Using the Adverse Childhood Experiences Scale (ACES)

Misty McIntyre Goodsell, LCSW
Odyssey House of Utah
Objectives

• Background of ACES Study
• ACES Questionnaire
• ACES Outcomes
• Implementing in practice
• Macro
ACES Background

• Collaboration between Kaiser Permanente’s Department of Preventive Medicine in San Diego and the Center for Disease Control and Prevention (CDC)
• Dr. Vincent Felitti & Dr. Robert F. Anda
ACES Background

- 10 year study
- 17,000 participants
- Correlated ACES score to health and behaviors occurring over participants’ lifespans
- Largest study of its kind
## Demographics

<table>
<thead>
<tr>
<th>Gender</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>46%</td>
</tr>
<tr>
<td>Female</td>
<td>54%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Race</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>74.8%</td>
</tr>
<tr>
<td>Hispanic (Latin/Chicano)</td>
<td>11.2%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>7.2%</td>
</tr>
<tr>
<td>African-American</td>
<td>4.6%</td>
</tr>
<tr>
<td>Other</td>
<td>1.9%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>19-29</td>
<td>5.3%</td>
</tr>
<tr>
<td>30-39</td>
<td>9.8%</td>
</tr>
<tr>
<td>40-49</td>
<td>18.6%</td>
</tr>
<tr>
<td>50-59</td>
<td>19.9%</td>
</tr>
<tr>
<td>60 and over</td>
<td>46.4%</td>
</tr>
<tr>
<td>Average Age</td>
<td>32</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Education</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than HS</td>
<td>7.2%</td>
</tr>
<tr>
<td>High School</td>
<td>17.6%</td>
</tr>
<tr>
<td>Some College</td>
<td>35.9%</td>
</tr>
<tr>
<td>College Grad or Higher</td>
<td>39.3%</td>
</tr>
</tbody>
</table>
Finding Your ACE Score

• ACES Assessment
Questionnaire

Additional questions:

• Have you ever been a combat soldier?
• Have you ever lived in a war zone?
• Have you ever been physically abused as a child?
• Have you ever been sexually molested as a child or adolescent?
• Have you ever been raped?
• Who in your family has been murdered?
• Who in your family has had a nervous breakdown?
• Who in your family has been a suicide?
• Who in your family has been an alcoholic or drug user?
Outcomes

Number of categories (not events) is summed

<table>
<thead>
<tr>
<th>ACE Score</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>33%</td>
</tr>
<tr>
<td>1</td>
<td>25%</td>
</tr>
<tr>
<td>2</td>
<td>15%</td>
</tr>
<tr>
<td>3</td>
<td>10%</td>
</tr>
<tr>
<td>4</td>
<td>6%</td>
</tr>
<tr>
<td>5 or more</td>
<td>11%</td>
</tr>
</tbody>
</table>

- 2 out of 3 experienced at least one category of ACE
- If any one ACE is present, there is an 87% chance at least one other category of ACE is present, and 50% chance of 3 or more
- Women are 50% more likely than men to have a Score of 5 or more
Prevalence of Adverse Childhood Experiences

<table>
<thead>
<tr>
<th>Abuse, by Category</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological (by parents)</td>
<td>11%</td>
</tr>
<tr>
<td>Physical (by parents)</td>
<td>28%</td>
</tr>
<tr>
<td>Sexual (anyone)</td>
<td>22%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neglect, by Category</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emotional</td>
<td>15%</td>
</tr>
<tr>
<td>Physical</td>
<td>10%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Household Dysfunction, by Category</th>
<th>Prevalence (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcoholism or drug use in home</td>
<td>27%</td>
</tr>
<tr>
<td>Loss of biological parent &lt; age 18</td>
<td>23%</td>
</tr>
<tr>
<td>Depression or mental illness in home</td>
<td>17%</td>
</tr>
<tr>
<td>Mother treated violently</td>
<td>13%</td>
</tr>
<tr>
<td>Imprisoned household member</td>
<td>5%</td>
</tr>
</tbody>
</table>
Adverse Childhood Experiences Are Common

Of the 17,000 HMO Members:

