Wisconsin Public Psychiatry Network Teleconference (WPPNT)

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WPPNT Reminders

How to join the Zoom webinar

• Online: https://dhswi.zoomgov.com/j/1606358142

• **Phone:** 669-254-5252

Enter the Webinar ID: 160 635 8142#.

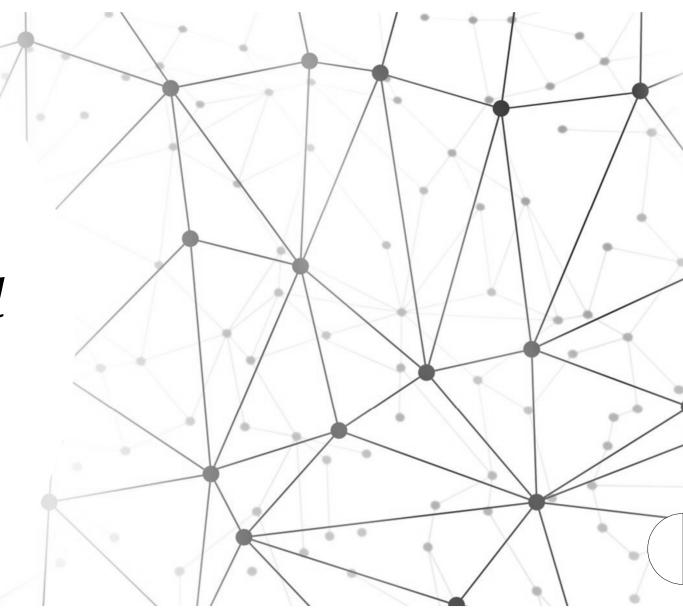
- Press # again to join. (There is no participant ID)

Reminders for participants

- Join online or by phone by 11 a.m. Central and wait for the host to start the webinar. Your camera and audio/microphone are disabled.
- <u>Download or view the presentation materials</u>. The evaluation survey opens at 11:59 a.m. the day of the presentation.
- Ask questions to the presenter(s) in the Zoom Q&A window. Each presenter will decide when to address questions. People who join by phone cannot ask questions.
- Use Zoom chat to communicate with the WPPNT coordinator or to share information related to the presentation.
- <u>Participate live to earn continuing education hours</u> (CEHs). Complete the evaluation survey within two weeks of the live presentation and confirmation of your CEH will be returned by email.
- A link to the video recording of the presentation is posted within four business days of the presentation.
- Presentation materials, evaluations, and video recordings are on the WPPNT webpage: https://www.dhs.wisconsin.gov/wppnt/2023.htm

Trauma in Children and Adolescents

Anupriya Schnapp, MD October 12, 2023



What does trauma in children look like?

ing, checking it or defiance.

ses problems learning and ry, which can e permanent.

cause lasting Ith problems.

- CRITERION A (1 required):
- The person was exposed to: death, threatened death, actual or threatened serious injury, actual or threatened sexual violence in the following way(s):
- Direct exposure
- Witnessing the trauma
- Learning that the trauma happened to a close friend or relative
- Indirect exposure to aversive details of the trauma

- CRITERION B (1 required):
- The traumatic event is persistently re-experienced, in the following way(s):
- Unwanted upsetting memories
- Nightmares
- Flashbacks
- Emotional distress after exposure to traumatic reminders
- Physical reactivity after exposure to traumatic reminders



- CRITERION C (1 required):
- Avoidance of trauma-related stimuli after the trauma, in the following way (s):
- Trauma-related thoughts or feelings
- Trauma-related reminders

