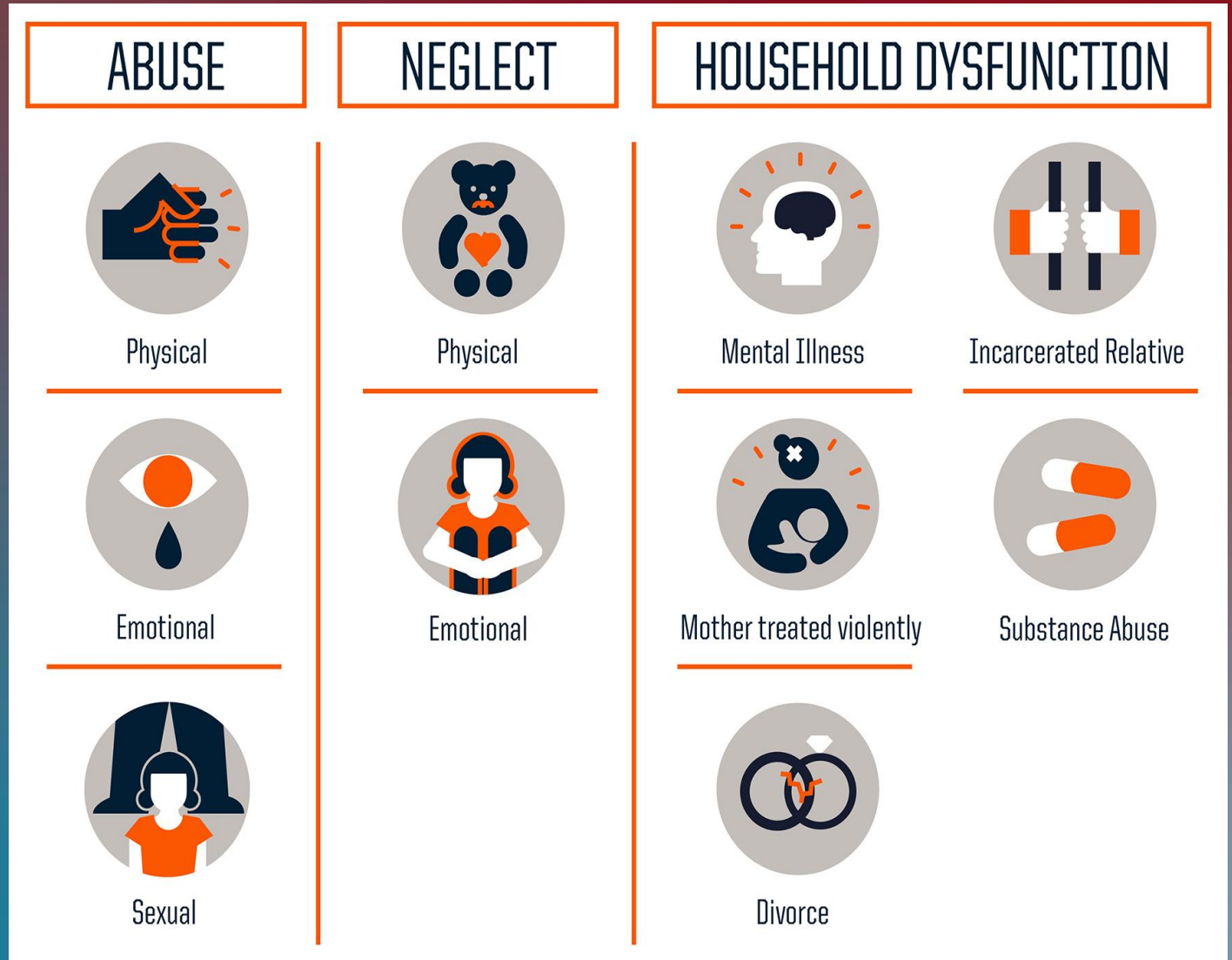


APPLYING ACE'S (ADVERSE CHILDHOOD EXPERIENCES)

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Co-Occurring Symposium
January 24-26, 2024
Rochester, MN



Basic Objectives



- **Identify ACE Categories**
- **Define Toxic Stress**
- **Define Epigenetic Trauma**
- **Review Longitudinal ACE Impact**
- **Consider Integrated Trauma Informed Care (TIC) Principles**

Trauma

noun [trou-muh]

1. hurt that hinders one from moving forward
2. past internal pain that keeps one stuck
3. psychological, spiritual, and/or emotional wounds
 - a. inflicted through feelings of neglect
 - b. inflicted through negative experiences

What is trauma?

Trauma is anything that our system can't handle or process. It is not what happens to us, but what we hold inside in the absence of an empathetic witness.

-Peter Levine

THE TRUTH ABOUT ACEs

WHAT ARE THEY?

ACEs are
ADVERSE
CHILDHOOD
EXPERIENCES

The three types of ACEs include

ABUSE



Physical



Emotional



Sexual

NEGLECT



Physical



Emotional

HOUSEHOLD DYSFUNCTION



Mental Illness



Incarcerated Relative



Mother treated violently



Substance Abuse

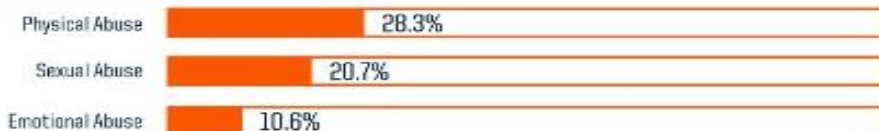


Divorce

HOW PREVALENT ARE ACEs?

The ACE study* revealed the following estimates:

ABUSE



NEGLECT

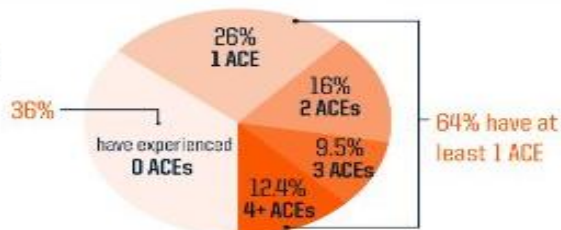


HOUSEHOLD DYSFUNCTION



percentage of study participants that experienced a specific ACE

Of 17,000 ACE study participants:

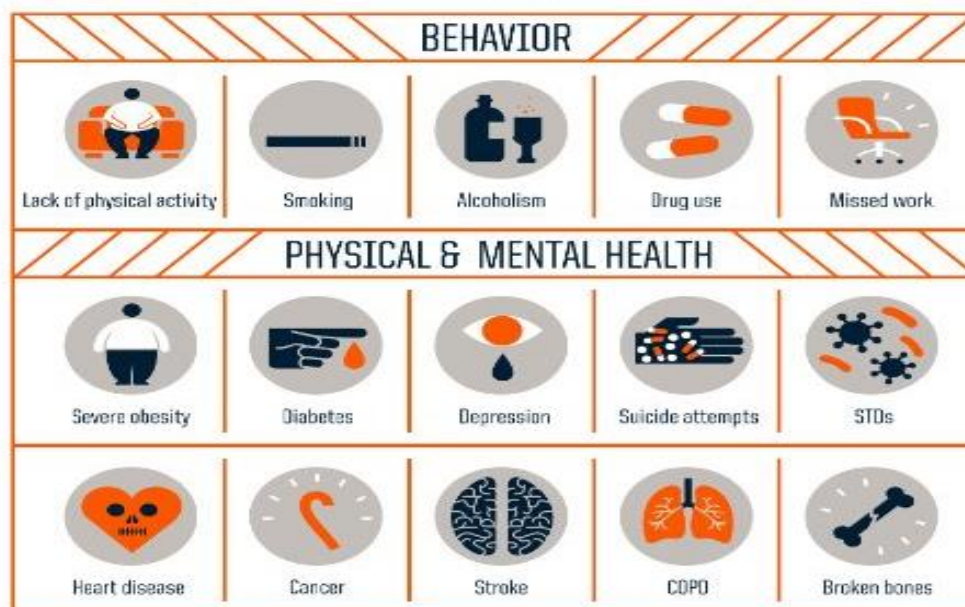


WHAT IMPACT DO ACEs HAVE?

As the number of ACEs increases, so does the risk for negative health outcomes



Possible Risk Outcomes:

