UNDERSTANDING THE SCIENCE OF ADVERSE CHILDHOOD EXPERIENCES (ACEs)

Session One

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IMPACT OF CHILDHOOD TRAUMA

The CDC and Kaiser Permanente surveyed 17,000 of the health plan’s members to ask whether they’d had adverse childhood experiences defined as:

- **ABUSE**
  - Psychological
  - Physical
  - Sexual

- **NEGLECT**
  - Emotional
  - Physical

- **HOUSEHOLD CHALLENGES**
  - Family member experiencing:
    - Domestic abuse
    - Mental illness
    - Imprisonment

The landmark study found those with adverse childhood experiences were at higher risk for:

- **HEART, LUNG, AND LIVER DISEASE**
- **OBESITY**
- **DIABETES**
- **DEPRESSION**
- **SUBSTANCE ABUSE**

THE STUDY ALSO FOUND

NEARLY TWO THIRDS of those surveyed experienced at least one event.

The higher the score on ACE survey, the more likely people were to be in poor health:

- Liver disease
- COPD (chronic obstructive pulmonary disease)

Adverse childhood and community experiences (ACEs) can occur in the household, the community, or in the environment and cause toxic stress. Left unaddressed, toxic stress from ACEs harms children and families, organizations, systems and communities, and reduces the ability of individuals and entities to respond to stressful events with resiliency. Research has shown that there are many ways to reduce and heal from toxic stress and build healthy, caring communities.

Thanks to Building Community Resilience Collaborative and Networks and the International Transformational Resilience Coalition for inspiration and guidance. Please visit ACEsConnection.com to learn more about the science of ACEs and join the movement to prevent ACEs, heal trauma and build resilience.
Adverse Childhood Experiences

How Knowing About ACEs HELPS

Dr. Burke Harris describes one woman's reaction to learning about ACEs:

"These are tears of pure, unadulterated joy." "Why joy?" ... "Because I understand now why I am this way. I understand why my siblings are this way. I understand why my mother raised us the way she did. I understand that I can break this cycle for my children and I understand that I’m not a victim, I’m a survivor." p. 178

Nadine Burke Harris, MD  The Deepest Well  p 178

Educate Your Doctor

Free Downloadable ACEs Fact Sheet

Veronique Mead, MD, MA  Chronic Illness Trauma Studies.com
The healthy development of children provides a strong foundation for healthy and competent adulthood, responsible citizenship, economic productivity, strong communities, and a sustainable society.
What Develops?

Brain Architecture:

- Shaped by early experiences
- Simple skills come first; complex skills build on them
- Strong foundation improves odds for positive outcomes; a weak foundation increases the odds of problems later in life
Three Core Concepts in Early Development

1. Experiences Build Brain Architecture

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child | HARVARD UNIVERSITY
Neural Circuits are Wired in a Bottom-Up Sequence

(700 synapses formed per second in the early years)

Sensory Pathways (Vision, Hearing)
Language
Higher Cognitive Function

FIRST FIVE YEARS

How?

Serve & Return Relationships

- Key to forming strong brain architecture
- Back-and-forth process: children reach out for connections and communications with adults, and adults reciprocate
- Wires the brain with the connections needed for healthy development
Three Core Concepts in Early Development

2. Serve & Return Interaction Shapes Brain Circuitry

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What Derails Development?

Toxic Stress

- Unlike mild, short-lived stress that can be good for growth, certain types of stress can weaken the brain’s architecture.
- Experiences such as abuse, neglect or exposure to violence can cause toxic stress responses in the brain, with lifelong consequences in health, learning and behavior.
Three Core Concepts in Early Development

Toxic Stress Derails Healthy Development

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THE TRUTH ABOUT ACES

WHAT ARE THEY?

ACES are ADVERSE CHILDHOOD EXPERIENCES

HOW PREVALENT ARE ACES?

