

THE CONNECTION BETWEEN TRAUMA, STRESS AND SUBSTANCE PROBLEMS AMONG ADOLESCENTS

Alice Conte, MA PD
Gateway Community Services
Jacksonville, FL



Overview

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- Understanding stress and trauma
- Understanding substance abuse
- The connection between traumatic stress and substance
- Being trauma informed
- Assessment & Treatment
- Managing stress
- Case discussion
- Questions & wrap up





KAREN



UNDERSTANDING TRAUMATIC STRESS



Defining Trauma

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- Traumatic events cause overwhelming anxiety or distress and include experiencing, witnessing, or being confronted with physical, verbal, and emotional abuse, or another event that involved actual or threatened death or serious injury to oneself or someone else.
- Responses to trauma exposure most often include intense fear, helplessness, or horror



Types of traumatic events

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- Physical, sexual, and emotional abuse
- Interpersonal violence and victimization
- Community Violence
- Natural disasters/terrorism
- Traumatic loss and grief
- Medical trauma
- Complex trauma

The body's acute response to danger

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- **Fight, flight, or freeze response:** The body's reaction to perceived threat or danger.
 - Fight – fighting off an attacker
 - Flight – running away from danger
 - Freeze – going “dead” such as during rape
 - Dissociation – out of body experiences
- Adrenalin and cortisol are released to give the body a burst of energy and strength





Physical sensations



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- Heart pounding
- Palpitations
- Fast pulse
- Nausea
- Knot in stomach
- Dry mouth and throat
- Difficulty swallowing
- Sweating
- Clammy feeling
- Cold hands
- Pale face and skin
- Blurred vision
- Light seems brighter
- Feeling detached from self or surroundings
- Feeling frozen or immobile
- Feeling spaced out or in another world

The body's acute response to danger:

Mental response

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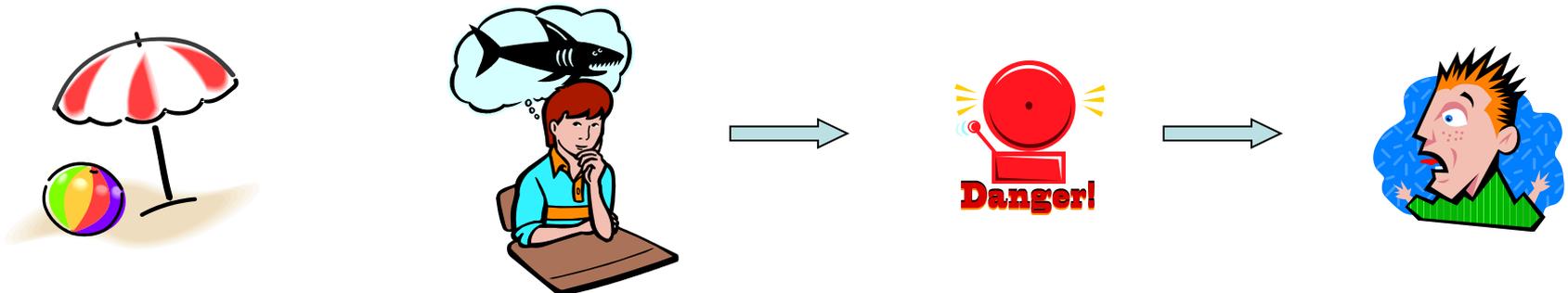
- The usual mental mechanisms that help us make everyday decisions are temporarily shut down.
- We can make more primitive responses and take quick action rather than to think carefully about the situation at hand.
- We are operating in **SURVIVAL** mode



Trauma reminders

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- The body's **alarm reaction** can be triggered by situations that remind us of the trauma, even if we are no longer in a truly dangerous or threatening situation.
- These **trauma reminders**, or **triggers** might include situations that have something in common with the traumatic event, but they could also include thoughts or memories about what happened.
- Even when we are no longer in danger, our body's alarm response could become activated as if we were experiencing the trauma all over again.



What Is Child Traumatic Stress?

- Traumatic stress in childhood involves *physical and emotional responses* to exposure to extreme threat, injury or death.
- Traumatic events overwhelm a child's capacity to cope and elicit feelings of terror, powerlessness, and out-of-control physiological arousal.
- A child's response to a traumatic event may have a profound effect on his/her perception of self, the world, and the future.
- Traumatic events may affect children's:
 - Ability to trust others
 - Sense of personal safety
 - Effectiveness in navigating life changes

Post Traumatic Stress Disorder

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- **Re-Experiencing** the traumatic event through intrusive thoughts or dreams of the event, or intense psychological distress when exposed to reminders of the event
- **Avoidance** of thoughts, feelings, images, or locations that remind the adolescent of or are associated with the traumatic event
- **Increased arousal** such as hyper-vigilance, irritability, exaggerated startle response, and sleeping difficulties





Effects of Trauma Exposure on Children

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- **Attachment.** Traumatized children feel that the world is uncertain and unpredictable. They can become socially isolated and have difficulty relating to and empathizing with others.
- **Biology.** Traumatized children may experience problems with movement and sensation, including hypersensitivity to physical contact and insensitivity to pain. They may exhibit unexplained **physical symptoms and increased medical problems.**
- **Mood regulation.** Children exposed to trauma can have difficulty regulating their emotions, as well as difficulty knowing and describing their feelings and internal states.

