Neurobiology, Trauma, & The Ethics of the Juvenile Justice System

Presented by Elena Quintana, Ph.D.

Institute on Public Safety & Social Justice
What do you see? What do you feel?
What’s wrong and how can it be made right?
In the U.S., Incarceration is the Common Intervention

Juvenile incarceration means worse grades and more criminality in the future

• Those incarcerated as juvenile are 13-39% less likely to graduate from high school than those charged but not convicted of the same crime.
• Are 22-41% more likely to have entered adult prison by age 25 compared with other public school students from the same neighborhood.

Throwing Good $$$ After Bad

- The US incarcerates juveniles at a much higher rate than other nations.
- It spends some $6 billion per year on juvenile corrections (Mendel 2011).
- On any given day there are over 70,000 juveniles in custody in the US (OJJDP 2011) with an average (direct) cost of $88,000 per juvenile per year.
How does $88k compare with other kinds of expenditures on youth development?

### ANNUAL COST OF JUVENILE INCARCERATION VERSUS OTHER YOUTH INVESTMENTS

<table>
<thead>
<tr>
<th></th>
<th>Cost</th>
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<tbody>
<tr>
<td>Youth Incarceration</td>
<td>$88,000</td>
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<tr>
<td>12 Months</td>
<td></td>
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<tr>
<td>Tuition and Fees at a Public University</td>
<td>$7,605</td>
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<tr>
<td>Tuition, Fees, Room &amp; Board at a Public University</td>
<td>$16,140</td>
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<td>Tuition and Fees for Public Two-Year College</td>
<td>$2,713</td>
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<tr>
<td>Annual Cost of Public School</td>
<td>$10,259</td>
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<tr>
<td>YouthBuild</td>
<td>$17,000</td>
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<tr>
<td>Big Bros/Big Sister Mentoring Programs</td>
<td>$987</td>
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</table>

Source: American Correctional Association (for costs of youth incarceration); College Board (for cost at public universities and public two year colleges), U.S. Census Bureau (for cost of public education), Cohen and Piquero (2008) (for costs of YouthBuild), and Public Private Ventures (for cost Big Brothers Big Sisiers programs).
What do young people need?

• Love
• Education
• Protection
• Recognition
• Rights of Passage
• To Feel Useful
• Skill Building

• If we do not adequately educate, support, and protect our children, they will continue to arm themselves. Those that are systematically marginalized lose hope and do not expect to be protected by mainstream structures such as the police or school personnel.
Hurt People Hurt People

• Suppression, isolation, shame, denial of access to education and treatment only serve to make problems worse.

• Improving public safety and strengthening families calls for a different approach that understands trauma.
Shifting the Perspective

• What’s wrong with you!?

• What happened?
  (And how can I help?)
Trauma Challenges Growth

Interpersonal Violence
  Witnessing
  Perpetrating
  Fearing

Structural Violence
  Lack of access to high quality education, employment, nutrition, or justice

ACEs

Historical Trauma
What is The ACE Study?

- The ACE Study is ongoing collaborative research between the Centers for Disease Control and Prevention in Atlanta, GA, and Kaiser Permanente in San Diego, CA.

- The Co-principal Investigators of The Study are Robert F. Anda, MD, MS, with the CDC; and Vincent J. Felitti, MD, with Kaiser Permanente.

- Over 17,300 Kaiser patients participating in routine health screening volunteered to participate in The Study. Data resulting from their participation reveals staggering proof of the health, social, and economic risks that result from childhood trauma.

Vincent Felitti, M.D., 2012
Prevalence Percentiles of Adverse Childhood Experiences

Abuse, by Category
• Psychological (by parents) 11%
• Physical (by parents) 28%
• Sexual (anyone) 22%

Neglect, by Category
• Emotional 15%
• Physical 10%

Household Dysfunction, by Category
• Alcoholism or drug use in home 27%
• Loss of biological parent < age 18 23%
• Depression or mental illness in home 17%
• Mother treated violently 13%
• Imprisoned household member 5%
ACEs OCCUR IN CLUSTERS

• 2/3 experience at least one category of ACEs

• If any one ACE is present, there is an 87% chance at least one other category of ACE is present, and a 50% chance that there will be 3 or more.

• WOMEN ARE 50% MORE LIKELY TO HAVE A SCORE OF >5.

