neurons register the parents' reactions to stressful events and make physiological adjustments in the body to imprint what the child sees.

### Trauma often stems from a disruption in a person's attachment and attunement to their caregiver during childhood.

When a child is separated from their caregiver, their body experiences a stress response and the amygdala, the body's alarm system, is activated. Instead of fighting or fleeing, the child's body mobilizes to pursue the lost connection they need for survival. As a result, children can be psychologically scarred not only by bad things happening to them but also by good things not happening to them, such as when their emotional needs are not met or when they are not seen, validated, and accepted by their caregiver. If this psychological injury is not processed, children take that pursuance of their lost connection into adult relationships. They expect a partner to fill that lost connection. Any sign of abandonment from a partner that is reminiscent of the lost connection from childhood may be powerful enough to send them into a trauma response.

#### When ignorance is not bliss

Children are wishful creatures who usually believe what they are told. Regardless of how dysfunctional their family system is, they generally think their family is a haven. This wishful thinking often becomes the source of their greatest suffering. Feeling safe with a caregiver is necessary for a child to develop meaningful connections. Not feeling safe, not being seen, and not being validated or acknowledged can be detrime htal, especially to children trying to find their way in the world. In her book, Adult Children of Emotionally Immature Parents: How to Heal from Distant, Rejecting, or Self-Involved Parents, Dr. Lindsay Gibson talks about how growing up with an emotionally distant parent rips a child away from security. "The loneliness of feeling unseen by others is as fundamental a pain as physical injury," Dr. Gibson says.

Trauma is typically associated with combat veterans returning from war. Healthcare providers often fail to realize that there is an epidemic of childhood trauma, racial trauma, relational trauma, and addiction trauma in every community in the U.S. Dr. Bessel van der Kolk, in *The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma*, writes,

"For every soldier who serves in a war zone abroad, there are ten children who are endangered in their own homes. This is particularly tragic since it is difficult for growing children to recover when the source of terror and pain is not enemy combatants but their caretakers."

A traumatic experience in a child's life leaves a lasting impact on their body, mind, and soul.

Each traumatic experience gets stored in an emotional memory bank. Unprocessed trauma remains with them for life, and it's only a matter of time before symptoms start showing. Caregivers often make statements like "children are resilient" and "children will outgrow their exposure to traumatic conditions." However, the most crucial period of development, when the brain is growing and organizing itself, happens in a child's first 3 years.

Every day, a new experience gets imprinted onto a child's emotional memory bank. If a caregiver is participating in this module, they should consider the memories they are creating for their children. Are they providing them with a nurturing environment where family members treat each other with love and care? Will the child remember feeling safe and secure in their home?

#### The Body's Surveillance System

The nervous system is a complex structure that gathers information from the body to coordinate day-to-day activities.

There are 2 main parts of the nervous system: the central nervous system, which consists of the brain and spinal cord, and the peripheral nervous system, which consists of the somatic and autonomic nervous systems.

The somatic nervous system, also known as the voluntary nervous system, enables smooth communication between the central nervous system and the muscles that coordinate movement.

The autonomic nervous system (ANS), also known as the involuntary nervous system, controls internal organs and glands.

The two divisions of the ANS are the sympathetic nervous system (SNS), which is associated with the fight-or-flight response, and the parasympathetic nervous system (PNS), whose activity is referred to by the epithet of rest and digest. Homeostasis is the balance between the two systems.

Thanks to the polyvagal theory, it is now clear why a stress response to trauma impacts the whole body. Dr. Stephen Porges, a distinguished neuroscientist, and the developer of the polyvagal theory states that vagal nerves have many branches of sensory, fibers that run throughout the body. The vagal nerve is bidirectional, which means it connects the emotional brain to every organ in the body, a pathway known as top-down processes. It carries sensory information from the organs back to the emotional brain, a pathway known as bottom-up processes. These processes are important to keep in mind as healing strategies to overcome trauma are discussed.

Through vagal tone, trauma is changed from an emotional to a visceral disease that is encoded in every gut-wrenching and heartbreaking fiber of a person's being. The vagus nerve can be perceived as a soul nerve because it communicates through vibes and sensations. As a result, healing from trauma needs a holistic approach involving the body, mind, and soul.

#### **Stress Response Explained:**

Let's first dive into brain structure...



The Brain Structure

To understand trauma, participants should refresh their knowledge of 3 parts of the brain: reptilian (focused on survival), mammalian (in charge of memory and emotions), and rational (keeps the other 2 in check by applying rational thoughts and reasoning to decisions).

The human brain develops from the bottom up, starting with the reptilian brain, the oldest and most primitive part of the brain, which is responsible for survival.

On top of the reptilian brain sits the mammalian brain, also known as the emotional center or limbic brain, responsible for memory and emotions, and encoding pleasant as well as unpleasant experiences. The limbic brain also scans the environment for danger based on past experiences that have been encoded.

And finally, the rational brain, or neocortex. The neocortex is the last part of the brain to develop because it is the least essential to survival. The neocortex is responsible for keeping the reptilian and mammalian portions of the brain in check by applying rational thoughts and reasoning to decisions. In times of distress, the neocortex is overtaken by an overactive limbic system and reptilian brain, which puts the body in a fight or flight response, a function of the ANS.

### When responding to stress, the brain uses two roads—the low and the high

The first road is what Joseph LeDoux, a neuroscientist who focuses on "survival circuits," called the "low road." The low road is a shortcut that bypasses the rational brain (neocortex) and sends a sensory signal 10 immediately to the emotional brain (mammalian), where the amygdala is located. The amygdala, or the brain's "alarm center", prompts the individual to act and make decisions solely based on emotions.

For the "high road," the same sensory signal is sent to the neocortex, and the rational brain assesses for danger and relays appropriate messages back to the amygdala. The high road takes about 8 times longer than the low road.

Sensory Cortex

Sensory The Low Road Amygdala

Stimuli Emotional Responses

The Survival Circuit

This is important because when an individual senses danger, their body uses the low road to respond by running away. **During trauma**, **people** often resort to the low road when making decisions, skipping their rational brain entirely.

#### The Soul Nerve

The purpose of the vagus nerve is to keep the body in homeostasis. Every day humans are exposed to a vast amount of sensory information, and it is the job of the thalamus organ in the brain to distinguish between sensory information that is safe and other information that is not relevant and is discarded. The thalamus feeds safe sensory information to the amygdala. The amygdala interprets this information to determine whether it poses a threat.

When the amygdala senses danger, the SNS prepares the body for the fight or flight response. In her book, *The Deepest Well: Healing the Long-Term Effects of Childhood Trauma and Adversity*, Dr. Nadine Harris Burk, a pediatrician, and former Surgeon General of California, uses the analogy of the body signaling "danger" when exposed to a grizzly bear while walking in a forest.

When up against a grizzly bear, the stress response initiated by the amygdala activates the sympatho-adrenomedullary (SAM) axis when danger is transient, and the hypothalamic-pituitary-adrenal (HPA) axis when danger is prolonged. Both systems trigger the fight or flight response, a scientific way of stating that the body is becoming more efficient in its response to danger.

When activated, the SAM axis sends a signal to the adrenal glands to release more adrenaline, the same hormone that runners experience in a "runner's high." Adrenaline increases the heart rate and blood pressure, expands the passages of the lungs to take in more oxygen, enlarges the pupils in the eye, redistributes blood to critical areas such as muscles that are responsible for running, and alters the body's metabolism to maximize fuel sources in critical organs such as the brain.