• 1 in 4 exposed to 2 categories of ACES
• 1 in 16 was exposed to 4 categories
• 22% were sexually abused as children
• 66% of the women experienced abuse, violence or family strife in childhood
<table>
<thead>
<tr>
<th>Adverse Childhood Experience Categories</th>
<th>Impact of Trauma and Health Risk Behaviors to Ease the Pain</th>
<th>Long-Term Consequences of Unaddressed Trauma (ACEs)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abuse of Child</strong></td>
<td><strong>Neurobiologic Effects of Trauma</strong></td>
<td><strong>Disease and Disability</strong></td>
</tr>
<tr>
<td>Recurrent Severe Emotional abuse</td>
<td>Disrupted neuro-development</td>
<td>Ischemic heart disease</td>
</tr>
<tr>
<td>Recurrent Physical abuse</td>
<td>Difficulty controlling anger-rage</td>
<td>Cancer</td>
</tr>
<tr>
<td>Contact Sexual abuse</td>
<td>Hallucinations</td>
<td>Chronic lung disease</td>
</tr>
<tr>
<td><strong>Trauma in Child’s Household Environment</strong></td>
<td>Depression</td>
<td>Chronic emphysema</td>
</tr>
<tr>
<td>Substance abuse</td>
<td>Panic reactions</td>
<td>Asthma</td>
</tr>
<tr>
<td>Parental separation or divorce</td>
<td>Anxiety</td>
<td>Liver disease</td>
</tr>
<tr>
<td>Chronically depressed, emotionally disturbed or suicidal household member</td>
<td>Multiple (6+) somatic problems</td>
<td>Skeletal fractures</td>
</tr>
<tr>
<td>Mother treated violently</td>
<td>Sleep problems</td>
<td>Poor self rated health</td>
</tr>
<tr>
<td>Imprisoned household member</td>
<td>Impaired memory</td>
<td>Sexually transmitted disease</td>
</tr>
<tr>
<td>Loss of parent – (by death, by suicide, or by abandonment)</td>
<td>Flashbacks</td>
<td>HIV/AIDS</td>
</tr>
<tr>
<td><strong>Neglect of Child</strong></td>
<td>Dissociation</td>
<td><strong>Serious Social Problems</strong></td>
</tr>
<tr>
<td>Abandonment</td>
<td></td>
<td>Homelessness</td>
</tr>
<tr>
<td>Child’s basic physical and/or emotional needs unmet</td>
<td>Eating disorders</td>
<td>Prostitution</td>
</tr>
<tr>
<td></td>
<td>Repetition of original trauma</td>
<td>Delinquency, violence, criminal behavior</td>
</tr>
<tr>
<td></td>
<td>Self Injury</td>
<td>Inability to sustain employment</td>
</tr>
<tr>
<td></td>
<td>Eating disorders</td>
<td>Re-victimization: rape, DV</td>
</tr>
<tr>
<td></td>
<td>Perpetrate interpersonal violence</td>
<td>Compromised ability to parent</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Intergenerational transmission of abuse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term use of health, behavioral health, correctional, and social services</td>
</tr>
</tbody>
</table>
ACEs Background

The higher the ACE score, the greater the likelihood of:

• Severe and persistent emotional problems
• Health risk behaviors
• Serious social problems
• Adult disease and disability
• High health and mental health care costs
• Poor life expectancy
ACES Background

• Big Finding:
  – Childhood experiences are POWERFUL determinants of adult health outcomes
The following information and slides are being used with permission from three sources:

1. September 2003 Presentation of the Child Trauma Treatment Network of the Intermountain West, by Vincent Felitti, MD
2. Powerpoint presentation of Ann Jennings, Ph.D. of The Anna Institute
Emotional Problems
Childhood Experiences Underlie Chronic Depression

% With a Lifetime History of Depression

ACE Score

Women

Men
Childhood Experiences Underlie Suicide

% Attempting Suicide

ACE Score

0 5 10 15 20 25

1.4 2.6 4.8 10.7 19.3

19.3% of those with an ACE score of 19.3 attempted suicide.
ACE Score and Hallucinations

Ever Hallucinated* (%)

Abused Alcohol or Drugs

- No
- Yes

0 1 2 3 4 5 6 >=7
ACE Score and Impaired Childhood Memory

Percentage With Memory Impairment (%)
Social Issues
ACE vs. Smoking as an Adult

ACE Score

0 2 4-5
ACE vs Adult Alcoholism

% Alcoholic

0 1 2 3 4 or more

ACE Score

0 2 4 6 8 10 12 14 16 18
ACE vs IV Drug Use

% Have Injected Drugs

ACE Score

- 0
- 3

Bar chart showing the percentage of individuals who have injected drugs based on ACE score. The chart compares the percentage across different ACE scores.
Childhood Experience Underlie Rape