Vincent Felitti, M.D., 2012
ACEs Conceptual Framework (Anda, Felitti, Simmons)

People with 6 ACES die, on average, 20 years sooner than those with zero.
OLDER CHILDREN – WA High School Sophomores and Seniors

Population Average:

43% have 3 or more ACEs as compared with 26% of WA Adults

Washington School Classroom (30 Students)
Adverse Childhood Experiences (ACEs)

- 6 students with no ACE
- 5 students with 1 ACE
- 6 students with 2 ACEs
- 3 students with 3 ACEs
- 7 students with 4 or 5 ACEs
- 3 students with 6 or more ACEs

- 58% (17) students with no exposure to physical abuse or adult to adult violence
- 29% (9) of students exposed to physical abuse or adult to adult violence
- 13% (4) of students exposed to physical abuse and adult to adult violence
ACEs and Suicide Attempts

Vincent Felitti, M.D., 2012
Childhood Experiences Underlie Chronic Depression

Vincent Felitti, M.D., 2012
Laura Porter, 2012

BEHAVIORAL HEALTH

Current Smoking

Risk for HIV

CHRONIC DISEASE

Diabetes

Cardio Vascular Disease
MENTAL HEALTH

>14 of 30 Unhealthy Mental Health Days

<table>
<thead>
<tr>
<th>Number of ACE Categories</th>
<th>Percent of Population</th>
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<tr>
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<td>6, 7, or 8</td>
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DISABILITY

Missed Work >14 of 30 Days Due to Mental Health

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<th>Number of ACE Categories</th>
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Treatment for Mental Health Condition

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<tr>
<td>4 or 5</td>
<td>19.3</td>
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<tr>
<td>6, 7, or 8</td>
<td>24.5</td>
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Health Problems Require Special Equipment

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<th>Number of ACE Categories</th>
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<tr>
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<td>11.3</td>
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<tr>
<td>6, 7, or 8</td>
<td>14.8</td>
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The Developing Brain

Inputs

- Trauma Exposure, Including ACEs
- Resiliency Factors
- Genetics
- Exposure to Historical Trauma or Systematic Marginalization

Outputs

- Perception
- Cognitive Ability & Functioning
- Reaction & Interaction
Epigenetic Effect of Trauma: Exposure to Violence Breaks Down Telomeres

Telomeres are the caps at the end of chromosomes that keep them from shrinking when cells replicate; much like the plastic tips of shoelaces, telomeres prevent DNA from ‘unraveling.’ Shorter telomeres are linked to higher risks for heart disease, obesity, cognitive decline, diabetes, mental illness and poor health outcomes in adulthood.

EARLY CHILDHOOD
HIPPOCAMPUS
CONTROLS EMOTIONAL REACTIONS, CONSTRUCTS VERBAL & SPATIAL MEMORY SENSITIVE TO ALL FORMS OF MALTREATMENT IN FIRST 2-3 YEARS OF LIFE, ESPECIALLY SEXUAL ABUSE
ADAPTATION
*EMOTIONALLY REACTIVE – BRAIN’S BRAKING MECHANISM FAILS
*POOR REGULATION OF BEHAVIOR
*DIFFICULTY WITH VERBAL & SPATIAL MEMORY
*NET VOLUME LOSS BECOMES EVIDENT IN 20S.

TRAUMA IS HARD-WIRED INTO BIOLOGY

ADOLESCENCE – THE CORTEX
CENTER FOR THINKING & JUDGEMENT, EXECUTIVE FUNCTION, LONG TERM MEMORY, & VISION SENSITIVE TO WITNESSING VIOLENCE, AND SEX ABUSE
ADAPTATION
*POOR EXECUTIVE FUNCTION * IMPULSIVENESS
*DIMINISHED ABSTRACT REASONING * DIMINISHED HOPE * LIMITING FIELD OF VISION

MIDDLE CHILDHOOD
CORPUS COLLOSUM INTEGRATES HEMISPHERES & FACILITIES INCLUDING LANGUAGE DEV., MATH ABILITY, AND PROCESSING SOCIAL CUES SUCH AS FACIAL EXPRESSIONS SENSITIVE TO NEGLECT IN INFANCY SEX ABUSE AT AGES ~9&10
ADAPTATION
*LANGUAGE DELAY
*DIMINISHED MATH CAPACITY
*DIMINISHED INTEGRATION & COORDINATION
*DIFFICULTY WITH SOCIAL CUES
Neurobiology of Perception

Amygdala
Hippocampus
Marginalization is Traumatic: Historical Trauma

**Loss** of homeland, way of life, language, culture, ability to practice your faith, freedom, the right to raise your children, or access to justice

LEADS TO:

- Grief that is unresolved and unspoken
- Internalized oppression
- Increased cortisol levels contributing to a host of health disparities

*J. Johnson (undated) This is Indian Country.*
Historical Trauma

• The collective emotional and psychological injury both over the life span and across generations, resulting from a cataclysmic history that occurs as a result of genocide and other significant abuses.