When humans are chronically exposed to threats (i.e., grizzly bears), their bodies activate the HPA axis, triggering the release of a longer-acting stress hormone, cortisol. Cortisol helps the body adapt to repeated stressors. In times of threat, cortisol raises blood pressure keeping the body alert and awake, inhibits clear thinking, and triggers a craving for high-fat, high-sugar food. Cortisol also activates the immune system, causing it to become hypervigilant and ready to get to work at the mere suggestion of danger. When danger subsides (when the grizzly bear is no longer around), just like a thermostat, both axis systems are turned off through a negative feedback loop, returning the body to homeostasis.

### What happens when threats are not from wild animals or war, but from the family?

Replace the forest with a dysfunctional family system, in which a child's developmental and emotional needs are not met. In these family systems, the 'grizzly' can be a physically abusive caregiver who stimulates the stress response. It can be difficult for family members to attend to their own emotional needs when the amount of tension, stress, and chaos is so high. Family members may deny their own needs in an attempt to control the situation.

When the trauma to which a child is exposed is too intense or frequent, each stress response that was once adaptive turns maladaptive and the HPA and SAM axis systems no longer function like a thermostat. The axes are no longer able to turn off because the physiologic thermostat is broken, meaning every time the child is exposed to trauma, their HPA and SAM systems blast them with cortisol and adrenaline.

With excessive cortisol in circulation, inflammatory chemicals known as cytokines are released throughout the body. When stress causes overactivity of the autoimmune system, the cytokines become misguided and attack the body, putting the person at risk for developing autoimmune conditions, cancer, and a whole host of other cardiometabolic diseases. In his book, When the Body Says No: The Cost of Hidden Stress, Dr. Gabor Maté outlines the clear connection between stress and the body's physiological response to it. He notes:

These proteins, called cytokines, can also inactivate genes that would normally suppress tumor growth, enable chemical messengers that support the growth and survival of tumor cells, stimulate the branching of blood vessels that bring nutrients to feed the tumor, and undermine the immune system. Even at the cellular and molecular levels, the generation of ill health is multifaceted, multistep process.

High levels of cortisol also impair rational thinking and memory storage. Dr. Burks showed that when children from marginalized communities grow up in violent, chaotic, and trauma-permeated environments, they have higher levels of cortisol in their bloodstream, which can lead to impaired development of the hippocampus, responsible for learning and storing memories.

#### Why does the mind go blank in dangerous situations?

Remember, when the amygdala sounds the alarm bell of danger, it is the function of the hippocampus to scan the memory bank to relate the current experience to any past experiences stored in the memory bank. This explains why so many individuals with trauma fail to remember the details of what had happened to them.

Additionally, it is the hippocampus's job to discern between the past and present; however, in the overactive emotional brain of a person with trauma, the hippocampus is overruled by the overactive amygdala, which cannot process time. To a patient with a hyperactive amygdala, the interpretation of an incoming threat is thus inaccurate. "If any of the input is a match to a stored memory from past experience, the lower brain reacts as though the past experience is the one happening now," Dr. Perry explains. This is why danger can feel ever-present to a person with trauma, leaving them trapped in a hyper-aroused state of flashbacks.

The PNS prepares the body for rest, digestion, and/or a freeze response. When the PNS is activated, the body shuts down and an individual can become completely immobilized. For someone facing intense trauma, freezing, or dissociation is what happens when they cannot fight or flee.

According to Dr. Bruce Perry in his book, What Happened to You: Conversation on Trauma, Resilience, and Healing, dissociation is a complex mental capability that an individual uses in everyday life to disengage from an outside threat and focus on their internal world. "When we daydream, when we allow the minds to wander, that's a form of dissociation. And like the arousal response or threat, the dissociative response takes a person deeper and deeper into a protective mode," Dr. Perry continues. In a dissociative state, the body releases endorphins, the body's endogenous opioids or painkillers, which help the body replenish and cope with the pain associated with the traumatic experience.

When an individual is stuck in a fight, flight, or freeze state, their body physiologically adapts to the stressful environment. In the case of children, they are more likely to take their dysregulated adaptation of hypervigilance or daydreaming to environments outside of their dysfunctional family system (such as a classroom). Because the healthcare system is focused on diagnosis, children with symptoms of trauma (such as dissociation, or struggling in school) are often misdiagnosed with attention deficit hyperactivity disorder (ADHD). Their fight and flight behaviors may cause them to have trouble with peers, friends, and family. They may even become a danger to themselves or others. According to Dr. Perry, this lack of a trauma-informed academic system has a great impact on a child's education and well-being because, far too often, these children receive the wrong treatment for their unresolved childhood trauma.

#### The Challenges of Living with Trauma

The internal psychological injury that is created from traumatic experiences, presents to the outside world in the following ways:

**Living with Flashbacks:** When trauma is not resolved, people may relive elements of their trauma through flashbacks, which can return at any time. Flashbacks can present as nightmares. The trauma that started long ago is now being unconsciously played out in the body. Flashbacks induce the release of cortisol and adrenaline, leaving the individual overwhelmed, all their energy consumed by inner chaos.

This experience leaves the individual stuck in the past and robs them of day-to-day quality of life. Individuals often try to organize their lives to protect themselves from reliving those painful flashbacks. Some get involved in healthy activities while others numb themselves with drugs and alcohol, hoping for a sense of control.

The Exaggerated Reaction: When the emotional brain is triggered by chronic stressors, the body's alarm system or amygdala becomes overactive, and sends false or exaggerated stress responses to other parts of the brain and body even when things are not factually dangerous. This explains why individuals with trauma are easily startled and have an exaggerated reaction to things that do not seem to warrant that reaction. Furthermore, the overactive amygdala shuts down the prefrontal cortex, the part of the brain responsible for rational thinking and keeping emotions in check.

The Loss of Agency: Individuals who have experienced trauma may experience malfunctioning of the neocortex, which can result in a loss of agency. This refers to a lack of awareness of sensory and body-based feelings, and can cause a poor sense of direction and purpose in life. Such individuals may often seek validation for their decisions and struggle to follow through on ideas due to an inability to identify their desires and priorities. Individuals who have experienced trauma often come from dysfunctional families where being true to oneself was not accepted and was even seen as a danger to their survival. Consequently, they had no option but to suppress their true selves to get the attention and emotional connection they needed from their caregivers. As a result, they may have poor vagal tone and cannot sense their internal bodily reactions accurately, which can negatively impact their decision-making process.

**Risky Behavior to Numb the Pain:** Individuals with trauma may do anything to escape the uncomfortable feelings, including excessive sleep, overeating, or substance abuse. According to addiction expert Dr. Patrick Carnes, chemical dependency becomes a solution to the trauma.

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The Adverse Childhood Experience (ACE) study also showed a direct correlation between trauma exposure and involvement in destructive activities such as substance use. With chronic exposure to stress and high levels of cortisol, the dopamine receptors become desensitized, and more dopamine-inducing activities or substances are needed to get the same amount of pleasure.

Dissociation or Splitting: With splitting, individuals learn to ignore their painful reality by splitting off the experience and not letting it interrupt their day-to-day activities. In a dysfunctional family system, a child learns to split parts of their identity that were shamed or not validated by their caregiver. Children master splitting by creating a fantasy bond with the caregiver. They learn to dissociate when the environment becomes too stressful and emotionally overwhelming. Some daydream and leave their body psychologically, while others develop amnesia, having no recollection of the traumatic incident. Whatever the dissociation strategy, it can be exhausting to the mind and body.