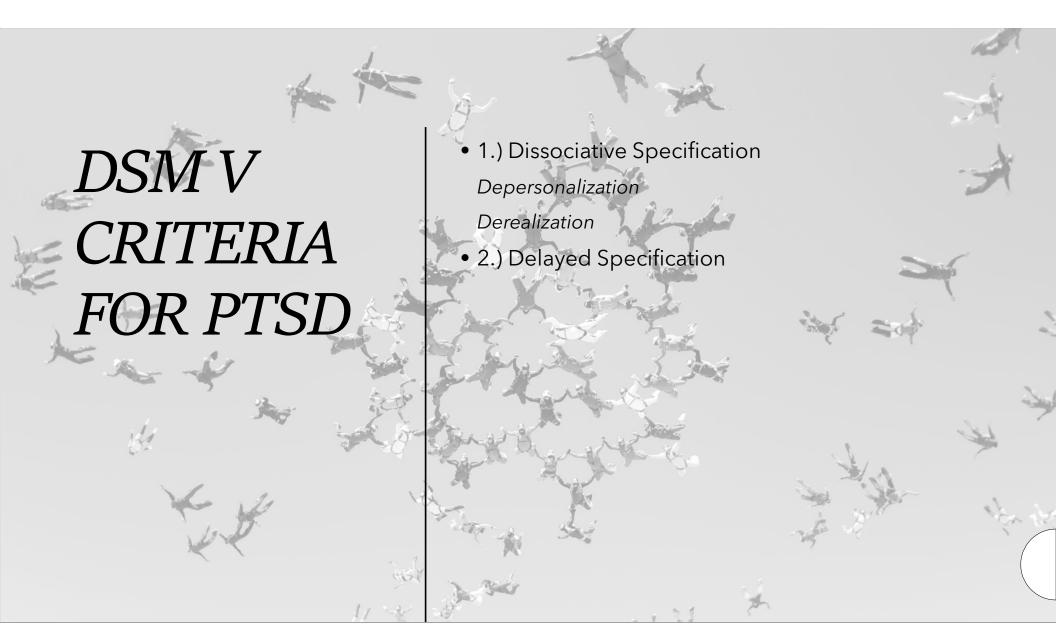
- CRITERION D (2 required):
- Negative thoughts or feelings that began or worsened after the trauma, in the following way(s):
- Inability to recall key features of the trauma
- Overly negative thoughts and assumptions about oneself or the world
- Exaggerated blame of self or others for causing the trauma
- Negative affect
- Decrease interest in activities
- Feeling isolated
- Difficulty experiencing positive affect

- CRITERION E (2 required):
- Trauma-related arousal and reactivity that began or worsened after the trauma in the following way(s):
- Irritability or aggression
- Risky or destructive behavior
- Hypervigilance
- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping

- CRITERION F (required):

 Symptoms last for more than 1 month.
- CRITERION G (required):

 Symptoms create distress or functional impairment.
- CRITERION H (required):
 Symptoms are not due to medication, substance use or other illness



DSM V- Past, present and future....

- 1994- PTSD with associated features
- 2013- Negative alterations in cognitions of mood, intrusions, avoidance and hypervigilance are added. Dissociative sub-type emerged
- 2019- Complex PTSD is added to the ICD 11

Developmental Trauma Disorder

Emotion/somatic dysregulation

Cognitive/behavioral dysregulation

Relational/self-dysregulation



Developmental Trauma Disorder

- CRITERION A:
- Exposure: The child or adolescent has experienced or witness multiple prolonged adverse events over a period of at least one year beginning in childhood or early adolescence including:

DTD Criterion A:

Direct experience or witnessing of repeated and severe episodes of interpersonal violence

Significant disruptions of protective caregiving as the result of repeated changes in the primary caregiver; repeated separation from the primary caregiver; or exposure to severe and persistent emotional abuse

Developmental Trauma Disorder

- CRITERION B:
- Affective and *Physiologic* Dysregulation. The child exhibits impaired normative developmental competencies related to arousal regulation, including at least 2 of the following:

DTD: Criterion B:

Inability to modulate, tolerate, or recover from extreme affect states (feat, anger, shame), including prolonged and extreme tantrums, or immobilization

Disturbances in regulation in bodily functions (persistent disturbances in sleeping, eating, and elimination; over-reactivity or under-reactivity to touch and sounds; disorganization during routine transitions).

