

Faith Meets Science in Trauma and Addiction

A lecture for The Canadian Association for Couple and Family Therapy



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De, Jeffrey E, Hansen, Ph.D., is a Clinical Psychologist specializing as addiction and manna, with degrees from the University of California at Burkaley and the University of Arkanon. With over four decades of experience, including service in the US. Army on active duty and in the Defense Health Agency, Dr. Hansen integrates faith-based principles with neuroscience in his psychotherapoune approach. He serves as the Clinical Director of both Holdflast Recovery and AnchorPoint, treatment contens for addiction recovery. His latest book explores the intersection of science and faith in the bealing of trauma, offering a unique and manformative perspective.



Tim Hayden is a corporate loader, entrepresent, and consolvant based in Process, Artisma, As Co-Founder of Holdfast Recovery, AcchorPoint, and Auchor Behavior Health, be in dedicated to helping people overcome addiction and moreal health challenges with a faith-consered, neuroccionco-based approach. His personal faith drives his mission, emphasizing spiritual, physical, and mental resilience. With over 31 years of leadership experience at tech companies like Cirici and BiackBerry. Tim blends business excellence with integrity and compassion. He holds degrees in Management, Marketing, and Communication from Mount Version Navarene University.

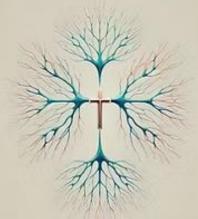


Earl Heverly is a retired pastor, serving for 46 years in Northern California as an associate and sensior pastor and Bible College instructor. He holds a BA in Sociology, University of Binour, Biblecal Studies Degree, Berean School of the Bible; Ordination Minimertal Credentials, and Assembles of God UNA.

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The Intersection of Science and Faith in the Healing of Trauma and Addiction



Jeffrey E. Hansen, Ph.D.

Tim Hayden
Pastor Earl Heverly

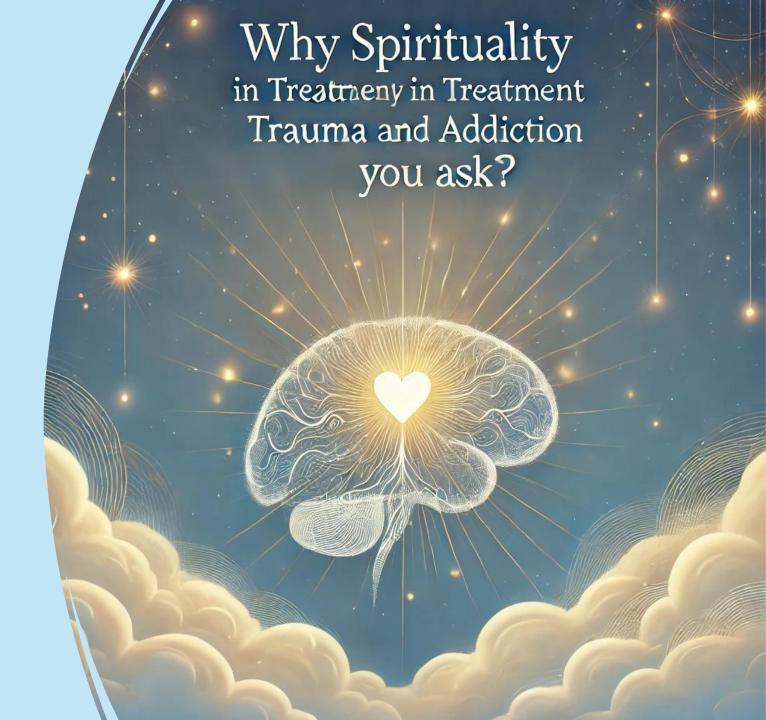
No need to take notes as you may find a copy of this PowerPoint as well as a digital copy of my book on my website:

Jeffreyhansenphd.com on the SharePoint page

"Why Spirituality in Treatment of Trauma and Addiction You Ask?"

Studies consistently show that incorporating spirituality into treatment improves outcomes.

Spiritual beliefs and practices have been linked to reduced substance use, lower relapse rates, and improved mental health outcomes. Programs like Alcoholics Anonymous and Celebrate Recovery highlight the role of spirituality in sustained recovery.





Why this matters to couples therapists?

Families and Marriages can be Pathways to Trauma and Addiction, and to Healing as well

Intergenerational Patterns

Trauma and dysfunction passed down through generations.

Unhealthy Dynamics

Poor communication, neglect, or emotional abuse.

Substance Use as Coping

Normalization of addiction to manage stress or pain.

Codependency

Enabling behaviors reinforcing addiction cycles.

Conflict and Abuse

Domestic violence and unresolved conflicts fostering trauma.

Loss and Grief

Unprocessed loss leading to addictive coping mechanisms.

Trauma as a Unifying Framework would nuke the DSM-5TR

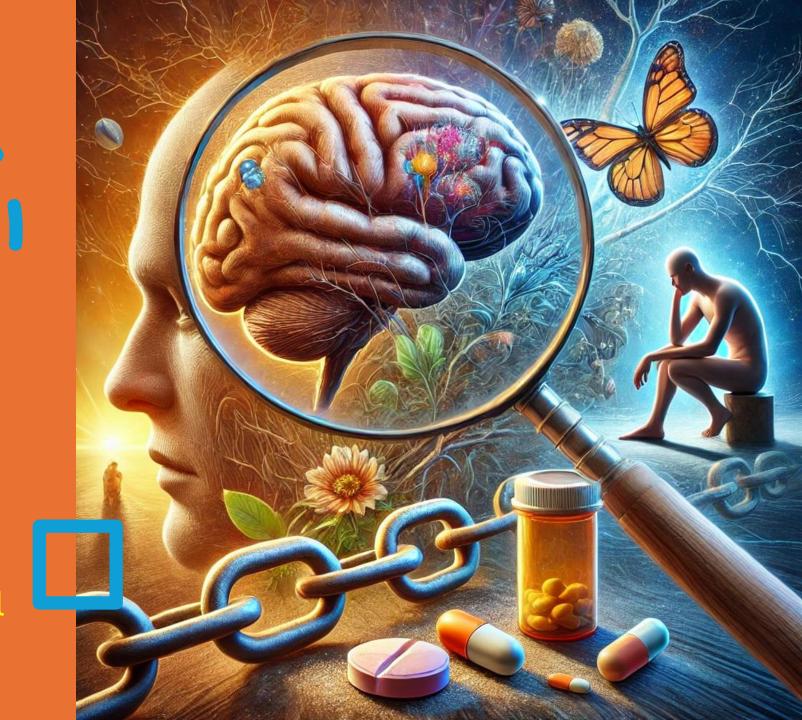
- Many disorders in the DSM, such as PTSD, depression, anxiety, and borderline personality disorder, can be traced back to unresolved trauma.
- If trauma is understood as a primary driver, many of these diagnoses might be seen as manifestations of how individuals cope with or adapt to trauma, rather than distinct conditions.



What is Addiction?

This is a very important question because of the implications for agency and how we treat it.

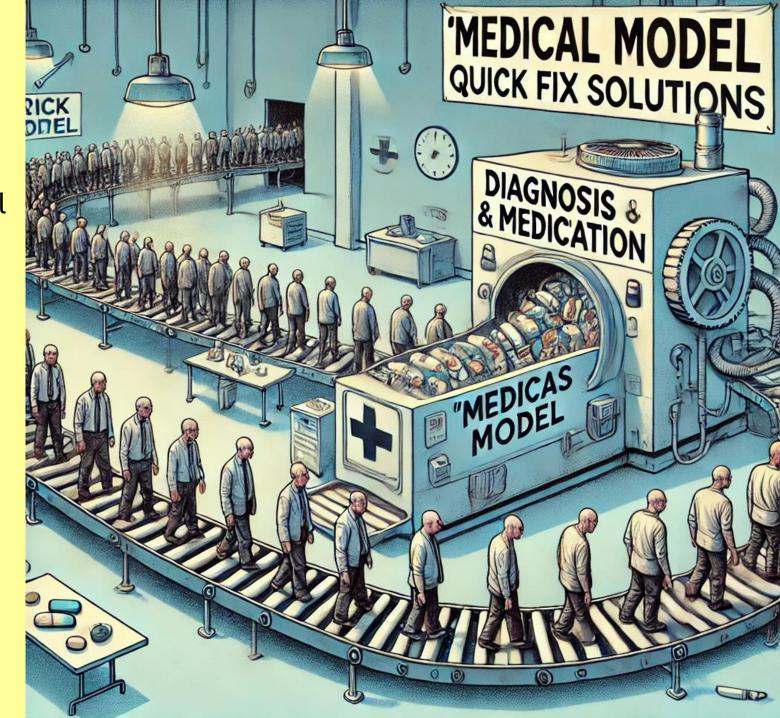
We are obsessed with the Newtonian Disease Model and this can be short-sighted.



ASAM Medical/Disease Model of Addiction

The ASAM (American Society of Addiction Medicine) disease model of addiction defines addiction as:

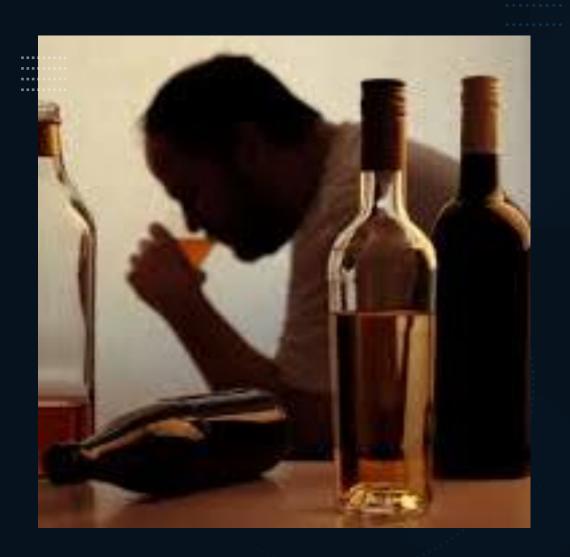
- A chronic, relapsing brain disease
- Characterized by compulsive substance use despite harmful consequences
- According to ASAM, addiction affects both the brain and behavior, involving complex interactions between genetic, environmental, and psychosocial factors.