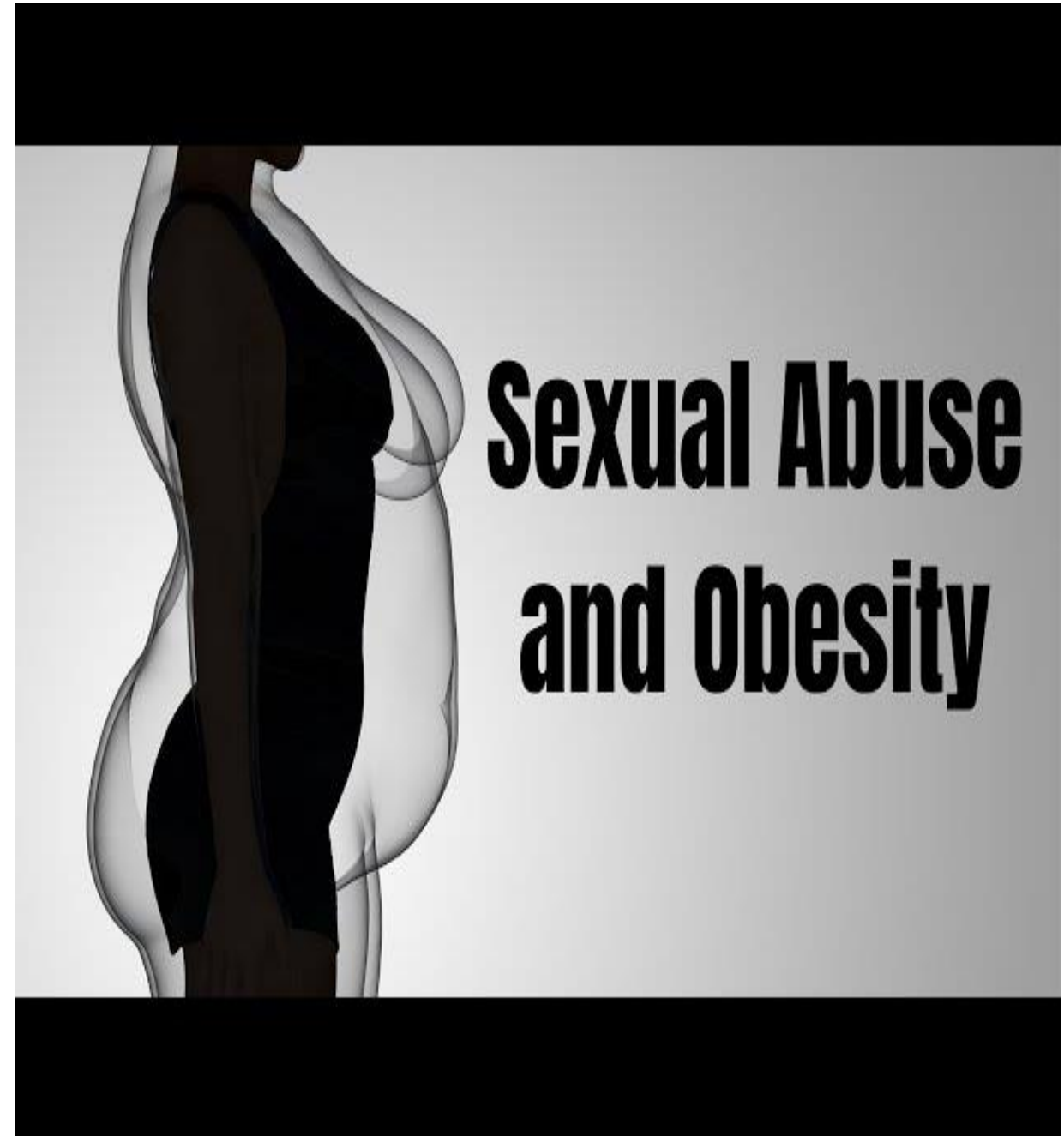


ACE HISTORY

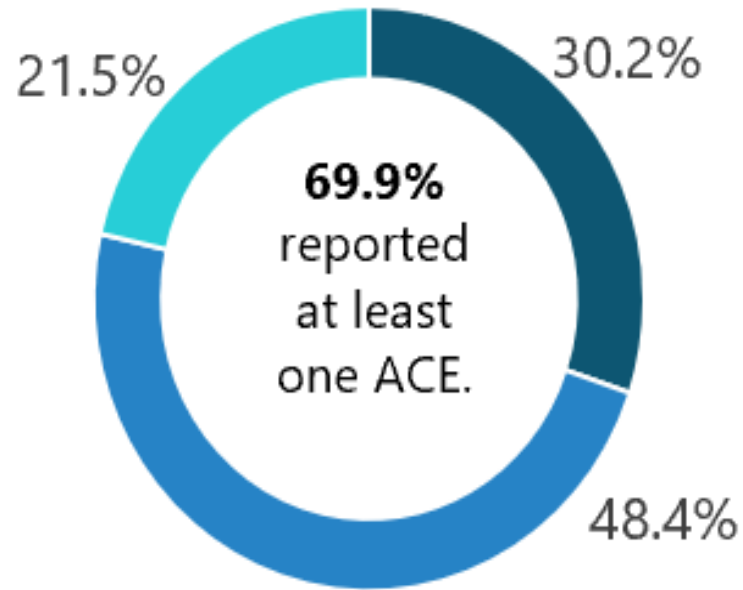


Vincent Felitti, MD

Robert Anda, MD

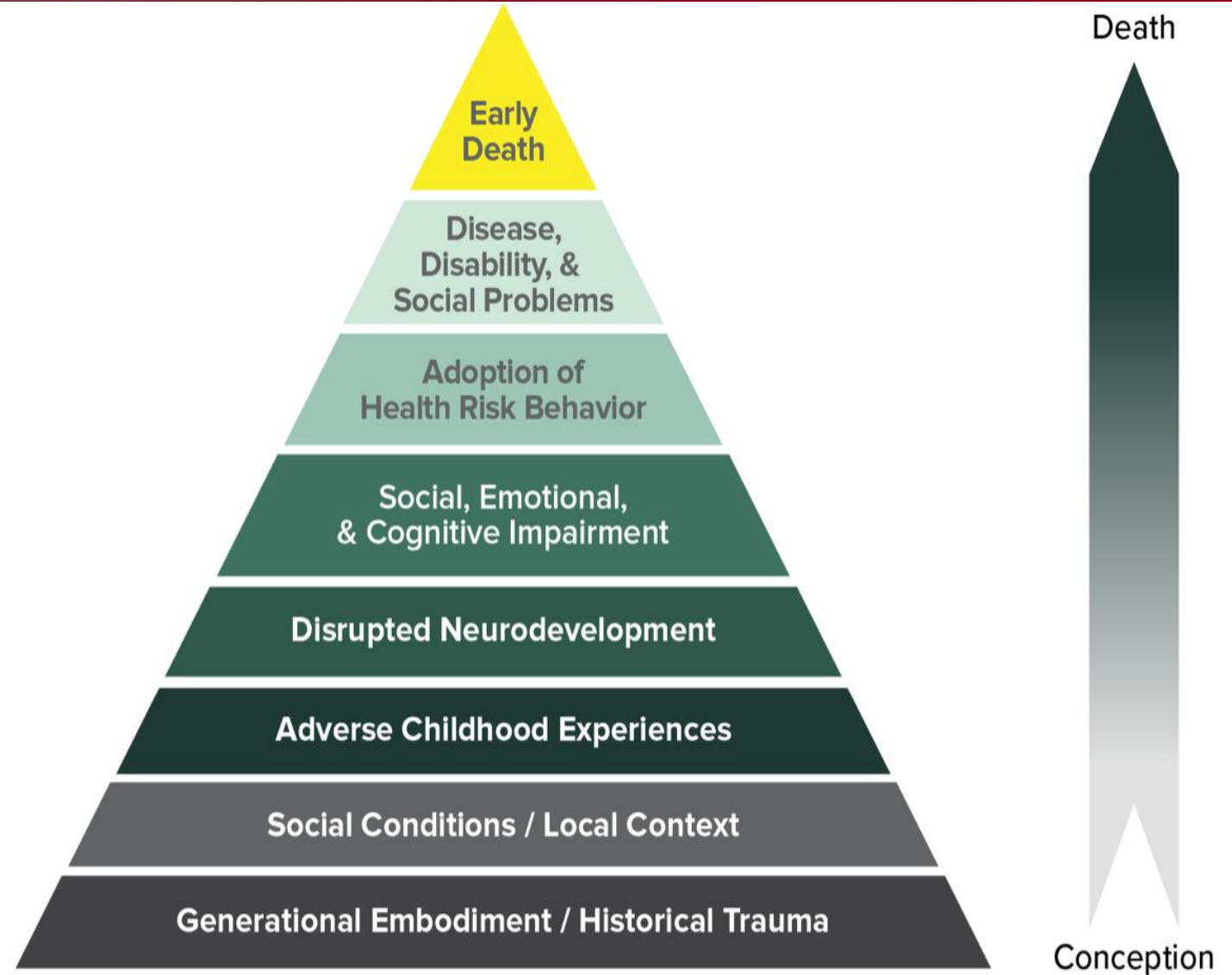


Out of **17,337** participants...



