

WORKING WITH TRAUMATIZED TEENS

HOW TO GET UNHOOKED

MARTHA B. STRAUS, PHD

JACK HIROSE & ASSOCIATES
WEBINAR 2018

WEEK TWO

STRAUS 2018

PLAN FOR SESSION TWO

DEVELOPMENTAL TRAUMA IN ADOLESCENCE

- DEVELOPMENTAL TRAUMA IS NOT PTSD
- ACES AND THE DEVELOPING BRAIN
- RELATIONAL TRAUMA AND RELATIONAL HEALING
- INTERPERSONAL NEUROBIOLOGY AND CO-REGULATION

STRAUS 2018

DEVELOPMENTAL TRAUMA IS NOT PTSD

THE TRAUMA IS RELATIONAL

NO SINGLE INCIDENT—PERVASIVE, RECURRENT

INGRAINED IN BRAIN AND VISCERAL TISSUE: "THE UNTHOUGHT KNOWN"

INSECURE ATTACHMENT UNDERLIES DEVELOPMENTAL TRAUMA (AND MANY OTHER PROBLEMS)—NOT THE OTHER WAY AROUND

- SECURE ATTACHMENT= REGULATION

DEVELOPMENTAL TRAUMA CAN HAPPEN BEFORE WE HAVE A THINKING BRAIN, SO THE BODY STORES ALL THE MEMORIES AS SOMATIC TRAUMA

STRAUS 2018

DEVELOPMENTAL TRAUMA IS OFTEN MISDIAGNOSED (as PTSD and...)

ADHD/ADD
Bipolar Disorder
Psychosis/ Schizophrenia
Generalized anxiety disorder (all kinds of anxiety)
Depression
Elective Mutism
Intermittent explosive disorder/ODD/Conduct probs
MANY personality disorders begin this way
Eating Disorders

...UNDERLYING TRAUMATIC EXPOSURE IS NOT ADDRESSED

STRAUS 2018

ADVERSE CHILDHOOD EXPERIENCES

THE IMPACT OF ACES ON DEVELOPMENT
AND REGULATION

STRAUS 2018

What are Adverse Childhood Experiences (ACEs)?

A mix of experiences and exposures in childhood that are major risk factors for certain illnesses, social and emotional problems, and poor quality of life:

- Physical, sexual or emotional abuse
- Physical or emotional neglect
- Exposure to mental illness, substance abuse, domestic violence
- Divorce or separation of parents or caregivers
- Incarceration of parent or caregiver

◦ ACES INTERFERE WITH ATTACHMENT SECURITY IN THE
CAREGIVING RELATIONSHIP

STRAUS 2018

Complex Trauma and Health: The Adverse Childhood Events Study

◆17,421 adult patients of Kaiser Permanente

◆Came out of an obesity program: many dropouts who lost weight believed that it protected them (against further sexual abuse, against violence)

◆Eight categories of events in the home: physical abuse, emotional abuse, sexual abuse, someone imprisoned, domestic violence, substance abuse, chronic mental illness, and loss of parent. 10 Questions.

PUBLIC RELEASE DATE: 1998

STRAUS 2018

Adverse Childhood Experiences (ACEs)

Results more than 50 years later:

◆ More than 1/2 of population experienced one or more ACEs; 1/4 had two or more

◆ Exposure to one category increases likelihood of exposure to another by 80%

◆ The higher the ACE score, the worse the health problems

HANDOUT: Take the ACEs Test.

STRAUS 2018

A Few of Many ACE Study Findings ACE Scores Linked to Physical & Mental Health Problems

Compared with people with no ACEs, those with four or more ACEs were:

Twice as likely to smoke

Seven times as likely to be alcoholics

Six times as likely to have had sex before age 15

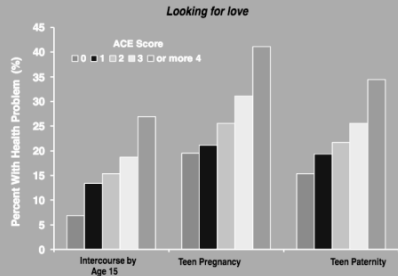
Twice as likely to have cancer or heart disease

