Welcome: A Few Things to Note

1. Participants will be muted upon entry and videos turned off

2. For technical assistance, please use the chat feature

3. You will receive an email approximately 1 month requesting feedback/impact on this presentation

4. Visit www.nceedus.org/training to view other training opportunities

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Shared Co-Factors for Co-Occurring Substance Use Disorders and Eating Disorders

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Objectives

1. Participants will describe the differences and similarities in presentation of substance use disorders and eating disorders.

2. Participants will describe how prevalent trauma is in substance use disorders and eating disorders.

3. Participants will be able to describe how trauma affects the brain and increases risk for substance use disorders and eating disorders.
Carolyn Coker Ross, MD, MPH, CEDS is an African-American author, speaker, expert in treating eating disorders, addictions and trauma. She is board certified in Preventive Medicine and also in Addiction Medicine and is a graduate of Dr. Andrew Weil’s fellowship in Integrative Medicine. Dr. Ross is the former head of the eating disorder program at Sierra Tucson and has served as a consultant to multiple treatment programs at all levels of care on the treatment of eating disorders and addictions. For the past 4 years, Dr. Ross has been an international speaker and consultant on issues of cultural competence, antiracism and diversity in mental health with a particular emphasis on the treatment of eating disorders in women of color.

She is the author of 3 books on eating disorders, the most recent is “The Food Addiction Recovery Workbook.” She is a contributing author to the book: “Treating Black Women with Eating Disorders: A Clinician’s Guide.” She is co-founder of the Institute for Antiracism and Equity – a consulting group that works with University counseling centers, treatment centers and other facilities offering mental health care - training staff and health care professionals - to make culturally competent mental health care more available and accessible to black, indigent and other people of color. She is a co-editor and contributing author to the Institute’s upcoming book: ”Anti-Blackness, White Privilege and Authentic Allyship in Psychology.”
Neurobiology of Trauma
The brain has plasticity but this is most available in younger ages.

Neurodevelopment involves billions of interactions across multiple domains: multiple micro (synapse), macro domains (maternal-child interactions).

These result in the dynamic expression of our genetic potential and the organization of nerve cells and synapses that make up the human brain. Maltreatment disrupts this process.

Trauma, neglect and other experiences of maltreatment (prenatal exposure to drugs or alcohol) or impaired early bonding all influence the human brain.

Bruce Perry 2009
Brain Development

- Brain development is bottom up
- The organization of higher brain depends on input from the lower brain
- Timing is everything

Executive Center
"The Thinking Brain"
Developmental shifts around ages 5-6, 11 & 15. Handles logic, empathy, compassion, creativity, self-regulation, self-awareness, prediction, planning, problem-solving, attention.

Emotional Center
"The Emotional Brain"
Developmental focus is during ages 0-5. Processes emotions, memory, response to stress, nurturing, caring, separation anxiety, fear, rage, social bonding and hormone control.

Survival Center
"Fight, Flight or Freeze"
Developed at birth. Regulates autonomic functions: breathing, digestion, heart rate, sleep, hunger, instinctual behaviors & behaviors that sustain life.
Development of the Human Brain

- Reward center of brain has two functions:
  - Judgment, thinking, executive function = Prefrontal cortex
  - Emotion, memory, impulsivity = Limbic

- Child’s brain is more malleable to experience than mature brain (plasticity) – GOOD OR BAD EXPERIENCES

- Timing of adverse childhood experiences makes a difference (before age three)

- Neglect in childhood affects brain development.
  - For example, a ten-year-old child may have the speech and language skills of an eight-year-old, the social skills of a four-year-old and the emotion regulation skills of a toddler.
When there is a threat to a child that is prolonged and repetitive, the brain undergoes “use-dependent” changes. This affects norepinephrine and changes the brain’s response to stress. The brain will reset, acting as if it is under constant and present threat. (Perry & Pollard, 1998; Hambrick et al. 2019).
Child maltreatment
WHO facts

• Nearly 3 in 4 children - or 300 million children - aged 2–4 years regularly suffer physical punishment and/or psychological violence at the hands of parents and caregivers.

