Adverse Childhood Experiences

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What are Adverse Childhood Experiences (ACEs)?

**5 types of abuse and neglect**
1. Verbal abuse
2. Physical abuse
3. Sexual abuse
4. Physical neglect
5. Emotional neglect

**5 types of family dysfunction**
1. Domestic violence
2. Alcohol or substance abuse
3. Divorce or separation
4. Incarcerated parent
5. Mentally ill or suicidal

[Link](https://www.cdc.gov/violenceprevention/acesstudy/)
In multiple studies, ACEs predicted

- Risky health behaviors (smoking, obesity, alcohol/drug abuse)
- Chronic health problems
  - Heart disease, cancer, diabetes, fractures, hepatitis, COPD
- Mental health
  - Depression, anxiety, panic reactions
ACEs predict poor outcomes

• Compared with an ACE score of 0, people with 4 ACEs
  – 7 times as likely to be alcoholic
  – 2-3 times as likely to have cancer or heart disease
  – 4 times as likely to have emphysema
  – 12 times more likely to have attempted suicide

– Dose response effect: Like poison, the higher the “dosage” of ACEs, the larger the effects on heart disease, stroke, cancer, depression, anxiety, unplanned pregnancy, drug use.
ACES and Learning

51% of children with 4+ ACE scores had learning and behavior problems in school
Compared with only 3% of children with 0 ACEs

ACEs are common: California sample (1998)

Kaiser Permanente sample (%)
ACEs are MORE common in Oklahoma

ADVERSE CHILDHOOD EXPERIENCES: NATIONAL AND STATELEVEL PREVALENCE. Vanessa Sacks, M.P.P., David Murphey, Ph.D., and Kristin Moore, Ph.D., Child Trends

“States vary in the pattern of specific ACEs. Connecticut and New Jersey have some of the lowest prevalence rates nationally for all ACEs, while Oklahoma has consistently high prevalence.”

Oklahoma Child ACEs

Oklahoma parents were surveyed about child’s ACEs (2011-12)

- 30% - Economic Hardship (ranked 45th)
- 30% - Divorce (ranked 50th)
- 17% - Parent abused alcohol or drugs (49th)
- 11% - Witnessed domestic violence (50th)
- 12% - Had a parent with a mental illness (43rd)
- 10% - Had a parent incarcerated (48<sup>th</sup>)
- 13% - Was a victim of or witnessed neighborhood violence (49<sup>th</sup>)
- 17% - Already experienced 3 or more ACEs (49th)
- Highest rates (with Montana and W. Virginia) of children with ≥4
Oklahoma history of trauma & stress
ACEs affect the developing brain
Stress & the Brain
- Frontal executive functioning areas are disengaged
- Subcortical *fight or flight* areas are engaged

**Trauma:**
**Allostatic load**
The wear and tear that the body experiences due to repeated cycles of stressful events as well as the inefficient turning-on or shutting off of these responses.
PACEs: Protective and Compensatory Experiences that buffer trauma/stress

- Our communities, organizations, extended families and friends can be part of buffering the devastating effects of childhood adversity.
- A number of experiences reduce the harmful consequences of ACEs:
  - Relationships: unconditional love, connectedness, community involvement
  - Resources: environments and experiences that create safety, order, self-control, mastery
  - Because the brain is constantly creating new networks of synapses (based on experiences), these protective environments can help adults as well as children.
## Protective and Compensatory Experiences (PACES) - Morris, Hays-Grudo et al. (2015)

<table>
<thead>
<tr>
<th>Relationships and connections</th>
<th>Environmental conditions and resources</th>
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</thead>
<tbody>
<tr>
<td>Did you have someone who loved you unconditionally (you did not doubt that they cared about you)?</td>
<td>Did you have an engaging hobby -- an artistic or intellectual pastime either alone or in a group?</td>
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<tr>
<td>Did you have at least one best friend (someone you could trust, had fun with)?</td>
<td>Did you have an adult (not a parent) you trusted and could count on when you needed help or advice?</td>
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<tr>
<td>Did you do anything regularly to help others or do special projects in the community to help others?</td>
<td>Did you live in a home that was typically clean and safe with enough food to eat?</td>
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<tr>
<td>Were you regularly involved in organized sports groups or other physical activity?</td>
<td>Did your school provide the resources and experiences you needed to learn?</td>
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<tr>
<td>Were you active in at least one social or civic (non-sport) group with peers?</td>
<td>Were there routines and rules in your home that were clear and fairly administered?</td>
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</tbody>
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Our past efforts ignored the root of problem

- Early death
- Chronic disease and conditions
- Problematic behaviors
- Impaired social, cognitive, emotional functioning
- Impaired bio/neurological functioning
- Adverse Childhood Experiences
Creating “Resilience Communities” through partnerships

Diagram showing layers of communities:
- Individual
- Environment
- Systems
- Policy
- Culture

Partnerships connect these layers, including:
- Attitudes
- Insurers
- Governments
- Churches
- Family
- Health care
- Physical resources
- Businesses
- Agencies
- School boards
- Values
- Norms
National Center on ACEs in Oklahoma

- $11.3M awarded by National Institutes of Health (NIH) to OSU in partnership with OUHSC
- 2016-2021, renewable
- Exploring the biological, cognitive, social, and emotional effects of childhood adversity
- Developing effective intervention and prevention programs
- Creating a robust and sustainable research infrastructure

http://circaok.com/circa-overview.html