The ACE Study
(Adverse Childhood Experiences)

One of the largest investigations ever conducted to assess associations between childhood maltreatment and later-life health and well-being
New ACE Studies Include More Adversities

Table 2. Items in Original and Revised ACE Scales

<table>
<thead>
<tr>
<th>ACE Scale Adversities (Lifetime)</th>
<th>Original</th>
<th>Revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional abuse</td>
<td></td>
<td>Emotional abuse</td>
</tr>
<tr>
<td>Physical abuse</td>
<td></td>
<td>Physical abuse</td>
</tr>
<tr>
<td>Sexual abuse</td>
<td></td>
<td>Sexual abuse</td>
</tr>
<tr>
<td>Physical neglect</td>
<td></td>
<td>Physical neglect</td>
</tr>
<tr>
<td>Emotional neglect</td>
<td></td>
<td>Emotional neglect</td>
</tr>
<tr>
<td>Mother treated violently</td>
<td></td>
<td>Household mental illness</td>
</tr>
<tr>
<td>Household substance abuse</td>
<td></td>
<td>Property victimization (nonsibling)</td>
</tr>
<tr>
<td>Household mental illness</td>
<td></td>
<td>Peer victimization (nonsibling)</td>
</tr>
<tr>
<td>Incarcerated household member</td>
<td></td>
<td>Exposure to community violence</td>
</tr>
<tr>
<td>Parental separation or divorce</td>
<td></td>
<td>Socioeconomic status</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Someone close had a bad accident or illness</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Below-average grades</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Parents always arguing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No good friends (at time of interview)</td>
</tr>
</tbody>
</table>
Finding your ACE Score

• Answer the 10 questions about your childhood experiences.
• This is confidential information; we will not be sharing this with others.
• Goal of this activity is to learn more about yourself and the prevalence of trauma in everyday lives.
Impact of ACEs on Life Outcomes

Possible Risk Outcomes:

**BEHAVIOR**
- Lack of physical activity
- Smoking
- Alcoholism
- Drug use
- Missed work

**PHYSICAL & MENTAL HEALTH**
- Severe obesity
- Diabetes
- Depression
- Suicide attempts
- STIs
- Heart disease
- Cancer
- Stroke
- COPD
- Broken bones

Infographic: The Truth About ACEs, May 12, 2013
# Impact of ACEs on Life Outcomes (Percentages)

<table>
<thead>
<tr>
<th>Number of Adverse Childhood Experiences (ACE Score)</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>34.5</td>
<td>38.0</td>
<td>36.1</td>
</tr>
<tr>
<td>1</td>
<td>24.5</td>
<td>27.9</td>
<td>26.0</td>
</tr>
<tr>
<td>2</td>
<td>15.5</td>
<td>16.4</td>
<td>15.9</td>
</tr>
<tr>
<td>3</td>
<td>10.3</td>
<td>8.6</td>
<td>9.5</td>
</tr>
<tr>
<td>4 or more</td>
<td>15.2</td>
<td>9.2</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Middlebrooks JS, Audage NC. The Effects of Childhood Stress on Health Across the Lifespan. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2008.
Consequences of Trauma: Impact on Developmental Competency
Trauma’s Dual Influence on Development

• **Overdevelopment** of skills, behaviors, adaptations which help the child *survive their environment* and *meet physical, emotional, and relational needs*

• **Underdevelopment** of domains of development which are less immediately relevant to survival
What helps the child survive?

- Assumption of danger
- Rapid mobilization in the face of perceived threat
- Self-protective stance
- Development of alternative strategies to meet developmental needs
What roles can families play?

- Make program or school staff aware of child’s needs
- Establish a communication plan with child’s teachers
- Tell teachers any approaches or techniques that work at home
- Find out from the child’s teachers if child is making effective progress
- Visit child’s program often
Developmental Stage: Birth-2

**Normative:**
- Developmental tasks: Identity, Connection, Exploration, Agency
- Communication through physical activity
- Strong increase in anxiety when immediate needs not met
- Need physical human contact for reassurance
- Growth of sensory perception/response

**Trauma impact:**
- Altered connections; sacrifice of exploration; deficits in agency
- Deficits in development of non-verbal and 1-1 communication strategies
- Exposure to significant arousal in absence of strategies for soothing
- Multiple potential “triggers”/danger cues solidified on NON-VERBAL level
Developmental Stage: 2-6