• One in 5 women and 1 in 13 men report having been sexually abused as a child aged 0-17 years.

• 120 million girls and young women under 20 years of age have suffered some form of forced sexual contact.

• A child who is abused is more likely to abuse others as an adult so that violence is passed down from one generation to the next.

• Children who experienced any form of violence in childhood have a 13% greater likelihood of not graduating from school.

• In armed conflict and refugee settings, girls are particularly vulnerable to sexual violence, exploitation and abuse by combatants, security forces, members of their communities, aid workers and others.
Child maltreatment-a Global Issue

1. Child maltreatment has strong and lasting impacts on brain architecture, psychological functioning, mental health, health risk behaviors, life expectancy, health care costs and social functioning

2. The impact of these effects on human potential, the workforce and on social and economic development are better understood

3. Epidemiological studies show that child maltreatment is not just a phenomenon of the West but is global

4. Treatment and later prevention are much more costly than prevention.

“Trauma” refers to experiences that cause intense physical and psychological stress reactions.

“Trauma results from an event, series of events, or set of circumstances that is experienced by an individual as physically or emotionally harmful or threatening and that has lasting adverse effects on the individual’s function and physical, social, emotional, or spiritual well-being” (Substance Abuse and Mental Health Services Administration [SAMHSA])
Reflection Point – explore individual trauma

- ACE QUIZ
- bit.ly/ACE4me

To the best of your knowledge, has your child ever been treated or judged unfairly because of his or her race or ethnic group?
Childhood Neglect

- The most frequent form of child maltreatment.
- Neglect, from a neurodevelopmental perspective, is the absence of the necessary timing, frequency, pattern, and nature of experience (and the patterns of neural activation caused by these experiences) required to express the genetic potential of a core capability (e.g., self-regulation, speech and language, capacity for healthy relational interactions).
  - Perry, 2009
Most commonly reported traumas worldwide:
- Death of a loved one – 30.5%
- Witnessing violence – 21.8%
- Experiencing interpersonal violence – 18.8%
  - WHO surveys

Trauma from assaults is higher in US than other developed countries

New Zealand Study:
- Sudden unexpected death by trauma of a close family member or friend (38 percent).
- Personal assault or victimization (32 percent).
- Serious accidents (14 percent).
- Hearing about or witnessing a close friend or relative experiencing an assault, serious accident, or serious injury (12 percent).
- Personal illness (3 percent).
- Natural disaster (1 percent)
Adverse Childhood Experiences

Traumatic events that can have negative, lasting effects on health and wellbeing

- Abuse
  - Emotional abuse
  - Physical abuse
  - Sexual abuse

- Neglect
  - Emotional neglect
  - Physical neglect

Adverse childhood experiences are the single greatest unaddressed public health threat facing our nation today

Dr. Robert Block, the former President of the American Academy of Pediatrics

- 67% of the population have at least 1 ACE
- 1/8 of the population have more than 4 ACEs
- People with 6+ ACEs can die 20 yrs earlier than those who have none

Lifelong health

- Early Health
  - Disease, Disability, Social Problems
  - Adoption of Health-risk Behaviours
  - Disrupted Neurodevelopment
  - Social, Emotional, Cognitive impairment
  - Adverse Childhood Experiences

4 or more ACEs

- 3x the levels of lung disease and adult smoking
- 14x the number of suicide attempts
- 4.5x more likely to develop depression
- 11x the level of intravenous drug abuse
- 4x as likely to have begun intercourse by age 15
- 2x the level of liver disease
The Brain and Neglect
Healthy Brain

This PET scan of the brain of a normal child shows regions of high (red) and low (blue and black) activity. At birth, only primitive structures such as the brain stem (center) are fully functional; in regions like the temporal lobes (top), early childhood experiences wire the circuits.