Twelve times more likely to have attempted suicide

Men with six or more ACEs were 46 times more likely to have injected drugs than men with no history of adverse childhood experiences

Source: Adverse Childhood Experiences (ACE) Study. Information available at <http://www.cdc.gov/ace/index.htm>

ACE Score and Teen Sexual Risk Behaviors



STRANGL 2018

For ACE score of 7 or more increases the likelihood of attempted suicide:



- 51 times greater among children/adolescents
- 30 times greater among adults

STRANGL 2018

ACEs and Teen Alcohol Use

Teens exposed to ACEs are more likely to:

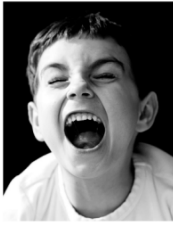
- start drinking alcohol by age 14
- say that they drank to cope during their first year of drinking



Dube et al, 2006

STRANGL 2018

What ACEs Can Look Like in the Classroom



- Children with 3 or more ACEs are nearly 4 times (OR=3.66) more likely to have developmental delays (Marie-Mitchell et al, 2013)
- Children with 4 or more ACEs are 32 times more likely to have behavioral problems in school (Burke et al, 2011)

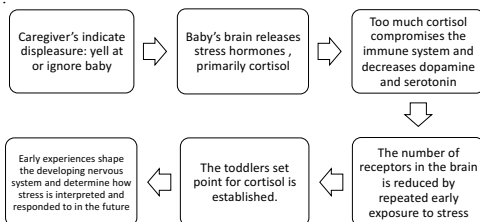
STRAUS 2018

ACES AFFECT THE DEVELOPING BRAIN

STRAUS 2018

Negative Interactions

Social experiences with caregivers become biologically embedded



STRAUS 2018

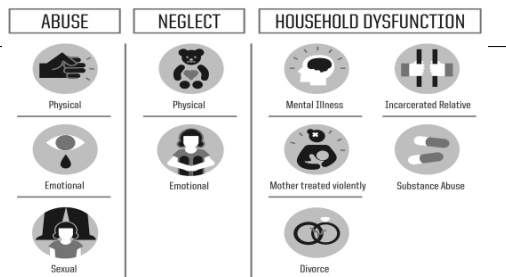
Normative Danger Responses Autonomic Nervous Response System

- Fight
- Flight
- Freeze
- Flock [?]



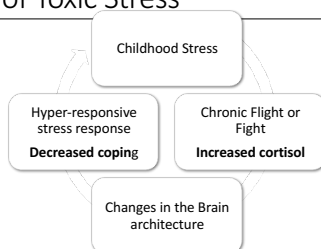
STRAUS 2018

ACEs Trigger Toxic Stress Responses



STRAUS 2018

Impact of Toxic Stress



STRAUS 2018

Impact of toxic stress on immune system

Developing system is chronically pressed into action

- Too much cortisol suppresses immunity, increasing risk of infection
- Inflammatory response persists after it is no longer needed



BRAIN IS NOT SUPPOSED TO BATHE IN CORTISOL

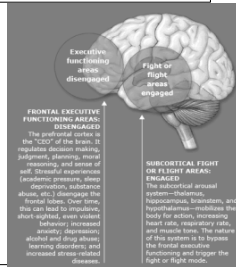
STRAUS 2018

19

Impact on the Brain

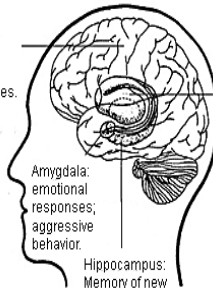
If there is danger, the "thinking" brain shuts down, allowing the "doing" brain to act

Traumatized children experience changes in brain structures, neuro-chemistry & genetic expression



STRAUS 2018

Neocortex: higher mental functions, general movement, perception, and behavioral responses.



Amygdala: emotional responses; aggressive behavior.

Hippocampus: Memory of new information and recent events.

STRAUS 2018

Corpus Striatum (formerly basal ganglia): connection between cerebral cortex and cerebellum; helps regulate automatic movement.