Normative:
- Increased focus on development of agency, independence
- Need for structure and security
- Cognitively aware of need for nurturing
- Minimal concept of time/space
- Speech available; but feelings still communicated more through play and behavior, needs through words

Trauma Impact:
- Continued sacrifice of independence (or—age-inappropriate independence)
- Development of rigid control strategies to manage anxiety
- Reliance on primitive coping/self-soothing
- Building of defenses against affect and/or connection
- Continued deficits in self-expression
What Can We Do?  
A Toolbox for Teaching Children with Trauma
Unconditional and Nurturing Relationships

• Know your own level of reactivity: how high are your ACEs?
• Take care of yourself before you take care of others
• Ask yourself: “What happened to this child?” and “How can I help?” rather than “What’s wrong with this kid?”
Understanding the Problem Leads to the Solution

- Become behavior detectives
- See every challenging behavior as a communication event
- Understand that behaviors are the result of underdeveloped skills
### Reframing Our Understanding of Behavior

<table>
<thead>
<tr>
<th>OBVIOUS</th>
<th>HIDDEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tantrums and disrupts classroom activity</td>
<td>Neuro delay in self regulation</td>
</tr>
<tr>
<td>Doesn’t follow verbal instructions</td>
<td>Neuro delays in audio processing</td>
</tr>
<tr>
<td>Presents with inability to solve simple social problems except by crying</td>
<td>Language delays with possible non-verbal language delays</td>
</tr>
<tr>
<td>Struggles with organizing personal environment</td>
<td>Home is chaotic</td>
</tr>
<tr>
<td>Has to be the boss when playing with peers</td>
<td>No early skill-building on taking others perspective</td>
</tr>
</tbody>
</table>
## Reframing Our Understanding of Behavior

<table>
<thead>
<tr>
<th>OBVIOUS</th>
<th>HIDDEN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inattentive and unfocused</td>
<td>Doesn’t sleep deeply or long enough</td>
</tr>
<tr>
<td>In and out of seat and can’t stand in line</td>
<td>Not a strong sense of self and always feeling unsafe</td>
</tr>
<tr>
<td>Doesn’t seem to learn from consequences, positive or negative</td>
<td>Has not learned the basic correlation between cause and effect</td>
</tr>
<tr>
<td>Always wants to go to nurse, has many sick days</td>
<td>Somatization due to stress at home or school</td>
</tr>
<tr>
<td>Explosive behaviors without a clear trigger</td>
<td>Internal sensory trigger creates a primitive response</td>
</tr>
</tbody>
</table>
Tools to Use: During a Crisis

• Keep calm and use the “mirror neurons”
• Move slowly with obvious deep breathing – create a body rhythm that the child can replicate
• Engage the child in simple tasks that engage the cortex – counting, singing, rhyming
Tools to Use: Before a Crisis Happens

- Follow daily routines and post schedules the child understands
- Use deliberate rhythm movements during transitions (marching, hands swaying)
- Greet each child in the morning with hugs, high fives or other acknowledgement
- Use daily check-ins with child and family
Build Skills Before Behaviors Occur

- Assess developmental skills and identify strengths
- Teach social emotional learning throughout the day, in natural environments with natural consequences
- Redirect whenever possible
- Conduct discipline and behavior critiques in private
Ask for Help!

• Flock: Create teacher teams to discuss creative ways to make classrooms safe and supportive
• Encourage peer support through morning meetings or classroom clubs
• Explore new ways to maintain classroom calm through restorative justice techniques or conflict resolution
Connect with Families

• Understand that the results of trauma (anxiety, hyper-vigilance, feeling unsafe) can be passed to children genetically

• Know that many parents of traumatized children have suffered/are suffering trauma themselves

• Traumatized parents are hesitant to partake in school affairs due to their own fears, anxiety and lack of self-esteem
Community Connections

• Collaborate with local food banks, pantries, shelters, or churches to provide food for family breakfasts or dinners and invite all parents to participate

• Make the school community a welcoming, safe and supportive haven for everyone

• Connect with community supports (family clinics, CBHI agencies, supports for homelessness, MassHealth enrollment) to offer services in the school
“It’s not our job to toughen our children up to face a cruel and heartless world. It’s our job to raise children who will make the world a little less cruel and heartless.”
~L.R.Knost~