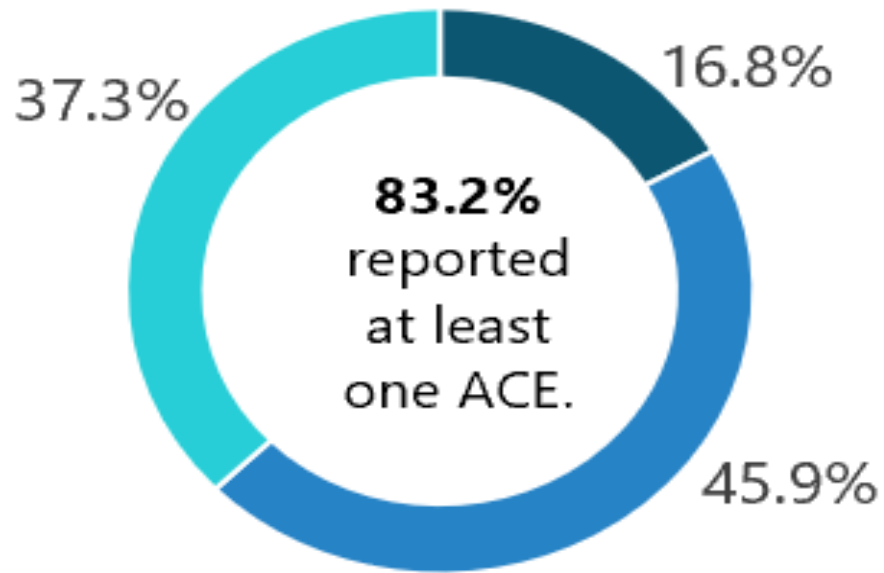
■ 0 ACEs ■ 1-3 ACEs ■ 4+ ACEs

Original ACE Study



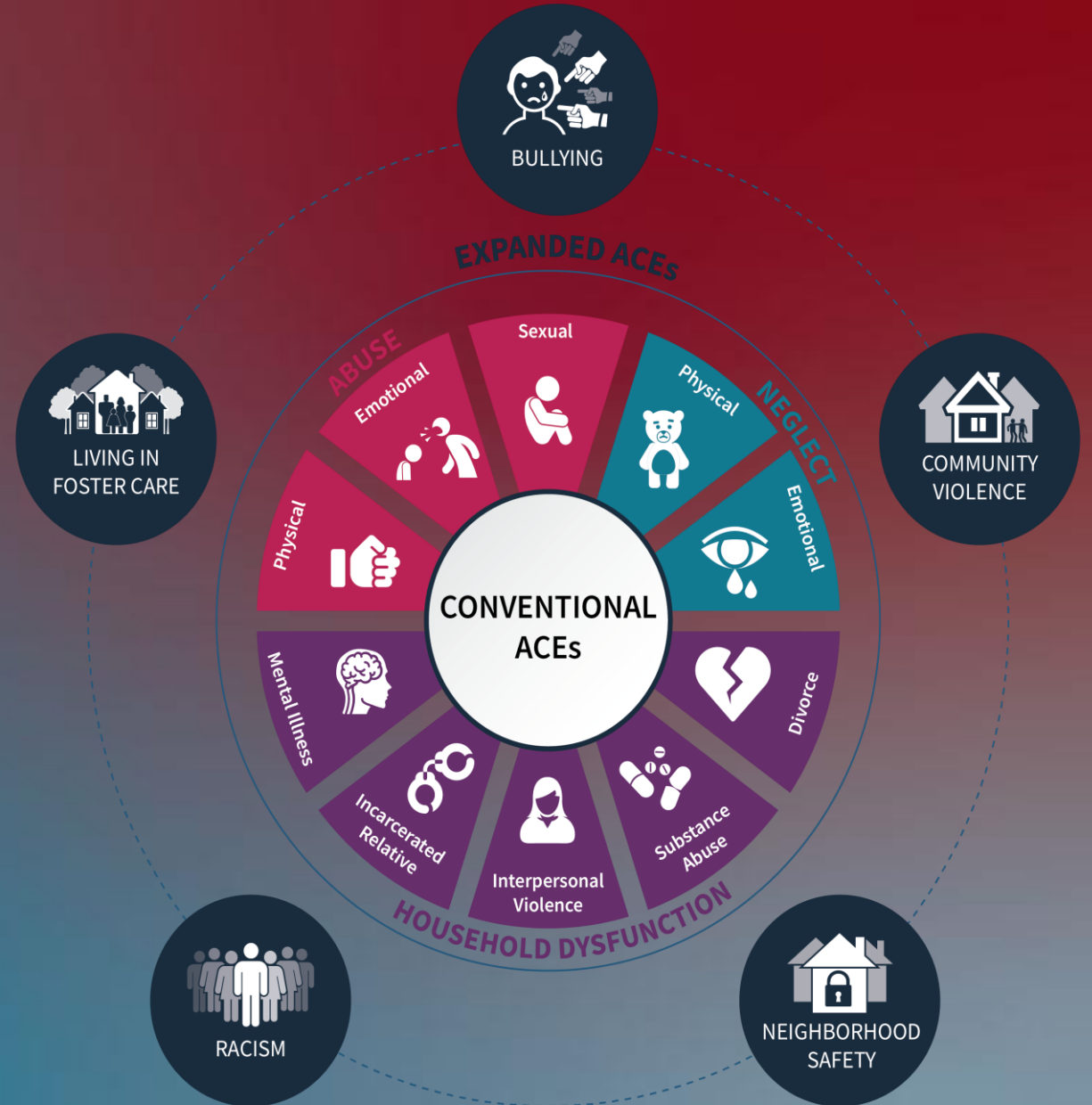
Mechanism by which Adverse Childhood Experiences Influence Health and Well-being Throughout the Lifespan

Out of **1,784** participants...



■ 0 ACEs ■ 1-3 ACEs ■ 4+ ACEs

Expanded ACE Study



Trauma in the Family System

Treatment involves bringing about appropriate structural change within the family



Stress Response



STRESS IN CHILDHOOD



Stress is mental, physical or biochemical response to a perceived threat or demand.

STRESS IS A NATURAL AND INEVITABLE PART OF CHILDHOOD, BUT THE TYPE OF STRESS CAN MAKE A DIFFERENCE IN THE IMPACT OF A CHILD'S BRAIN AND BODY.



POSITIVE STRESS

MILD STRESS IN THE CONTEXT OF GOOD ATTACHMENT

- TEMPORARY, MILD ELEVATION IN STRESS HORMONES, BRIEF INCREASE IN HEART RATE

• NO BUFFERING SUPPORT NECESSARY

- INCREASED RESILIENCE AND CONFIDENCE - DEVELOPMENT OF COPING SKILLS

©JawaLuh

TOLERABLE STRESS

SERIOUS, TEMPORARY STRESS, BUFFERED BY SUPPORTIVE RELATIONSHIPS

- MORE SEVERE, CONTINUING AND HORMONAL RESPONSE.

• PRESENCE OF A PARENT, CARING PARENT, BUFFERING.

- ADAPTION AND RECOVERY WITH SOME POSSIBILITY OF PHYSICAL AND EMOTIONAL DAMAGE

TOXIC STRESS

PROLONGED ACTIVATION OF STRESS RESPONSE SYSTEM WITHOUT PROTECTION.

- PROLONGED ACTIVATION OF STRESS RESPONSE SYSTEM + DISRUPTED DEVELOPMENT OF BRAIN AND IMMUNE SYSTEM.

• NO... ADULT BUFFERS

- LIFELONG CONSEQUENCES: CANCER | HEART DISEASE | ALCOHOLISM | MEMORY AND LEARNING PROBLEMS | ANXIETY + DEPRESSION

Toxic stress has lifelong consequences

microtrauma

Microtrauma is the phenomenon in which small negative events add up and create programmed assumptions in our brains. These lead to automatic (and often unwanted) emotional responses.

Examples of microtraumas can include:

- **Being interrupted or talked over**
- **Being treated with disrespect**
- **Incessant criticism**
- **Being yelled at or scolded often**
- **Being left out**
- **Being ignored**
- **Having your boundaries violated**
- **Not having your needs met**

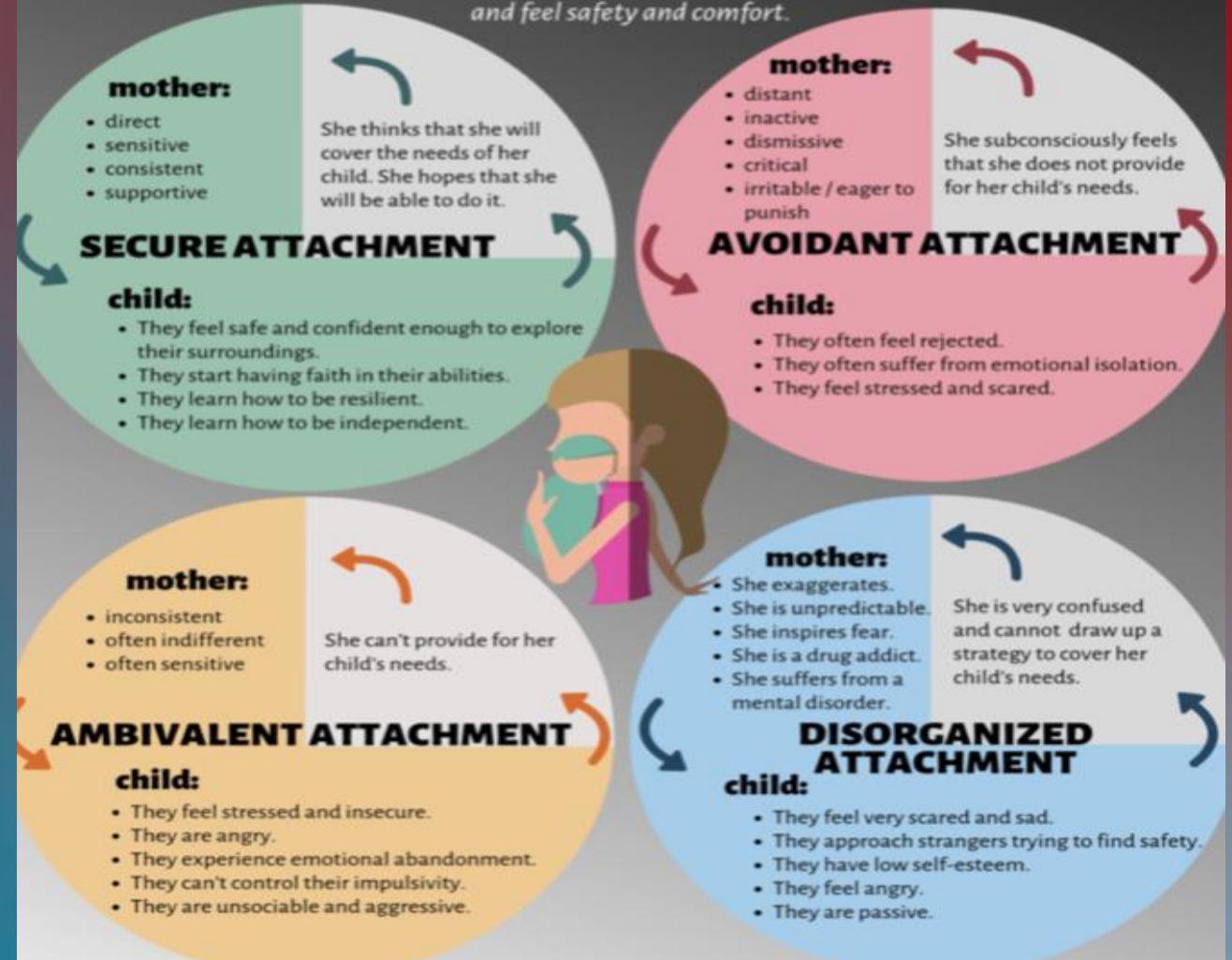
Betrayal Trauma

Betrayal trauma is unique in that the perpetrator is also the person that one would turn to for care, comfort, and safety.