Effects of Trauma Exposure, cont'd

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- **Dissociation.** Some traumatized children experience a feeling of detachment or depersonalization, as if they are “observing” something happening to them that is unreal.
- **Behavioral control.** Traumatized children can show poor impulse control, self-destructive or risk-taking behavior, and aggression towards others.
- **Cognition.** Traumatized children can have problems focusing on and completing tasks, or planning for and anticipating future events. Some exhibit learning difficulties and problems with language development.
- **Self-concept.** Traumatized children frequently suffer from disturbed body image, low self-esteem, shame, and guilt.

Long Term Effects of Childhood Trauma

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- In the absence of more positive coping strategies, children who have experienced trauma may engage in high-risk or destructive coping behaviors.
- These behaviors place them at risk for a range of serious mental and physical health problems, including:
 - Alcoholism
 - Drug abuse
 - Depression
 - Suicide attempts
 - Sexually transmitted diseases (due to high risk activity with multiple partners)
 - Heart disease, cancer, chronic lung disease, skeletal fractures, and liver disease

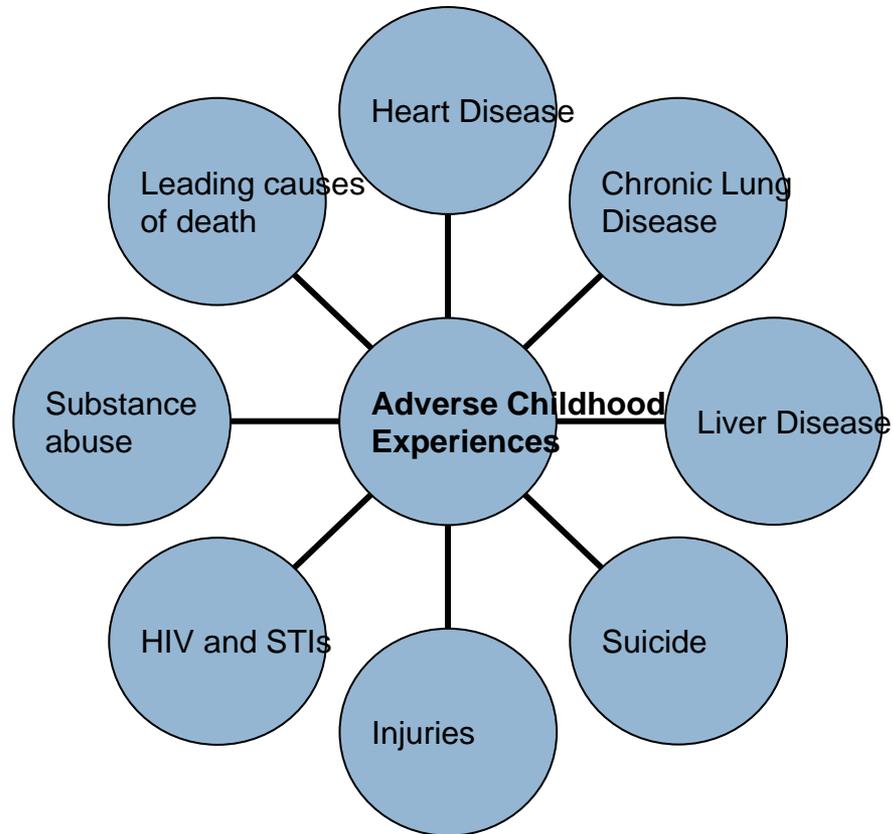
Adverse Childhood Experiences (ACE) Study

The ACE Study identifies 'adverse childhood experiences' as growing up (prior to 18 years of age) in a household with:

- ▣ Recurrent physical abuse
- ▣ Recurrent emotional abuse
- ▣ Sexual abuse
- ▣ An alcohol abuser
- ▣ An incarcerated household member
- ▣ Someone who is chronically depressed, suicidal, institutionalized or mentally ill
- ▣ Mother being treated violently
- ▣ One or no parents

(Felitti et al., 1998)

ACE's Increased Risk



ACE Study

- A person with an ACE Score of 4 (meaning that he or she reports having 4 categories of childhood stressors upon questioning) is 260% more likely to have chronic obstructive pulmonary disease than a person with an ACE Score of 0.
- Persons with an ACE Score of 4 have a 240% greater chance of having hepatitis compared to those with an ACE Score of 0.

