

Becoming Trauma Aware: The Long Term Implications of Adverse Childhood Experiences

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Understanding Trauma

Event – Actual experience or threat of physical or psychological harm OR the withholding of material or relational resources crucial to health and development. Can be a single event or repeated events.

Experience – How someone assigns meaning to the event, which depends on the perception of the individual.

Effects – Results of the person's experience of the event. This can include neurological, physical, emotional, and cognitive effects.

*Working definition – SAMHSA, Trauma and Justice

Private Event Trauma

Characterized By:

- *Secrecy
- *Power Imbalance
- *Sense of hopelessness
- *Sense of isolation
- *Sense of irretrievable loss

Public Event Trauma

Characterized By:

- *Shared experience
- *Lack of judgement
- *Sense of helplessness
- *Forces beyond control
- *Sense of irretrievable loss

Chronic Trauma

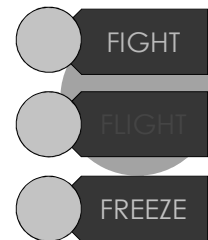
Chronic Trauma has a cumulative effect impacting the brain, body, and all areas of functioning.



Chronic trauma
*cumulative effect
*impacts the brain, body, development

OUR EMOTIONAL & PHYSICAL REACTION

When we are faced with stressful situations, our mind and body automatically respond in one of three ways.....



- ▶ Controlled by the most basic part of the brain
- ▶ Decides how to act to best support our survival
- ▶ Activated whenever we are faced with a stressful situation
- ▶ Stimulates a dump of hormones and chemicals
- ▶ Designed to only be used on an infrequent basis

Fight Flight FREEZE

ACEs = ADVERSE CHILDHOOD EXPERIENCES

The three types of ACEs include

ABUSE	NEGLECT	HOUSEHOLD DYSFUNCTION	
Physical	Physical	Mental Stress	Incarcerated Relative
Emotional	Emotional	Mother treated violently	Substance Abuse
Sexual		Divorce	

THE ACES STUDY

The ACES Study

- ▶ Study started in 1995
- ▶ Weight loss program through Kaiser Permanente
- ▶ Partnership between Kaiser and CDC
- ▶ 17,000 participants
- ▶ Medical and social history examined

** It was here that the relationship between childhood abuse & negative household functioning was found to be related to long term health and social outcomes**

ADVERSE CHILDHOOD EXPERIENCES

looking at how ACEs affect our lives & society

What are ACEs?
Adverse Childhood Experiences (ACEs) is the term given to describe all types of abuse, neglect, and other traumatic experiences that occur in childhood under the age of 18. The landmark Kaiser ACE Study examined the relationship between these experiences during childhood and reduced health and well-being later in life.

WHO PARTICIPATED IN THE ACE STUDY?
Between 1995 and 1997, over 17,000 people wearing physical exams completed confidential surveys concerning information about their childhood experience and current health status and behaviors. The information from these surveys was combined with health data from physical exams to form the study findings.

Male	81%
Female	19%

White	72%
Black	17%
Hispanic	11%
Other	2%

18-24	10%
25-34	20%
35-44	25%
45-54	20%
55-64	15%
65+	10%

High school or less	37%
Some college	18%
College graduate	36%
Postgraduate	9%

REFERENCES
ACE Study
Economic Cost of Child Abuse and Neglect
Centers for Disease Control

Logos: CDC, Children's Bureau

*Participants in this study reflected a cross-section of middle-class American adults.

HOW COMMON ARE ACEs?

of ACEs

0	36%
1	26%
2	16%
3	9%
4 OR MORE	12%

Almost two-thirds of adults surveyed reported at least one Adverse Childhood Experience – and the majority of respondents who reported at least one ACE reported more than one.

What about the prevalence of trauma in our community?



Adverse Childhood Experience (ACE) Study

Without intervention, adverse childhood events (ACEs) may result in long-term disease, disability, chronic social problems and early death. Importantly, intergenerational transmission that perpetuates ACEs will continue without implementation of interventions to interrupt the cycle.