Brains Harmed by Trauma

Traumatized children have brains that are different: cortisol bath is bad—

- Amygdala develops too well:
 - Alarm turned on – not able to take input from other areas to quiet alarm, stops working the way it needs to. It's bigger—too active
- Hippocampus doesn't develop well
 - Difficulty with learning and memory
 - School problems "Swiss cheese kids"
- Frontal cortex doesn't develop well
 - Shut down of executive function – impulse control, working memory and cognitive flexibility
- Smaller corpus callosum—small, fast, inaccurate info transfer

HOORAY FOR NEUROPLASTICITY AND SECURE LOVE

STRAUS 2018

What does this look like?

Biologically: *problems with movement and sensation, hypersensitivity to physical contact, difficulty with balance and coordination.*

Physically: *stomach problems, fast heart rates, difficulty sleeping.*

Socially: *relationships can be characterized by boundary problems or distrust. They can have difficulty empathizing with others.*

Intellectually: *trouble focusing, completing tasks, understanding their part in what happens to them, leaning difficulties. Poor working memory.*

Emotionally: *difficulty regulating mood, knowing their feelings, low self esteem, not a clear sense of self.*

Behaviorally: *poor impulse control, aggression, or becomes passive and fearful, have a heightened awareness of potential dangers.*

STRAUS 2018

A FEW MORE WORDS ABOUT THE DEVELOPING BRAIN

STRAUS 2017

POSITIVE BRAIN DEVELOPMENT

- The way a child is stimulated shapes the brain's neurobiological structure.
- Experience has a direct impact on a child's capacity for living, learning and relating as a social being.

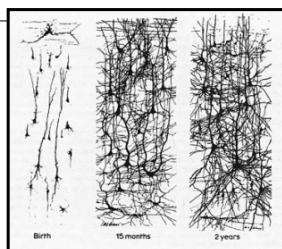
STRAUS 2017

EARLY BRAIN DEVELOPMENT

- We are born with most of the neurons (brain cells) we will ever own but....
 - At birth the brain is 25% of its adult weight - by the age of 2 this has increased to 75% and by age 3 it is 90% of adult weight.
 - This growth is largely the result of the formation and 'hard wiring' of synaptic connections
 - Babies brains are both 'experience expectant' and 'experience dependent'

STRAUS 2017

Proliferation of synapses



STRAUS 2017

BRAIN DEVELOPMENT IN CHILDHOOD

- Synaptic pathways that are regularly used are reinforced. This is the basis of learning. Reinforcement leads to permanent neurological pathways.
- Neural connections needed for abstract reasoning are developed
- Motor skills are refined
- Use it or lose it

STRAUS 2017

BRAIN: SOME GENERAL PRINCIPLES

- Brain's #1 job is survival
- Hierarchical: Bottom up development Right-H > Left H > Frontal Lobe
- Brain is the social organ of the body
- Memory embeds prior experiences in neural connections in the brain.
- The brain is an anticipation machine - linking the present with what it expects in the future based on experiences in the past.

STRAUS 2017

THE BRAIN IS A SOCIAL ORGAN

The structure and function of the brain is designed to engage with other people, other brains, in the shaping of its development over time and in shaping its activity in the present (Siegel)

STRAUS 2017

NEUROPLASTICITY

Experience (Neural Activation) shapes connections in the brain via Synapse Formation (Synaptogenesis) and new Neuronal Growth

We now know that the brain keeps developing through the 20s, and keeps producing 10,000 new neurons a day until we die.

Great research on mindfulness, e.g., demonstrating that the brain does, in fact, continue to change with new experiences.

THE INTENTIONAL FOCUS OF OUR ATTENTION TRANSFORMS BRAIN STRUCTURE (WHAT DO YOU PAY ATTN TO?)

UPSIDE IS INTEGRATION, DOWNSIDE IS TRAUMATIZATION: EXPERIENCE CHANGES THE BRAIN

STRAUS 2017

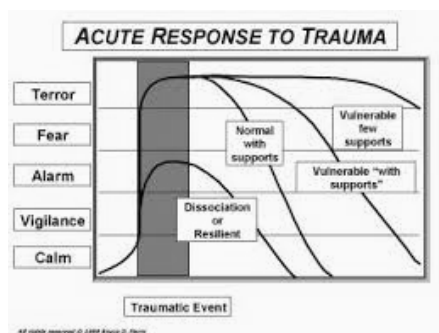
NEUROCEPTIVE STATE OF SAFETY

When we are relaxed and safe it allows the system to relax and the whole being becomes receptive to interactions with others.