ACE Study

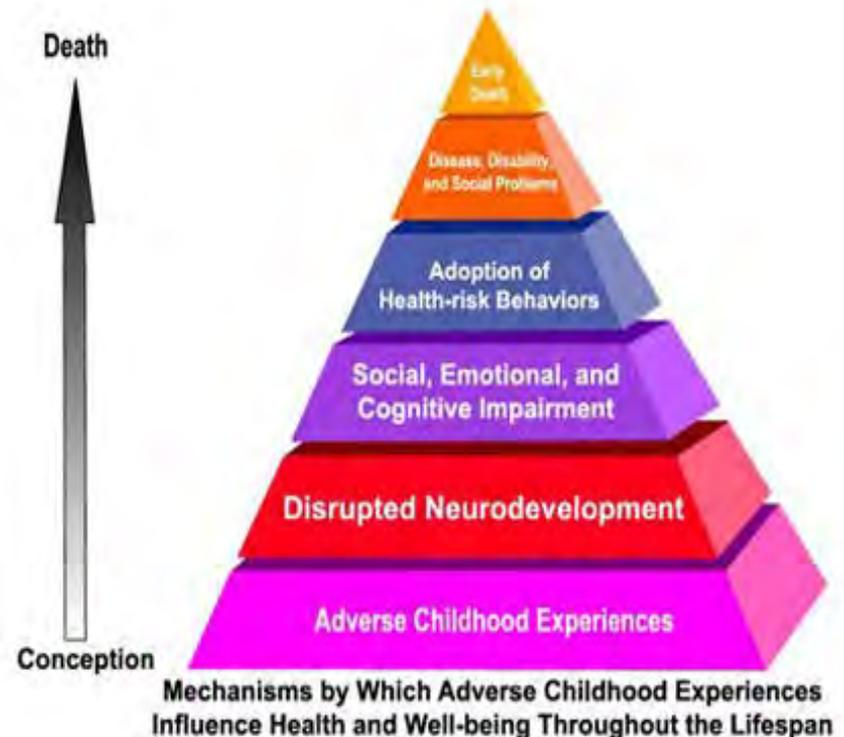
- Male child with ACE score of 6 has 4600% increase in probability of IV drug abuse
- ACE score of 4 or more raises the probability of depression almost 500%
- ACE score of 4 or more raises probability of suicide by 1220%

Impact of Trauma Over the Life Span

ACE Study - effects are neurological, biological, psychological and social in nature, including:

- ❑ Changes in neurobiology
- ❑ Social, emotional and cognitive impairment
- ❑ Adoption of health-risk behaviors as coping mechanisms
- ❑ Severe and persistent behavioral health, physical health, social problems, and early death

(Felitti





UNDERSTANDING SUBSTANCE ABUSE



Abuse and Dependence

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□ Substance Abuse:

- Use of drugs in a manner that is illegal or harmful to the individual and causes significant adverse consequences such as accidents or injuries, blackouts, legal problems, and risky sexual behavior.

□ Substance Dependence:

- Continued substance abuse despite significant substance-related problems
- Usually includes tolerance (requiring higher doses to achieve the same effect) and withdrawal (symptoms experienced when use of the drug is discontinued)

Impairment



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- Inability to meet major role obligations
- Leading to reduced functioning in one or more areas of life
- Risk taking behavior
- Increase in the likelihood of legal problems due to possession
- Exposure to hazardous situations
- For adolescents, impairment can include family conflict or dysfunction, interpersonal conflict, academic Failure



Typical Signs of Substance Use Problems In Adolescents



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- Frequent intoxication
- Change in peer group, failing to introduce peers to parents
- Disruptive behavior
- Avoiding school
- Decline in academic performance
- Rapid changes in mood
- Hostile outbursts
- Dropping out of activities
- Change in physical appearance, poor hygiene
- Depression
- Anxiety
- Difficulty sleeping
- Secretive behavior (e.g., sneaking out, lying, locking doors (e.g., bedroom, bathroom))

Triggers and Cravings

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- A “**trigger**” is a stimulus which has been repeatedly associated with the preparation for, anticipation of or the use of drugs and/or alcohol.
 - ▣ These stimuli include people, things, places, times of day, and emotional states.
- Substance use “**craving**” refers to the very strong desire for a psychoactive substance or for the intoxicating effects of that substance.
 - ▣ Cravings include thoughts (about the urge to use), physical symptoms (heart palpitations) and behaviors (pacing)



Stimulus



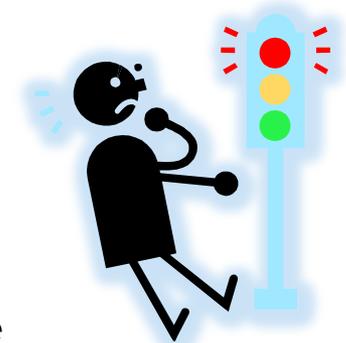
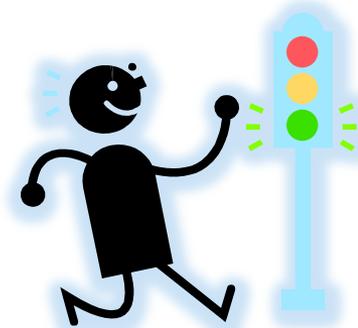
Craving