An Abused Brain

This PET scan of the brain of a Romanian Orphan, who was institutionized shortly after birth, shows the effect of extreme deprivation in infancy. The temporal lobes (top), which regulate emotions and receive input from the senses, are nearly quiescent. Such children suffer emotional and cognitive problems.
“…..the impact of trauma is upon the survival or animal part of the brain. That means that our automatic danger signals are disturbed, and we become hyper- or hypo-active: aroused or numbed out. We become like frightened animals. We cannot reason ourselves out of being frightened or upset.

Of course, talking can be very helpful in acknowledging the reality about what’s happened and how it’s affected you, but talking about it doesn’t put it behind you because it doesn’t go deep enough into the survival brain.”

Van der Kolk
www.psychotherapy.net/interview/bessel-van-der-kolk-trauma
Culture and Trauma
ACEs are More Common in BIPOC

- Across all racial groups, **black and Hispanic children** were exposed to **more adversities** than white children in the US
  - Income disparities in exposure were larger than racial disparities (Slopen et al., 2016)

- 61% of black children and 51% of LatinX children have experienced at least one adversity, compared with 40% of white children and only 23% of Asian children.

https://www.aft.org/ae/summer2019/murphey_sacks
Substance Use Disorders and Trauma

- Severe Trauma and SUD go hand and hand: (Khoury et al., 2010)
  39% alcohol, 34.1% cocaine, 6.2% heroin/opiates, and 44.8% marijuana

- The level of substance abuse is correlated with levels of childhood physical, sexual and emotional abuse and PTSD symptoms. (Khoury, et al. 2010)

- Statistics:
  - 25-75% of abuse survivors report problem drinking
  - Up to 80% of Vietnam veterans seeking help for PTSD also have problem drinking or depression
  - Men and women with Hx of sexual abuse have higher SUD than others
Case
SUD and Trauma in Adolescents

- Adolescents who have experienced sexual assault are:
  4.5 times more likely to experience alcohol abuse
  4 times more likely to experience marijuana abuse or dependence
  9 times more likely to have “hard drug” abuse or dependence

- Adolescents with PTSD:
  4 times more likely than those without PTSD to abuse alcohol or have AUD
  6 times more likely to abuse marijuana or be dependent
  9 times more likely to experience hard drug abuse or dependence.

ISTSS.org
Childhood trauma in a community sample of women with SUD

- 60% with sexual abuse
- 55% with physical abuse
- 46% with emotional abuse
- 83% were emotionally neglected
- 59% were physically neglected

Madrano MA, et al. 1999
Trauma and SUD

- People with PTSD were 2-4 times more likely than someone without PTSD to have SUD.
- In treatment seeking populations, those with PTSD were up to 14 times more likely to have SUD compared to those without PTSD.
- Conversely in individuals seeking treatment for SUD, lifetimes PTSD rates were 30-60%.
Trauma and SUD

PTSD plus SUD:
• Poorer outcomes
• Increased physical health problems
• Poorer social functioning
• Higher rates of suicide attempts
• More legal problems
• Increased risk of violence
• Worse treatment adherence
• Less improvement during treatment

Jenna L McCauley et al. (2013)
SUD and Trauma Effects

Up to half of individuals with Alcohol Use Disorders and PTSD have other psychological / physical manifestations:

1. Severe anxiety disorders, panic attacks, phobias, incapacitating worry or compulsions
2. Mood disorders (depression / dysthymia)
3. Disruptive behavior disorders (ADHD or antisocial personality disorder)
4. Polysubstance use / abuse
5. Physical health problems: chronic physical illnesses, chronic pain
CASE
Eating Disorders and Trauma

