Adverse Childhood Experiences and Learning

Michael R. Brumage, MD, MPH, FACP
Kanawha-Charleston Health Department
WVU School of Public Health

What would it take...

Adverse Childhood Experiences Study (ACE Study)

- Maybe the most important study of which most Americans are unaware
- What is unrecognized in the pediatric exam room shows up in the internal medicine exam room decades later
- Measures 10 categories of childhood abuse and neglect
  - Abuse (3): Emotional, physical, or sexual
  - Neglect (2): Emotional or physical
  - Dysfunction (5):
    - One or both biological parents missing from the household
    - Domestic violence specifically toward the mother
    - Mental illness in the household
    - Substance use in the household
    - Incarcerated members in the household
- [http://www.cdc.gov/violenceprevention/acestudy](http://www.cdc.gov/violenceprevention/acestudy)
ACE Questions (1-3)

1. Did a parent or other adult in the household often... 
   - Swear at you, insult you, put you down, or humiliate you? or Act in a way that made you afraid that you might be physically hurt?

2. Did a parent or other adult in the household often... Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?

3. Did an adult or person at least 5 years older than you ever... Touch or fondle you or have you touch their body in a sexual way? or Try to or actually have oral, anal, or vaginal sex with you?

ACE Questions (4-6)

4. Did you often feel that... 
   - No one in your family loved you or thought you were important or special? or Your family didn't look out for each other, feel close to each other, or support each other?

5. Did you often feel that... 
   - You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you? or Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

6. Were your parents ever separated or divorced?

ACE Questions (7-10)

7. Was your mother or stepmother: 
   - Often pushed, grabbed, slapped, or had something thrown at her? or Sometimes or often kicked, bitten, hit with a fist, or hit with something hard? or Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

9. Was a household member depressed or mentally ill or did a household member attempt suicide?

10. Did a household member go to prison?
Economic Burden

- The lifetime costs associated with child maltreatment alone have been estimated at $210,012 to $1.8 million per child due to associated health, behavioral health, educational impairments, increased involvement in criminal justice, child welfare, social welfare systems, and lost work productivity.

[References:](#)
ACE Study Findings

ACE Scores Linked to Physical & Mental Health Problems

Compared with people with no ACEs, those with four or more ACEs were:

- Twice as likely to smoke
- Seven times as likely to be alcoholics
- Six times as likely to have had sex before age 15
- Twice as likely to have cancer or heart disease
- Twelve times more likely to have attempted suicide
- Men with six or more ACEs were 46 times more likely to have injected drugs than men with no history of adverse childhood experiences

Source: Adverse Childhood Experiences (ACE) Score, a measure of ACEs and their impact. Information available at http://www.cdc.gov/ace/index.htm
**Correlation: Opioid/Heroin Use and ACEs**

- **1998 ACE study Kaiser Permanente and CDC**
  - People with ACE ≥ 3: much greater likelihood of engaging in substance abuse, domestic violence and suicidal attempts, were much more likely to have dropped out of school, were more likely to be divorced, more likely to use intravenous drugs, relative to ACE of zero.
  - ACE ≥ 6: 460% more likely to use intravenous drugs relative to ACE of zero.

- **2016 study**
  - People with ACE ≥ 5, were 3x more likely to misuse prescription pain medications and 5x more likely to engage in injection drug use.

- **2009 study**
  - Over 80% of patients seeking treatment for opioid addiction had at least one form of childhood trauma, with almost 2/3 reporting having witnessed violence in childhood.

**Important Points**

- Relevance of ACEs to public health problems. What this means and what it doesn’t mean.
- Think of ACE score as the social equivalent of cholesterol level
  - Drug and alcohol use can happen in families with an ACE score of zero.
  - We do not want people to blame or shame parents for these issues.
  - On a population level, there is a clear correlation and biological connection between ACEs and health outcomes in adults.
KCHD Survey

- Distributed via press (newspaper, television, radio, web) and e-mail.
- Conducted via web-based tool from November 12-28, 2015.
- Purpose: to open a discussion on the role of adverse childhood experiences (ACEs) on our major public health problems through a snapshot survey. Not intended to be a full community cross-section.