Common reasons given by adolescents for using alcohol and drugs

(Titus, Godley, White, 2007)

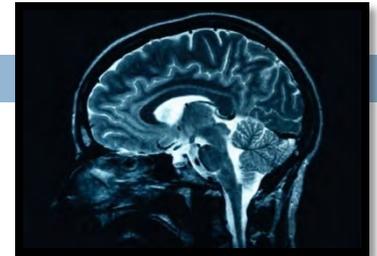
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- **Reasons for starting:**
 - Social pressures
 - Experimentation
 - To cope with difficulties
- **Reasons for continuing**
 - Feels good
 - Coping with difficulties
 - To pass the time, deal with boredom
 - To manage withdrawal symptoms
- **Reasons for quitting**
 - Decided that substance use no longer fits with lifestyle
 - To prevent adverse impact on anticipated future
 - Negative physical and psychological effects
 - Outside pressures (probation, jail, drug testing)



Why are the risks greater for adolescents?

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- Disruption of normal brain development
 - ▣ Hippocampus (learning and memory)
 - ▣ Prefrontal cortex (critical thinking, planning, impulse control, and emotional regulation)
- Interference with many physiological processes that can destabilize mood (depression, aggression, violence, and suicide).
- Decision-making abilities are not fully developed
- The earlier the onset age of drinking, the greater the risk for lifetime alcohol abuse or dependence (DeWit, Adlaf, Offord, & Ogborne, 2000).

THE CONNECTION BETWEEN TRAUMA AND SUBSTANCE ABUSE





How Common are PTSD and SUDs?

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- **Trauma Exposure and PTSD**
 - **General population: 25% of children and adolescents** (Costello, et al., 2002) **and 4-13% have PTSD** (Kilpatrick, Saunders & Smith, 2003; Kilpatrick, Ruggiero, Acierno, Saunders, Resnick, & Best, 2003).
 - **Juvenile Justice: 75% experienced traumatic victimization and 50% of these experienced trauma symptoms** (Ford, Chapman, Hawke, & Albert, 2007)
- **Substance Use and Abuse**
 - **By 8th grade, 29% experimented with illegal drugs and 41% consumed alcohol** (Johnston, et al, 2007).
 - **Abusive/dependent or problematic use of illicit drugs or alcohol : 1 in 5 US adolescents ages of 12 and 17** (SAMHSA, 2006; Knight et al, 2007).

Co-Occurrence of PTSD and SUDs

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- ❑ Traumatic stress and substance abuse problems commonly co-occur among adolescents
- ❑ The co-occurrence is even greater in treatment settings, with rates highest among females

Epidemiological studies show the overall rates of co-occurrence of PTSD and substance abuse can range from 13.5% to 29.7% ¹

✓ Lifetime prevalence rates of trauma exposure: 71-80% ^{2, 3}.
✓ Lifetime prevalence rates of PTSD 24.3% -45.3% ²
✓ Current prevalence rates of PTSD: 14%- 40.0% ^{2, 4}

Known pathways linking PTSD and SUDs

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(Giaconia, Reinherz, Paradis, 2003)

- High Risk Behaviors
- Susceptibility
- Self Medication



The role of stress

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- Initiation of use
- Continuation of use
- Relapse



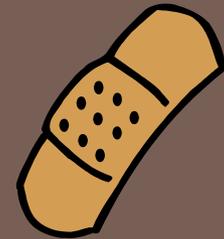
Stimulus/Signal



Conditioned Emotional Reaction



Conditioned Avoidant Response



Trauma Reminder



Sadness, anger, anxiety, guilt, shame



Dissociation, Self Harm, risky behaviors



Substance use Cue/Trigger



Craving



Substance use

Stimulus-Response Relationships in PTSD and SUDs

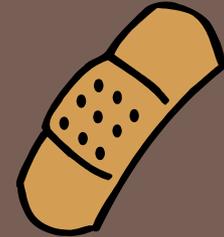
Stimulus/Signal



Conditioned Emotional Reaction



Conditioned Avoidant Response



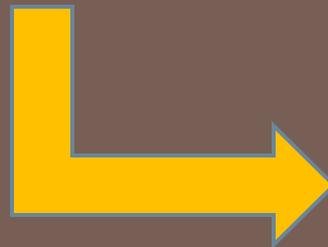
Trauma Reminder



Sadness, anger, anxiety, guilt, shame



Dissociation, Self Harm, risky behaviors



Substance use Cue/Trigger



Craving



Substance use

Stimulus-Response Relationships in PTSD and SUDs

Biological Processes

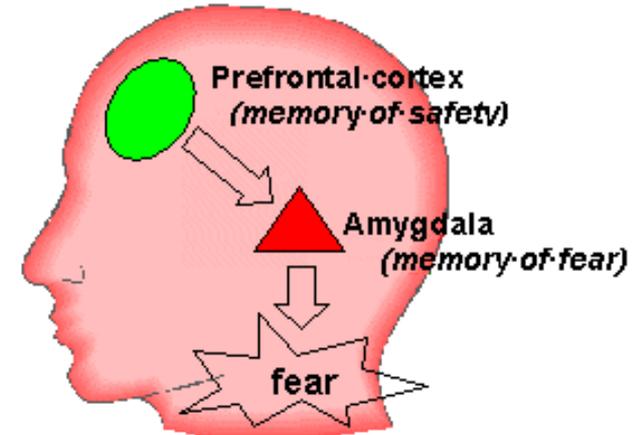
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- **Amygdala:** Stores emotional content of conditioned reactions