Yellow Horse Brave Heart (1995)

Continues a legacy of systematic marginalization through current enforcement of policies, practices, and laws that recreate trauma.
One Thousand Years of Slavery

— Scots and Irish (Alba and Pics) sold their citizens into slavery to the Roman Empire, the Middle East, the Caribbean, and Colonial America for a period of 1,000 years

— In the US the legacy of slavery is largely seen as only an African American historical burden

— When we afford access to opportunity and justice, HEALING can occur
Equality Breeds Wellness

Effect of Same-Sex Marriage Laws on Health Care Use and Expenditures in Sexual Minority Men: A Quasi-Natural Experiment

Mark L. Hatzenbuehler, PhD, Conall O'Cleirigh, PhD, Chris Grasso, MPH, Kenneth Mayer, MD, Steven Safren, PhD, and Judith Bradford, PhD

- N: 1211 GBT male patients in a Massachusetts community-based health center
- Results. In the 12 months after the legalization of same-sex marriage, sexual minority men had a statistically significant decrease in medical care visits, mental health care and mental health care costs, compared with the 12 months before the law change. These effects were not modified by partnership status, indicating that the health effect of same-sex marriage laws was similar for partnered and non-partnered men.
Knowing all that we do, is it ethical to incarcerate children? *ever?
The Good News

Rate falling for young people locked up

The rate of youth confinement in the US dropped by 41 percent between 1995 and 2010.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of young people confined per 100,000 youths</th>
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<tbody>
<tr>
<td>1975</td>
<td>241</td>
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<tr>
<td>1979</td>
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<td>2007</td>
<td>225</td>
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<tr>
<td>2010</td>
<td>225</td>
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What’s wrong and how should it be made right?
Resilience for the Walking Wounded

Important factors for the walking wounded:

1) Have a trustworthy person you can talk to about your true situation and feelings

2) The ability to reframe your life (e.g. as a 9 year old I was not responsible for my parent’s drinking behavior)

3) Have hope for your future
Other Possible Influences on Resilience

- Intelligence
- Talent and Skill Mastery
- Creative Expression
- Physical Activity
- Positive Human Touch
Examples of Healing Communities

• Promote positive connection
• Inter-reliance
• Healthy boundaries
• Emotional safety
• A focus on healing and well-being
• Rhythm & ritual
• Inclusion
Restorative Justice

1. Restoring or transforming people to their highest form of functioning within community

2. A philosophy and collection of practices that emphasizes the need to repair harm done to individuals and communities

3. What you would want for your own child.
RJ in Schools & Communities

• Stop the school to prison pipeline
  – Alternative to zero tolerance policies
  – Peace rooms not police rooms
  – Peer Conferencing
  – Restorative Chats
  – Peace Circles
  – RJ Hubs in Communities (Hospitality & Accompaniment)
  – Allow accountability to person or community harmed
  – Are transformative
“He killed my father and three brothers. He did these killings with other people, but he came alone to me and asked for pardon. He and a group of other offenders who had been in prison helped me build a house with a covered roof. I was afraid of him — now I have granted him pardon, things have become normal, and in my mind I feel clear.” ~Viviane Nyiramana  (Portraits of Reconciliation, NYT, 4/6/14)
Creating Trauma Sensitive Spaces: 7 Sanctuary Commitments

- Social learning
- Democracy
- Open communication
- Nonviolence
- Emotional intelligence
- Growth & change
- Social responsibility
S.E.L.F.

Group Model

Drs. John Rich and Ted Corbin and Sandra Bloom
Center for Nonviolence & Social Justice

- Gun shot wound survivors
- Other trauma and violence exposed individuals
- Recognizes brain injury
- Organizes group sessions around 4 themes
- Available online
We Heal In Community

equintana@adler.edu

Thanks!