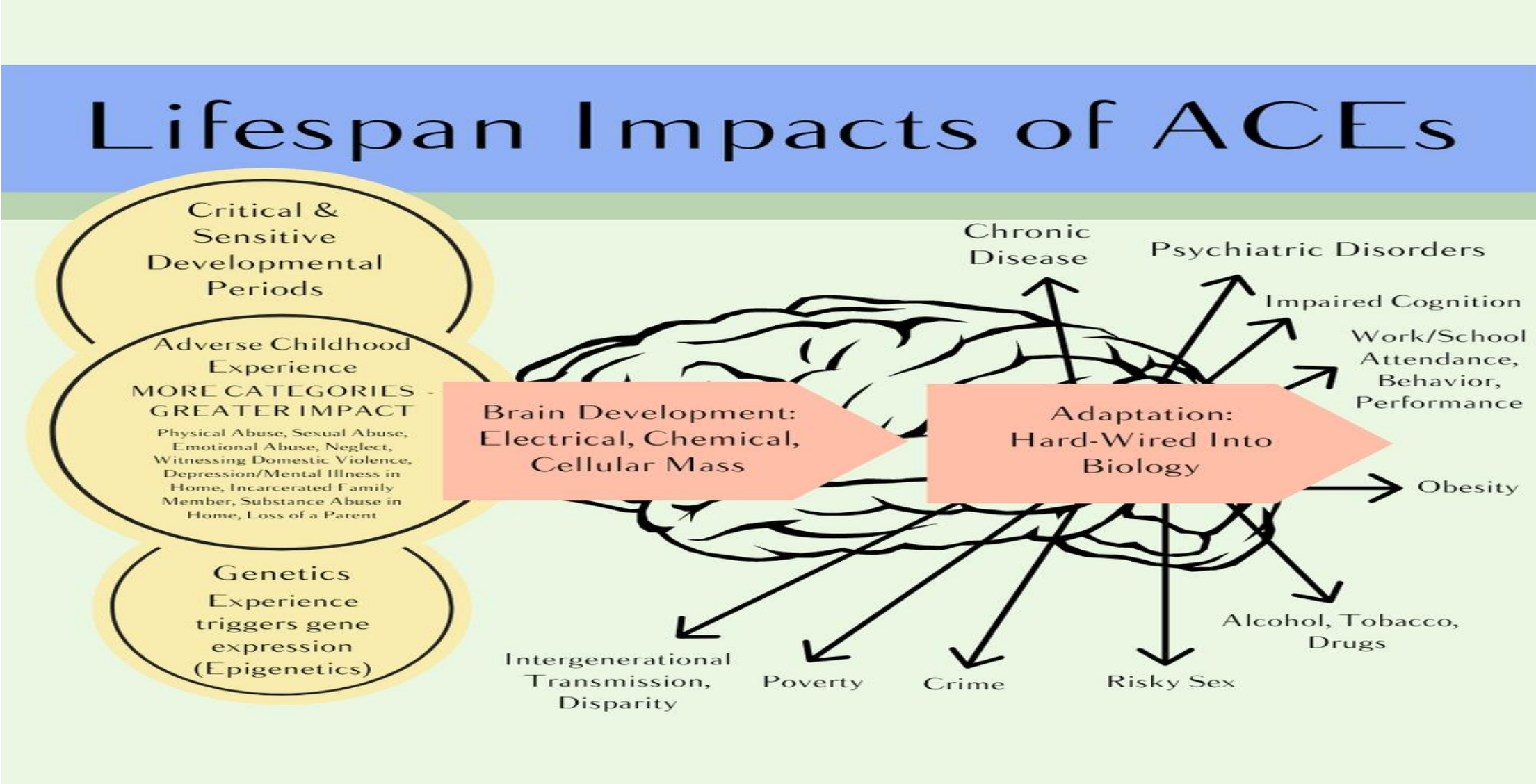
MOTHER-CHILD ATTACHMENT

Attachment theory

Attachment theory relates to the emotional bond that connects an infant to the main person taking care of them (usually their mother). The way in which a mother reacts to the behavior of her child is of utmost importance as it determines whether this child will be able to count on her and feel safety and comfort.