(Koob & LeMoal, 1997)

- ▣ The context of drug and alcohol use (Boening, 2001)
- ▣ Processing emotionally laden stimuli, such as trauma reminders

(Charney et al, 1993).





Common Environmental Risk Factors

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□ **Family**

- Attachment/communication difficulties
- Monitoring/Limit setting
- Family discord

□ **School**

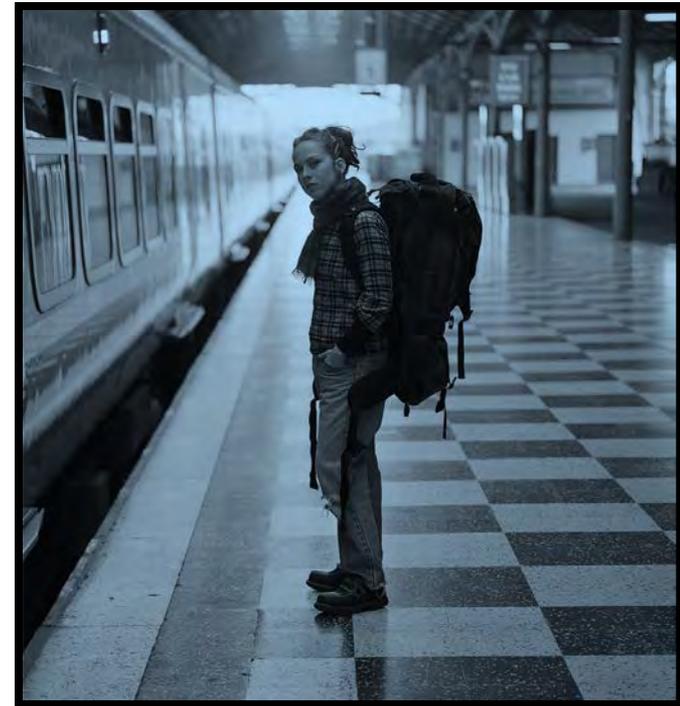
- Academic problems
- Lack of bonding with school
- Threatening /risky social environment

□ **Peer**

- Gang involvement
- Exposure to victimizing, substance using peers

□ **Community**

- Neighborhood violence
- Limited availability of needed services & resources





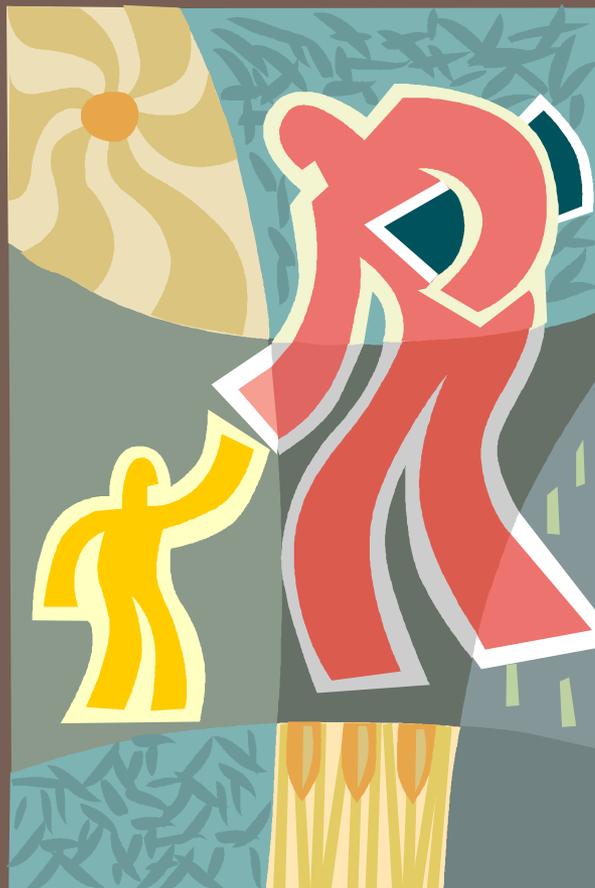
System Challenges

Many problems & few resources

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- Emotional/Behavioral Regulation Problems
- Coping Deficits
- Family Strain
- Environmental Stress
- Academic Problems
- Health Problems
- Late identification (lack of systematic screening)
- Multiple service system involvement (DCFS, Juvenile Justice)
- Lack of training or resources
- Lack of service coordination





BEING TRAUMA INFORMED



What role do you play in the lives of youths that you work with?