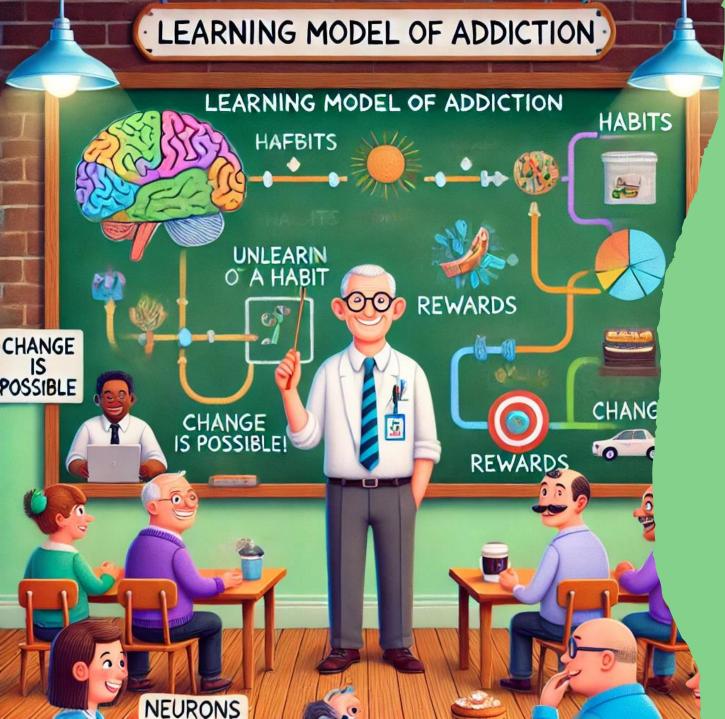


The National Institute on Alcohol Abuse (NIAA) definition of addiction

Addiction is defined as a chronic, relapsing disorder characterized by:

- 1. Compulsive drug seeking
- 2. Continued use despite harmful consequences
- 3. Long-lasting changes in the brain.





Learning Model of Addiction

Professor Mark Lewis views addiction as a chronic brain disorder, Lewis's model conceptualizes addiction as a learned behavior influenced by neuroplasticity and personal experiences.

Neuroplasticity and Learning:

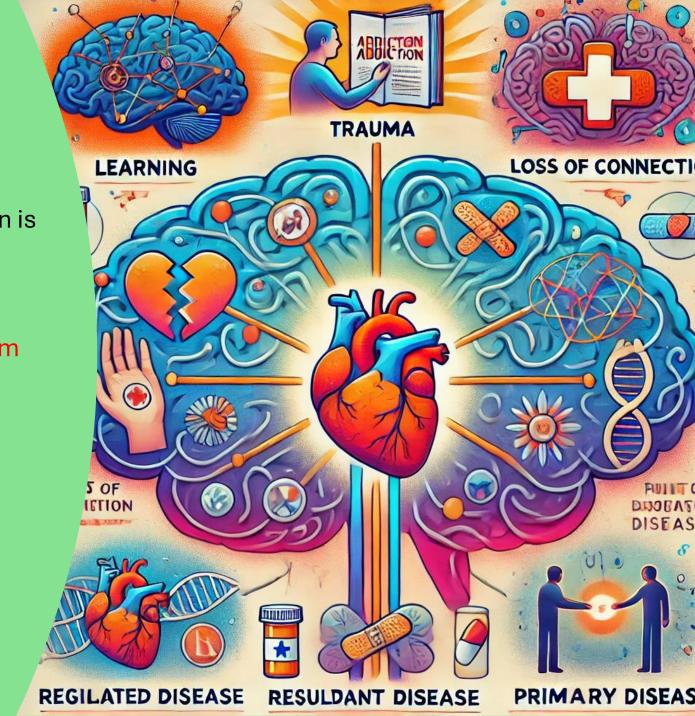
- 1. Addiction is seen as a result of the brain's capacity to adapt and change in response to repeated experiences.
- 2. The brain's reward system becomes highly sensitive to cues associated with substance use, leading to strong cravings and compulsive behaviors.

AnchorPoint's Integrated Definition Directs us to the Most Cutting-Edge Treatments

At AnchorPoint and Holdfast Recovery, addiction is primarily understood as a response to trauma, emotional pain, and a lack of meaningful connections in life.

As such addiction serves as a coping mechanism for individuals dealing with these deep-seated issues and social isolation.

This perspective emphasizes the role of unmet emotional needs and the impact of traumatic experiences in driving addictive behaviors.



AnchorPoint's Integrated Definition Directs us to the Most Cutting-Edge Treatments, cont.

While we recognize that these forms of psychological and social problems can lead to a disease state or problems in the brain, and that certain forms of addiction may exhibit characteristics of a primary disease, these factors are not considered the primary drivers of addiction.

We appreciate that the disease model acknowledges a level of genetic and medical influence, but it is not seen as the deciding or dominant factor in addiction.

Instead, the focus is on addressing the underlying psychological, social, spiritual, and trauma-related factors that contribute to the development and persistence of addiction.



Addiction today is Epidemic and Catastrophic

- In the US, 16% of the population 12 and older meet criteria for a substance abuse disorder.
- A quarter of all deaths in the US is due to excessive drug use.
- Each day, 10,000 people around the globe die as a result of substance abuse.
- Substance abuse costs 5X as much as AIDS and 2X as much as cancer.
- In the US, about 10% of all health-care dollars go to substance abuse prevention, diagnosis and treatment.
- Despite all of this, successful recovery is no more likely than 50 years ago with conventional treatments.

From: Judith Grisel (2019) Never Enough: The Neuroscience and Experience of Addiction.



Relapse rates post substance abuse treatments are discouraging

Al assisted

Time After Treatment	Estimated Relapse Rate	References		
Before 6 weeks	20% - 50%	McLellan et al. (2000)		
Before 6 months	40% - 60%	National Institute on Drug Abuse (2018)		
Before 1 year	50% - 70%	Sinha (2011)		
After 1 year 30% - 50%		McLellan et al. (2000), National Institute on Drug Abuse (2018)		



What is Trauma?

Origin:

Greek word meaning "wound."

Perspectives:

Trauma shapes behaviors, social habits, and self-perception.

Gabor Maté: "Trauma is an inner injury... a lasting rupture."

Key Insights:

Trauma is what happens within us due to hurtful events. It leads to wounds of the soul.



Trauma is almost always at the core of serious addiction which leads way to mental illness and then addiction to mask it.

But this process is bidirectional

Big T Trauma and Little t Trauma

The experts in the field divide trauma into two categories:

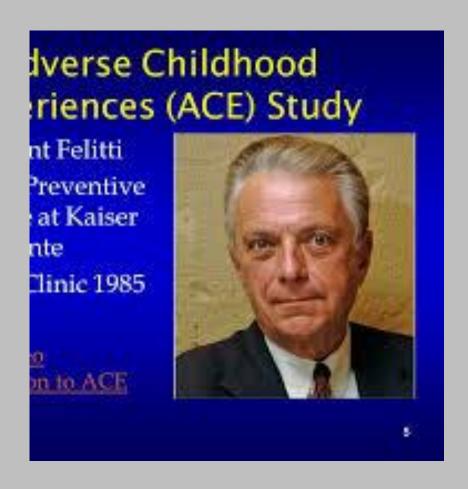
- Big T trauma (shock trauma): Traumas that are associated with horrific single events such as natural disasters, terrorism, and war. Also called Shock Trauma.
- <u>Little t trauma (developmental trauma)</u>:
 Trauma that are smaller in nature such as bullying, neglect, and betrayal.
- Both forms of trauma can lead to addiction.





Trauma - Adverse Childhood Experiences

- In the mid-1980's, Dr. Vincent Felitti noticed a puzzling and paradoxical trend in the obesity clinic he was heading.
- Specifically, many of his participants who were having the most success in losing weight were dropping out only to gain the weight back. He interviewed the nearly 300 participants and discovered a surprising pattern: almost all of the dropouts had suffered some form of childhood trauma (Kain & Terrell, 2018).
- This initial study grew into a major public health study with Dr.
 Felitti teaming up with Dr. Anda at the Centers for Disease Control (CDC) that continues to this day, involving more than 17,000 individuals.
- This research came to be known as the Adverse Childhood Experiences (ACE) Study (Felitti et al., 2014). In this study, people were asked about ten different types of traumatic events that happened to them when they were children to include physical and sexual abuse, family problems, and neglect.