![Bar chart showing the relationship between ACE score and % Reporting Rape. The chart indicates a significant increase in reporting rape with higher ACE scores.]
ACE and Likelihood of >50 Sexual Partners

![Graph showing the relationship between ACE score and likelihood of having >50 sexual partners. The x-axis represents ACE score (0, 1, 2, 3, 4 or more), and the y-axis represents adjusted odds ratio. The graph shows an increase in adjusted odds ratio with higher ACE scores.]
Sexual Abuse of Male Children and Their Likelihood of Impregnating a Teenage Girl

- Not Abused
- 16-18 Years
- 11-15 Years
- <=10 Years

Age When First Abused

Percentage Who Impregnate A Teenage Girl
Health Outcomes
ACE vs. History of STD

![Bar chart showing the relationship between ACE score and adjusted odds ratio of having a history of STD. The x-axis represents ACE score (0, 1, 2, 3, 4 or more) and the y-axis represents adjusted odds ratio (0 to 3). The chart shows an increasing trend from left to right, indicating a higher odds ratio with a higher ACE score.]
ACEs vs. Obesity

5.4
7
9.5
10.3
12
Effect of ACEs on Mortality

- 0
- 10
- 20
- 30
- 40
- 50
- 60

Percent in Age Group

ACE Score

19-34
35-49
50-64
>=65
What changes were seen?

- 35% reduction in doctor office visits was found in the year following the assessment (compared to the year before)
- 11% decrease in ER visits
- 3% reduction in hospitalizations

- These changes returned to baseline after two years when medial staff returned to previous medical model without asking about ACEs or including treatment for the identified trauma

Felitti & Anda, 2010
Power of the ACE Study

Simplicity

The Data Tell A Simple Story

- ACEs are common
- ACEs are highly interrelated
- ACEs pile up and have a cumulative impact
- ACEs account for a large percentage of health and social problems
- Biologic Plausability
What presents as the PROBLEM may in fact be an attempted solution
Assessment

• ACES is an assessment tool
  – 24 Hour Hotline
• Your ACE score never changes
• How do we track progress?
  – BDI, BAI, OQ, YOQ, Suicide Assessments, PCL-C
  – Resiliency: Empowerment Scale, Youth Self-Efficacy Scale
Approach

• Use a Trauma Lens
  – Shifting from What is wrong with this person? to What has this person been through?
• Routinely seek a history of adverse childhood experiences from ALL patients
• Acknowledge their reality by asking, “How has this affected you later in life?”
• Transparency
Intergenerational Impact

• Children of Parents with ACE scores are secondary victims
  – Historical Trauma

• Parents with ACE scores will often lack coping and resilience that fosters effective parenting
  – What does this mean for the extended family of our patients?
Therapy

• There is no SINGLE recommended approach

• Trauma Based Therapies:
  – Trauma Based CBT
  – EMDR
  – DBT
  – EFT (Tapping)
  – Mindfulness
  – Mindfulness CBT (MCBT)

• Family Therapy
Therapy

- Depression
- Psycho-Education
  - i.e. DBT Skills, Communication, Stress Management
- Whole-Person Approach
- Referrals
Considerations

- Baby Boomers and Older Persons are a population that didn’t access or talk about mental health (cultural norm)
- Cultural norms
- Language Barriers
Strength Building
Micro Recommendations

• Implementation
  – Private Practice
  – Health Facilities
  – Senior Living
  – Corrections
  – Education System

• Make Personal Connections to MDs and Nurses
• Connect Children to Resiliency Activities
• Mind-Body Connections
Macro Recommendations

• ACEs becoming a primary assessment tool in mental and physical health agencies and organization

• Encourage clinical research on trauma and its treatment

• Providing funding to treat trauma should become a priority for Insurance, business, government etc.
  – Good for individuals, families and communities
  – High Economic Impact

Whitfield, 1998
Macro Recommendations

• Effective parenting programs
  – Parenting education starting as part of K-12 Education

• Recognition of ACES/trauma and appropriate treatment should be a mandatory component of education for all health professionals

• Create and Endorse Primary Prevention Efforts

Whitfield, 1998
Local Resources

• Trauma Informed Care Network
  – www.ticn.org

• UCASA
  – 40 Hour Training

• Utah Domestic Violence Council
  – uuadvt.org

• Utah Department of Health
  – BRFSS Study
National Resources

• ACEs Connection
  – Online Community of Researchers, Clinicians and Policy Makers

• The Anna Institute
  – www.theannainstitute.org

• ACE Response
  – www.aceresponse.org

• ACES Too High
  – www.acestoohigh.com
References