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- Supervision
 - Monitoring progress
- Report to court
- Recommendations
 - intensity and level of supervision
- Rehabilitation
 - Connecting with services & programs (vocational, health care, mental health treatment, drug monitoring & treatment, education)
- Court hearings

Being Trauma Informed in Juvenile Justice Settings

(Griffin, Germaine, & Wilkerson, in press)



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Punishment Lens	Trauma Informed Lens
Premise: Youth is acting rationally	Premise: Youth feels threatened and overreacts
Premise: Youth is reacting to external events	Premise: Youth has an inherent mental illness
Focus on eliminating problem behaviors	Focus on youth's strengths, teaches alternatives (e.g. coping & self regulation skills, vocational training), increases resiliency to future negative events
Juvenile justice staff refer youth for services and monitor compliance	Juvenile justice staff are integral to the goal of building supportive adult relationships

Goal: I will use what I know about trauma and substance abuse to inform my interactions with the youth I work with

What are the advantages of achieving this goal?

What are the disadvantages?

What are the challenges?



SCREENING AND ASSESSMENT

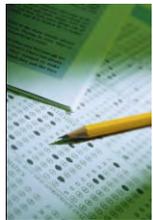


Need for Comprehensive Assessment

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- *If we don't ask, they won't tell.*
- *How we ask matters.*
- Assessment may help explain youth problem behavior and its connection to his/her experiences of trauma, and whether substance use is a means to cope with distress.
- Assessment provides input for the development of achievable goals.
- The presence of one of these problems can—and often does—exacerbate the other

Instruments used within Illinois Department of Juvenile Justice



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- **Massachusetts Youth Screening Instrument-Second Version (MAYSI-2):** brief screening tool designed to assist juvenile justice facilities in identifying youths at admission who may have special mental health needs. Scales include Alcohol/Drug Use, Angry/Irritable, Depressed Anxious, Somatic Complaints, Suicide Ideation, Thought disturbance, & Traumatic experiences
- **Youth Assessment and Screening Instrument(YASI):** assesses risk, needs and protective factors and helps develop case plans for youth . Domains evaluated include family, school, community/peer, alcohol/drugs, mental health, violence/aggression, attitudes, skills, employment/free time, & legal history.
- **Child Assessment of Needs and Strengths (CANS-JJ):** designed for use in the juvenile justice system, assesses the youth's strengths, criminal/delinquent behavior, substance abuse, and other risk behaviors

Components of Trauma Assessment

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- Trauma assessment typically involves conducting a thorough trauma history.
 - ▣ Identify all forms of traumatic events experienced directly or witnessed by the child, to determine what is the best type of treatment for that specific child.
- Supplement trauma history with trauma-specific standardized clinical measures to assist in identifying the types and severity of symptoms the child is experiencing.

Examples of Trauma Assessment Tools used by clinicians

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- **UCLA PTSD Reaction Index:** Youth self-report screen for exposure to traumatic events and DSM-IV PTSD symptoms.
 - ▣ Sample item: “I try to stay away from people, places, or things that make me remember what happened.”
- **The Trauma Symptom Checklist for Children:** Youth self-rating measure used to evaluate both acute and chronic posttraumatic stress symptoms.
 - ▣ Sample item: “How often do you have bad dreams or nightmares?”

For more information go to www.nctsn.org/measures.

Substance Abuse Assessment Tools

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*Screening
and
Assessing
Adolescents*

*for
Substance
Use
Disorders:*

*Treatment
Improvement
Protocol (TIP)
Series 31*

- Free guide that provides information about screening and assessment of adolescents with substance use disorders including descriptions of specific assessment instruments.
- This guide can be downloaded or ordered for free at the National Clearinghouse for Alcohol and Drug Information

For more information go to <http://ncadi.samhsa.gov/> or www.health.org.

Substance Abuse Assessment Tools

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CRAFT

- Six-item measure that assesses for problematic substance use among adolescents (reasons for drinking or other substance use, risky behavior associated with substance use, peer and family behavior surrounding substance use, whether the adolescent has ever been in trouble as a result of his or her substance use).
- This measure is very short and can be given as a standard part of an initial assessment to screen for likelihood of a substance use disorder.
- Two or more “yes” responses are suggestive of a probable substance use disorder and should be followed up with a more in-depth assessment.

Adolescent Substance Abuse Screening: CRAFFT

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C
R
A
F
F
T

1. Have you ever ridden in a **C**ar driven by someone (including yourself) who was “high” or had been using alcohol or drugs?
2. Do you ever use alcohol or drugs to **R**elax, feel better about yourself, or fit in?
3. Do you ever use alcohol/drugs while you are by yourself, **A**lone?
4. Do your **F**amily or **F**riends ever tell you that you should cut down on your drinking or drug use?
5. Do you ever **F**orget things you did while using alcohol or drugs?
6. Have you gotten into **T**rouble while you were using alcohol or drugs?