Trauma - Adverse Childhood Experiences (ACE)

The ten reference categories experienced during childhood or adolescence are as below, with their prevalence in parentheses (Felitti and Anda, 2009):

Abuse

- Emotional recurrent threats, humiliation (11%)
- Physical beating, not spanking (28%)
- > Contact sexual abuse (28% women, 16% men, 22% overall)

Household dysfunction

- Mother treated violently (13%)
- > Household member was alcoholic or drug user (27%)
- > Household member was imprisoned (6%)
- Household member was chronically depressed, suicidal, mentally ill, or in psychiatric hospital (17%)
- Not raised by both biological parents (23%)

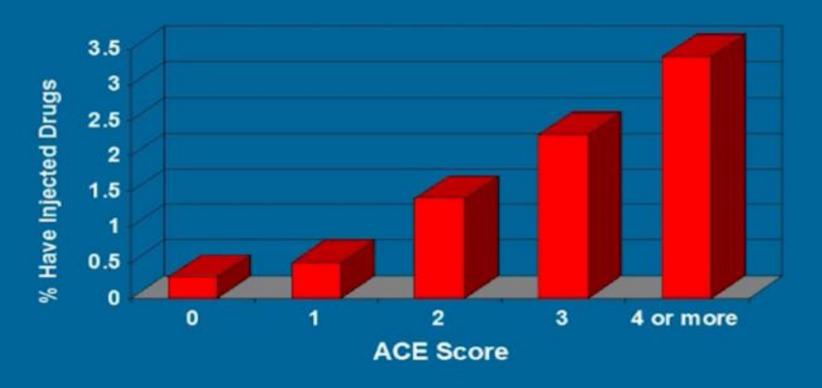
Neglect

- Physical (10%)
- > Emotional (15%)



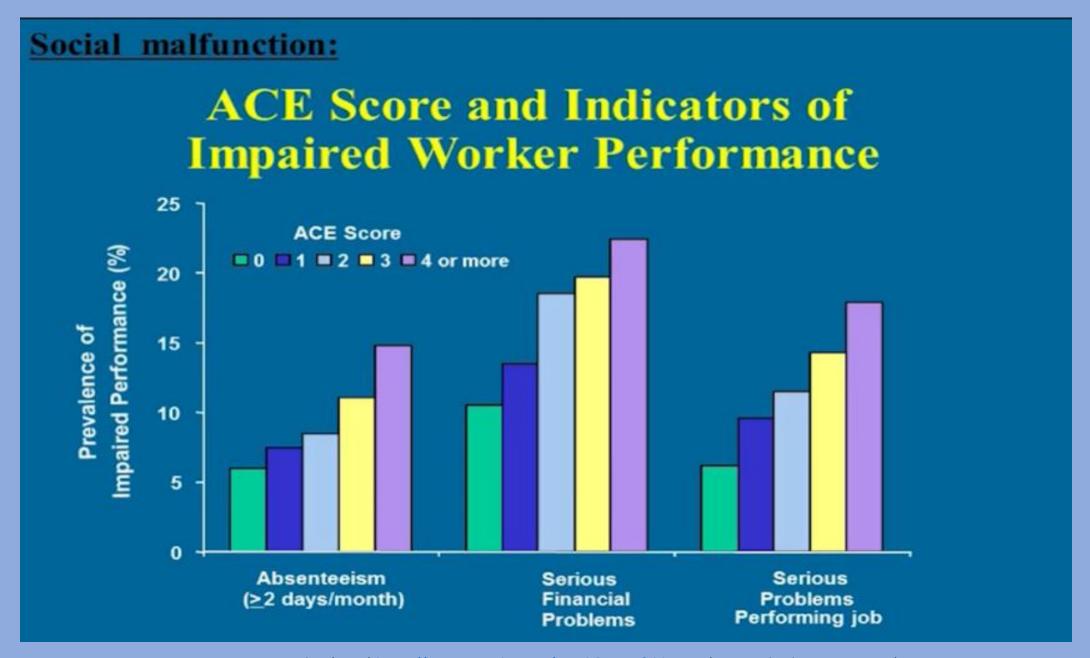
Health risks, Emotional Benefits

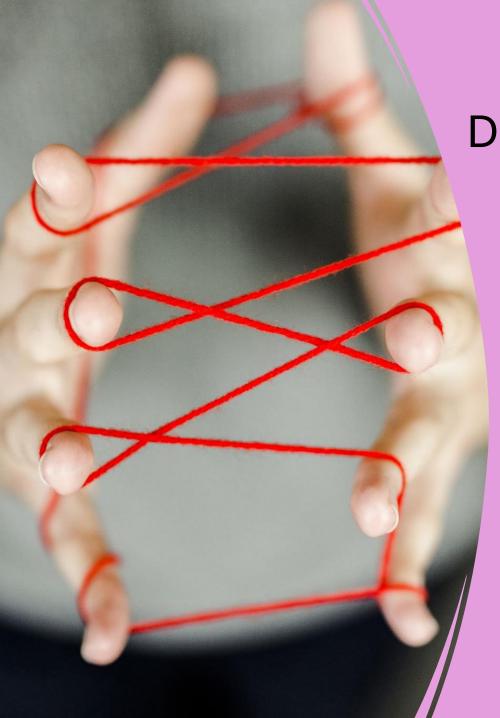
ACE Score vs Intravenous Drug Use



p<0.001

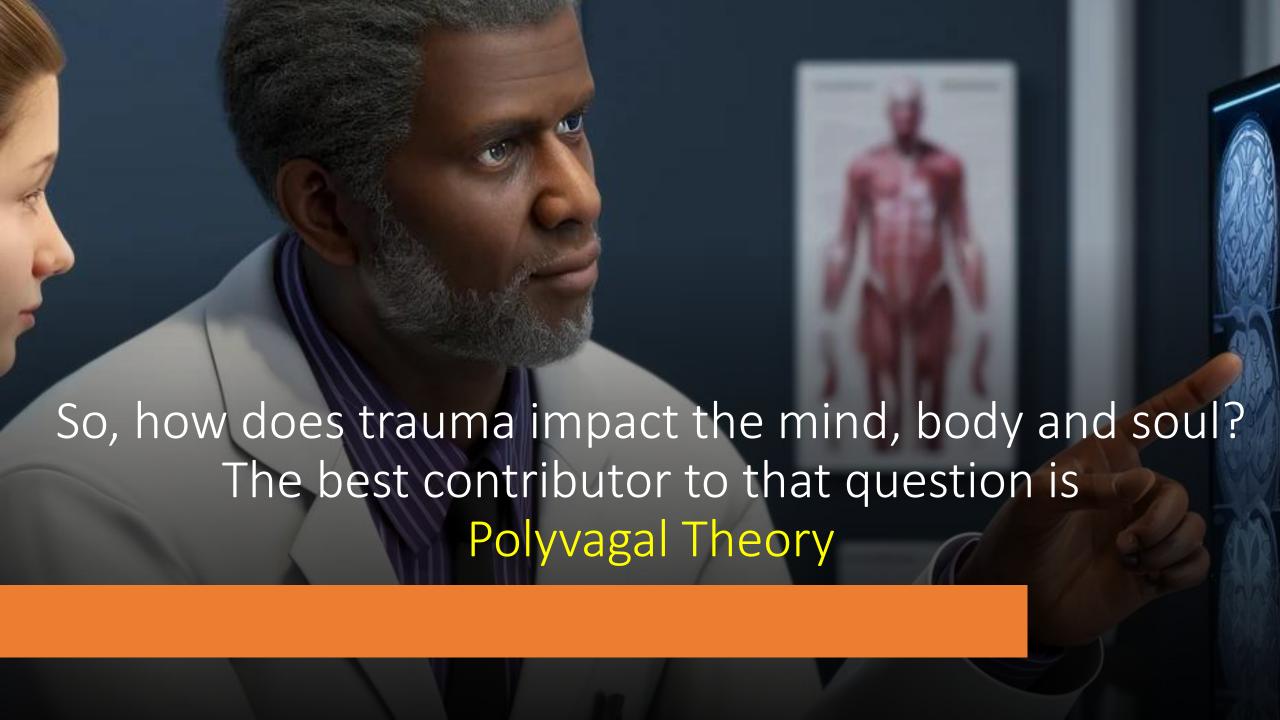
Damaged well-being Childhood Experiences Underlie Chronic Depression 80 70 % With a Lifetime History of Depression 60 50 40 Women 30 Men 20 10 >=4 **ACE Score**





The Daily Double Developmental Trauma + Shock Trauma

- Heightened Vulnerability: Both types of trauma increase emotional sensitivity and vulnerability, which can intensify cravings and the urge to use substances as a coping mechanism.
- Complex Emotional Responses: The layering of traumas can lead to more complex emotional responses, making it difficult to identify and address underlying issues without professional help.
- Re-traumatization Risk: Treatment settings or stressors associated with recovery can inadvertently trigger memories of trauma, complicating the recovery process.
- Interference with Treatment: The effects of multiple traumas can interfere with the efficacy of traditional addiction treatment methods, requiring specialized therapeutic approaches.
- Social and Relational Challenges: Compounded traumas can exacerbate difficulties in forming and maintaining supportive relationships, which are crucial for long-term recovery.





The autonomic nervous system is our **personal surveillance** system.



In an effort to keep us out of danger, it **is always on guard;** asking the question, "Is this safe?" Its dedicated goal is to protect us by sensing safety and risk.



It achieves this by listening moment by moment to what is happening in and around our bodies and in the connections, we have to others (Dana, 2018).



This listening happens far below awareness and far away from our conscious control.

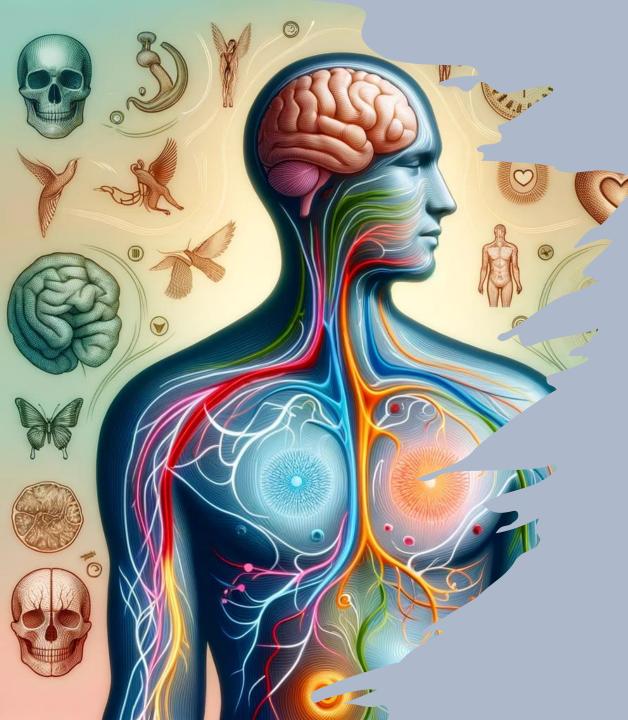


Dr. Porges, understanding that this is not awareness that comes with perception which is conscious, coined the term **neuroception** to describe the way our autonomic nervous system scans for cues of safety, danger, and life threat, without involving the thinking parts of our brain or the unconscious parts of the brain (Porges, 2017).

Polyvagal Theory The Autonomic Nervous System



Dr. Steve Porges



Polyvagal Theory The Autonomic Nervous System

Briefly stated, our response to threat will move us toward one of **three defensive responses**. Two of which keep us in perpetual defense and one of which moves us toward health and restoration.