Results from the KCHD Informal Survey

Respondents: N=506
Female 76%
Male 24%
White 95%
African American 1.6%
Native American 1.4%
Asian/PI 1.2%

Other states: KY, TN, OH, VA, CA, MI

What is your age?
Answered 502 Submitted: 4
Summary statistics from ACE

<table>
<thead>
<tr>
<th>Number of Adverse Childhood Experiences (ACE Score)</th>
<th>Women</th>
<th>Men</th>
<th>Total</th>
<th>KCMD</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>34.5</td>
<td>26.0</td>
<td>36.1</td>
<td>27.8</td>
</tr>
<tr>
<td>1</td>
<td>24.5</td>
<td>27.9</td>
<td>26.0</td>
<td>18.9</td>
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<tr>
<td>2</td>
<td>15.5</td>
<td>15.4</td>
<td>15.8</td>
<td>12.4</td>
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<tr>
<td>3</td>
<td>10.3</td>
<td>9.9</td>
<td>9.5</td>
<td>13.1</td>
</tr>
<tr>
<td>4 or more</td>
<td>15.2</td>
<td>9.2</td>
<td>12.5</td>
<td>20.2</td>
</tr>
</tbody>
</table>

- 72% of patients reported at least one ACE event
- Over 1 in 4 patients had a score of 4 or more
- ACEs are extremely common and relevant to the public health problems
Signs and Symptoms of ACEs in Children

- Sleep disturbances
- Weight gain or loss
- Enuresis or encopresis
- Constipation
- Hair loss
- Developmental regression
- School failure or absenteeism
- Failure to thrive
- Poor control of chronic diseases (asthma, diabetes)
- Aggression
- Poor impulse control
- Frequent crying
- Restricted affect or numbing
- High risk behavior in adolescents
- Unexplained somatic complaints

Based on Dr. Nadine Burke Harris, The Center for Youth Wellness, October 23, 2015

Compassionate Education for Youth Exposed to Trauma

Created by
Preruka Burdman, M.S.Ed  Debbie Staub, Ph.D

TRUST
IDENTITY
CONSCIENCE
RELATIONSHIP
CONVERSATION
ACES Impacts Learning

51% of children with 4+ ACE scores had learning and behavior problems in school

Compared with only 3% of children with NO ACE score

Toxic stress from exposure to violence can impair healthy development

One study revealed that exposure to relationship-based violence and trauma in the first two years of life resulted in lower IQ scores at 5 and 8 years of age.

**Triggers**

- Triggers include seeing, feeling, or hearing something that remind us of past trauma.
- Triggers activate the alarm system.
- When the alarm system is activated, but there is no danger, it is a false alarm.
- The response is as if there is current danger.

**Development and Trauma**

- Skills specific to each developmental stage build on learning from previous stages.
- Children exposed to trauma invest energy into survival instead of developmental mastery.
- Development in adulthood may continue to be impacted.

**Child Welfare and Trauma**

“Trauma can be a single event, connected series of traumatic events or chronic lasting stress.”

Children in the child welfare system almost by definition have suffered trauma, often multiple traumatic events, and 50-75% exhibit behaviors or symptoms that need mental health treatment.

Delaware 2013 Educational Outcome Data for Students in and not in Foster Care

<table>
<thead>
<tr>
<th>Category</th>
<th>Foster Care (F.C.)</th>
<th>Non-F.C. Kids</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total population</td>
<td>200</td>
<td>130,994</td>
</tr>
<tr>
<td>Average daily attendance</td>
<td>98.00%</td>
<td>94.60%</td>
</tr>
<tr>
<td>Number of discipline incidents*</td>
<td>1,000 (30.9%)</td>
<td>99,766 (78.0%)</td>
</tr>
<tr>
<td>Number of suspensions</td>
<td>151</td>
<td>25,419</td>
</tr>
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<tr>
<td>Number of suspensions</td>
<td>151</td>
<td>25,419</td>
</tr>
<tr>
<td>Graduation rate</td>
<td>88.0%</td>
<td>81.0%</td>
</tr>
<tr>
<td>Single year drop-out rate</td>
<td>1.75%</td>
<td>1.05%</td>
</tr>
<tr>
<td>% Students passing Algebra I by 9th grade</td>
<td>92.0%</td>
<td>82.9%</td>
</tr>
<tr>
<td>Math proficiency</td>
<td>82.60%</td>
<td>71.60%</td>
</tr>
<tr>
<td>Reading proficiency</td>
<td>85.60%</td>
<td>71.50%</td>
</tr>
</tbody>
</table>

Historical Trauma – Evidence of post-traumatic stress disorder across generations

Pregnant women impacted by the World Trade Center attacks on 9/11 who had PTSD from the event gave birth to babies with an elevated stress response and a hypersensitive stress axis.