LIFETIME LEGACY



ACE OUTCOMES

Behavioral Health Concerns Associated with ACEs



Lack of physical activity



Smoking



Alcoholism



Drug use



Missed work

Physical & Mental Health Concerns Associated with ACEs



Severe obesity



Diabetes



Depression



Suicide attempts



STDs



Heart disease



Cancer



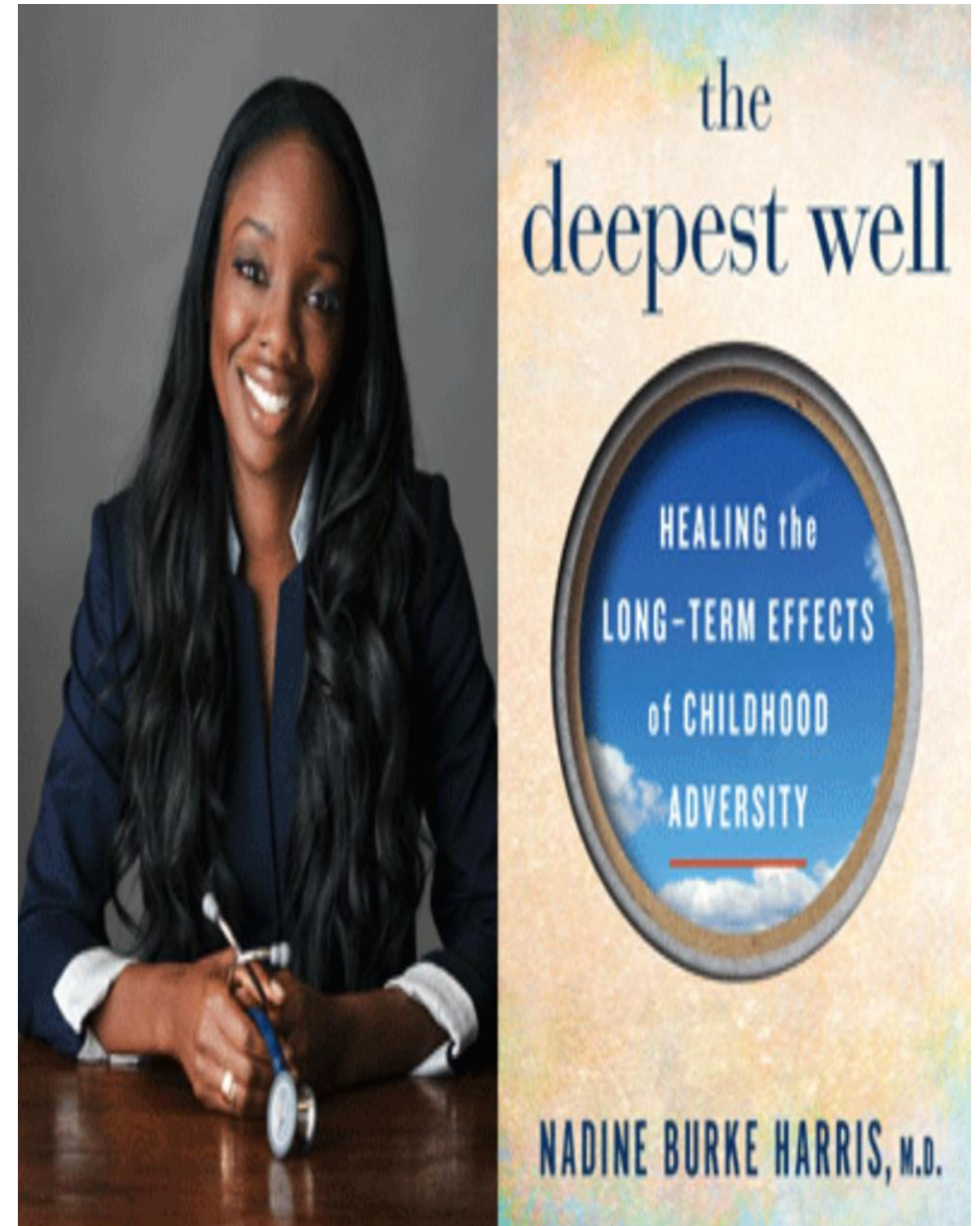
Stroke



COPD



Broken bones

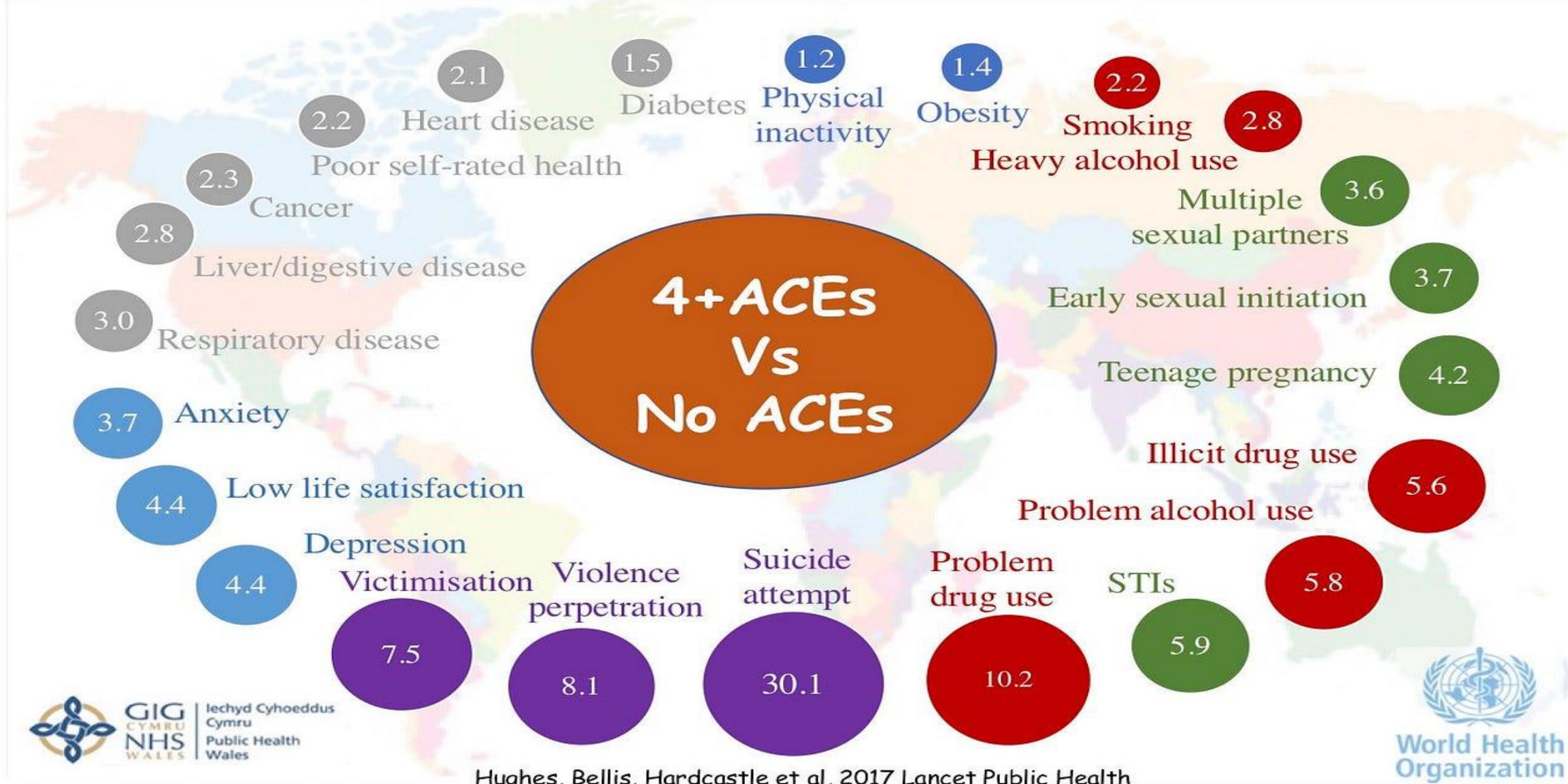


Collaborative Global ACE Analysis with WHO

PHYSICAL HEALTH

WEIGHT & EXERCISE

SEXUAL HEALTH



Hughes, Bellis, Hardcastle et al, 2017 Lancet Public Health

MENTAL HEALTH

VIOLENCE

SUBSTANCE USE

Trauma Response & Untreated Outcomes

TRAUMA RESPONSE



FIGHT

Aggressively confronting the threat.



FLIGHT

Run away or hide from the threat.

Trauma overwhelms our systems, disrupts our ability to connect to safety, and places us in survival mode.



FREEZE

Numb or unable to move or act against the threat.



FAWN

Appease or comply with the threat to avoid conflict.



The Body Keeps the Score...

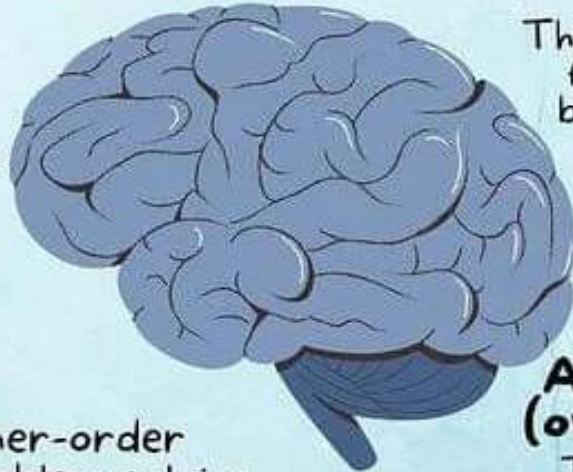
HOW Trauma IMPACTS THE BRAIN

Trauma can alter the structure and functioning of the brain.

Ventromedial Prefrontal Cortex (shrinks)

This area is responsible for mood and emotion regulation & rational thought.

It causes higher-order processes like problem-solving to become underfunctioning, while processes geared towards defense become overactive.



Hippocampus (shrinks)

This area is responsible for differentiating between the past & present.

Amygdala (overactive)

This area is responsible for responding to stress.

Physical Impact of Trauma

Brain Architecture

Shrinkage in prefrontal cortex, corpus callosum, and hippocampus. Enlarged and more reactive amygdala. **Resolution:** safe and stable nurturing relationships, walk in nature, touch, exercise



Neural Pathways

Need to 'rewire' our brain from old thought patterns and habits of mind, conscious, and unconscious. **Resolution:** neurofeedback, meditation/ mindful action, positive self-talk



Hormones

Prolonged high cortisol and ghrelin creates greater reactivity to stress. Long term damage to cells, structures of the body, and other hormone glands (thyroid). **Resolution:** oxytocin ("the love hormone")



Toxin Elimination

Intestines and kidneys less able to eliminate toxins (slow gut or unbalanced flora). **Resolution:** salt baths, sauna



Nervous System

Supercharged sympathetic nervous system. Parasympathetic nervous system not engaged to bring back into balance. **Resolution:** yoga, breathing, or other physical/emotional regulation



Immune System

Resistance to cortisol or lower cortisol creates unchecked inflammation. Cause of many diseases: asthma, arthritis, etc.) **Resolution:** meditation/mindful action, walking in nature, diet, rest



Brain Waves

Predominance of wrong brain waves in wrong part of the brain leads to anxiety, unable to concentrate, and seizures. **Resolution:** neurofeedback



Neurotransmitters

Vulnerable to addiction because dopamine transmitters/receptors not developed or damaged. Reduces motivation & focus, creates fatigue. Low serotonin causes depression.



Cellular Change

Shortens telomeres which prematurely ages and reduces reproduction of cells & can cause cancer. **Resolution:** social support

Epigenetics turns genes on or off in adaptation to dangerous environments. Effect can last generations. **Resolution:** Safer environment (perception of)

INTERGENERATIONAL TRAUMA

@THEPRESENTPSYCHOLOGIST



Someone who experiences trauma (like abuse) can suffer from lifelong effects



Effects like anxiety, shame, depression, substance abuse and risky behavior



When that person has children, the impact of the trauma can affect them



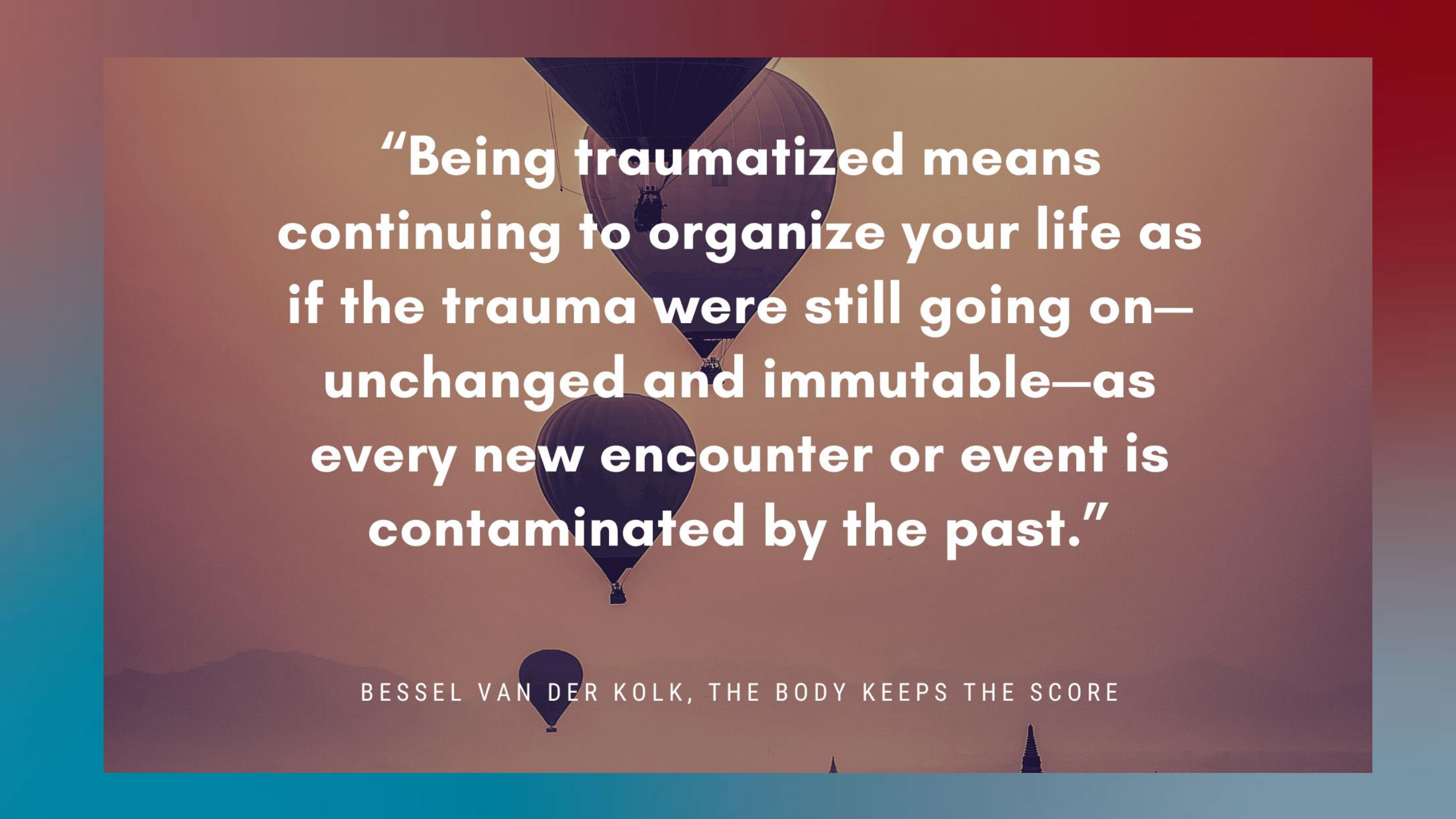
Parents may develop a neglectful/authoritative style or project their trauma on their children



As a result, the child develops a trauma due to growing up with a traumatised parent



This is 'intergenerational trauma' as the effects of trauma are passed on through generations



“Being traumatized means continuing to organize your life as if the trauma were still going on—unchanged and immutable—as every new encounter or event is contaminated by the past.”