<u>Sympathetic Division</u>: Prepares the body for stressful or emergency situations – fight or flight. The sympathetic nervous system originates in spinal nerves (nerves that arise from the spinal cord) and is our system of mobilization. The sympathetic nerves are found in the middle of our backs in the thoracic and lumbar regions of the spinal cord. There are two mobilization systems in our sympathetic nervous system.

- Sympathetic Adrenal Medullary (SAM): The SAM system is activated very quickly, within 100 milliseconds and brings up a burst adrenaline for a fast response to a stressor. SAM activation triggers a short-term and rapid response to a stressor which is followed by a return to regulation (Dana, 2018).
- Hypothalamic-Pituitary-Adrenal (HPA) Axis: The HPA axis takes over when the quick, adrenaline surge of energy of the SAM does not resolve the distress. The HPA releases cortisol (AKA stress hormone). This release takes longer and is much slower in taking effect, requiring minutes to take effect rather than seconds (Dana, 2018).

Polyvagal Theory Sympathetic Division

- The sympathetic division increases heart rate and the force of heart contractions and widens (dilates) the airways to make breathing easier.
- It causes the body to release stored energy.
- Muscular strength is increased. This division also causes palms to sweat, pupils to dilate, and hair to stand on end.
- It slows body processes that are less important in emergencies, such as digestion and urination (Merck Manual).
- When we are in this physical state, we can feel emotions such as fear and/or rage and, if extremely activated, absolute terror (Rothschild, 2017).





Parasympathetic Division

The parasympathetic division conserves and restores calm/homeostasis. It slows the heart rate and decreases blood pressure. It stimulates the digestive tract to process food and eliminate wastes. Energy from food is processed and used to restore and build tissues (Merck Manual).

Dr. Porges discovered that the parasympathetic division of the Autonomic Nervous System consists of two branches which lead to two different responses.

• The main nerve in the parasympathetic nervous system is the 10th cranial nerve, aka vagus nerve, which is the largest of the 12 cranial nerves and has huge implications for our well-being and health.

The name vagus comes from the Latin word *vagary* which means *wanderer*, and this nerve is definitely a vagabond.

• The vagus travels downward from the brainstem to the heart and stomach and then back upward to the face and its connection with other cranial nerves.

 This amazing wandering nerve is a mixed nerve which communicates bidirectionally between the body and the brain. 80% percent of its fibers are sensory (afferent) sending information from the body to the brain, and 20% are motor (efferent), sending action information from the brain to the body (Dana, 2018).

Polyvagal Theory

Made simple

Autonomic Nervous System

Sympathetic

Activated, anxiety, fear, terror, anger

Parasympathetic

Ventral Vagal

Connected, calm, safety

Dorsal Vagal

Shut-down, depressed

The chart below adapted by Dr. Rothschild nicely demonstrates the shifting in body sensations, physiological symptoms, and emotions as we move between autonomic states (Rothschild, 2017).

AUTONOMIC NERVOUS SYSTEM: PRECISION REGULATION ** WHAT TO LOOK FOR **

		-	-	-	With the last the las	-	
		LETHARGIC Parasympathetic I (PNS I)	CALM Parasympathetic II (PNS II) Ventral Vagus	ACTIVE/ALERT Sympathetic I (SNS I)	FLIGHT/FIGHT Sympathetic II (SNS II)	HYP <u>ER</u> FREEZE Sympathetic III (SNS III)	HYP <u>O</u> FREEZE Parasympathetic III (PNS III) Dorsal Vagus Collapse
			"Normal" Life		Threat to Life		
PRIMARY STATE		Apathy, Depression	Safe, Clear Thinking, Social Engagement	Alert, Ready to Act	React to Danger	Await Opportunity to Escape	Prepare for Death
AROUSAL		Too Low	Low	Moderate	High	Extreme Overload	Excessive Overwhelm Induces Hypoarousal
MUSCLES		Slack	Relaxed/toned	Toned	Tense	Rigid (deer in the headlights)	Flaccid
RESPIRATION		Shallow	Easy, often into belly	Increasing rate	Fast, often in upper chest	Hyperventilation	Hypo-ventilation
HEART RATE SIG		Slow	Resting	Quicker or more forceful	Quick and/or forceful	Tachycardia (very fast)	Bradycardia (very slow)
BLOOD PRESSURE		Likely low	Normal	On the rise	Elevated	Significantly high	Significantly low
PUPILS, EYES, EYE LIDS		Pupils smaller, lids may be heavy	Pupils smaller, eyes moist, eye lids relaxed	Pupils widening, eyes less moist, eye lids toned	Pupils very dilated, eyes dry, eye lids tensed/raised	Pupils very small or dilated, eyes very dry, lids very tense	Lids drooping, eyes closed or open and fixed
SKIN TONE		Variable	Rosy hue, despite skin color (blood flows to skin)	Less rosy hue, despite skin color (blood flows to skin)	Pale hue, despite skin color (blood flow to muscles)	May be pale and/or flushed	Noticeably pale
HUMIDITY	Skin	Dry	Dry	Increased sweat	Increased sweat, may be cold	Cold sweat	Cold sweat
	Mouth	Variable	Moist	Less moist	Dry	Dry	Dry
HANDS & FI	TURE)	May be warm or cool	Warm	Cool	Cold	Extremes of cold & hot	Cold
DIGESTION	Committee of the Commit	Variable	Increase	Decrease	Stops	Evacuate bowel & bladder	Stopped
EMOTIONS		Grief, sadness, shame, disgust	Calm, pleasure, love, sexual arousal, "good" grief	Anger, shame, disgust, anxiety, excitement, sexual climax	Rage, fear	Terror, may be dissociation	May be too dissociated to feel anything
CONTACT WITH SELF & OTHERS		Withdrawn	Probable	Possible	Limited	Not likely	Impossible
FRONTAL CORTEX		May or may not be accessible	Should be accessible	Should be accessible	May or may not be accessible	Likely inaccessible	Inaccessible
INTEGRATION		Not likely	Likely	Likely	Not likely	Impossible	Impossible
RECOMM		Activate, Gently Increase Energy	Continue Therapy Direction	Continue Therapy Direction	Put on Brakes	Slam on Brakes	Medical Emergency CALL PARAMEDICS
			The second desired to the second seco				

The Autonomic Nervous System Precision Regulation Chart is Available for purchase on Amazon for \$8.99 (a very high recommend): Babette Rothschild (2017) https://www.amazon.com/Autonomic-Nervous-System-Table-

aminated/dp/039371280X/ref=sr 1 15?dchild=1&keywords=deb+dana&qid=1590326813&s=books&sr=1-15

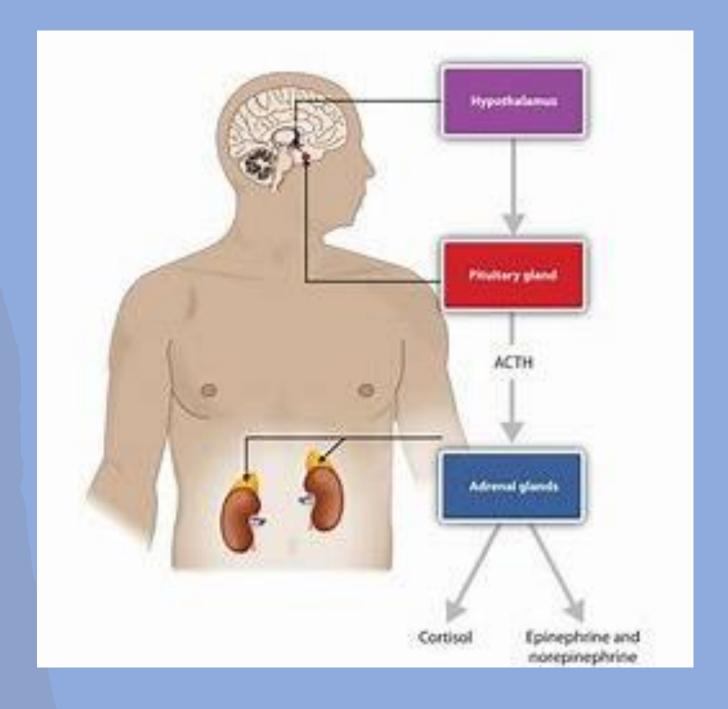
Trauma and Stress activate the Hypothalamic-Pituitary-Adrenal Axis (HPA)

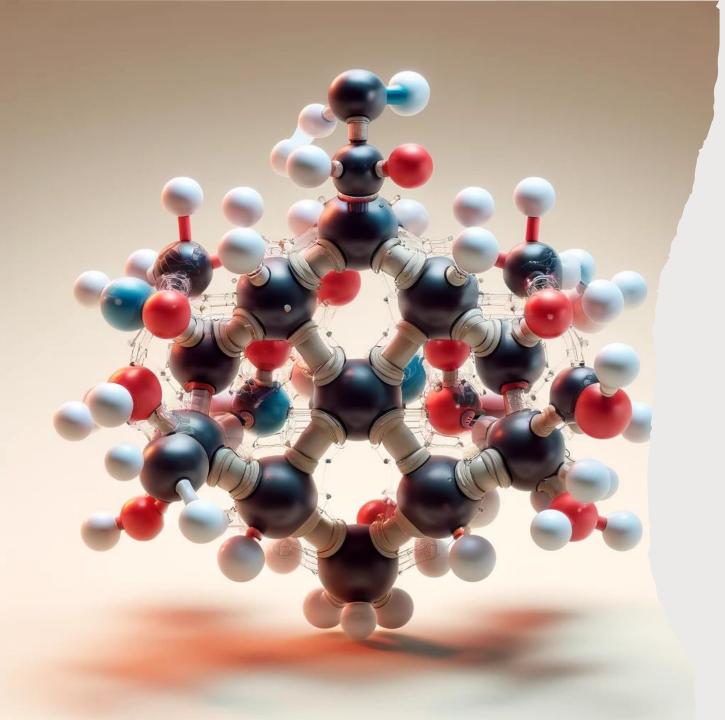
<u>Definition:</u> The HPA axis is a complex set of interactions among the:

