Social Determinants of Health: Putting Our Children First

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Case Study

• Tommy, a 6-year-old boy is having significant problems at school, with inattention, hyperactivity, poor persistence, frustration while completing tasks; and temper outbursts. He yells and threatens to hit others.
Case Study

- He was born to a 17-year-old single mother who works at a minimum wage job, has Medicaid and SNAP. They now live with Mom’s new boyfriend.

- What are your diagnostic ideas?
  - ADHD (attention deficit hyperactivity disorder)
  - Bipolar Disorder
  - ODD (oppositional defiant disorder)
How Does Social Environment get Embedded into Biology?

Neighborhood
- Air
- Water
- Soil
- Parks
- Libraries
- Violence

Poverty

Unmet needs
1. Material
   - Food
   - Money
   - Access
   - Housing
2. Caregiving
   - Emotional
   - Learning

Stress

HPA
Gene experience
- Brain
- Immune
- CV

ANS

CV

Poor Health in Childhood and Adulthood
So, What Are Some Causes of “Toxic Stress?”

• From the ACE Studies:
  – Physical and Sexual Abuse
  – Emotional Abuse and Neglect
    • PS – “Neglect,” used here to define a severe situation not amenable to easily remedial services.
  – Violence in the Family; IPV, etc.
  – Family, Neighborhood, and Community Ecology!
  – Drugs and Alcohol
  – Loss of a Parent
Childhood Experiences vs. Adult Alcoholism
Mechanisms by which Adverse Childhood Experiences influence health and well-being throughout the lifespan.
Establishing the Concept of BRAIN HEALTH

• It is NOT Mental Health
• Began in mid-19th century as “mental hygiene,” a subject actually taught in schools. (attributed to William Sweetzer, 1843)

• In 1893, Isaac Ray, a founder of the American Psychiatric Association, provided a definition of the term mental hygiene as "the art of preserving the mind against all incidents and influences calculated to deteriorate its qualities, impair its energies, or derange its movements. The management of the bodily powers in regard to exercise, rest, food, clothing and climate, the laws of breeding, the government of the passions, the sympathy with current emotions and opinions, the discipline of the intellect—all these come within the province of mental hygiene." (Rossi, A., Some Pre-World War II Antecedents of Community Mental Health Theory and Practice. Mental Hygiene, 1962, 46, 78-98).
New Term – BRAIN Health

- Cardiac Disease
- Liver Disease
- Pulmonary Disease

Society does not tell a person with heart failure, jaundice, or asthma that they are bad, or caused their disease, or have something different from other health problems!

- So, Brain Disease – eliminates stigma, allows for equal recognition, and……
- Creates necessity of PAYMENT for diagnosis and treatment!
Epigenetics, A Window into Brain Health

Epigenetics: Our experiences may effect our DNA
Child Maltreatment Changes a Child’s Destiny
If they ask you anything you don’t know, just say it’s due to epigenetics.
Developing a Model of Human Health and Disease

Through epigenetic mechanisms, the early childhood ecology becomes biologically embedded, influencing how the genome is utilized.
Eco-Bio-Developmental Model

• Eco: = Ecology (The environment of family, neighborhood, community, support, access to health care, education, and other factors.

• Bio: = New discoveries daily that link health over the lifespan to early childhood Biologic responses to ecologic and other factors.

• Developmental: = The SCIENCE of human development, emphasizing opportunities for habilitation and rehabilitation.
Allostasis and Allostatic Load

Environmental stressors (work, home, neighborhood) → Perceived stress (threat, helplessness, vigilance) → Behavioral responses (fight or flight; personal behavior — diet, smoking, drinking, exercise) → Allostasis → Adaptation → Allostatic load

Major life events

Individual differences (genes, development, experience)

Trauma, abuse
Positive & Tolerable Stress

Repeated "hits"

Physiologic Response

Time

Normal response repeated over time
Toxic Stress
Robert Sapolsky
Behind Every Data Point There is a Child
Neglect - Definition

- A condition in which a caretaker responsible for the child either deliberately or by extraordinary inattentiveness permits a child to experience avoidable present suffering and/or fails to provide one or more of the ingredients generally deemed essential for developing a person’s physical, intellectual or emotional capacities.
Domains of Neglect

- Food
- Shelter
- Clothing
- Safekeeping
  - Injuries, danger
- Nurturance
  - Attentive, responsive behavior (attachment)
Domains (continued)

- Teaching
- Medical care
- Schooling

2011 U.S. Data, Child Maltreatment

- Physical Abuse: 17.6%
- Sexual Abuse: 9.1%
- NEGLECT: 78.5%
- “Other” 10.3%
  - Drugs/alcohol, lack of supervision
- Child Population: 74 million
- Maltreatment cases reported: 676,569 unique children.
Confounders

- Poverty
- Drugs and Alcohol use
- Brain Health
- Low IQ
- Social Isolation
- Impulsive, poor planning mothers who have poor relationships (ADHD, ACE scores, Depression, Toxic Stress, Other Social Determinants of Health)
- Importance of ACE studies
Fragile Families

• Most dire straits: without protective family care.

• Exposed to violence, exploited, abused, abandoned, severely neglected, homeless, in institutions, trafficked, gang members, exploited for labor.