Amnesia: There are 2 important times when individuals are not able to remember or thoughtfully articulate their experiences. First is before they reach the age of 2 because the brain's language centers and hippocampus, which is responsible for memory, are not fully developed. The second is when they are in the midst of a traumatic experience. The hippocampus is overruled by the hyperactive amygdala and does not allow them to process information well.

In *The Body Keeps the Score*: Brain, Mind, and Body in the Healing of *Trauma*, Dr. Bessel Van Der Kolk explains that when the memory shuts down, individuals are not able to articulate emotionally significant information. Additionally, when they sense danger, the brain's language center is hijacked by the hyperactive emotional brain, preventing them from thoughtfully articulating the danger.

The sensation that one does not feel safe in their own body

Traumatic experiences are more easily stored and imprinted in memory than pleasant events.

This is because the emotional brain uses about two-thirds of its neurons to scan for danger. Human survival depends on being on the lookout for danger, the job of the amygdala. When the safety and security of a child are threatened, their body adapts to constantly look for danger. Over time, they became addicted to bad news to validate the fact they are in danger. Because they have developed maladaptive defenses along with an overactive amygdala, they believe that everyone is out to get them.

**Toxic Shame:** People who have experienced trauma often feel ashamed and believe that they are flawed and undeserving of love and attention. They are afraid of being exposed and fear that others will reject them if they know how much they struggle with their behavior. They don't trust that anyone would care for them, especially if their trauma was caused by someone they loved.

Over giving: Many individuals have spent their lives caring for others without having their own needs met. This can lead to situations where they give to people even when they don't receive anything in return or when others take advantage of them in some way. They will know they are over-giving in relationships if they start feeling resentful.

They Take this Personally: They often believe that everything happening around them means something about who they are instead of understanding that people's behaviors primarily reflect how they feel about themselves. Even minor incidents can send them into a shame spiral, causing us to question our worth.

Abandonment and trust issues: They often feel insecure and doubtful instead of feeling secure or supported in relationships. They may wonder if their friends truly want to spend time with them or if their partner genuinely loves them. They may desire closeness yet simultaneously fear it or distance themselves. Often, they undermine their relationships because, deep down, they don't believe they deserve a loving relationship.

### The Polyvagal Theory

The Polyvagal Theory was introduced in 1994 by psychologist Dr. Stephen Porges. Its purpose is to explain the differences in human behavior when people feel safe compared to when they feel threatened. According to Dr. Porges, as the body takes in new information about the surroundings and situations, the vagus nerve processes these signals. Based on the interpretation of these signals, the body will respond by entering one of 3 nervous system states.

The Polyvagal Theory can be viewed as a stop-light system, with green, yellow, and red lights indicating different states of being. Humans can move from green to yellow to red depending on the magnitude of challenges they experience in life.



#### The ventral vagal state, or the green light

Is part of the regulated nervous system in which the prefrontal cortex is activated, promoting health, growth, and restoration. In this state, individuals feel comfortable and safe, free from stress or threat, allowing them to connect with others as their true selves. The ventral vagal state controls the body's functions above the diaphragm, including heart rate, breathing, facial expression, and hearing. When someone is in this state, their heart rate and breath depth are regulated, and they appear calm, enabling them to relate to others.

### The Polyvagal Theory

#### The sympathetic state, or the yellow light

Is part of the sympathetic nervous system that controls the response to stress and triggers the fight-or-flight response. It occurs when individuals feel stressed or threatened. A person in a sympathetic state may feel anxious and constantly scan their environment for potential threats.

#### The dorsal vagal state, or the red light

Is part of the parasympathetic nervous system. It is activated when a person senses imminent danger and becomes immobilized as a survival mechanism. They may feel numb or dizzy, experience a sense of disassociation, and have difficulty speaking. The dorsal vagal state controls the body's functions below the diaphragm, including digestion. When activated, the dorsal vagal state slows down the peristalsis of the gut muscles, causing individuals to experience episodes of constipation.

Due to the current stress-filled society, individuals rarely live in the ventral state. They spend more time in the dorsal vagal state.

Maintaining a green or yellow light state does not happen automatically. Individuals must consciously work to regulate their nervous system states and responses. Through conscious efforts, they can bring themselves into the green light state. The following are strategies to help individuals consciously regulate their nervous system responses and maintain a green or yellow light state.

In order to heal from our triggers, we need to pay close attention to what triggers us. Within every trigger lies a story of healing waiting to be told. Unprocessed trauma attempts to surface within every trigger. Each trigger holds a promise for healing, post-traumatic growth, and wisdom.

Understanding our past is essential for healing from trauma. Some of us

have pasts that are so painful that even thinking about them can be overwhelming. As you fill out these answers, take breaks as needed. If uncomfortable emotions arise, take deep breaths and remember that understanding what happened to us allows us to resolve it.
1. Describe your overall relationship with your mother.
2. Describe your overall relationships with you father.
3. Besides parent figures, who else was involved in taking care of you and what did those relationships look like?
4. What was the relationship like between your parents? Was there rage, betrayal, or any violence that you witnessed?

5. When you were upset, how did your parent figures respond to you? 6. Were you able to depend on your parent figures for affection, understanding, and encouragement? 7. Did you live with a parent figure who coped in destructive ways? (E.g., using substances, gambling, or stepping outside the marriage) 8. Did you feel as though you belonged and had parent figures who cared about what you were feeling and going through, or did you end up supporting them or cheering them up? 9. Were you directly (or indirectly) told to keep secrets or hide the behavior of one parent figure from another? (E.g., hiding a parent's shopping habits or affair)



### **Understanding Your Family Stories**

Family stories are passed down from generation to generation. They include hardships that family members experienced, adaptations to adversities, addictive coping habits, and moments of resilience or strength. Reflect on the experiences of your ancestors, including the different ways members coped and the things they have overcome.

Family stories help us understand family members' overall patterns and shape our beliefs about ourselves and the world. By understanding our family stories, we can better comprehend generational trauma as well as the resilience we carry.

Now that you've done some deep reflective work, take some time to look over your answers. These experienced have shaped your thought patterns, beliefs, behaviors, and relationships. Now that you can see them clearly you're going to start this work by writing a letter to your inner child...



Use this page to write a letter to your inner child. You'll want to include how you know what happened, how you understand people weren't always there, and how you'll now be there for the younger version of yourself.

#### **Breaking the Silence through Journaling**

Journaling is a helpful tool for accessing emotions. By writing without any filters, individuals can pour out their anger and sadness. A journal can be used to record events and feelings or to write a letter about how people made them feel. It's important to remember that no one needs to read these letters, so the writing doesn't have to be perfect. They should express themselves freely and let their emotions flow. After releasing their negative energy, most individuals feel better and more at ease.

Dr. Necole Lepra, a holistic psychologist, has developed a practical self-journaling technique called the *Future Self Journal*. This technique helps individuals use their imagination to describe their future selves. Future Self Journaling involves asking questions about how to change habitual behaviors, such as "How do I want to see myself?" and "What habits am I trying to change?"

Through Future Self Journaling, individuals can bring habitual behaviors caused by trauma from the subconscious to the conscious mind to develop more awareness of them. Because the brain may not be able to discriminate between what is real and what is imagined, new neuronal connections are created every time individuals imagine a future version of themselves, someone who feels differently about their trauma. To successfully develop new neuronal pathways, it helps to commit to daily Future Self Journaling.