*2 or more yes answers suggests risk for substance use disorder

Additional Substance Abuse Measures

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- **POSIT: Problem Oriented Screening for Teenagers**
 - ▣ This scale was designed to identify potential problems in need of further assessment, and potential treatment or service needs, in 10 areas including substance abuse, mental health, physical health, family relations, peer relations, educational status, vocational status, social skills, recreation, and aggressive behavior/delinquency.
- **GAIN: Global Appraisal of Individual Needs**
 - ▣ The GAIN is a series of clinician-administered biopsychosocial assessments designed to provide information useful for screenings, diagnosis, treatment planning, and monitoring progress. Domains measured on the GAIN-Initial (GAIN-I) include substance use, physical health, risk behaviors, mental health, environment, legal and vocational. Several scales are derived from the GAIN-I, including substance problem, traumatic stress, and victimization indices.



TREATMENT FOR ADOLESCENTS WITH TRAUMA AND SUBSTANCE ABUSE PROBLEMS

Components of Trauma-Informed Evidence-Based Treatment

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- Psychoeducation about normal responses to trauma
- Coping skills (e.g., anxiety management, relaxation, challenging maladaptive thoughts)
- Trauma processing (trauma narrative): strategies that allow exposure to traumatic memories and feelings in tolerable ways so that they can be mastered and integrated into the child's experience
- Personal safety training and empowerment activities





Examples of Trauma Treatments

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- Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)
- Cognitive Behavioral Intervention for Trauma in Schools (CBITS)
- Trauma Affect Regulation: Guide for Education and Therapy (TARGET)
- Structured Psychotherapy for Adolescents Responding to Chronic Stress (SPARCS)
- Integrated Treatment for Adolescents with Traumatic Stress and Substance Abuse (I-CARE)

See http://www.nctsn.com/nccts/nav.do?pid=ctr_top_trmnt_prom#q4 for factsheets on treatments.

Components of Evidence-Based Substance Abuse Treatment

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- Psychoeducation (for youth and their families)
 - ▣ Providing information about substance use (cues/cravings), coping with distress (which can include trauma reminders) and the interaction between the two
- Helping youth identify triggers and manage cravings
 - ▣ Help youth formulate constructive ways to handle symptoms, cravings, and distress without substance use
- Motivational Interviewing
 - ▣ Taking an empathic, non-judgmental stance and listening reflectively
 - ▣ Developing discrepancy between the adolescent's goals and their current behavior
 - ▣ Rolling with the client's resistance and avoiding argumentation
 - ▣ Supporting self-efficacy for change.

Additional Core Components

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- Family based treatment
 - ▣ Communication & Behavior management
- Random urine drug screenings (with contingency management)
- Drug refusal skills and assertiveness training
- Relapse prevention
 - ▣ Acknowledge and prepare for the role of stress and trauma on relapse





Examples of Evidence-Based Substance Abuse Treatments for Adolescents

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- Cognitive-Behavioral Therapy (CBT)
- Motivational Interviewing (MI) or
Motivational Enhancement plus CBT (MECBT)
- Multidimensional Family Therapy (MDFT)
- Brief Strategic Family Therapy (BSFT)
- Multisystemic Therapy (MST)
- Adolescent Community Reinforcement Approach
(ACRA)



General Recommendations

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- Seek more training, resources, and support
- Include trauma and substance abuse in screening and assessment efforts
- Connect youth with needed services
- Consider intense treatment options to address the magnitude of difficulties often experienced by this population.
- Prepare and plan for the possibility of relapse



MANAGING PROFESSIONAL AND PERSONAL STRESS

Working with trauma survivors can increase the potential for secondary traumatic stress.



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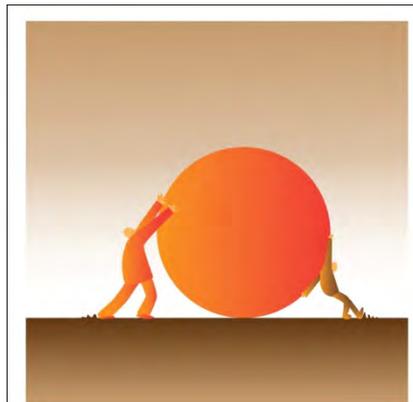
- Emotional distress
 - ▣ Development of emotional numbing or feeling disconnected from others.
 - ▣ Strong feelings of grief, rage, and outrage
 - ▣ Being easily moved to tears
 - ▣ Feelings of despair and hopelessness
- Work/life interference
 - ▣ Feeling off balance
 - ▣ Feelings of “burn-out”
 - ▣ Reduced productivity

Self-Care/Coping

(Saakvitne et al., 2000)

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- Three essential tools in coping with secondary traumatic stress are awareness, balance, and connection.
 - ▣ **Awareness:** Being attuned to your needs, limits, emotions, and resources.
 - ▣ **Balance:** Maintaining balance among work, play, and rest.
 - ▣ **Connection:** Connections to oneself, to loved ones, to colleagues, and to the larger community.