- 1. hypothalamus
- 2. pituitary gland
- 3. adrenal glands

It regulates:

- 1. stress responses
- mood
- 3. digestion
- 4. the immune system
- 5. energy storage and expenditure and more





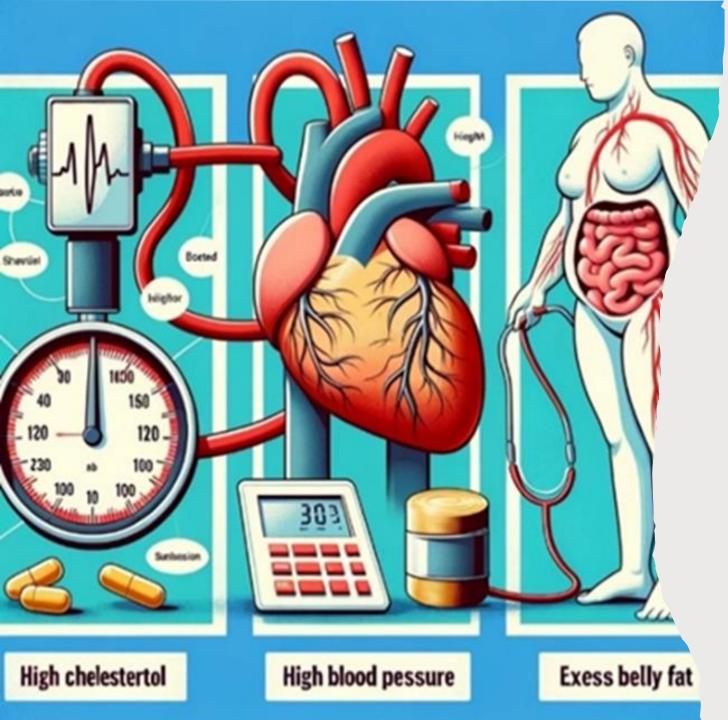
What is cortisol?

- <u>Definition:</u> Cortisol is a <u>steroid hormone</u> produced by the adrenal glands, which are located on top of each kidney.
- <u>Function</u>: It plays a crucial role in the body's stress response, helping to regulate metabolism, reduce inflammation, and assist with memory formulation.
- <u>Stress Response:</u> Often called the "stress hormone," cortisol levels increase in response to stress, helping the body manage and adapt to stressful situations.
- Regulation: It follows a daily rhythm—highest in the morning to help you wake up, and gradually decreasing throughout the day.
- Effects of Imbalance: Chronic high cortisol levels can lead to various health issues, such as weight gain, high blood pressure, disrupted sleep, and a weakened immune system.



Impact of excessive cortisol the brain

- Impaired Cognitive Performance: High cortisol can disrupt memory formation, concentration, and decision-making processes.
- Reduced Neurogenesis: Prolonged exposure to elevated cortisol levels can inhibit the growth of new neurons, particularly in the hippocampus, which is critical for learning and memory.
- Neuronal Damage: Excessive cortisol can lead to neuronal loss in the brain, which may contribute to cognitive decline over time.
- Mood Disorders: High cortisol levels are associated with an increased risk of mood disorders such as depression and anxiety.
- Altered Brain Function: It can affect the function of various neurotransmitters and receptors within the brain, altering mood and behavior.
- Increased Brain Inflammation: Cortisol can promote inflammation within the brain, which is linked to various neurological conditions.
- Hormonal Imbalance: Chronic high levels of cortisol can disrupt other hormone levels, further affecting brain health and emotional stability.



Excessive cortisol levels can have widespread impacts on the body

- Weakened Immune System: High cortisol suppresses the immune response, making the body more susceptible to infections.
- Increased Blood Sugar Levels: Cortisol enhances glucose production, which can lead to elevated blood sugar levels and increased risk of type 2 diabetes.
- **Weight Gain:** Elevated cortisol can lead to fat deposition, particularly around the abdomen, and can increase appetite.
- **High Blood Pressure:** Cortisol can constrict blood vessels, leading to increased blood pressure.
- Muscle Weakness: Chronic high cortisol levels can result in muscle breakdown and weakness.
- **Bone Density Reduction:** It can interfere with bone-building, leading to decreased bone density and increased risk of osteoporosis.
- **Digestive Problems:** Cortisol can affect the gastrointestinal system, potentially causing stomach ulcers and other digestive issues.

Given the impact of stress/trauma on the body and brain, we can begin to understand why addictions become so attractive – to quell the pain.

But the problem is that addictions work until they don't.

We initially love the addiction more than anything else





And although we love the addiction initially, we become enslaved to it.

The Four Cs of Addiction

Wilson (2014) notes that all addictions, regardless of their differences, result in an established set of "core brain changes" which, in turn, present as recognized signs, symptoms, and behaviors such as those listed in the Four C's:

- **1.** <u>Craving and Preoccupation</u> with obtaining, engaging in or recovering from the use of the substance or behaviors in question.
- **2. Loss of Control** in using the substance or of engaging in the behavior and noted by increasing frequency or duration, larger amounts or intensity, and/or increasing the risk and behavior in an effort to obtain the desired effect.
- **3.** Negative Consequences in physical, social, occupational, financial, or psychological areas.
- **4.** Compulsive in nature



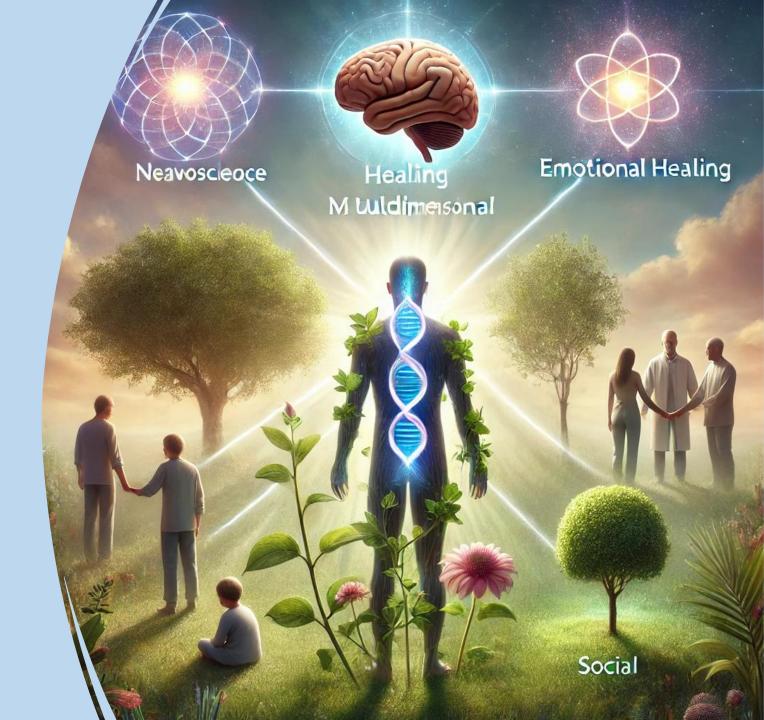
Treatment

"Healing doesn't mean the damage never existed; it means the damage no longer controls your life."

-Akshay Dubey

Healing involves healing the body, mind and wounds of the soul.

As such, treatment must be multidimensional



Key Trauma creates Shame

Shame is one of the most misunderstood consequences of trauma:

- It is a core belief about one's identity, not just an emotion.

- Often confused with guilt but is deeper and unresolved.

- False guilt can feed shame, leading to identity fractures.

Guilt vs Shame

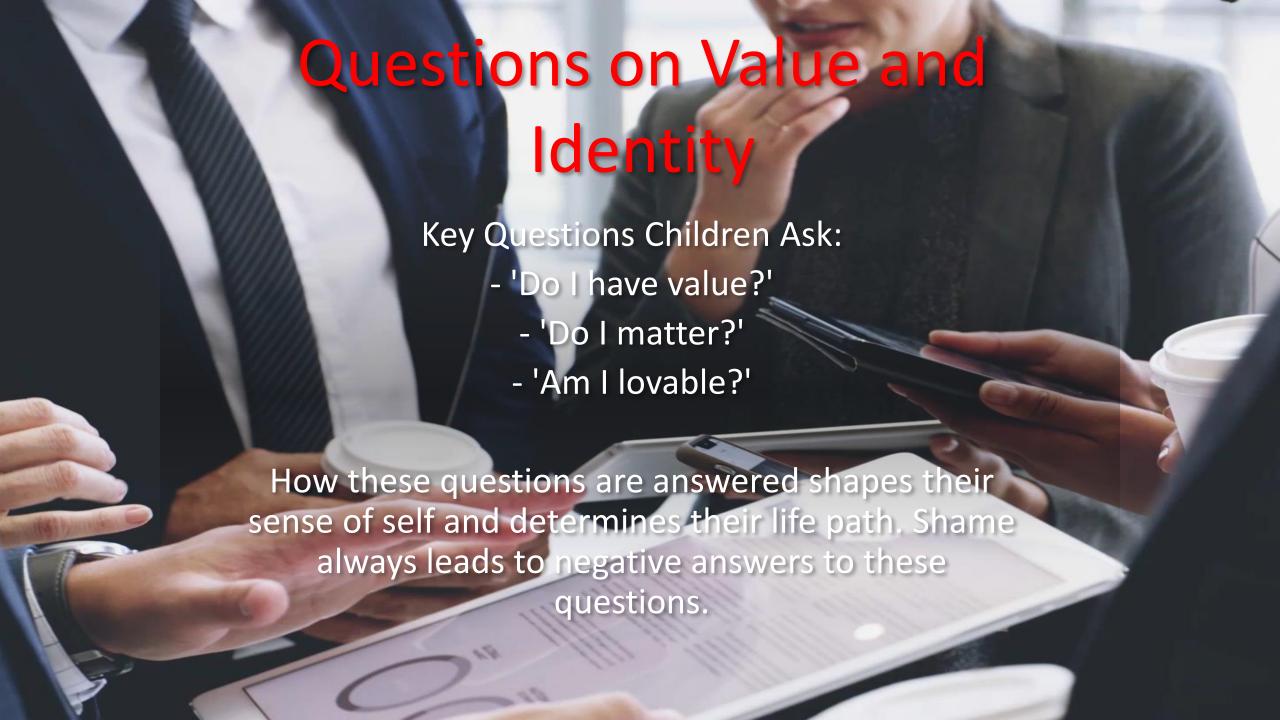
Guilt:

- - About actions: 'What I do.'
- - Motivates corrective behavior.