Future Self Journaling is a daily practice of writing a reflective and conscious response to the three questions below. It should not take more than 10 minutes a day. Because journaling is equivalent to massage therapy for the brain, after self journaling, individuals should be more aware of their habits and of new thoughts they want to focus on throughout the day.



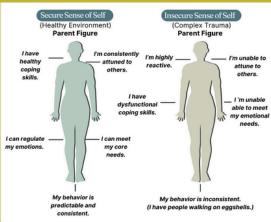
Who do you want to be?
What emotional state will you embody?
What emotional state will you embody:
Who will be in your life?
vviio wiii be iii your iiie:
How will you spend your time?
riow will you speriu your time:
Please read this page any time you feel lost, overwhelmed, or unsure. Your future Self depends on you, and this will keep you on track.
you, and this will keep you on track.

#### We are not broken!

# WE'VE ADAPTED TO YOUR ENVIRONMENT

From the moment we are born, our survival relies on our attachment to primary caregivers. To develop a secure sense of self, we need caregivers who can provide security by making eye contact, responding to our emotions, and consistently soothing us to help us learn how to regulate our emotions. If caregivers have an insecure sense of self, they may struggle to understand our needs and can become highly reactive or emotionally withdrawn. Being exposed to this kind of environment for a long time can lead to complex trauma, which keeps the mind and body in a state of constant alertness or dissociation as a defense mechanism.

Children cannot self-regulate because the rational part of their brain does not start developing until they are seven years old. In other words, the infant brain requires a mature adult brain to regulate it. But what if the adult brain is not functionally mature because that adult themselves never got the right conditions for healthy development? Now, you have an immature adult brain regulating an infant's immature brain. Thus, healthy self-regulation never develops.



### **Meet Sarah**

Sarah was raised in a home with a father who could not regulate his emotions. He could easily "fly off the handle," even over little things. Because he had chronic nervous system dysregulation, he was moody and irritable to be around. At a young age, Sarah remembers staying up at night feeling intense anxiety that something bad might happen. This reflected her unsafe and unstable environment from the unpredictable nature of her father's temper.

Sarah's mother adapted by fawning or people-pleasing. She did all she could do to avoid triggering one of her husband's outbursts. She kept the house spotless and consistently told her children to "not upset your father." When he yelled at Sarah, she would dissociate, teaching Sarah that her father was unpredictable and her mother was unable to comfort her.

Sarah adapted by becoming an intense perfectionist. She internalized the belief that she was a "burden" to explain why her father treated her so poorly. To compensate, she tried all she could to accomplish and "prove" her worth. Though she does well her in career, she silently struggles with intense anxiety and shames herself for minor mistakes.

In relationships, she's often attracted to men who are like her father. She feels most comfortable in a role where she's managing men's anger and trying to keep them happy. Like her mother, she's learned love means betraying herself and her own needs.



### **Reflect on Sarah' Story**

After reading Sarah 's story, take a few minutes to journal about your own childhood.

Did you have similar experiences? Can you identify with Sarah?

Let the words flow without judgement.



Note: Many people with unprocessed trauma have very little or no childhood memories. If no memories are coming up, just write about what you feel in your body when reading Sarah's story. Let the words flow without judgement.



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#### **Meet Gabby**

Gabby's father was a workaholic, and her mother was a stay-at-home mom. Gabby's mother was raised by a deeply disconnected mother, and she also struggled to connect with Gabby. She gave little affection and felt uncomfortable and frustrated at Gabby's sensitive nature.

When Gabby would upset her, she would give her the silent treatment: sometimes ignoring her for a few hours, sometimes for days. Then one day out of nowhere, she would speak to Gabby again as if nothing happened.

Gabby adapted by having an intense desire to please. Her fear of being ignored by the person she loved and needed the most drove her to fawn and defer to what other people needed or wanted.

In her marriage, she feels lonely and isolated, but at least she is not being completely ignored. So she stays.

Asserting herself or asking for her needs to be met might upset her husband, and this would be a risk to her internal sense of safety. She grows more and more resentful over time, but she is too afraid to advocate for herself.



#### Reflect on Your Own Story

After reading Gabby 's story, take a few minutes to journal about your own childhood.

Did you have similar experiences? Can you identify with Gabby?

Let the words flow without judgement.



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Now that you have some examples of how other people have adapted to their earliest environments, let's explore yours.

What did you have to do in order to stay safe (and connected) to adults as a child? Example: "I had to be easy and cause no problems," "I had to stay quiet," "I had to fight or become highly reactive to be heard."

How do you carry these adaptations into your adult friendships and intimate relationships? Example: "I people please," "I get very reactive in conflict," "I shut down and struggle to explain how I feel."

How are these adaptations causing pain or suffering (or having the opposite effect of what you desire)? Example: "I push people away," "I'm afraid or unable to be vulnerable," "When people cry or talk about their feelings I get flooded or feel overwhelmed

#### The Author's Take

### **CULTURAL ADAPTATION**

Let's continue to explore the different influences of your earliest relationships. While complex trauma happens in childhood with our close attachment figures, it's important to understand that how people parent is greatly influenced by their own upbringing, as well as cultural norms.

Devon grew up in a strict religious home. She's told from a young age that her worth comes from her "pureness." As her body changes, she feels shame and fear, and she adapts by developing a dysfunctional relationship with food so that she is the one to have some control or agency over her body. Dysfunctional cultural norms can condition us to believe we're wrong or broken just for being who we are. This is especially true for people from marginalized communities, those who struggle with financial insecurity, and those raised in shame-based or high control cultures (any group that uses strict control, demands obedience, and expects extreme loyalty to members).

#### Here are some examples:

Sophia's parents immigrated from Mexico when we she was just 5 years old. She feels so different from her peers and has to help her parents navigate the culture and language as she gets older. She adapts by dressing and speaking like her peers and refuses to bring anyone to her home because of the internalized fear she has of being "different."

Devon grew up in a strict religious home. She's told from a young age that her worth comes from her "pureness." As her body changes, she feels shame and fear, and she adapts by developing a dysfunctional relationship with food so that she is the one to have some control or agency over her body.

## The Author's Take **CULTURAL ADAPTATION**

Now that you've read more about cultural adaptations, take a minute reflect on the different ways you may have adapted to your own cultural influences.

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#### The Fragmented Self

As children, we can't make sense of a parent figure that neglects, harms, or mistreats us. We will do anything we can to keep this foundational connection, regardless of how we're treated or how safe we feel.

To stay connected, we suppress parts of ourselves that we feel won't make us lovable, and express parts of ourselves that we believe will get us love, affection, and approval. This creates internal conflict, and the end result is shame, anxiety, and hypervigilance. Here's the core symptoms of a fragmented adult:



## **Emotional Flooding**



When we carry the burden of unresolved trauma and old wounds, our body's alarm system becomes hyper-stimulated. This means it has to work extra hard to keep us safe. However, over time, it sends false alarms for things that do not warrant urgent attention. In other words, the alarm system sends many "false alarms" when we go into a reactive state. This can flood us with intense thoughts and overwhelming emotions, often resulting in moments of high reactivity.

#### Examples of things that can create emotional flooding

- A passive comment from a co-worker.
- Your partner being quiet or silent.
- Someone not responding to a phone call or text messages.
- Feedback that is not warranted or seem critical.

#### **Examples of reaction when emotionally flood**

- · You can't speak without crying
- You dissociate (or leave your body)
- You yell, slam things, or say things you regret.
- You thoughts spiral, and you can't concentrate on any tasks for the rest of the day.