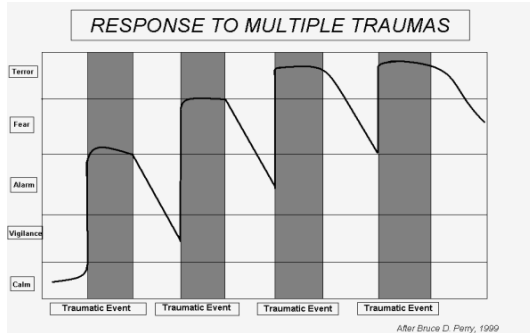
BRAINS THAT FIRE TOGETHER WIRE TOGETHER

Our challenge is to create an interpersonal state of safety so neuroplasticity can be enhanced

STRAUS 2017

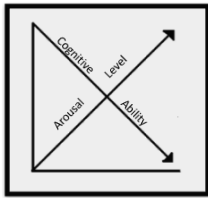


STRAUS 2018



STRAUS 2018

AROUSAL AND COGNITION



As arousal increases cognitive ability decreases. Hyper-aroused children may be defiant, resistant and/or aggressive.

They are stuck in survival mode and may freeze, fight, or flee.

A child in a hyper-aroused state can not be reasoned with, she needs you to help her reduce her arousal level.

STRAUS 2018

TRIGGERS

Triggers include seeing, feeling, or hearing something that remind us of past trauma—IN OUR BODIES. THE BODY REMEMBERS

Triggers activate the alarm system.

When the alarm system is activated, but there is no danger, it is a false alarm.

The response is as if there is current danger. THE TRAUMATIZED CHILD DOES **NOT KNOW** THE DIFFERENCE. ONCE THE STRESS RESPONSE IS TRIGGERED, ALL ALARMS ARE THE SAME

What Is an Alarm Trigger?

Reminder of a past traumatic memory

Based on specific aspects of trauma

Turns on the alarm & sends a signal that something terrible is happening now

Common triggers:

- Unpredictability
- Sensory Overload
- Feeling vulnerable/frustrated
- Confrontation/Shame



STRAUS 2018



RECOGNIZING TRIGGERS

We respond to triggers/cues regularly; however, triggers that cause alarm reactions send a message to the brain that the threat is immediate and real.

Recognizing triggers in advance makes it possible to use memory and reason to prevent or manage alarm reactions.

STRAUS 2018

The Amygdala Hijack

It interprets messages that there's danger or it's safe. It knows nothing about reasoning or cognitive functions. *And it remembers what you're afraid of in your body...*

Amygdala scans the visual field. Searches for possible threats; a sudden movement, a looming shadow. It monitors every sound, smell, possibility of danger.

The amygdala "hijacks" the other portions of the brain.. It gets you ready to fight or flight.

STRAUS 2018

BIOLOGY OF TRAUMATIC IMPACT

Children with traumatic stress are operating within the mode of "survival in the moment."

"Survival in the moment" is governed by pathways in the brain that appraise threat, sacrifice context for speed of response, mobilize the body for fight, flight or freeze, leading to behavioral responses outside of consciousness.

Higher order brain functions are temporarily put on hold when survival is at stake. **Behavioral responses are NOT DECISIONS, for they are made at the lower levels (limbic system) of the brain.**

(Greenwald O' Brien, 2008)

VERY IMPORTANT POINT

WHEN ADOLESCENTS ARE IN A "TRIGGERED" STATE, THE "LEARNING BRAIN" (ALL THE SCHOOL-READY HIGHER FUNCTIONS OF THE CORTEX/FRONTAL LOBE) GOES OFFLINE... IS NOT AVAILABLE.