Case Example: Enrique



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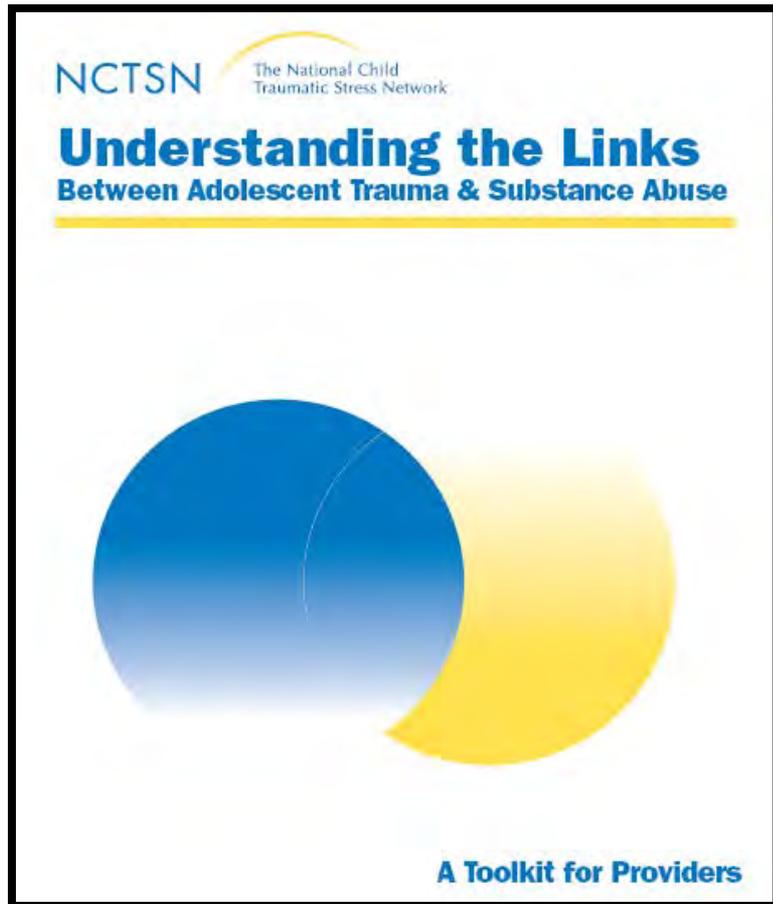
- What are the different traumatic events Enrique has experienced?
- What signs can be seen for Enrique of the impact of trauma and stress over the years?
- What role did substance abuse play in Enrique's life?
- At what points in Enrique's life could adults have intervened?
- Applying a trauma lens to your interactions with Enrique, describe what you would do within your role as his probation officer?
- Are you aware of any specialized services that could help?
- Thinking about your personal experiences and your contact with youth of similar backgrounds and histories, how might Enrique's situation impact you?
- What are ways you could deal with secondary traumatic stress and compassion fatigue?

Available resources:

Understanding the Links Between Adolescent Trauma & Substance Abuse: A Toolkit for Providers

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- http://www.nctsn.org/nccts/nav.do?pid=ctr_top_adol



www.nctsn.org

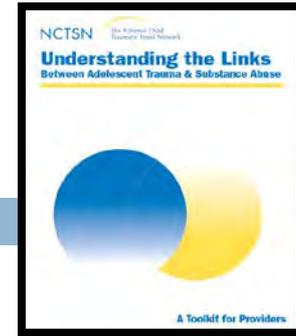
>Resources

>Topics

>Adol. Substance Abuse

Toolkit components

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- Resources for providers
 - Making the Connection between Trauma and Substance Abuse
 - Understanding Traumatic Stress in Adolescent A Primer for Substance Abuse Professionals
 - Understanding Substance Abuse in Adolescents A Primer for Mental Health Professionals
 - Treatment for Youth with Traumatic Stress and Substance Abuse Problems
 - Treatment for Youth with Traumatic Stress and Substance Abuse Problems
- Resources for Consumers
 - Helping Your Teen Cope with Traumatic Stress and Substance Abuse
 - Using Drugs to Deal with Stress and Trauma
 - Recognizing Drug Use in Adolescents-A Quick Guide for Caregivers and Adults

Additional resources

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- ❑ Fact Sheets on Juvenile Justice and Trauma
- ❑ Fact Sheets on Youth, Trauma, and Gang Involvement
- ❑ Helping Traumatized Children: Tips for Judges
- ❑ Juvenile and Family Court Journal: Special Editions on Child Trauma
- ❑ Service Systems Brief: Judges and Child Trauma
- ❑ Ten Things Every Juvenile Court Judge Should Know About Trauma and Delinquency

www.nctsn.org

>Resources

>Topics

>Juvenile Justice
System

Questions?

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