Shame:

- - About identity: 'Who I am.'
- - Feeds feelings of worthlessness and cannot be resolved.

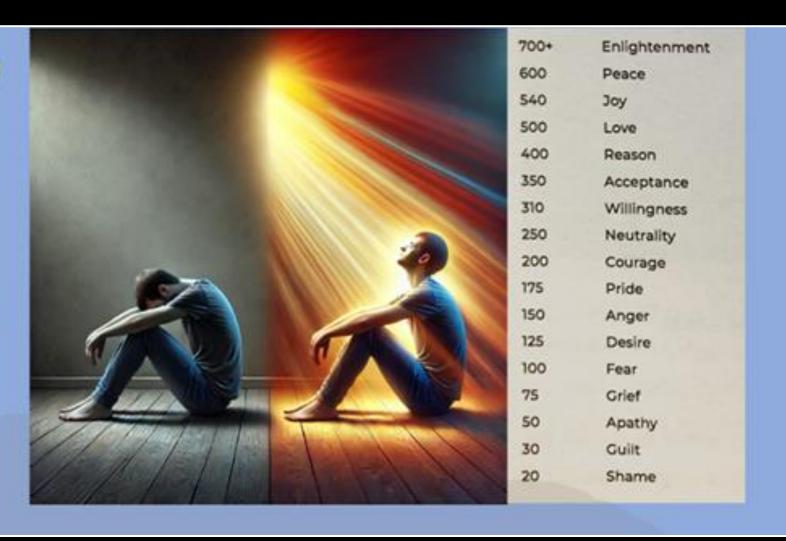
False guilt intensifies shame and fractures identity.





Shame (20) and guilt (30) are seen as the heaviest emotions and are the lowest in energy where we feel contracted and stuck.

In contrast, emotions like love (500) and joy (540) are lighter, with more energy and movement, creating a sense of openness and lightness.



Shame is the lowest energy emotion of them all and it kills us

Therapy Model

Polyvagal-Informed Therapy

Polyvagal-informed therapy focuses on our body's nervous system and how it responds to stress and safety.

HeartMath

HeartMath therapy was developed by the HeartMath Institute. This therapy uses techniques and technology to help individuals regulate their heart rhythms and achieve a state of coherence, where the heart, mind, and emotions are in sync.

Internal Family Systems (IFS)

Internal Family Systems (IFS) therapy is a psychotherapeutic approach that is particularly effective in treating trauma and addiction. It enables us to appreciate the psychological defenses that help us deal with the trauma that the body has stored.

Congruence Couple Therapy

Congruence Couple Therapy serves as an excellent integrative therapy for IFS and EFT

12 Steps

Essential for the "doing part" of recovery. Behavioral activation with spiritual focus

Connection per Johann Hari

Connected living is essential and foundational for any therapy to work.

Spirituality

Only God can cure shame.

Although incremental therapies are very necessary and helpful, it is transformational therapies that get you home. The Default Mode Network needs to be updated and only transformational therapies can achieve that.

Incremental Therapies	Transformational Therapies
Focus: Gradual, step-by-step change.	Focus: Profound, holistic changes.
Approach : Behavior modification and symptom management.	Approach: Deeper psychological exploration.
Examples : CBT, DBT, Exposure Therapy.	Examples : Internal Family Systems (IFS), EMDR, Polyvagal-Informed Therapy, Emotion Focused Therapy (EFT)
Goal: Improve specific symptoms or behaviors.	Goal : Transform personal beliefs and self-concept.
Process : Structured, often short-term.	Process : Open-ended, usually longer-term.



Polyvagal Theory and Treatment

As previously noted by Deb Dana, it is in a ventral vagal state and a neuroception of safety that brings the possibility for connection, curiosity, and change. She nicely presents a polyvagal approach which she calls the four R's (the first three are bottom up and the last is top down (Dana, 2018):

The Four R's

- Recognize the autonomic state
- Respect the adaptive survival response
- Regulate or co-regulate in a ventral vagal state
- Re-story

HeartMath Neurocardiology

Heartfelt Living



What – Heart Intelligence?

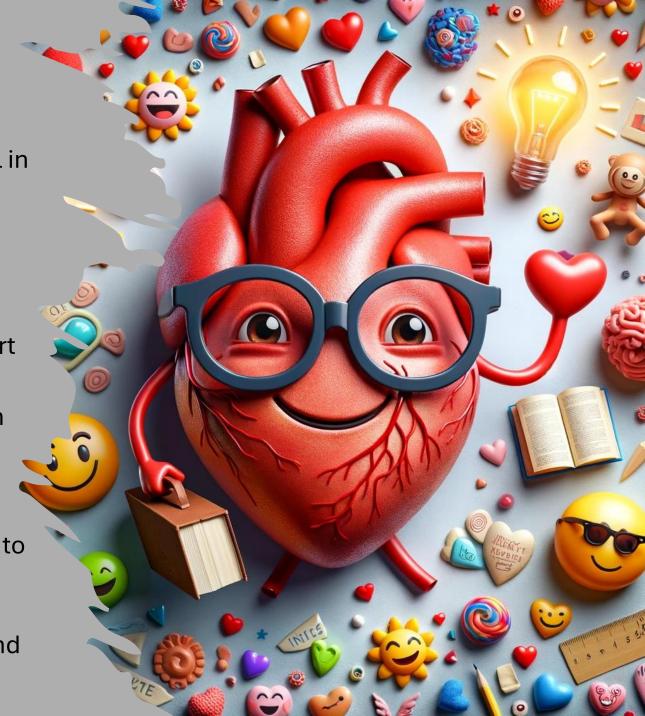
• Dr. Armour, MD, PhD., at the University of Montreal in 1991, discovered that the heart has its own "little brain" or "intrinsic cardiac nervous system" (cited in Braden, 2015).

• This "heart brain" is composed of approximately 40,000 neurons, called sensory neurites that are similar to neurons in the brain, meaning that the heart has its own nervous system.

• In addition, the heart communicates with the brain in many methods: neurologically, biochemically, biophysically, and energetically.

• The vagus nerve, which is 80% afferent, carries information from the heart and other internal organs to the brain.

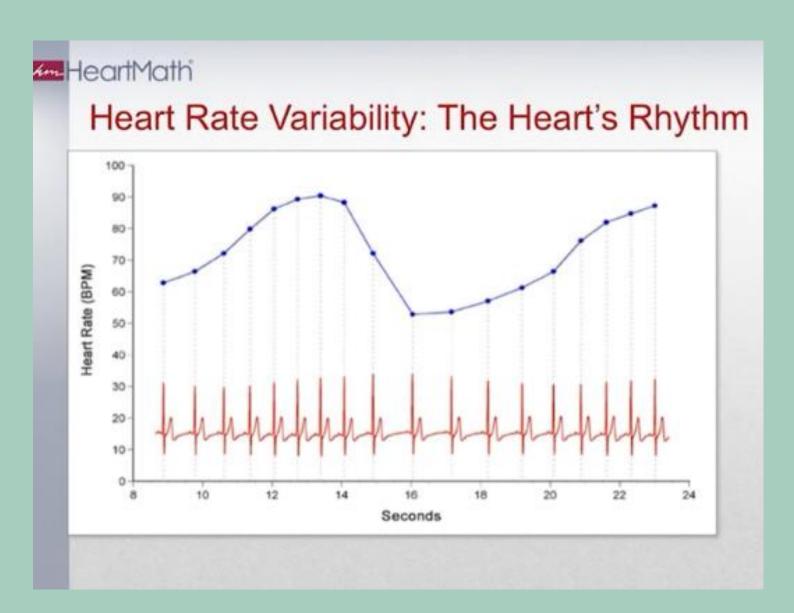
• Signals from the "heart brain" redirect to the medulla, hypothalamus, thalamus, and amygdala and the cerebral cortex (Braden, 2015a, 2015b).



Heart Rate Variability and Your Health

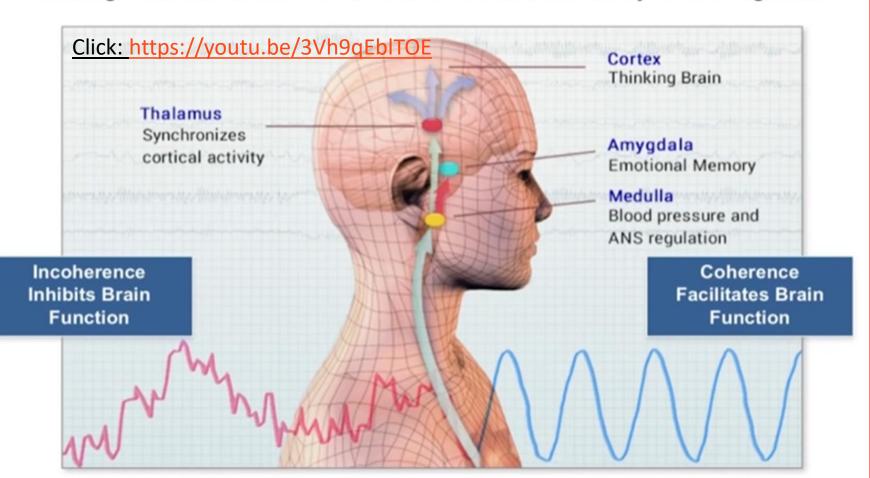
- These graphs show examples of real-time heart rate variability patterns (heart rhythms) recorded from individuals experiencing different emotions
- The bottom red part of the graph is simply the EEG reading of each pulse. Note that the intervals between the beats change with time. The upper blue graph reflects the collection of these intervals across time. This is the beginning of a sign wave that is read from people in a coherent heart state reflecting positive emotions.