Diminished awareness/dissociation of sensations, emotions and bodily states

Impaired capacity to describe emotions or bodily states

Developmental Trauma Disorder

- CRITERION C:
- Attentional and Behavioral dysregulation: The child exhibits impaired normative developmental competencies related to sustained attention, learning or coping with stress, including at least three of the following:

DTD Criterion C:

Preoccupation with threat, or impaired capacity to perceive threat, including misreading of safety and danger cues.

Impaired capacity for self-protection, including extreme risk taking or thrill-seeking.

Maladaptive attempts at self-soothing (rocking and other rhythmical movements, compulsive masturbation).

Habitual (intentional or automatic) or reactive self-harm.

Inability to initiate or sustain goal-directed behavior

Developmental Trauma Disorder

- CRITERION D:
- Self and relational dysregulation: The child exhibits impaired normative developmental competencies in their sense of personal identity and involvement in relationships, including at least 3 of the following:

DTD Criterion D:

Intense preoccupation with safety of caregiver or other loved ones.

Persistent negative sense of self.

Extreme and persistent distrust, defiance or lack of reciprocal behavior in close relationships.

Reactive physical or verbal aggression towards others.

Inappropriate attempts to get intimate contact or excessive reliance on peers or adults for safety and reassurance.

Impaired capacity to regulate empathic arousal

What the PTSD Diagnosis is Missing

Excessive intimacy seeking

Impaired emotional boundaries

Expectancy of irresolvable loss

Somatic dysregulation-body function

Somatic dysregulation-pain/conversion

Problems with acting out

Impulsivity

Reactive aggression

Which Diagnoses Captures it Best?

PTSD?

COMPLEX PTSD?

DEVELOPMENTAL TRAUMA DISORDER?

SAMSA definition of trauma:

An event(s) or set of circumstances experienced by an individual as physically or emotionally harmful or life threatening with LASTING adverse effects on the individual's functioning and mental, physical, social, emotional, or spiritual well being.



ACE STUDY

 The CDC Kaiser Permanente adverse childhood experiences study (ACE) study is one of the largest studies of how childhood abuse, neglect and or household challenges affects later life health and well being.



ACE STUDY

The original study:

- Where? Southern California- Kaiser Permanente
- When? 1995-1997
- Who did it include? 17,000 HMO members receiving physical exams and completed confidential surveys
 All ACE questions refer to the participants' first 18 years of life



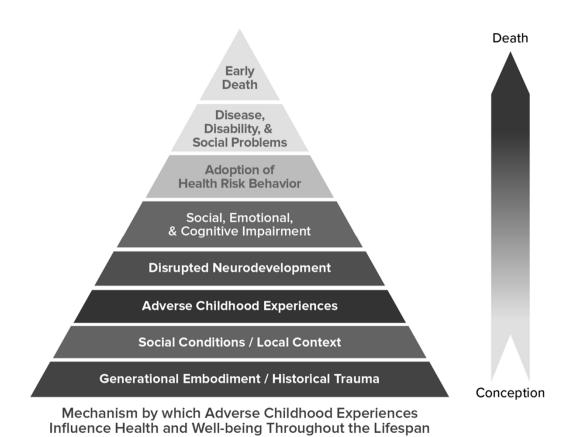
ACE STUDY

CONTENTS

- 3 categories of abuse: Emotional abuse Physical abuse Sexual abuse
- 5 Household challenges: Mother treated violently
 Substance abuse
 Mental illness
 Parental separation or divorce
 Incarcerated household member
- 2 types of Neglect: Emotional neglect Physical neglect