Adverse Childhood Experiences <ul style="list-style-type: none"> Abuse of Child <ul style="list-style-type: none"> Psychological abuse Physical abuse Sexual abuse Trauma in Child's Household Environment <ul style="list-style-type: none"> Substance Abuse Parental separation &/or Divorce Mentally ill or suicidal Household member Violence to mother Imprisoned household member Neglect of Child <ul style="list-style-type: none"> Abandonment Child's basic physical &/or Emotional needs unmet 	Impact of Trauma & Adoption of Health Risk Behaviors <p>Neurobiologic Effects of Trauma</p> <ul style="list-style-type: none"> Disrupted neuro-development Difficulty controlling anger Hallucinations Depression Alcic reactions Anxiety Multiple (or) somatic problems Impaired memory <p>Health Risk Behaviors</p> <ul style="list-style-type: none"> Smoking &/or Drug abuse Severe obesity Physical inactivity Self injury &/or Suicide attempts Alcoholism Age sex partners Sexually transmitted disease Repetition of original trauma Eating Disorders Dissociation Perpetrate domestic violence 	Long-Term Consequences Of Unaddressed Trauma <p>Disease & Disability</p> <ul style="list-style-type: none"> Chronic heart disease Cancer Chronic lung disease Chronic emphysema Asthma Liver disease Skeletal fractures Poor self rated health HIV/AIDS <p>Social Problems</p> <ul style="list-style-type: none"> Homelessness Isolation Delinquency, violence & criminal Behavior Inability to sustain employment Re-victimization: rape, domestic Violence Inability to parent Inter-generational transmission Of abuse Long term use of health & social services
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Adapted from presentation byings (Lowe), The Story of a Child's Path to Mental Illness.

Impact of Trauma

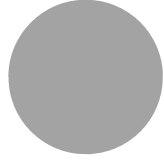
First published in 1998, the Adverse Childhood Experience Study showed that:

- 1) Traumatic experiences are **vastly more common** than recognized or acknowledged
- 2) There is a **powerful relationship** between emotional experiences as children and physical and mental health as adults
- 3) Traumatic events during childhood can be converted into **chronic disease** as adults
- 4) Adverse events and stress can lead to chronic diseases, such as **diabetes, heart disease** and some types of cancer, as well as **depression, alcoholism and drug abuse**



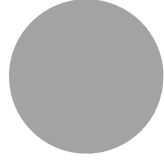
Impact of Trauma

- ▶ Women have higher rate across the board
- ▶ ACE 0= less that 20% of women diagnosed with depression
- ▶ ACE >4 = almost 60% diagnosed with depression



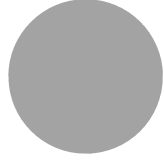
Impact of Trauma

- ▶ Coping mechanism
- ▶ ACE 0 = <4% rate
- ▶ ACE >4= 16 % rate
- ▶ Same dose/response pattern seen with injection of street drugs
- ▶ Male with ACE of 6+ has 4.600% increase in the likelihood of becoming an IV drug abuser



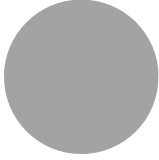
Impact of Trauma

- * Women with ACE Score of 4+ are 500% more likely to become victims of domestic violence
- * Women with an ACE Score of 4+ are 900% more likely to become victims of rape



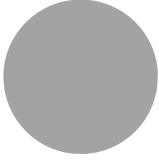
Cost Of Trauma \$\$\$\$\$

- ▶ Absenteeism, serious financial problems, serious problems with job performance, frequent disciplinary actions, difficulty maintaining employment, decreased promotion rate
- ▶ Increased prevalence for chronic disease= more sick days
- ▶ Domestic violence victims lose nearly 8 million days of paid work per year
- ▶ Intimate partner violence > \$5.8 billion a year
- ▶ Over \$184 million a day – hospitalizations, mental health care, child welfare, law enforcement, Special Ed, juvenile delinquency