Click: https://youtu.be/3Vh9qEbITOE

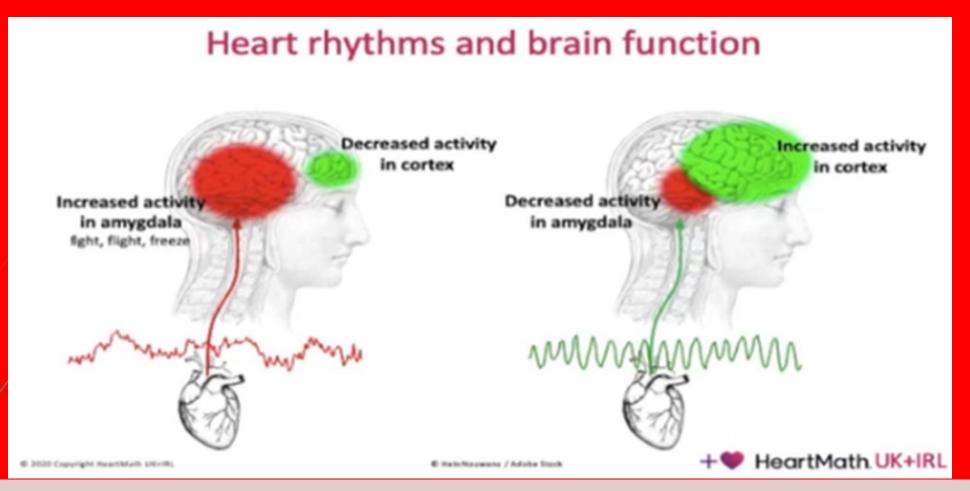


Heart-to-Brain

Heart signals affect the brain centers involved in emotional perception, decision making, reaction times, social awareness and the ability to self-regulate.



- Dr. McCraty notes that the heart communicates to the brain in four main ways: (1) <u>nerves</u> connecting the heart to the brain, particularly the vagus nerve, (2) <u>hormones</u>, (3) <u>blood pressure</u> <u>shifts</u>, and (4) <u>electromatic waves</u>.
- When the heart is coherent, it sends messages to the brain that, likewise, promote brain coherence which allow the brain to be more integrated and efficient and, to the contrary, an incoherent heart inhibits cortical function.





The left slide nicely shows that when the heart is in a negative emotional state and, hence, incoherent, it sends signals to the brain that increase the activity of the amygdala (which tends to focus on negative emotion) to become very active and the prefrontal cortex (which we need of good decision-making) to attenuate.



On the other hand, when the heart is in a positive emotional state of love, appreciation and gratitude, and hence, coherent, it sends signals to the brain that quiet down the amygdala and increase the activity of the prefrontal cortex.

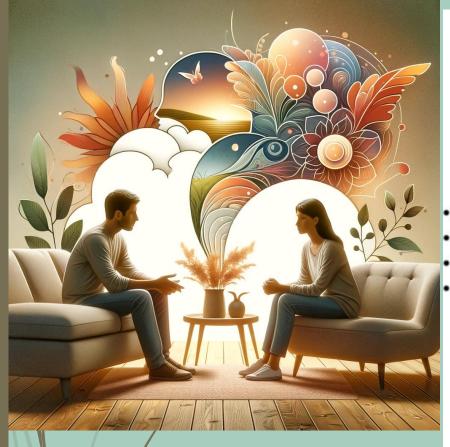


Internal Family Systems (IFS)
Therapy

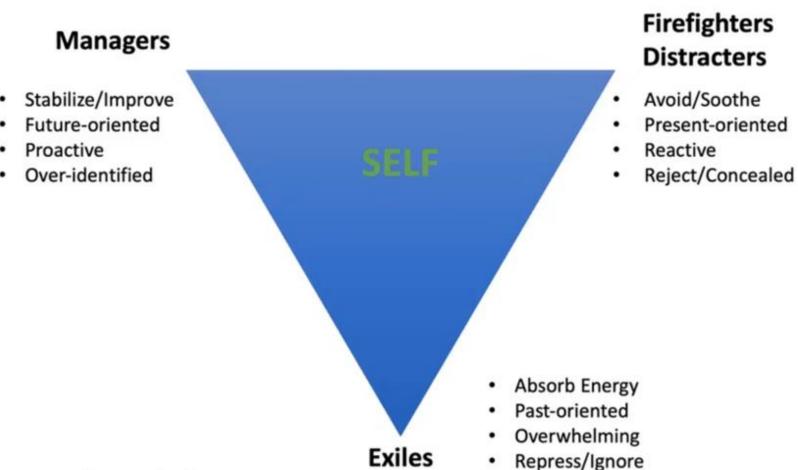
Wholeness is not achieved by cutting off a portion of one's being, but by integration of the contraries.

- C. G. Jung

Jeffrey E. Hansen, Ph.D. Center for Connected Living, LLC



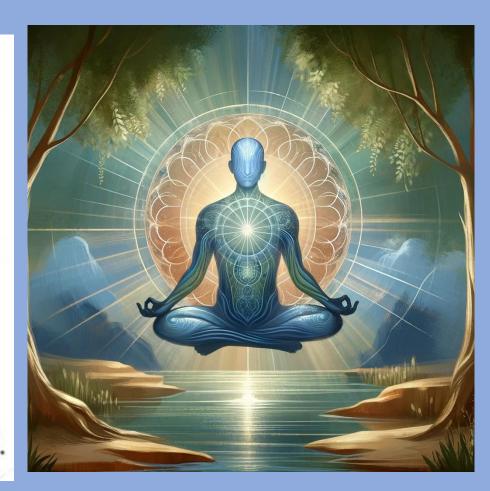
Treating a System, Not a Symptom



tese Sykes notes that in IFS, we treat a system, not a symptom.

IFS Self

- ▶ The self is the "moderator" that the parts are talking to, that likes or dislikes, listens to, or shuts out various parts
- When differentiated, the Self is competent, secure, selfassured, relaxed, and able to listen and respond to feedback.
- The Self can and should lead the internal system.
- Various levels of experience of the Self:
 - When completely differentiated from all parts (Self alone), people describe a feeling of being "centered."
 - When the individual is "in Self" or when the Self is in the lead while interacting with others (day-to-day experience), the Self is experienced along with the non-extreme aspects of the parts.
- An empowering aspect of the model is that everyone has a Self.



For some faith-oriented people, IFS's 8 correspond nicely to Galatians 5:22-2



Fruits of the Spirit:

Love
Joy
Peace
Forbearance
Kindness
Goodness
Faithfulness
Gentleness
Self-control

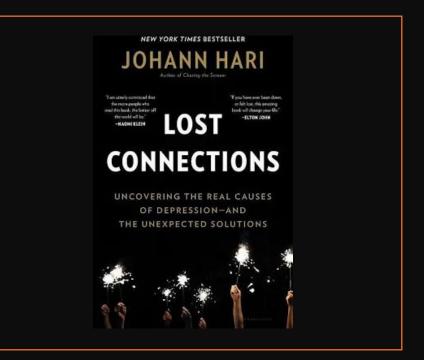


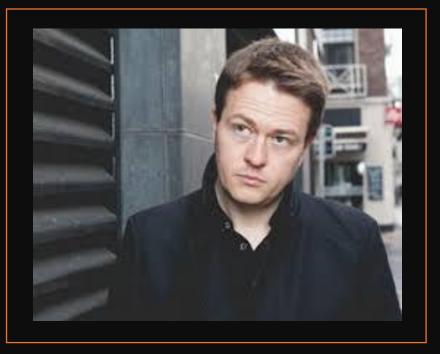
The 12 Steps – still the bedrock

- 1. Admit Powerlessness: Acknowledge that one cannot control them additional
- 2. Believe in a Higher Power: Believe that a power greater than oneself can restore sanity.
- 3. Decide to Turn Over: Make a decision to turn one's will and life over to the care of God as understood.
- 4. Make a Moral Inventory: Make a searching and fearless moral inventory of oneself.
- 5. Admit Wrongs: Admit to God, oneself, and another human being the exact nature of one's wrongs.
- 6. Ready for God to Remove Defects: Be entirely ready to have God remove all these defects of character.
- 7. Ask God to Remove Shortcomings: Humbly ask God to remove shortcomings.
- 8. <u>List Amends: Make a list of all persons harmed and become willing to make amends to them all.</u>
- **9.** Make Direct Amends: Make direct amends to such people wherever possible, except when to do so would injure them or others.
- 10. Continue Personal Inventory: Continue to take personal inventory and when wrong, promptly admit it.
- 11. Seek Through Prayer: Seek through prayer and meditation to improve contact with God as understood, praying for knowledge of His will and the power to carry that out.
- 12. Spiritual Awakening: Having had a spiritual awakening as the result of these steps, try to carry this message to others, and practice these principles in all affairs.

Johann Hari's Model for Connected Living

- Disconnection from Meaningful Work
- Disconnection from Other People
- Disconnection from Meaningful Values
- Disconnection from Childhood Trauma
- Disconnection from Status and Respect
- Disconnection from the Natural World
- Disconnection from a Secure Future
- Disconnection from a Sense of Hope
- Disconnection for our Spirituality (emphasis mine)







Spirituality hugely enhances resilience and healing

Who is Lisa Miller, Ph.D.?

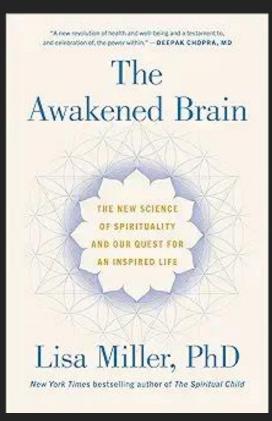
Lisa Jane Miller is an American professor, researcher and clinical psychologist, best known as a research scholar on <u>spirituality</u> in psychology. Miller is a tenured Full Professor at Columbia University, Teachers College in the Clinical Psychology Program and Founder of the Spirituality Mind Body Institute. Miller's published science on spirituality in renewal from addiction, depression and struggle has been reported in articles focusing on her research in the *New York Times* and the *Wall Street Journal*, as well as in television interviews and podcasts.