- “the vast majority of women and men with anorexia nervosa (AN), bulimia nervosa (BN), and binge eating disorder (BED) reported a history of interpersonal trauma” (Mitchell et al. 2012).
- Approximately one-third of women with bulimia, 20% with binge eating disorder and 11.8% with non-bulimic/non binge eating disorders met criteria for lifetime PTSD. Overall, the most significant finding was that rates of eating disorders were generally higher in people who experienced trauma and PTSD (Mitchell et al. 2012).
- There are many types of trauma that can be associated with eating disorders including neglect, sexual assault, sexual harassment, physical abuse and assault, emotional abuse, emotional and physical neglect (including food deprivation), teasing, and bullying
- “Women who reported sexual trauma were significantly more likely to exhibit psychopathology than controls, including higher rates of both PTSD and EDs [eating disorders]”
  - (Brewerton 2007).
Trauma and Eating Disorders

- Eating disorders are associated most with emotional, sexual or physical abuse, emotional neglect (Guillaume et al., 2016)
  - Emotional abuse predicted higher eating, shape and weight concerns and lower daily functioning
  - Sexual abuse predicted higher eating concern
- Some victims may wish to be thin to reduce their attractiveness or may gain weight in the case of those with binge eating disorder to accomplish the same goal (Dunkley et al. 2010; Sack et al. 2010; Yehuda 2001)
- The prevalence of BN [bulimia nervosa] “rates were significantly higher only in subjects with histories of rape with PTSD compared with subjects with histories of rape without PTSD and those subjects with no history of rape. These results suggest that it is PTSD, rather than an abuse history per se, that best forecasts the emergence of BN” (Brewerton 2007).
- Women and men with trauma and PTSD have higher rates of eating disorders than the general population (Mitchell et al. 2012).
- The relationship between ACE’s and eating disorders is mediated by emotional dysregulation (Trottier and MacDonald, 2017)
Piran and Robinson (2006) looked at the relationship between EDs and SUDs and found that:

- As eating disorders became more severe, the number of different substances used increased.
- Severe binge eating disorder (BED) was consistently associated with alcohol use.
- Attempts to lose weight by purging (with or without binge eating) were associated with stimulant/amphetamine and sleeping pill (e.g., triazolam, flurazepam) abuse.

Gadalla and Piran (2008) found that women with either an SUD or an ED were more than four times as likely to develop the other disorder as were women who had neither disorder.

Gilchrist and colleagues (2007) examined the co-occurrence of EDs and SUDs and reported that 14 percent of women with an SUD had AN and 14 percent had BN.
Attachment styles and sensitivity to media images

Insecure attachment is associated with destructive coping mechanisms (binging, restricting) and negative body image

More easily overwhelmed by stress → increased risk of relapse
Attachment and Substance Use Disorders

Insecurely attached individuals engage in more substance use than those with secure attachments.

Insecure attachment precedes substance use and endures throughout the lifespan.

Early attachment style predicts later changes in substance use more than substance use predicts later changes in attachment style.

What is the purpose of therapy?
Therapy must change the brain

- Childhood maltreatment ➔ disorganized or poorly regulated networks (monoamine neurotransmitters) in the lower brain
- Current treatment targets the limbic or cortical (cognitive and relational interactions)
- Changing the brain requires repetitions to modify the neural pathways in the brain
Case
Cultural resilience

1. Significance: Realizing that one matters to others creates enormous strength inside of that person. This describes the spirit of Belonging.

2. Competence: A capable human being can learn, solve problems, and develop talents and abilities. Such is the joy that comes from Mastery.

3. Power: This is not power wielded over others, but the ability to control one’s emotions and set the course of one’s destiny. This is true Independence.

4. Virtue: Ultimately, one cannot know that he or she is valued unless he or she is of value to others. This is the spirit of Generosity.

Treatment Planning

- Assess ACEs and attachment styles – ACE Quiz
- Assess developmental status of the brain
- Lower vs. higher brain therapies – which come first
- How can you address food in a way that impacts lower brain and higher brain
- Management of stress and the stress response
- Building a foundation for recovery
The Binge Eating & Compulsive Overeating Workbook
An Integrated Approach to Overcoming Disordered Eating

The Joy of Eating Well
A PRACTICAL GUIDE TO Transform Your Relationship with Food
Overcome Emotional Eating • Achieve Lasting Results
References


References


Thank you!