## Mental health dis-ease is a manifestation of a life lived.

The western mental health system diagnosis and pathologizes symptoms. So when we're physically or emotionally unwell, the message is: **Something is wrong with you!** 

However, the real you is not your current conditioned thoughts, responses, and impulses. The real you isn't broken or unworthy. You've just come to believe this based on lived experiences.

- We are using an infectious disease model to address mental health.
   While there is evidence that prescription medication can help with mental health, these treatments are not intended to cure a mental health ailment in the same way that an antibiotic eliminates a microbe.
   Treatment approaches for mental health are meant to complement other lifestyle changes. They only work with an integrated approach.
   They are not meant to be the magic bullet but rather a part of a comprehensive and hopeful strategy for mental health.
- We prioritize brain-centered therapy, addressing the mind separate from the body. We tend to feed the body with logic, talk therapy, and cognitive therapy and forget the power the body could have on the mind at a visceral level. Remember, trauma is the disease of the body!
- You can't call yourself "Trauma-informed" and not acknowledge the systems that induce trauma. We often disregard the impact of socioeconomic inequality on mental health. Trauma is not an isolated incident. In the United States, life expectancy is heavily influenced by your zip code. Do I need to say more here?



## Mental health dis-ease is a manifestation of a life lived.

- Mental health management is somewhat subjective and involves symptom clusters from DSM-5, which falls short of addressing the rising mental health disorders, leaving far too many feeling powerless and disappointed in a system that has limited their struggles to a pill.
- The diagnostic criteria in the DSM-5 seem to be a circular argument. For
  instance, why does someone have mood swings? Because they have
  bipolar disorder. How do you know they have bipolar disorder? Because
  they have mood swings. These circular diagnoses do not provide insight
  into the underlying causes and dynamics of individuals' experiences.
- We're uncertain about where we are headed next. While many of us in the field recognize the role of trauma in mental health issues, we are far from discussing implementation, and we don't have a defined model and vision on how to help individuals with trauma. To significantly improve mental health, we need to address trauma; perhaps the ACE assessment tool is an excellent starting point for this conversation.

## **Grounding**



Grounding is a somatic practice that helps you return to your body and center yourself after stressful experiences or thoughts. Use this grounding practice to self-regulate as needed. While breathing more slowly and more deeply begin to:

Acknowledge 5 things that you can see around you

Acknowledge 4 things that you can touch around you

Acknowledge 3 things that you can hear around you

Acknowledge 2 things that you can smell around you

Acknowledge 1 thin that you can taste around you.

## The Importance of Sleep



Sleep is incredibly important in our journey of healing trauma. It's during sleep that our body repairs and recharges. Sleep also plays a massive role in our ability to regulate our emotions. Next, we're going to formulate a sleep routine. You'll notice how much better you can deal with your emotions when you commit to these practices.

#### **Step 1: Create Bedtime**

Your bedtime should allow you to get 7-9 hours of sleep (whenever possible). A bedtime is when you go into your bed (even if you're not tired) to sleep. It may take a few weeks for your body to adjust to your new sleep routine.

#### Step 2: Set an Alarm

Set an alarm to wake up at the same time every day. At the start, you might feel tired, or even exhausted, but it's important to get out of bed anyway. This will help you fall asleep quicker at bedtime.

#### Step 3: Sleep Prof Your Room.

You want your room to be as dark as cool as possible during this transition of building asleep routine. Our skin receptions view light as a sign to wake up, so a sleep shade for your eyes or blackout curtains are very helpful here. Remove all electronics. White or brown noise (easily found on Spotify or YouTube) can be helpful here, too. Kepe the tempature of the room as cool as you can; research shows the ideal sleep temperature is 65-72 degrees.

## **Shame**



Shame has recently been included in the diagnostic criteria for PTSD in the DSM-V under the umbrella of "persistent negative emotional states." Shame has been recently recognized in the trauma literature as one of many negative emotions, including fear, horror, anger, and guilt, that are often experienced by trauma survivors in post-traumatic events.

Shame involves negative beliefs about oneself that can be deeply ingrained and difficult to overcome. Childhood trauma is a common cause of shame, and it can result in feelings of disconnection, detachment, and distress in relationships. Shame is often a response to secrecy, particularly when it comes to sexual abuse or trauma.

Shame is a typical response to trauma because, often, it is easier to believe that there is something wrong with oneself than the abuser. Usually, the caregiver or a loved one could hurt one for no absolute reason. According to Dr. van der Kolk, trauma leaves an imprint on the part of the human brain responsible for survival. When individuals feel their survival is being threatened, this body's alarm system becomes agitated and causes them to feel nervous or angry in an attempt to protect themselves. As a result, they may feel stuck, frightened, or enraged all the time because, deep down, they feel like their body is in danger.

Dr. van der Kolk recommends that to calm down, individuals must practice deep breathing, engage in touch, or participate in synchronous activities with other people.

Shame is an attachment emotion, according to Dr. Gabor Mate. This means shame is developed early in life, during early human interactions with caregivers. These experiences shape the worldview of individuals throughout their adult lives. As they develop emotionally and psychologically, they learn to express emotions through the lens of these interactions, which become deeply ingrained in their emotional brains. If the early relationships were secure and healthy, individuals would likely have a healthy relationship with shame later in life. However, if early relationships were insecure or unhealthy for any reason, they may struggle more with feelings of shame later in life due to unresolved issues from earlier experiences.

Human relationships begin when one person reaches out to another person to establish an emotional bond. They grow out of reciprocal interest in one another along with shared experiences and trust.

The emotional bond that ties two individuals together is what Greshen Kauffman called the "Interpersonal bridge." The bridge in turn becomes a vehicle to facilitate mutual understanding, growth, and change. This bridge is built based on certain expectations which we come to accept and depend upon. When our expectations of a significant other are exposed as wrong, however, the interpersonal bridge can break. This disintegration is what leads to the development of shame; to have someone valued betray our trust, which exposes the true self inside us to the outside world. The root of shame lies in sudden unexpected exposure. To feel shame is to feel exposed in a painfully diminished state.

## Lets uncover shame with the following questions

1. How often and when do you feel shameful, embarrassed, or hopeless and depressed (like your life is not in your hands)?

2. How do you feel about yourself after you go through this shame cycle? (Example: even worse, like I'm worthless, even more out of control, angry at myself, angry at those around me).

Take a minute to read the above. This is all part of your toxic shame story. Each of us carries these stories subconsciously, and they have major impacts on how we view ourselves and those around us. Once we're aware of our toxic shame story, we become empowered to change our narrative.

## The Shame Spiral

An event triggers shame in body (E.g., a pit in stomach, tension in jaw/shoulders, hunched shoulders, or discomfort in own skin)

Feelings of embarrassment, humiliation, or unworthiness (like a "fraud" or "failure")

Thoughts or worries that others are judging you

Seeking evidence to confirm shameful thoughts or beliefs

Body response: shut down(freeze) avoidance (flee) attack (fight)



#### **End result:**

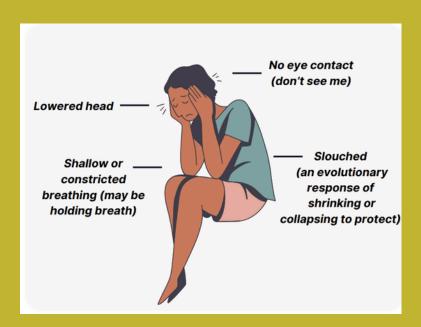
chronic anxiety, depression, addictive habits, playing small, self doubt

## **Shame is Stored in the Body**

Shame is stored in our body, in our cells, and in our nervous system responses. Now that you know how shame impacts your thoughts, let's learn how it affects your body.