BESSEL VAN DER KOLK, THE BODY KEEPS THE SCORE

SUBSTANCE USE DISORDER (SUD)



"What is universally recognized is that untreated trauma underpins a good deal of substance use disorder."

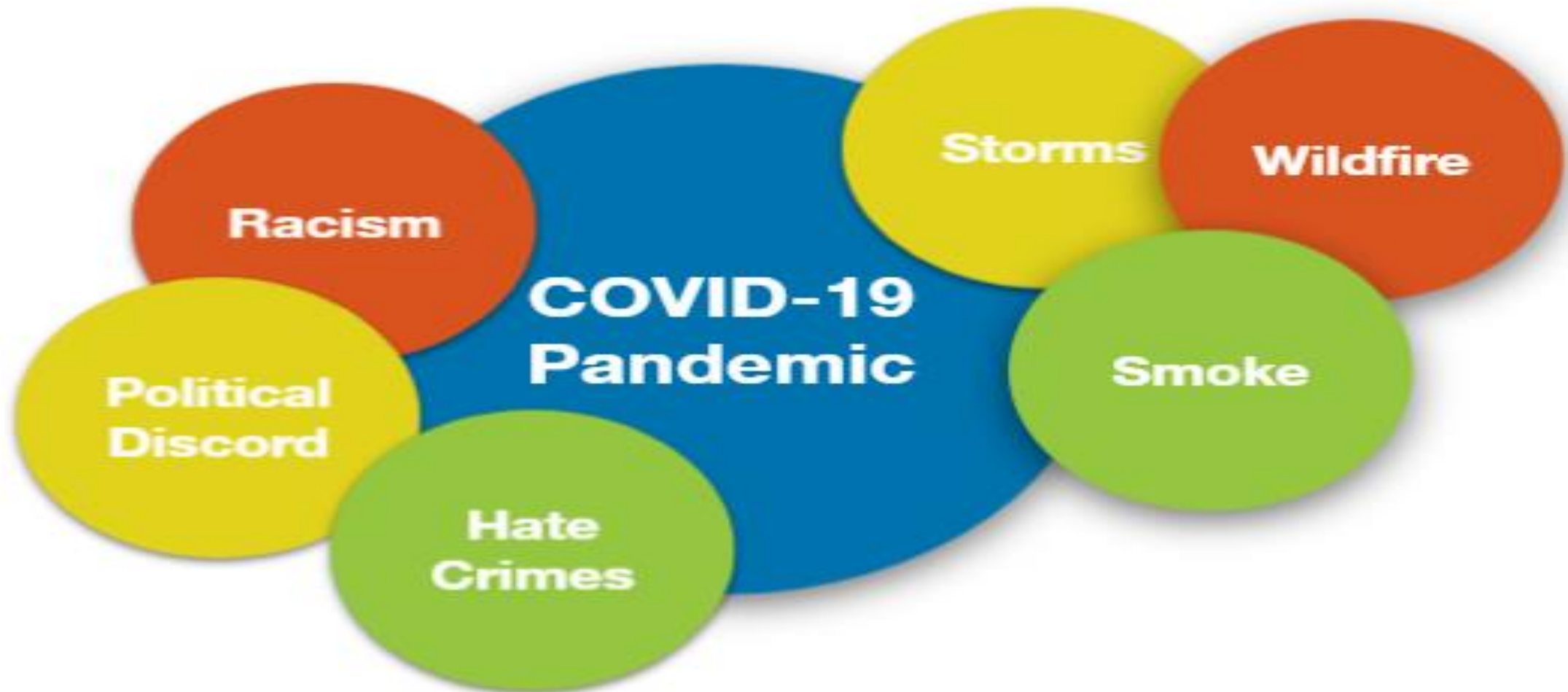
A photograph of a man with a beard and grey hair, wearing a light-colored t-shirt and dark pants, sitting on a concrete bench. He has his head buried in his hands, suggesting deep distress or pain. The background shows a metal railing and a building facade. The entire image has a blue tint.

Not why the addiction, but why the pain.

– *Gabor Maté*

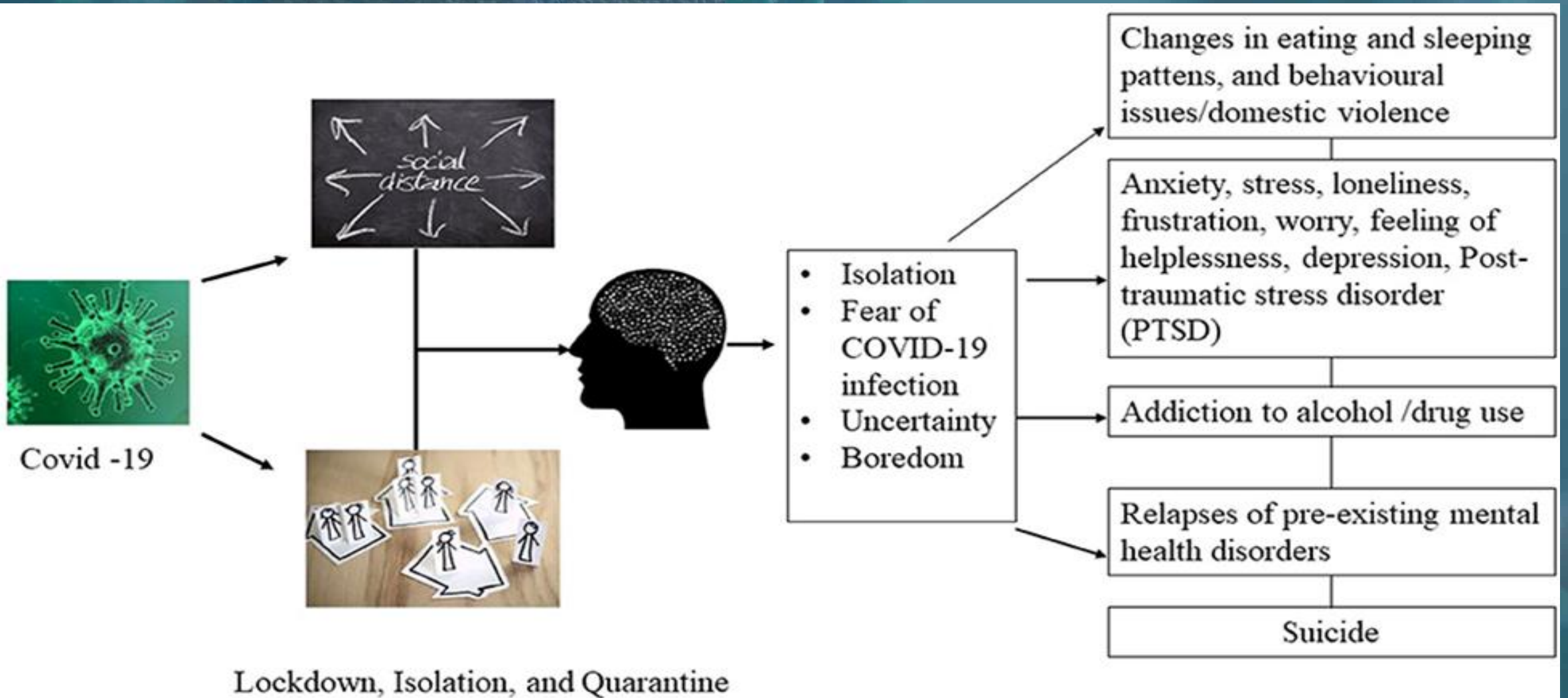
Pandemic Era Impact

"Collective Trauma"



Pandemic Era Impact

"Collective Trauma"