VERBAL WARNINGS OR RATIONAL ARGUMENTS THAT MAKE DEMANDS ON THESE HIGHER FUNCTIONS WILL ESCALATE THE SITUATION

THEY CANNOT GET ACCESS TO THESE FUNCTIONS WHEN THEY ARE IN A TRIGGERED STATE. THEY BASICALLY CANNOT HEAR YOUR WORDS—ONLY THE EMOTION AND THE THREAT

STRAUS 2018

Bottom Line for Brain Development

When children experience stable nurturing relationships, they foster the development of healthy circuitry.



When children experience unstable, traumatic, abusive or neglectful relationships, they disrupt the circuitry of the brain's architecture as its being built.



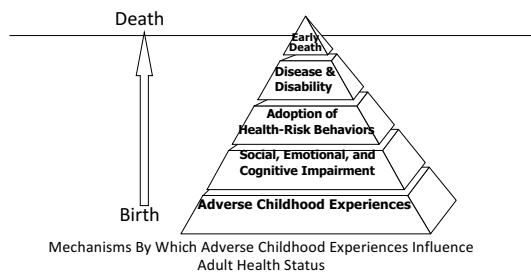
STRAUS 2018

Untreated Adverse Early Childhood Events Only Exacerbate Over Time



Source: Adverse Childhood Experiences (ACE) Study.
Information available at:
<http://www.cdc.gov/ace/index.htm>

CHILD TRAUMA IS BIGGEST PUBLIC HEALTH PROBLEM



Slide modified from W. J. Falouts

©Falouts 2018

FROM ATTACHMENT THEORY TO
REGULATION THEORY:

ATTACHMENT-TRAUMA CAUSES
DYSREGULATION ACROSS SYSTEMS

©Falouts 2018

DYSREGULATION IN ATTACHMENT TRAUMA

AFFECTIVE AND/OR BODY DYSREGULATION

- CAN'T TOLERATE OR RECOVER FROM NEGATIVE STATES
- EXTREME PERCEPTUAL SENSITIVITY (E.G., NOISE, TOUCH)
- SOMATIC COMPLAINTS ("FEELING MEMORIES")
- TROUBLE RECOGNIZING AND DESCRIBING EMOTIONS

ATTENTION AND/OR BEHAVIORAL DYSREGULATION

- AVOIDANCE OF THREAT-RELATED SIGNALS
- HYPERVIGILANCE, RISK-TAKING, EXECUTIVE PROBS
- SELF HARM, IMPAIRED SELF-SOOTHING STRATEGIES

SELF AND RELATIONAL DYSREGULATION

- VIEW OF SELF AS DAMAGED, HELPLESS, IMPAIRED
- CAREGIVER DISTRUST, AGGRESSION, OPPOSITIONALITY
- EMPATHIC COMPLEXITY: DO HAVE EMPATHY, CAN'T TOLERATE IT
- EXTREMES OF SELF RELIANCE/DEPENDENCY IN RELATIONSHIPS

STRAUS 2018

Changes in arousal, attention, perception and emotion

Arousal: Extreme excitability and responsiveness or numbing and detachment	
Hyper Arousal	Numbing
Attention: Inattentive, blocking out triggers or deeply focused upon them	
Dissociation	Hyper-focus
Perception: Vision and hearing are sharpened or thinking is clouded and dull	
Heightened	Dulled
Emotion: Feelings are devastating and painful or detached from experiences	
Overwhelming	Absent

STRAUS 2018

SYMPTOMS ARE BODY MEMORIES

THE CLIENT WITH ATTACHMENT TRAUMA HAS SYMPTOMS INSTEAD OF MEMORIES—THEY ARE MEMORY EQUIVALENTS

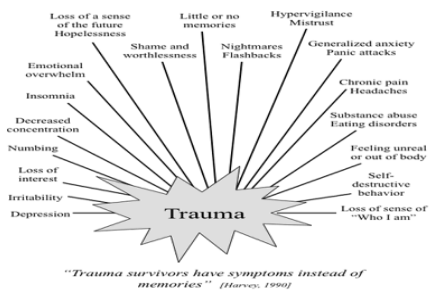
- Anxiety and Panic as "feelings flashbacks" (If he could remember trauma the way we remember non-traumatic events, he could tell you why he hates a time of day, or a smell, or the way a room looks, or it feels to be touched)
- Thinking of symptoms as memories adds control and develops narrative of survival in face of fear
- "Because memories of trauma are encoded sensorially, not linguistically, the patient relives the dread as inexplicable generalized anxiety, or even as a panic attack" (Janina Fisher)