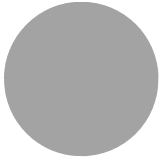
Brain Development

- ▶ At birth, the brain is about 25% the size of the adult brain in weight and volume
- ▶ Contains nearly same number of brain cells or neurons (100 billion)
- ▶ Brain stem and lower brain are well developed (reflexes, breathing swallowing, heart rate, BP)
- ▶ Higher regions are less developed
- ▶ Cortical Cortex (pre frontal) area is last to develop



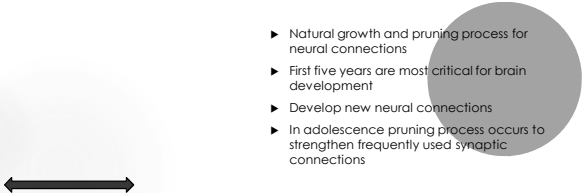
Brain Development

- ▶ First 5 years are most critical period
- ▶ Need positive stimulation and responsive, attuned caregiver to make strong synaptic connections
- ▶ As the child ages, the same number of neurons are in place
- ▶ Number of synaptic connections drastically increases until adolescence
- ▶ During adolescence (2nd most critical period of development) the unused connections are pruned and the more frequently used connections are strengthened



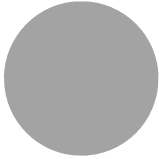
Brain Development

- ▶ Natural growth and pruning process for neural connections
- ▶ First five years are most critical for brain development
- ▶ Develop new neural connections
- ▶ In adolescence pruning process occurs to strengthen frequently used synaptic connections



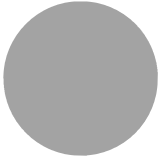
Impact of Trauma on the Brain

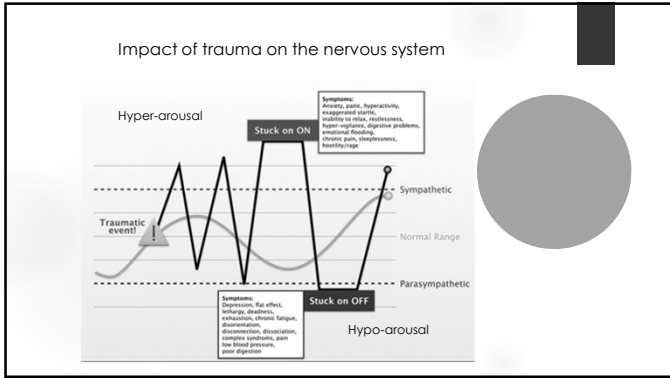
- ▶ Reduces the number of connections formed
- ▶ Reduces the size of the pre frontal cortex
- ▶ Strengthens survival connections
- ▶ Trauma rewires the brain for survival
- ▶ Results in:
 - ▶ Memory problems
 - ▶ Attention difficulty
 - ▶ Language delays
 - ▶ Emotional and behavioral regulation issues
 - ▶ Learning disabilities/delays



Fight Flight Freeze

- ▶ Glucocorticoids create "flashbulb" memories (vivid snapshots of event)
- ▶ Cortisol- counters pain and inflammation, regulates blood sugar, metabolism, affects salt/water balance
- ▶ Increased cortisol levels- GI symptoms, back pain, headaches
- ▶ Increased HR
- ▶ Increased platelet levels
- ▶ Changes in blood flow –blood diverted toward brain & major muscle groups & away from hands/feet/stomach
- ▶ Increased endorphin levels- natural opiate release
- ▶ Decreased Calcium production
- ▶ Increased blood sugar levels to feed brain & muscles





- ### Impact of trauma on young children
- Trauma can result in.....
- Delayed development of verbal skills
 - Memory problems
 - Regressive behaviors
 - Aggression/behavior problems
 - Inability to focus
 - Learning disabilities
 - Poor appetite, low weight gain, digestive problems
 - Irritability, depression, anxiety
 - Nightmares, sleep difficulty
 - Compulsion to re-enact or imitate traumatic event
 - Exaggerated startle response
 - Difficulty trusting others
 - Lack of self confidence
 - Somatic complaints
 - Bed wetting