Pandemic Era Trends

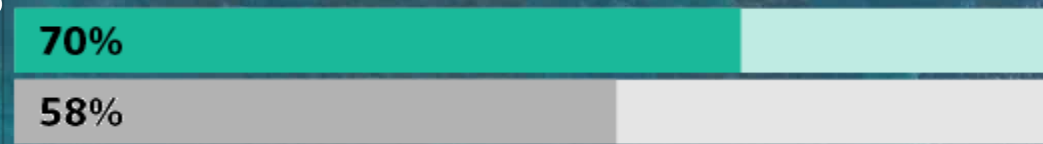
CHANGES IN DEMAND BY TREATMENT AREA SINCE THE CORONAVIRUS PANDEMIC STARTED

% REPORT INCREASED DEMAND

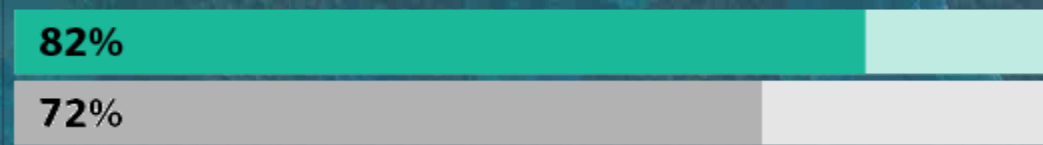
■ 2021 ■ 2020



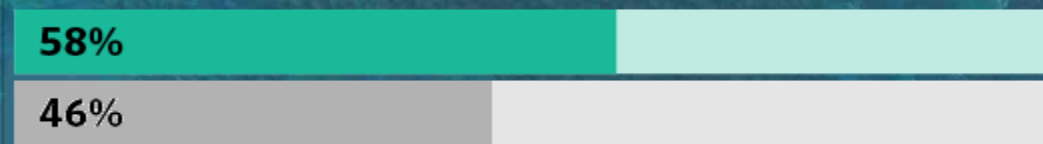
Depressive disorder



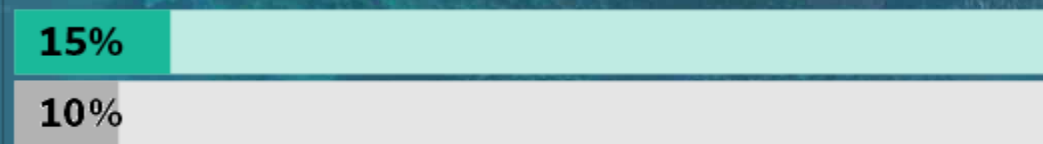
Anxiety disorder



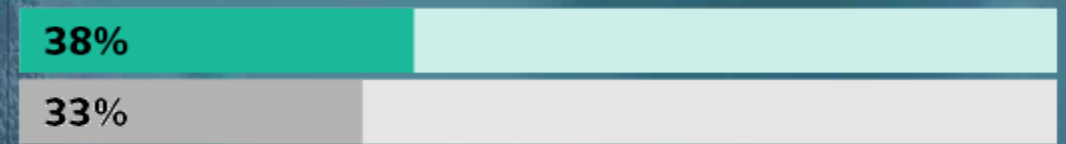
Trauma-and stressor-related disorders



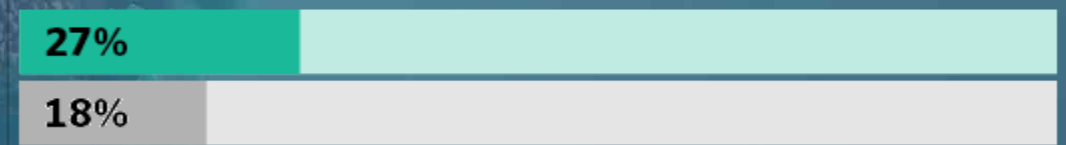
Feeding and eating disorders



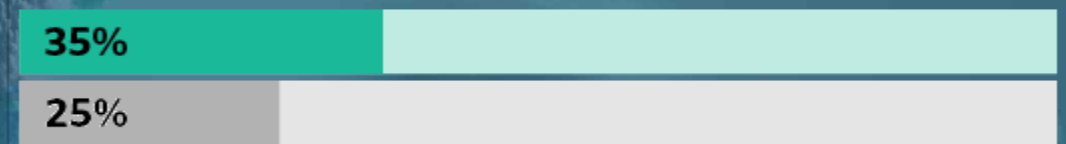
Sleep-wake disorders



Substance-related and addictive disorders



Obsessive-compulsive and other related disorders



A group of people's hands are stacked together in a circle, symbolizing teamwork and collaboration. The image is overlaid with a semi-transparent blue filter. The text "Solution Focus!" is centered over the hands in a white, bold, italicized font.

Solution Focus!

Adverse Childhood Experiences

Once People Know About ACEs

"Once [they] ... have the information, they are able to look at the context of their lives differently.

Then they no longer feel they are to blame or that they're stupid or that there's something wrong with them.

They understand that their bodies have experienced a normal reaction to abnormal circumstances across the span of their lives.

Nadine Burke Harris, MD The Deepest Well p 179



Adverse Childhood Experiences

Know Your ACE Score

1. loss of a parent
2. parent with mental illness
3. physical abuse
4. sexual abuse
5. emotional abuse
6. physical neglect
7. emotional neglect
8. household domestic violence
9. household member in jail
10. parent with substance abuse

Drs. Vincent J. Felitti, Robert F. Anda et al 1998



Adverse Childhood Experiences

How **Knowing** About **ACEs** HELPS

Dr. Burke Harris describes one woman's reaction to learning about ACEs :

"These are tears of pure, unadulterated joy." "Why joy?" ... "Because I understand now why I am this way. I understand why my siblings are this way. I understand why my mother raised us the way she did. I understand that I can break this cycle for my children and I understand that I'm not a victim, I'm a survivor." p. 178

Nadine Burke Harris, MD The Deepest Well p 178



Adverse Childhood Experiences

"ACEs are the new cholesterol"

If you don't screen for it, and you don't look for it, you'll never find it, but it has more health impacts than you imagine.

Paul Espias, MD, Kaiser, Hayward, CA from ACES Connection



Adverse Childhood Experiences

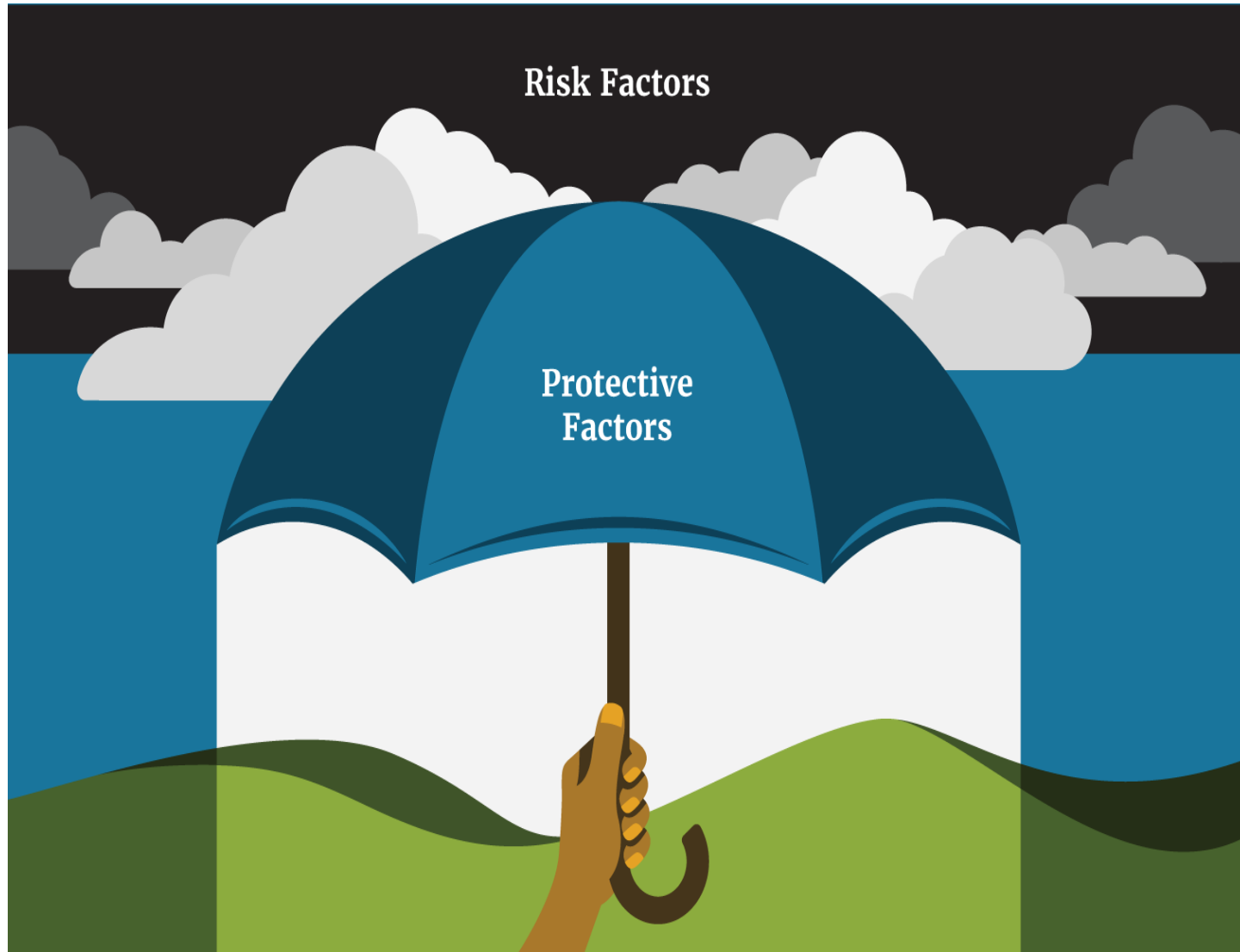
"ACEs are changing medicine"

Knowing about ACEs can help those of us with chronic illnesses heal. And enables doctors be more effective because it makes us look more closely, anticipate problems more easily, identify potentially serious issues more quickly, and even head them off at the pass.

Veronique Mead, MD, MA ACE Fact Sheets, Chronic Illness Blogger



ACE ANTIDOTES



System Recalibration:

1. **Sleep**
2. **Exercise**
3. **Nutrition**
4. **Mindfulness**
5. **Relationships**

RECOVERY!