Question Number	Verbatim Question	Response categories and comments		
	Never had intercourse	1=box checked		
17	With how many different partners have you ever had sexual intercourse? # of partners	number of intercourse partners, lifetime Range: 0-999		
18	During the past year, with how many different partners have you ever had sexual intercourse? # of partners	number of intercourse partners, past year Range: 0-999		
19a	Have you smoked at least 100 cigarettes in your entire life?	1=yes 2=no		
19b	How old were you when you began to smoke cigarettes fairly regularly? age:	Range: 0-99		
20c	Do you smoke cigarettes now?	1=yes 2=no		
20d	If yes, on average, about how many cigarettes a day do you smoke? # cigarettes:	Range: 0-99		
21a	If you used to smoke cigarettes but don't smoke now, about how many cigarettes a day did you smoke? # cigarettes:	Range:00-99		
21b	How old were you when you quit? Age	Range:00-99		
22a	During your first 18 years of life did your father smoke?	1=yes 2=no		
22b	During your first 18 years of life did your mother smoke?	1=yes 2=no		

Had lung cancer	1=yes 2=no
Do you chew tobacco	1=yes 2=no
Have you ever had, or ever been told you have:	
High blood pressure	1=yes 2=no
To take blood pressure medicine	1=yes 2=no
A heart attack (coronary)	1=yes 2=no
To take medicine to lower your cholesterol	1=yes 2=no
Do you get:	
Pains or heavy pressure in your chest with exertion	1=yes 2=no
Do you use nitroglycerin	1=yes 2=no
Episodes of fast heart beats or skipped beats	1=yes 2=no
Other heart problems	1=yes 2=no
Nocturnal leg cramps	1=yes 2=no
Leg pains from rapid or uphill walking, stairs	1=yes 2=no
Do you have:	



ACEs Epigenetic Health disparities modifications † Rate of Childhood abuse psychiatric † DNA or neglect disorders: PTSD, methylation of Witnessing endocrine depression, anxiety, violence drug and alcohol regulation genes dependence Racism 1 DNA † Rate of suicide methylation of Historical loss 1 Rate of inflammatory genes associated cardiovascular symptoms disease, diabetes, 1 Methylation of and obesity serotonergic genes ↓ Life expectancy

ACEs--> Disease

- Maladaptive coping mechanisms, such as substance use, can contribute to disease
- By inflammatory effects
- By epigenetic effects



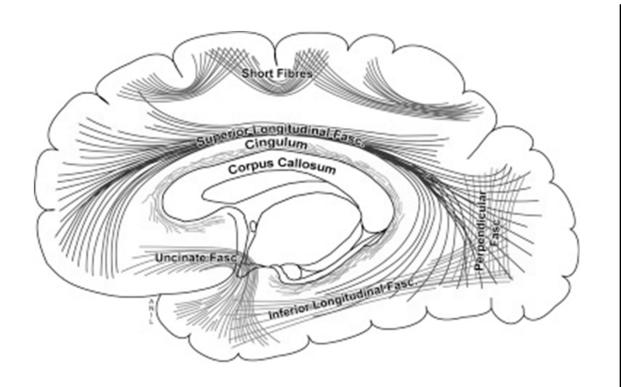
ACEs link to the leading causes of death

- Smoking
- Physical inactivity
- Suicide attempt
- Illicit drug use
- 50+ sexual partners
- Severe obesity
- Depression
- Alcoholism
- Injected drug use
- STDs



Trauma and structural changes to the brain

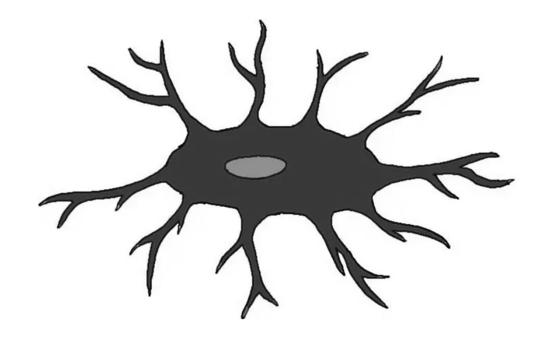
- Hippocampus shrinks
- Increased activity in the amygdala
- Ventromedial prefrontal cortex shrinks
- Neuroimaging of maltreated individuals found reductions in volume of the following:
- Hippocampus
- Anterior Cingulate Cortex
- Ventromedial and Dorsomedial Cortices