Shame is connected to processes that occur in our limbic system, the emotional center of our brain. When we experience a shameful event, our body sends signals to our nervous system indicating that we are in danger. As a result, our nervous system may respond with fight, flight, freeze, or fawn reactions.

Shame causes us to feel uncomfortable being seen. Our bodies hunch over, our heads drop, and we avoid eye contact.



## **Shame Release Exercise**

This practice teaches us how to use our body to bring ourselves back to a parasympathetic state, feeling safe enough to both connect with and release the shame we're carrying so we can begin to feel more embodied.

Practice this once a day for at least 30 days. It will only take about 3-5 minutes, and can guickly shift your emotional state.



Step 1: Stand tall with your hands and legs spread about 2 feet apart. Stretch your arms as long as you can while you stretch your spine as straight as you can.

Step 2: Take 3 deep breaths from your belly making your exhale longer than your inhale. Focus on how your body feels as if it takes up space.

Step 3: Lift your chin up towards the sky and move your eyes from right left and back (horizontal eye movement signals safety).

Step 4: Say (out loud to yourself)

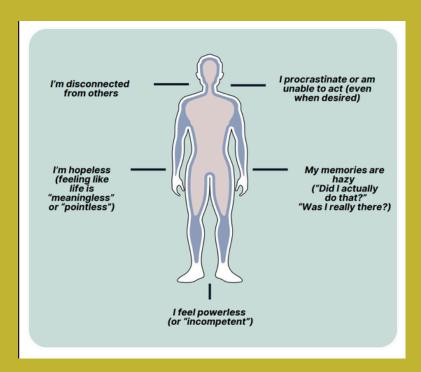
"I am safe and I trust I can handle whatever comes my way"

Step 5: Take a minute to just notice how different you feel, and come back to this practice anytime you feel yourself having thoughts of not being "good enough" or feeing "unworthiness.

## **Functional Freeze**

Our autonomic nervous system helps us respond to stress and danger. When faced with something overwhelming, our parasympathetic nervous system takes over, and we go into a protective state called *freeze*. During this state, we might spend hours scrolling on social media, binge on Netflix, or self-isolate even when we want a connection.

When stuck in the freeze response, productivity decreases, and individuals may feel zoned out or have low energy. Many people experiencing trauma may incorrectly perceive this as laziness when, in reality, their bodies are in an immobilized, protective state.



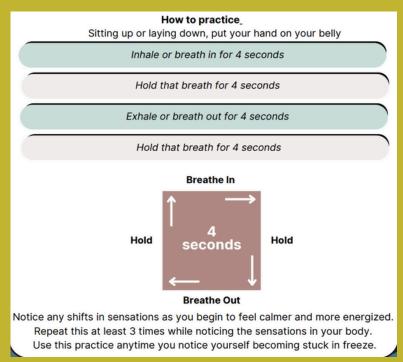
## **How to Unfreeze**

Many of us end up shaming ourselves when w'ere really suck in a freeze state. We feel like we "should" be able to do it all, putting our nervous system into a deeper state of collapse.

To unfreeze our body, we need to be compassionate, aware, and understanding of our nervous system as we commit to the small practices listed below that can help our body feel safe enough to come out of this protective state. One way to get out of freeze is through Box Breathing.

### **Box Breathing**

Box breathing is a technique used by Navy Seals that can help our body enter a parasympathetic, or calm and grounded, state.



## **Understanding Your Triggers**

To heal from trauma, it's essential to recognize which emotions trigger us. Triggers occur when past emotional wounds are brought up in the present. Each individual has their own unique triggers based on their past experiences. Complex trauma can result in frequent emotional activation, even when the cause of our upset is not clear. For example, a comment from a co-worker or not receiving a response to a text message can lead to emotional distress without us understanding why.



Now that you understand how you are triggered, we will explore what activates you and how you typically cope. This work will help you shift into a regular cycle of being triggered where you feel empowered.



## **How to Manage Difficult Conversations**

Every successful relationship requires us to engage in difficult conversations. These conversations help us understand both ourselves and the people we care about. However, trauma can significantly impact how we approach these discussions. When conversations become intense, our hyperstimulated amygdala can cause us to become emotionally overwhelmed. This can lead to a fear of saying the wrong thing, getting into trouble, or struggling to express ourselves. It's essential to learn how to navigate these difficult conversations.

Remember this: Speaking in "I" statements decreases the likelihood that we put the other person on the defense. Of course, we can only know and speak to what we're feeling. For example, instead of saying, "You never listen to me," you can say, "When I talk about how I feel, I would love to know you hear me and understand where I am coming from."

It's important to remember that we can't expect others to automatically know our desires or be able to read our minds. What makes us feel good or what we want may not have the same effect on someone else. By directly communicating our desires, we give the other person the opportunity to meet our needs.

Asking the other person about their wants and needs shows consideration and care. Once they share, it can be helpful to mirror back what they've said so you're on the same page. For example, "I'm hearing that you want to meet more regularly. Is that right?"

Remember to stay flexible: Consider difficult conversations as a chance to unite as a team. You might not have all your needs met or feel the same as your partner, and that's okay. It's important to stay open and flexible during the conversation.

Recognize when you're in the red zone: If you start feeling defensive, shut down, or unable to have a calm conversation, it's important to ask for a break and agree on a time to revisit the conversation. It's important not to leave the issue unresolved.

## **Meet Jiya**

Jiya's parents were hardworking and struggled to get by. When Jiya's father got home, he needed his time to rest, and her mom was often distant and distracted. Jiya has memories of trying to perform dances she made up and trying to get attention in any way she could. Around 13, she stopped trying to get attention from her parents and started seeking attention from boys in her class. She has never dealt with or even acknowledged the painful loss of her parents' love and affection.

Jiya led two lives: one as a social butterfly at school and the other as a quiet and reserved girl at home. She has been dating Mark for a few months, and everything has been going well.

However, Mark has recently become busier at work. Even though he had warned Jiya that this would happen, she still felt hurt and ignored. During lunch, she texted him and asked if he wanted to go to dinner, but he didn't respond. An hour later, Jiya started to feel angry and irritated. She texted him, "Never mind, I already made plans. I can see you don't have time for dinner anyway."



### Let reflect on Jiya.

- Jiya is triggered by the old wound of being ignored (not seen).
- Her coping mechanism is becoming defensive and writing a passive-aggressive text message.
- The result is feelings of shame, regret, and embarrassment.

## **How can Jiya Self-Regulate?**

Remember this: Learning to regulate her emotions can help Jiya consciously respond to triggers rather than unconsciously reacting. Emotional regulation takes practice, but the more she practices it, the more relaxed and in control she'll feel. She'll be much less likely to go into a shame spiral or rely on dysfunctional coping mechanisms.

Healthy coping mechanisms are anything that helps you feel soothed, comfortable, and more connected to your highest self.

- 1. Notice what is happening: my heart is racing, and I feel very agitated
- 2. The stories you are telling yourself: I tell myself that a lack of response to a message might not mean the person is mad at me or uninterested in me.
- 3. Name the old wound: In the past, I was emotionally neglected or abandoned by people I trusted, so my trauma brain is filling in the story from my past, and it is NOT necessarily true right now.
- 4. Use her body to move through the emotions: I can dance, shake, scream, stretch, or do deep belly breaths to allow the intense energy to pass through me.
- 5. She chooses to cope in a healthy way: I will reach out to a friend to vent, then make myself a nutritious dinner to take care of myself.