Early life and early career:

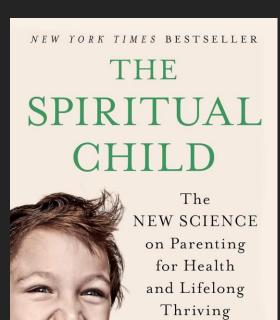
Miller obtained a bachelor's degree in Psychology from <u>Yale University</u> and a doctorate under <u>Martin</u> <u>Seligman</u>, founder of the <u>positive psychology</u> movement, at the <u>University of Pennsylvania</u>.

- Wikipedia





Dr. Miller's books on Spirituality and Health

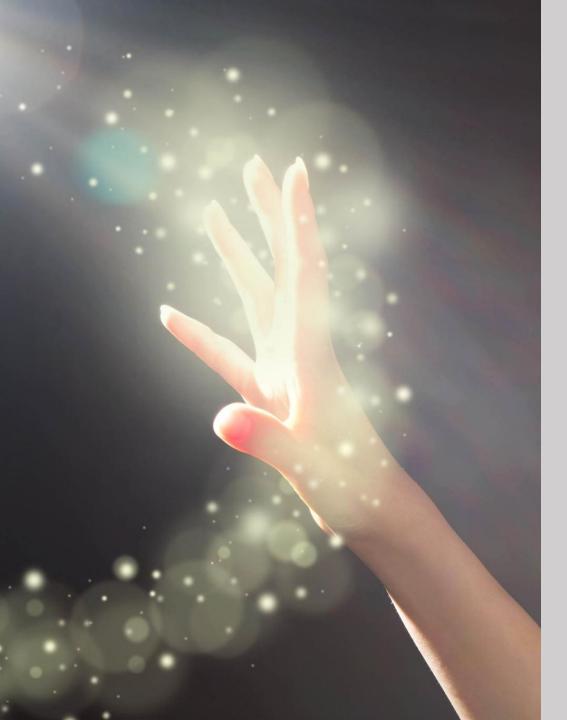


"Startlingly fresh scientific research... A fascinating, groundbreaking, and important work."

-Wendy Mogel, Ph.D., author of the bestselling
The Blessing of a Skinned Knee

LISA MILLER, PH.D.

PICADOR



How Christianity Heals Shame

1.Identity Rooted in Christ

- Believers are 'fearfully and wonderfully made' (Psalm 139:14).
- A new identity as a 'new creation' (2 Corinthians 5:17) counters shame.

2. Wonder in God's Creation

- Belief in God's intentional design instills awe and gratitude.
- Reframes self-perception and replaces negative thoughts.

3. Forgiveness Through Grace

- Assurance of forgiveness removes guilt and shame (Psalm 103:12).
- Promotes emotional freedom and well-being.

4. Healing Power of Confession and Repentance

- Confession fosters emotional release and renewal (1 John 1:9).

5. Purpose Beyond Pain

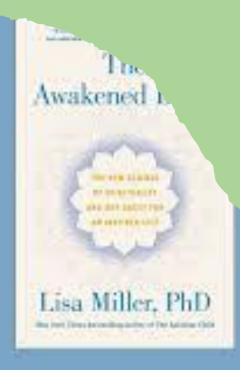
- God uses brokenness for growth and healing (Romans 8:28).
- Finding meaning in suffering reduces shame and fosters hope.

References

- 1. Exline, J. J., Grubbs, J. B., & Homolka, S. J. (2014). Seeing God as cruel or distant. *The International Journal for the Psychology of Religion, 24*(1), 46-64. https://doi.org/10.1080/10508619.2014.856648
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Spirituality is Key to Healing - Dr. Lisa Miller





- Depression Reduction: Higher spiritual engagement is linked to about 4X lower rates of depression.
- <u>Suicide Prevention:</u> Spirituality reduces suicide risks by 4X.
- Enhanced Resilience: Spirituality boosts resilience against mental health challenges.
- <u>Substance Abuse Reduction</u>: Spiritual individuals are less likely to abuse drugs and alcohol.
- Improved Recovery: Better recovery outcomes from mental illness are associated with higher spiritual engagement.

Dr. Miller report that research indicates incredible protective factors ensue with spirituality.

Religion & Spirituality:

THEIR IMPACT ON HEALTH AND HAPPINESS

Children who were raised in a religious or spiritual environment subsequently were better protected from the 'big three' dangers of adolescence







MENTAL HEALTH: PREVENTION

- > 80% protective against substance dependence and abuse
- > 60% protective against Major Depressive Disorder
- 70% protective against sexual risk taking in girls
- > 50% protective against suicidality

Key Protective Factors of Faith

1 Faith as a Buffer Against Depression

Individuals with strong spirituality are 80% less likely to experience depression.

2. Spirituality Strengthens Resilience

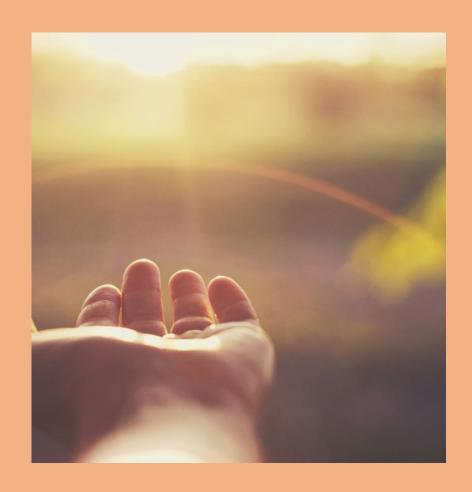
Provides meaning and purpose, enhancing the ability to navigate challenges.

3. Connection to a Higher Power Enhances Well-Being

Fosters hope, trust, and peace, critical for mental health recovery.

4. Interpersonal Relationships are Enriched

Promotes compassion, empathy, and forgiveness, improving social support.



Faith's Impact on the Brain and Behavior

5. Faith Engages the Brain's Healing Networks

- Activates brain regions linked to resilience and optimism.

6.. Reduces Risky Behaviors

- Provides purpose and moral guidance, reducing substance use and risky behaviors.

7. Faith and Gratitude Foster a Positive Mindset

- Cultivates positive emotions and reduces stress through practices like prayer.

8. Transgenerational Impact of Faith

- Promotes resilience and emotional health across generations.



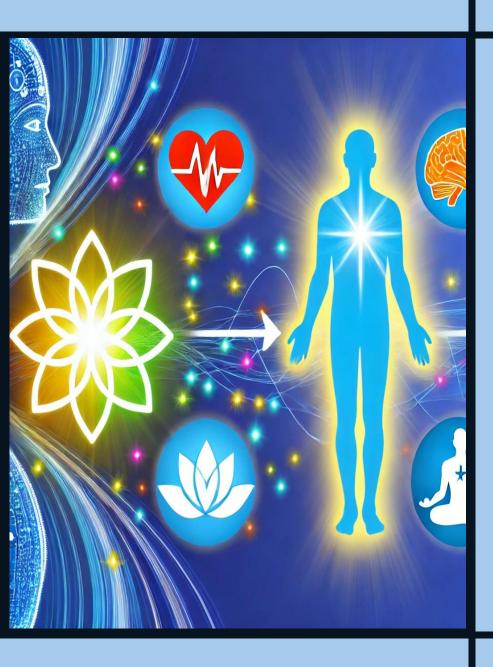
There is an additive protective factor when both mother and child share spirituality according to Dr. Miller's research.



"when the mother and child were both high in spirituality, the child was 80 percent protected against depression"

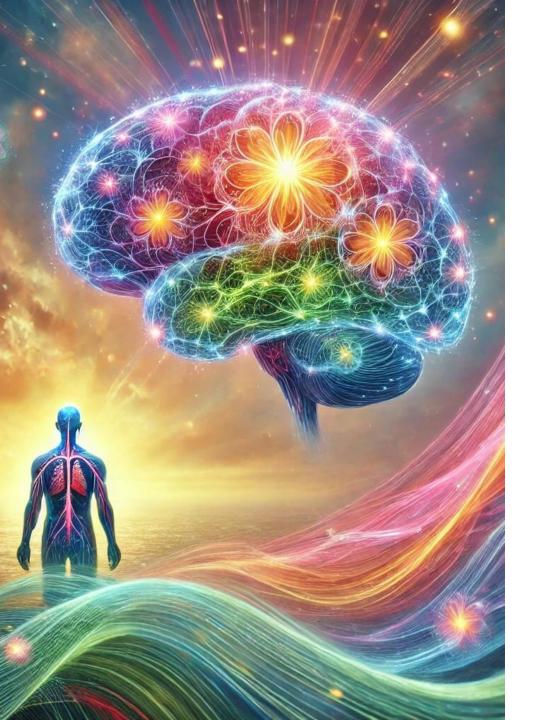
80% inininini





The science reveals that spirituality enhances health and outcome

- Strengthened Neural Connectivity: Enhances emotional regulation and resilience.
- Increased Gray Matter: Linked to empathy and emotional stability.
- Reduced Cortisol Levels: Lowers stress, improving mental health.
- **Depression Resilience:** Acts as a buffer against depressive symptoms.
- Reward System Activation: Promotes peace and contentment.
- Improved Coping: Encourages positive mechanisms like forgiveness and hope.
- Miller, L. (2015). The Spiritual Child: The New Science on Parenting for Health and Lifelong Thriving.
 St. Martin's Press.
- Miller, L. (2014). "Spiritual Awareness and Brain Development: An Innovative Perspective on Depression." The American Journal of Psychiatry, 171(6), 574-577. https://doi.org/10.1176/appi.ajp.2014.13081032



In Conclusion

"Though trauma and addiction may alter the mind, body, and soul, cutting-edge neuroscience and transformational therapies, like polyvagal-informed approaches, HeartMath, and IFS, show us that healing is not only possible but transformative. By calming the nervous system, reshaping neural pathways, creating a new narrative, and fostering resilience, we can unlock the brain's body's potential to heal, turning pain into growth and creating a future filled with strength, balance, and hope."