- ### Impact of trauma on adolescents
- Trauma can result in.....
- Anxiety, fear
 - Worry about safety of self & others
 - Sudden changes in behavior
 - Difficulty trusting others
 - Suicidal thoughts/attempts
 - Heightened difficulty with authority, redirection, criticism
 - Nightmares, sleep difficulties
 - Exaggerated startle response
 - Avoidance behaviors
 - Emotional numbing

- ### Impact of trauma on adults
- ▶ At any time an adult may experience the impact of compounded, unaddressed childhood trauma
 - ▶ May experience new traumatic events
 - ▶ Certain events may trigger trauma response
 - ▶ Parenting with history of trauma
 - ▶ Depression
 - ▶ Difficulty trusting others especially those in authoritative roles
 - ▶ Impaired social/sexual relationships
 - ▶ Hypervigilance
 - ▶ Inertia
 - ▶ Substance abuse
 - ▶ Mental illness
 - ▶ Emotional dysregulation

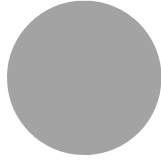
- ### Trauma and mental health.....
- ▶ PTSD
 - ▶ Chronic depression
 - ▶ Anxiety disorders
 - ▶ Drug/alcohol dependence
 - ▶ OCD
 - ▶ Eating disorders
 - ▶ Personality disorders

- ### Intervention
- ▶ Many effective therapeutic interventions are available for all ages
 - ▶ Therapy
 - ▶ Trauma is "not cured"
 - ▶ Cannot erase traumatic events
 - ▶ Don't have to be a therapist
 - ▶ Trauma aware
 - ▶ Recognize the presence of trauma symptoms & acknowledge the role of trauma in their lives

Re-Traumatization

A situation, attitude, or interaction, or environment that replicates the events or dynamics of the original trauma and triggers the overwhelming feelings and reactions associated with them

- ▶ Assault
- ▶ SANE Exam
- ▶ Law enforcement involvement
- ▶ Restraints or seclusion
- ▶ Privacy
- ▶ Gathering health history



Impact on individuals

- ▶ Decrease or loss of trust
- ▶ Higher rates of self injury
- ▶ Significantly less willing to engage in treatment
- ▶ Intrusive memories, nightmares and flashbacks
- ▶ Re-experiencing symptoms and emotions from previous trauma
- ▶ Increase in chronicity of stress
- ▶ Increased symptom relapse and re-hospitalization

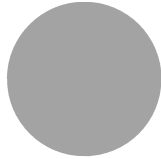


We need to change the question from.....

What is wrong with you?

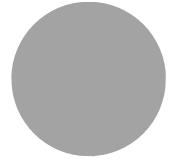
To

What has happened to you?



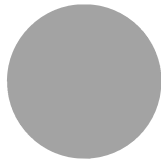
Responding to those who have experienced trauma.....

- ▶ Acknowledge that we may unintentionally trigger someone's trauma response
- ▶ Better understanding of their behaviors and responses
- ▶ Strive to see the world through the lens of trauma



Trauma Informed Care 5 Principles

- 1) Safety: ensuring physical & emotional safety "do no harm"
- 2) Trustworthiness: Maximizing trustworthiness, making tasks clear, maintaining appropriate boundaries
- 3) Choice: Prioritizing patient choice & control over recovery
- 4) Collaboration: Maximizing collaboration & sharing of power
- 5) Empowerment: Identifying what they are able to do for themselves; helping patient find inner strengths needed to heal



Learn More

- www.aliveandwellstl.com
- National Child Traumatic Stress Network <http://www.nctsn.org>
- www.aacap.org/clinical/ptsdsum.htm
(American Academy of Child & Adolescent Psychiatry)
- <http://www.nimh.nih.gov/healthinformation/ptsdmenu.cfm>
(National Institute of Mental Health)
- http://www.massadvocates.org/HTCL_9-09.pdf
- <http://www.k12.wa.us/CompassionateSchools/pubdocs/TheHeartofLearningandTeaching.pdf>
- www.annainstitute.org