• Poverty plays a role: Disease, health risks, disabilities, social problems, disasters.
The Importance of Neglect

• Absence of:
  – Sufficient Attention – i.e. “Responsive Care!”
    Tennis anyone? Serve and Return.
  – Protection.
  – Processing information, cognitive, social, and emotional capacities (competencies) are distorted.

• All appropriate for the age of the child.
PREDISTRIBUTION
“Child Welfare”

• Prevention
  • Patient Centered Medical Home
  • Home Visitation

Identification, Rehabilitation.

• Removal from family alone is insufficient to correct!

• THERE SHOULD BE NO SUCH THING AS NON-THERAPEUTIC FOSTER CARE.

• Therapeutic: Trained families with in-home support and therapy for both foster parents, their
For Any Question, the Answer is “Our Children:” Advocacy Opportunities
In Spite of Our Efforts.....

• However, it is certainly true that:

• All Adults Once Were Children!
The Answer is OUR CHILDREN
WATCH CLOSELY FOR BIPARTISAN COOPERATION

WANNA SEE IT AGAIN?
Implications - Policy

Rates of return to human capital investment

- Preschool programs
- Schooling
- Job training

Rate of return to investment in human capital

Age

Preschool | School | Post-school

Opportunity cost of funds
Brain Growth vs. Public Spending

Federal Abandonment

- $50 million in cuts to Maternal and Child Health Block Grants “supporting state-based prenatal care programs and services for children with special needs.”
- $1 billion in cuts to NIH (preventing preterm births).
- $1 billion in cuts to CDC for preventive health programs, including preterm births.
AAP Agenda for Children 2013-2014
DEDICATED TO THE HEALTH OF ALL CHILDREN™

Poverty and Child Health

Epigenetics

Early Brain and Child Development

Children, Adolescents and Media

Access Quality Finance

Health Equity Medical Home

Profession of Pediatrics

Planning Implementing Integrating
“The rising child poverty rate is an indictment of America. To have 22 percent of children living in poverty is unacceptable. We are marching in the wrong direction, and we cannot continue to cut essential services for children and families and remain a strong nation.” – Children’s Leadership Council
Who is Poor? Income for Family of 3 in Tulsa County 2012

Economics & Employment

- Welfare Wage: $10,309 ($4.88/hr)
- Minimum Wage: $15,312 ($7.25/hr)
- Poverty Wage: $19,090 ($9.04/hr)
- 185% Poverty Wage: $35,317 ($16.72/hr)
- Median Family Income (2006-08 ACS): $38,277 ($18.12/hr)
- Married-couple families w/ children <18: $75,495 ($35.75/hr)
- All families w/ children <18: $58,854 ($27.87/hr)
- Male-headed families w/ children <18: $38,277 ($18.12/hr)
- Female-headed families w/ children <18: $21,410 ($10.14/hr)

Self-Sufficiency Wage = $39,978 ($18.93/hr)

Notes:
- For the self-sufficiency wage, family of three consists of one adult, one preschooler and one schoolage child.
- Hourly wages assume full-time, year-round employment.
- The 2009 poverty guidelines are being used until at least March 1, 2010.
- Welfare wage is the combined value of TANF, SNAP, & WIC.
Why would anyone, anywhere, question the importance of protective rights for children? Why would anyone, anywhere, question the profound effect children’s rights have on community well-being?
JFK, 1963

“The needs of children should not be made to wait. We can say with some assurance that, although children may be the victims of fate, they will not be the victims of our neglect.”
Important Words

• We are true to our creed when a little girl born into the bleakest poverty knows that she has the same chance to succeed as anybody else, because she is an American, she is free, and she is equal not just in the eyes of God, but also in our own.
United States Government Action Plan on Children in Adversity

• The Goal of the Plan is to achieve a world in which all children grow up within protective family care and free from:
  – Deprivation
  – Exploitation
  – Danger

• The plan is grounded in evidence that shows a promising future belongs to those nations that invest wisely in their children, while failure to do so undermines social and economic progress.
It is Also the Reason To Re-emphasize Our Prior Discussion!
It’s Not FAIR!!

Equality is not always Justice

This is EQUALITY

This is JUSTICE
Heckman Ingredients for Successful Human Development

• Powerful role of a functioning family,
• The prime importance of early years,
• Developing multiple capabilities,
• Capabilities interact to shape future capabilities,
• Important features: not just poverty, but also lack of attachment, encouragement, and emotional/cognitive support,
• Later life matters! Habilitation and rehabilitation.
• Give struggling adolescents a second chance.
James J. Heckman

- Nobel Memorial Prize Winner
- Professor of Economics, University of Chicago
- Equation on Human Capital Development is a Solution for Securing America’s Economic Future.
Many major economic and social problems in America — crime, teenage pregnancy, high school dropout rate, adverse health conditions — can be traced to low levels of skill and social ability such as attentiveness, persistence and impulse control.
Early investment produces the greatest returns in human capital.

Professor Heckman found that early nurturing, learning experiences and physical health from ages zero to five greatly impact success or failure in society. The most economically efficient time to develop skills and social abilities is in the very early years when developmental education is most effective.
What Questions or Thoughts Do You Have for How We Might Achieve:

Success
Thank You For Inviting Me!