Trauma and its effects on key fiber tracts

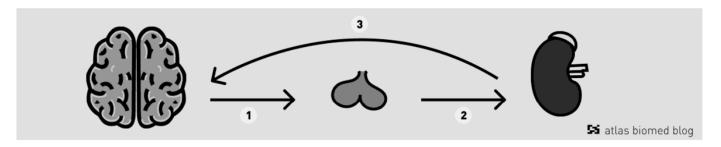
- Corpus Callosum
- Superior Longitudinal Fasciculus
- Uncinate Fasciculus
- Cingulum Bundle

ACEs relationship to inflammatory changes



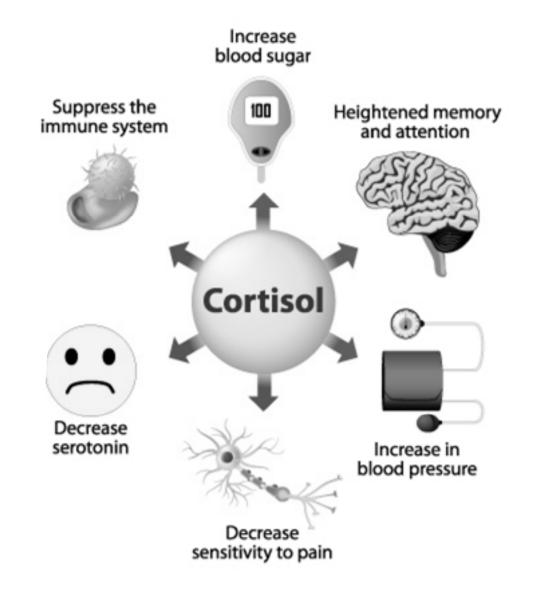
Cortisol and the HPA axis

(hypothalamic-pituitary axis)



- 1. When the body senses a threat, the hypothalamus (part of the brain) releases chemicals to the pituitary gland.
- 2. The pituitary gland passes on this message to the adrenal cortex (located on the kidneys). In response, the adrenal cortex secretes cortisol into the bloodstream.
- 3. Cortisol triggers a cascade of stress reactions. The heart beats faster. Blood sugar levels rise. It also travels back into the brain where it affects cognition.

How stress affects the immune system



ACEs and Epigenetics



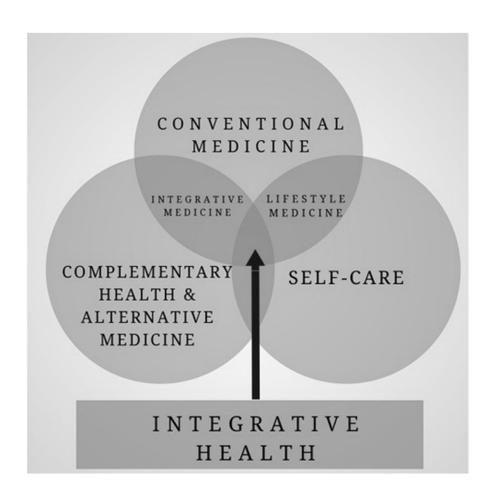
ACEs and Resilience



Treatment

- Individuals who have complex PTSD do not respond to EMDR, CBT and exposure therapy alone based on a study.
- Similar to drugs of abuse, anti-depressants do not work for depression in individuals with a history of ACEs.





Treatments that may help

- Modified EMDR
- NAC
- Polyunsaturated fatty acids
- Yoga, Tai Chi, meditation
- Probiotic treatments
- Neurofeedback
- Emotional Freedom Technique

KEY TAKE AWAY POINTS:

- Biopsychosocial formulations are imperative.
- Trauma is not a disorder, it is an experience that can have long lasting impacts.
- Understanding the impact of ACEs can aid in the conceptualization of trauma.
- Trauma can lead to structural and functional changes in the brain.
- Trauma is associated with inflammatory changes.
- Trauma can lead to epigenetic changes.
- There is still much to be learned about treatment.