The ACE study* revealed the following estimates:

ABUSE
- Physical Abuse: 15.9%
- Sexual Abuse: 6.6%
- Emotional Abuse: 30.9%

NEGLECT
- Emotional Neglect: 45.6%
- Physical Neglect: 9.0%

HOUSEHOLD DYSFUNCTION
- Domestic Violence Abuse: 20.9%
- Parental Disease: 20.9%
- Household Mental Illness: 20.9%
- Witnessed Domestic Violence: 20.9%
- Two or More Adverse Experiences: 50.8%

WHAT IMPACT DO ACES HAVE?

As the number of ACES increases, so does the risk for negative health outcomes:

- 0 ACES
- 1 ACE
- 2 ACES
- 3 ACES
- 4+ ACES

Possible Risk Outcomes:

- Physical & Mental Health
- Behavioral

rwjf.org/aces

*Source: http://www.hukc.org/research/aces.html
The Pair of ACEs

Adverse Childhood Experiences

- Maternal Depression
- Physical & Emotional Neglect
- Emotional & Sexual Abuse
- Mental Illness
- Substance Abuse
- Incarceration
- Domestic Violence
- Divorce
- Homelessness
- Violence

Adverse Community Environments

- Poverty
- Discrimination
- Community Disruption
- Lack of Opportunity, Economic Mobility & Social Capital
- Poor Housing Quality & Affordability

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ACE Pyramid

ACE Pyramid: Conceptual Framework
- Adverse childhood experiences
- Social, emotional and cognitive impairment
- Adoption of health-risk behaviors
- Disease, disability and social problems
- Early death

ACE Pyramid: Real Life Scenario
- Sexual abuse
- Depression
- Overeating
- Diabetes
- Early death

Scientific gaps

Whole life perspective

Conception
90-100% CHANCE OF DEVELOPMENTAL DELAYS WHEN CHILDREN EXPERIENCE 6-7 RISK FACTORS
Prevalence of illicit drug use by ACEs score

- Lifetime illicit drug use
- Illicit drug use by age 14

ACEs Score

0 1 2 3 4 ≥ 5

0% 10% 20% 30% 40%
How do ACEs affect health?

**Through stress.** Frequent or prolonged exposure to ACEs can create toxic stress which can damage the developing brain of a child and affect overall health.

- Reduces the ability to respond, learn, or figure things out, which can result in problems in school.
- Lowers tolerance for stress, which can result in behaviors such as fighting, checking out or defiance.
- Increases difficulty in making friends and maintaining relationships.
- Increases problems with learning and memory, which can be permanent.
- Increases stress hormones which affects the body’s ability to fight infection.
- May cause lasting health problems.
How Can Children Overcome the Effects of Trauma?

Serve and Return Relationships

- The key to forming strong brain architecture is the “serve and return” relationships young children have with supportive adults in their lives.
- When children reach out for connections and communications with adults, and adults reciprocate, this back-and-forth process continues, literally wiring the brain with the connections needed for healthy development.
How Do We Address ACEs & Trauma?

Prevention and Promotion

- Highly specialized interventions with families as early as possible for children can decrease the effects of long-term toxic stress
- Put developmental and behavioral health at the forefront when talking about children
- Ensure safe, supportive environments and programs for children to develop and learn
- Mitigate toxic stress and health disparities by creating a shared vision and plan among community members and sectors
Access to Services?

- Home visiting to pregnant women and families with newborns
- Parenting training programs
- Intimate partner violence prevention
- Social support for parents
- Parent support programs for teens and teen pregnancy prevention programs
- Mental illness and substance abuse treatment
- High quality child care
- Sufficient income support for lower income families
Self-Care

• Take care of yourself
• Fill your bucket, put on your oxygen mask
• Address your own trauma history
Questions ?
Resources


- Creating a Trauma-Informed Law Enforcement System. National Child Traumatic Stress Network (NCTSN), Service Systems Briefs v2 n1, April 2008. NCTSN.org