These babies will be more susceptible to anxiety, depression and even PTSD than those whose mothers did not experience PTSD.

Who are the students experiencing trauma?

- Students who are or have been in foster care or receiving child welfare services
- Students who are or have been homeless
- Students who are or have been adjudicated
- Students who live in poverty, unsafe and unsupported communities
- Students who experience frequent mobility (e.g., children of migrant workers, military families, etc.)
- Who else?
Lunch Keynote Address - September 19th

Lincoln High School Walla Walla, WA

2009-2010 (Before new approach)
• 798 suspensions (days students were out of school)
• 50 expulsions

2010-2011 (After new approach)
• 135 suspensions (days students were out of school)
• 30 expulsions

http://www.k12.wa.us/CompassionateSchools

What is Social & Emotional Learning?

- Self-awareness
- Responsive decision-making
- Relationship skills
- Social awareness

Recognizing one’s emotions and values as well as one’s strengths and limitations
Managing emotions and behaviors to achieve one’s goals
Showing understanding and empathy for others
Making ethical, constructive choices about personal and social behavior
Forming positive relationships, working in teams, dealing effectively with conflict
How We Teach
Compassionate Teaching and Disciplinary Techniques

2. Provide unconditional positive regard.
3. Maintain high expectations.
5. Be relationship coach.
6. Provide guided opportunities for helpful participation.

What We Teach
Compassionate Curriculum Strategies

Domain One: Safety, Connection, and Assurance of Well-Being
- Emotional and Behavioral Self-Regulation

Domain Two: Compromises of Personal Agency, Social Skills and Academics
- Greater Attachment, Engagement, & Commitment to School
- Less Risky Behavior, More Assets, More Positive Development
- Better Academic Performance and Success in School and Life
- Safe, Caring, Challenging, Well-Managed, Participatory Learning Environments

How SEL Supports Good Outcomes for Kids

What is The Martinsburg Initiative?

The Martinsburg Initiative is a unique partnership between schools, the public and the community to prevent violence, build strong families, and make our neighborhoods safe, stable and secure. The Martinsburg Initiative, based on the science of the Applied Childhood Research Lab at Virginia Tech, is driven by early childhood experiences and their impact on school and social behavior.

The Martinsburg Initiative is currently being piloted at Martinsburg Elementary School and Martinsburg Middle School. It is in its second year of implementation. Teachers and school staff have been provided with training and support to help them implement the program in their classrooms. The initiative is designed to work together to make your child healthier, your family stronger, and your neighborhood safer.

How will it help my child and my family?

The family engagement component of the initiative offers help to those who have difficulties as parents. Parents can work together to ensure their children receive the best care possible.

- Transportation to and from school
- Tutoring, counseling, and other resources
- Early identification and intervention
- Family engagement

It is important to note that the Martinsburg Initiative is not a replacement for existing services, but an additional support system.

How do we know these childhood experiences will lead to problems in my child as an adult?

Research indicates that the experiences children have before the age of five can have a lasting impact on their development. The Martinsburg Initiative is designed to help children develop the skills they need to succeed in school and in life.

This is a slide courtesy of CASEL.
What to do about ACEs

- Acknowledge the problem exists and ask the questions
- Educate the public and decision-makers
- Identify at-risk families
- Primary prevention programs to treat traumatized people before they become parents and break the intergenerational cycle at the maternal-paternal-child level
- Teach better parenting skills
- Acknowledge successful programs.

Conclusion

- Changing the question of “What’s wrong with this person?” to “What happened to this person?”
- Research should be conducted to find the best mechanisms to ask ACE and other sensitive questions
- Primary prevention efforts will succeed when we begin asking the correct questions