STRAUS 2018

SYMPTOMS MAKE PERFECT SENSE

- Convey: she had ability as child to survive these terrible experiences, so she has all the resources she needs to recover from the symptoms of those experiences
 - The symptoms make perfect sense as a response to traumatic experience
 - Each symptom represents either a deeply encoded memory, or an attempt to solve a challenge or danger she faced as a child
 - Each was an ingenious solution to an overwhelming environment—that worked, because she's here now
 - De-shame and empower: she's smarter, more creative, resourceful, in control of her destiny than she feels

STRAUS 2018



STRAUS 2018

INTERPERSONAL NEUROBIOLOGY (IPNB): IT TAKES TWO

ORIGINS IN "DECADE OF THE BRAIN"

INTEGRATES SCHOOLS OF THOUGHT AND DISCIPLINES: PSYCHOLOGY, PSYCHIATRY, ANTHROPOLOGY, SOCIAL NEUROSCIENCE, BEHAVIORAL BIOLOGY, ATTACHMENT, SYSTEMS THEORY, TRAUMA, LEARNING, MEMORY ...

INTEGRATES OBJECTIVE DOMAIN OF SCIENCE WITH SUBJECTIVE DOMAINS OF HUMAN KNOWING

SIEGEL: IPNB CENTRALLY CONCERNED WITH THE WAY ONE INDIVIDUAL CAN HELP OTHERS ALLEVIATE SUFFERING AND MOVE TOWARD WELL-BEING

FOCUS LESS ON WHAT TO DO FOR A CLIENT (CONTENT) THEN HOW TO BE WITH A CLIENT (PROCESS)

STRAUS 2017

IPNB

DYADIC THEORY: THERAPISTS ARE SHIFTING "FROM A CLASSICAL ONE-BRAIN NEUROSCIENCE TOWARD A NOVEL TWO-BODY APPROACH" (DUMAS, 2011)

PEOPLE IN RELATIONSHIPS BOTH EXPERIENCE NEUROLOGICAL CHANGE AS A RESULT OF THEIR CONNECTION

THE MIND DOESN'T EXIST WITHIN A SINGLE ENTITY/ORGAN—MIND AND ITS DEVELOPMENT INSEPARABLY LINKED TO THE MINDS OF OTHERS

RELATIONSHIPS SHAPE MIND AND BRAIN DEVELOPMENT, OVER WHOLE LIFESPAN

GENERAL THEORY OF LOVE P. 144 "WHO WE ARE AND WHO WE BECOME DEPENDS, IN PART, ON WHOM WE LOVE"

STRAUS 2017

We Regulate within the Context of Relationships



STRAUS 2018

BEHIND EVERY NEGATIVE AFFECT THERE IS A LONGING

STRAUS 2018

WRAPPING UP

DEVELOPMENTAL TRAUMA IS RELATIONAL AND CASCADING.

EARLY AND CHRONIC EXPOSURE TO CHILDHOOD ADVERSITY HAS DOCUMENTED, DEVASTATING, (AND TREATABLE) CONSEQUENCES.

THE CHILD'S SURVIVAL DEPENDS ON A CAREGIVER WHO IS, AT BEST, NOT RELIABLE, AND AT WORST, DANGEROUS.

AFFECTS BRAIN STRUCTURE, FUNCTIONING, NEUROCHEMISTRY, AND DEVELOPMENT.

THESE TEENS ARE ON THE BRINK OF DYSREGULATION MUCH OF THE TIME; ONCE THEIR AMYDGALA IS HIJACKED, IT'S NOT POSSIBLE TO REASON WITH THEM.

TRAUMA "SYMPTOMS" AS BODY MEMORIES MAKE PERFECT SENSE EVEN IF THEY ARE DISTRESSING AND FRIGHTENING TO EVERYONE CONCERNED.

SYRAUS 2018