## **Tolerance**

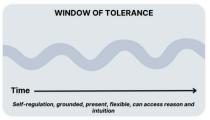
Every time you practice emotional regulation, you expand your window of tolerance, which is your nervous system's optimal zone. This allows you to respond to your emotions in healthier, more grounded ways.

When we feel anxious and overwhelmed, we are in hyperarousal. When we feel dissociated, shut down, or numb, we are in hypoarousal.

For individuals with trauma, it's common to oscillate rapidly between hyperarousal and hypoarousal states. However, the more we practice tools to regulate our nervous system, the more time we'll spend in our 'green zone' or our window of tolerance. It's crucial to note that recognizing signs of leaving this zone, such as irritability or intense frustration, can help us transition back into our optimal zone.

#### **Hyperarousal**

Fight or Flight: Anxiety, panic, overwhelm, hyperactivity, anger, inability to regulate.



#### **Hypoarousal**

Freeze: Exhaustion, numbness, shut down, depression, shame, poor digestion, disconnection

## **What is Your Tolerance?**

Use this checklist to verify if you are within your window of tolerance.

Hyperarousal:
<ul> <li>I can't think clearly.</li> <li>I cry when I go to speak.</li> <li>I have racing/panicked thoughts.</li> <li>I can't sit still.</li> <li>I'm so overwhelmed or angry.</li> </ul>
Window of Tolerance:  — I can think clearly.  — I feel relaxed and at ease.  — I can laugh, joke, or play.  — I'm capable of making a grounded decision.
Hypoarousal:  — I feel "stuck."  — I have low energy and am lethargic.  — I feel disconnected from others.  — I'm dissociated (feel numb or out of body).

## **Emotional Regulation Practice**

Remember to use the following steps when you start feeling activated. The more consistently you practice these steps and support yourself, the more empowered you'll become. Refer to the examples on the previous page to help you come up with your own answers.

Notice what is happening?
The stories you are telling yourself?
Name the old wound!
Use your body to move through the emotions.
Choose to cope in a healthy way.

### Healthy Coping Checklist:

- Walk around the block
- Call a friend for support
- Journal my feelings
- Let tears flow (cry it out!)
- Cook a nutritious meal
- Listen to a podcast

- Draw/doodle/paint
- Practice deep belly breathing
- Dance or shake
- Lay in the sun/get in nature
- Listen to the birds
- Ask for space or time alone

## **Practice Self-Acceptance**

Our work isn't to change ourselves or begin an endless or exhausting self-improvement project. A major part of healing from complex trauma is accepting all parts of who we are, not necessarily changing everything. As we practice this work, we will make mistakes and fall into old patterns, sometimes fearing that we're going "backwards." Practicing self-acceptance, accepting how we feel and appreciating where we are at, helps us break our deep-rooted shame cycles. Use the prompts below to practice self-acceptance any time you find yourself being self-critical of our experiences.

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The emotion that I feel right now is:
I can soothe and accept myself as I am right now by:
Even when I am not the best version of myself, one thing I can appreciate
about myself right now is:
Because of this experience, I've learned:

## **Forgive Yourself**

Many of us have done things we regret while in survival mode. Sometimes, we unintentionally hurt others, stay in relationships that hurt us, or give up on our dreams and goals because we feel like we aren't worthy. Regardless of what we once did, it's time to forgive ourselves so we can let go and begin rebuilding. Say these mantras to yourself once a day.

As you say them, begin to slow and deepen your breath as you practice assessing sensations of peace and softness within your body.

## **Mantras for Self-Forgiveness:**

I forgive myself for what I did when I was in survival mode.

I forgive myself for staying in relationships that hurt me because I wanted to be loved.

I forgive myself for the choices I made when I didn't have the tools to do differently.

I forgive myself for not being there for me when I needed me the most.

I forgive myself for staying small and not giving myself a chance to realize my goals and dreams.

I forgive myself for blaming myself for the actions of other people.

I forgive myself, and I am free.

## Resilience

Most people who have been through trauma are unaware of how much resilience they have developed. When we didn't grow up in homes with parents who encouraged us or recognized our strengths, we think we lack resilience. By honoring and recognizing our resilience, we can rewire our minds and bodies to feel capable of handling whatever comes our way.

#### **Reflection Exercise:**

Think about something complicated you went through in the past. From that experience, you gained certain traits or deeper awareness. (Example: I developed street smarts; I became more resourceful; I understood that if I wanted something in life, I would need to go after it.) Now, use this space to tell the story of your resilience. There's so much power in telling our story. When you're done, read it aloud and honor how far you've come.

## **Post-Traumatic Growth**

Post Traumatic Growth (PTG) is a concept developed by Richard Tedeschi, PhD, and Lawrence Calhoun, PhD, in 1996 after they discovered that people who have experienced traumatic events are more likely to report positive change in themselves.

Their research found the following positive changes in people who experienced traumatic events:

- · Increased Personal Strength
- · Greater Appreciation For Life
- Closer Relationships With Others
- New Possibilities Spiritual Development

### **How Post Traumatic Growth Happens**

They found that PTG happens in the following ways:

- Education: Developing new coping mechanisms, processing how past events have impacted you, and challenging your beliefs/conditioning.
- Emotional Regulation: Cultivating the ability to understand and manage negative emotions.
- Disclosure: Honoring your individual story and sharing it with others who can support and understand it.
- Service: Using your wisdom (or what we learned from our traumatic experiences) to support and empower each other. Acts of service can include volunteering, donating to an organization, or being there for someone you love.
- Narrative Development: Speaking about yourself and your life experiences in new, empowering ways.

**Meet Kindall** 

Kendall is the oldest daughter of parents who had her at a young age. Both of her parents were highly self-focused and distracted by their own overwhelming emotions and stressful lives. Her mother coped with her insecurities by competing with her children, although she was unaware of it. Kendall had many gifts, but her mother could not nurture them. Instead, she downplayed them and criticized Kendall.



Kendall dealt with her strained relationship with her mother by neglecting her needs and sacrificing her true self. Unknowingly, she absorbed her mother's constant criticisms, leading her to believe in her "imperfections." At that young age, Kendall didn't understand that her mother's behavior was a projection of her unresolved insecurities.

To cope with her increasing shame, Kendall became the "troubled, difficult child" who would drink, sneak out, and frequently neglect her self-care. As an adult, she regularly felt hopeless and angry and often struggled with the responsibilities of her daily life.

After visiting a therapist, Kendall came to realize that she was dealing with complex trauma. As a child, her emotional needs were not met, causing her to neglect and distance herself. With the guidance of her therapist in a safe and supportive environment, she acquired skills to manage her emotions, engage in self-care, and navigate challenging conversations.

After about six months of doing the work, Kendall began to see moments of change in herself. She started to see herself as the resilient, strong individual she had become. Most importantly, she began to have compassion for the lost younger version of herself that was under-mothered.

## **Your Growth Story**

Now that you've read Kendall's story, it's time to start telling your story of post traumatic growth. We are not our past, and we can re-write our story at any time.

I am the hero of my own life because:

## Holistic Approach to Healing from Trauma

What has happened in the past cannot be undone. No one can undo war, rape, abuse, or any other traumatic event.