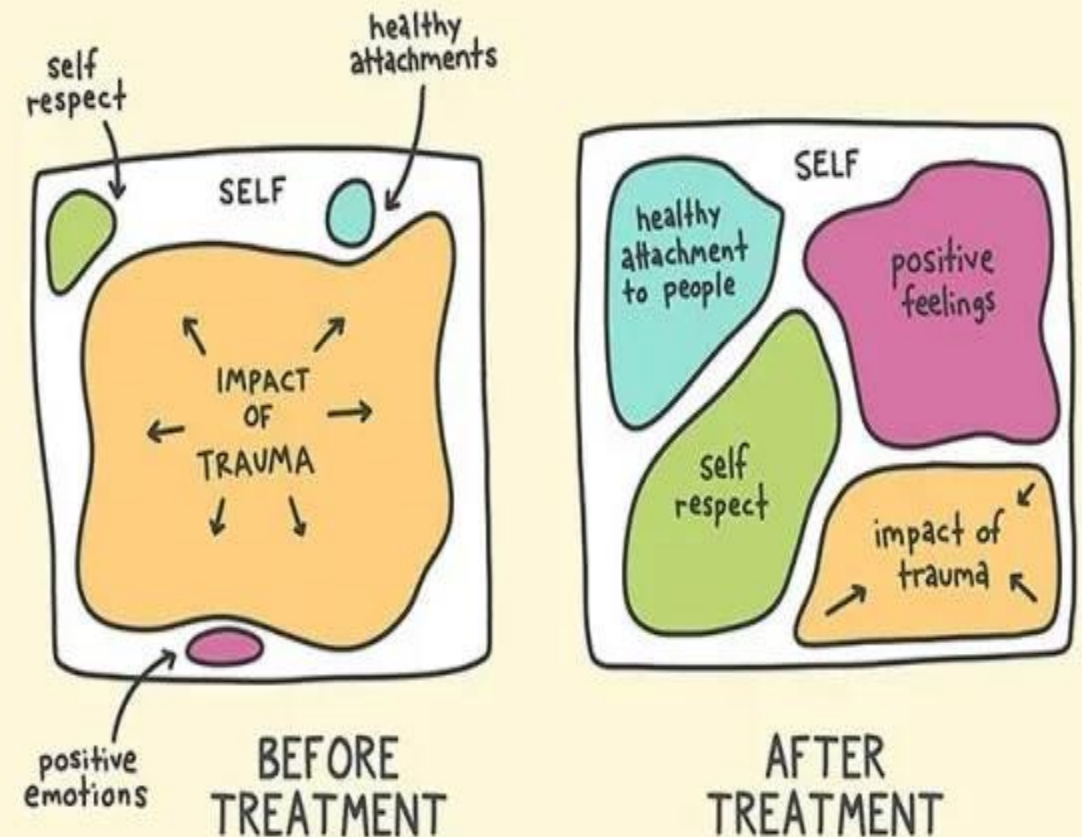
“Trauma is a fact of life. It does not, however, have to be a life sentence.”

— Peter A. Levine

“Recovery can and does happen every single day, from whatever you’re recovering from, and there are treatment options for everybody.”

—Trish Caldwell

HOW TRAUMA THERAPY WORKS:



How we Think About Traumatic Events Changes How we Feel



When trauma is held as central to identity, people have more post-traumatic mental health symptoms.



People able to frame trauma as “something that happened” to them (part of their story but not core identity) have less.

Trauma Informed Care (TIC)

The Four R's

A trauma-informed program, organization, or system:

Realizes

- *Realizes* widespread impact of trauma and understands potential paths for recovery

Recognizes

- *Recognizes* signs and symptoms of trauma in clients, families, staff, and others involved with the system

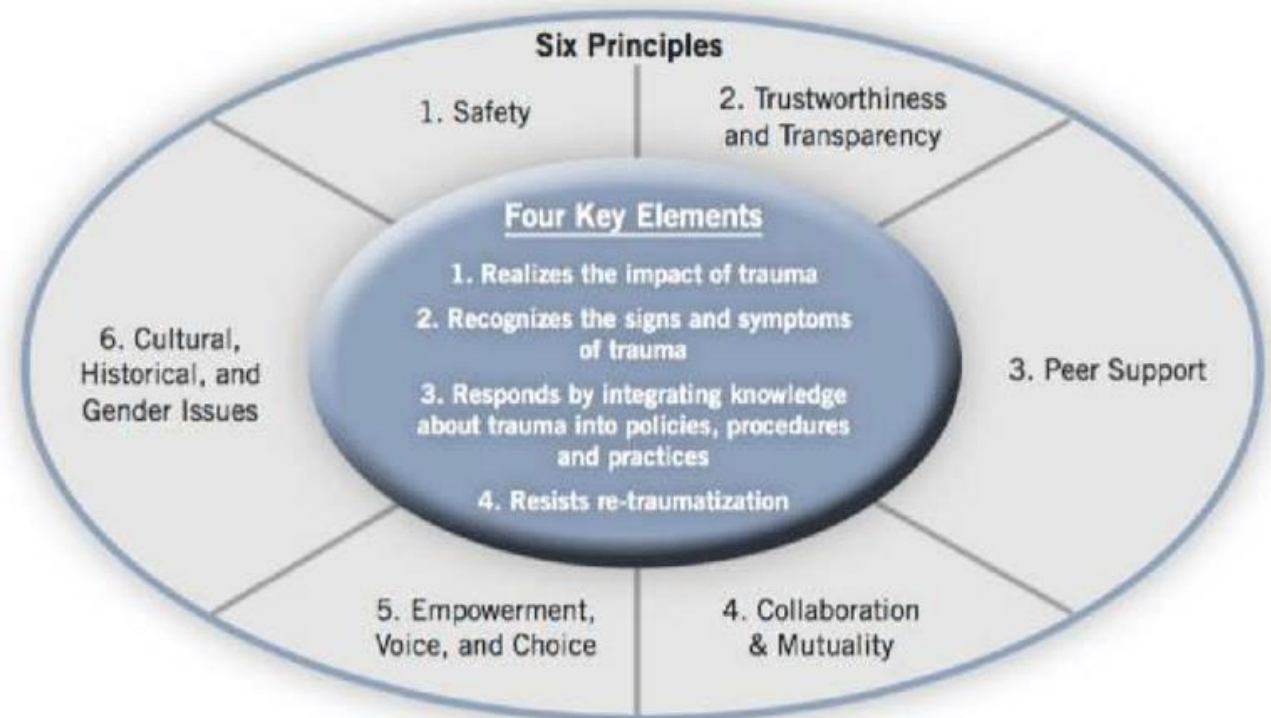
Responds

- *Responds* by fully integrating knowledge about trauma into policies, procedures, and practices

Resists

- Seeks to actively *Resist* re-traumatization.

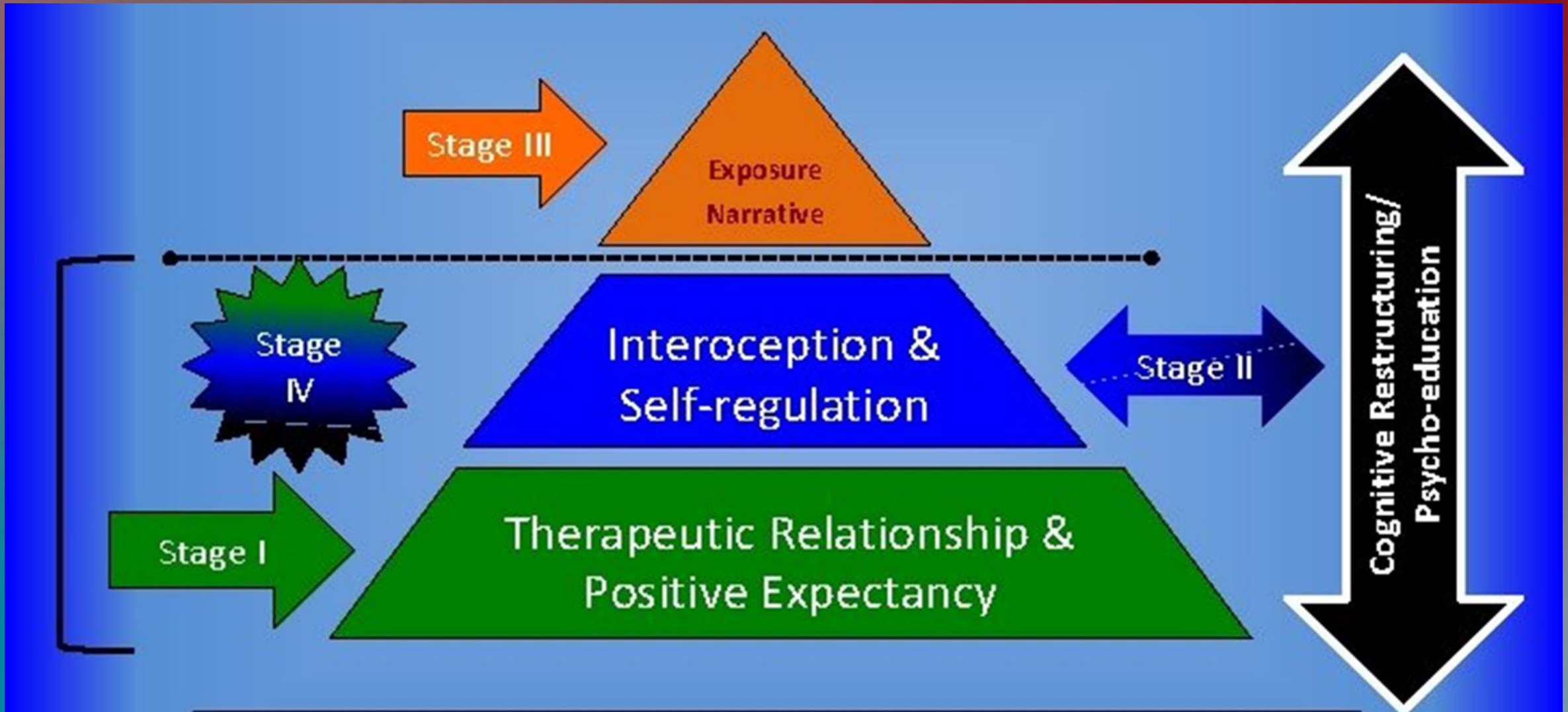
Trauma Informed Care (TIC)



EVIDENCE-BASED TREATMENTS

- 🌐 Trauma-focused treatment is up to 86% more effective than no treatment
- 🌐 Trauma focused treatment is more effective than supportive therapy
- 🌐 Maturation - No longer need to prove trauma-focused treatment is effective
- 🌐 Rift in Field: Evidence-Based Manualized Tx vs. Non-specific Components
- 🌐 No difference among treatments that work
- 🌐 All effective treatments share common components

EVIDENCE-BASED TREATMENTS



QUESTIONS AND ANSWERS



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