Individuals who have undergone a traumatic experience must develop strategies to manage their recurring flashbacks and nightmares, constant anxiety, feelings of depression, and fear of losing control. They must learn to regulate their hyperactive emotional brain, which keeps them on high alert and overcome the fog that hinders their ability to form meaningful human connections and appreciate daily interactions.

The good news is that if the body learns to cope in a dysregulated way, it can also learn to cope in regulated ways.

#### Mindfulness: Recalibrating the Emotional Brain



Mindfulness is a powerful tool for those recovering from trauma. By becoming aware of their emotions and physical sensations, individuals can learn to use their brain to guide their body towards healing. This is done through the "top-down" vagal tone pathway, that helps to calm the SNS and reduce the likelihood of a fight or flight response. By focusing on inner experiences and paying attention to their physical sensations, individuals can learn to tolerate and manage emotions more effectively. In this way, mindfulness helps to recalibrate the emotional brain and promote recovery.

According to psychiatrist and trauma researcher Dr. Bessel Van Der Kolk, when the alarm bell of the emotional brain (amygdala) keeps signaling the individual is in danger, no amount of insight can create calm. If individuals want to change their response to trauma, they need to develop ways to prevent their emotional brain from sending false alarms.

To master the emotional brain, individuals must bring themselves to full awareness of the present moment, keep themselves calm and focused when exposed to images, thoughts, or sounds reminiscent of their past, and reclaim full ownership of their body, mind, and soul. However, they first need to consciously access their emotional brain. They must become aware of their inner experiences.

The goal of mindfulness is to identify activities that consistently train the mind to stay in the present moment. Some that have been proven very effective include:

#### Yoga: Connecting to the body



There are specific yoga practices designed to help those who have experienced trauma. Through yoga, individuals learn to empower their bodies and send signals to their brains using "bottom-up" vagal tone pathways. Regardless of the type of yoga practiced, all include stretching, posture work, and breath work. Like mindfulness, yoga can improve arousal problems and the relationship between the mind and body. Practicing yoga involves focusing on breathing and sensations with every movement. As individuals continue practicing, they will notice a connection between their emotions and body.

#### Pranayama: Regulating the emotional brain



Learning to slowly breathe in, hold, and slowly release the breath when accessing painful memories is helpful in recovery. As individuals take deep breaths, they slow the activation of the PNS, allowing them to relax and rest.

#### Relationships: Appreciating trauma as a love language



The author adapted the phrase "Appreciating trauma as a love language" from Dr. Gary Chapman's book, *The Five Love Languages: The Secret to the Love that Lasts.* When feeling scared, hearing the reassuring voice of a loved one telling them that everything will be okay can be comforting for a person who has experienced trauma. People who have experienced traumatic events often recover better when they have a strong support system. This can include a loved one, family member, support group, or friend. According to Bruce Perry, the healthier relationships a child has, the better their chances of recovering from trauma and thriving. Perry also believes that relationships are the key to change and that the most powerful therapy one can receive is human love.

#### Therapy: Trauma-informed therapy



It is critical to work with a trauma-informed therapist. While general talk therapy can be beneficial for mirroring and validating certain emotions, rational thinking is of almost no help when someone is in a hyperalert state. A trauma-informed therapist can help individuals develop strategies that can be used to resolve trauma and deal with its symptoms in everyday life.

Support: Building a healthy, supportive network



Family and friends may reject the person with trauma or lose their patience if the person keeps falling back on painful memories. It is extremely hard for a trauma survivor to feel safe in a judgmental environment that criticizes their feelings. Finding a professional, non-judgmental support group can provide a healthy network of people who have had similar experiences and are finding healthy ways to cope.

#### Touch: Releasing the power



The most natural way for a distressed individual to calm down is through touch, whether the touch of a hand or something more intimate, such as a hug. A touch from a trusted source can go a long way in helping make and maintain meaningful connections.

## Eye Movement Desensitization and Reprocessing: Acknowledging painful memories



People cannot put traumatic experiences behind them until they acknowledge what happened and recognize its imprint within their body. Eye Movement Desensitization and Reprocessing (EMDR) is a specialized form of psychotherapy designed to help individuals process and heal from traumatic and painful memories. During EMDR sessions, the therapist asks an individual to discuss traumatic memories while focusing their gaze on a moving object, such as a light, to engage their neurobiology. The eye movement creates an effect known as "bilateral stimulation," and research suggests it promotes the therapeutic effect of talk therapy by activating the nerves and muscles in the eyes.

#### Get Moving: Movement is medicine



Decades of research have confirmed that exercise is one of the most powerful tools for tempering stress. Movement can improve flexibility, balance, and good health. Movement of any sort can help release tension, deepen breathing, and boost memory and mood. Moving the body can include anything an individual likes to do, such as kickboxing, running, swimming, and dancing.

#### **Furry Friends**



Everyone needs a dose of companionship and unconditional love from their pets. Pets help regulate the nervous system, and individuals may mirror the feelings of relaxation and safety they see in their pets. Pets can help individuals reconnect with their community and serve as companions when no one can support them. Having a pet that needs to be cared for may create a sense of purpose and a reason to get out of bed on those less-than-good days. Fur friends are also masters at giving back. Just like humans, they are wired for connection. They love unconditionally, forgive immediately, and will do anything to make individuals happy.

#### Get creative: Healing the suffering through art

Art, music, and dance are used around the world to treat trauma, especially to help people express their suffering. Those who struggle with not being able to articulate their trauma and feelings may be able to express themselves through a creative process.

#### Diet: Health Begins in the Gut

Food choices affect daily health, sleep, and response to stress. Even though there is no one-size-fits-all when making healthy choices, what is considered healthy for the gut is well known.

Individuals cannot relax and digest when they are in a fight-or-flight state. As a result, no matter how healthy the diet is, food is expelled before the gut can absorb the necessary nutrients, leaving the body starved. The gut is the leading production site for 90% of the body's serotonin. Serotonin (the feel-good hormone) is the critical neurotransmitter that stabilizes mood and well-being.

While this chapter is not meant to guide a healthy diet, individuals are encouraged to explore healthy diet options with a professional.

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# The Author's Take WHAT ABOUT PHARMACOTHERAPY?

As a pharmacist, I cannot end this module without touching on pharmacotherapy. For those who are taking medication, please consult your healthcare provider before making any changes to your medications. Data is mixed when it comes to using pharmacotherapy for trauma. When individuals with trauma are desperate, they resort to all sorts of substances to numb the pain from their memories—marijuana, alcohol, tranquilizers, etc.

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The mental health community has become too comfortable with the DSM-5 and the use of medications. The Department of Defense and Veterans Affairs spends over \$4.5 billion on antidepressants, antipsychotics, and anxiolytics alone. Drugs cannot undo or cure trauma. I quote Dr. Bessel Van Der Kulk here again, "[Drugs] can only dampen the expressions of a disturbed physiology. And they do not teach the lasting lessons of self-regulation. They help to control feelings and behavior, but always at a price—because they work by blocking chemical symptoms that regulate engagement, motivation, pain, and pleasure."

As a trauma-informed pharmacist, I am not against pharmacotherapy if it is used as a last resort when all other non-pharmacological approaches have failed. It's important to keep in mind that pharmacotherapy cannot do the healing alone. Medications were never meant to address all responses to childhood trauma, including PTSD. Each individual must do the difficult work and use pharmacotherapy when necessary to complement non-pharmacologic approaches.

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