WHAT HELPS CREATES STRONG DEVELOPMENT?
BEGINNING WITH THE END IN MIND:
(STEPHEN COVEY)

Mindfulness
Acceptance
Being With
Relationships
Supportive
Boundaries
Courage
Safety
Interests
Empathy
Body
Delight
Presence
Inside
Vulnerability

Eye Contact
Respect
Talk
Nurturing
Reflection
Repair
Touch
Curiosity

Relationships and the Brain
BRAINS DEVELOP AND ORGANIZE IN THE CONTEXT OF RELATIONSHIPS.

Positively and Negatively

“We are hardwired for relationships”
ALLAN SCHORE

“Neural Wi-Fi”
Daniel Goleman

NEURAL PATHWAYS
EXPERIENCE CHANGES THE BRAIN

“...our experiences are what create the unique connections and mold the basic structure of each individual's brain.”


Today will change your brain
IMITATION STARTS AT BIRTH

- Mirror neurons
- Ten-minute old newborn doing tongue-protrusion and mouth-opening, ala Meltzoff experiments.
- videos\Neonate_imitation.wmv
- “Micro events”
  - videos\The_Still_Face_Experiment.wmv
KEY ELEMENTS OF AN ATTACHMENT BOND

• Enduring emotional relationship with a specific person

• Presence of that person provides a sense of safety, comfort, and pleasure

• Loss or threat of loss of that person evokes intense distress

“THE RELATIONSHIP”

• Infants and toddlers come to experience the full range of human emotions.

• Initially, they depend heavily on adults to help them regulate their interaction, attention, and behavior as they experience emotion.

• Increasing self-monitoring by the young child contributes to the emotional regulation that is a sign of mental health.

“THE RELATIONSHIP”

• Through relationships with parents and other caregivers, infants and toddlers learn what people expect of them and what they can expect of other people.

• Nurturing, protective, stable, and consistent relationships are essential to young children’s mental health.

• Thus, the state of adults’ emotional well-being and life circumstances profoundly affects the quality of infant/caregiver relationships.
BONDING, ATTACHMENT, AND THE BRAIN
• Critical periods, occur during the first year when bonding experiences (serve and return interactions) must be present for the brain systems responsible for attachment to develop normally.
• If missed → impaired bonding
• Severe emotional neglect during early childhood can be devastating causing children to lose the capacity to form any meaningful relationships for the rest of their lives.
• Aka: neurons that fire together wire together.
• “We are hardwired for relationships”

ATTACHMENT
“lasting psychological connectedness between human beings” (Bowlby, 1969, p. 194)

"The propensity to make strong emotional bonds to particular individuals is a basic component of human nature" (Bowlby, 1988, 3)

CHARACTERISTICS OF ATTACHMENT
• **Proximity Maintenance** - The desire to be near the people we are attached to.

• **Secure Base** - The attachment figure acts as a base of security from which the child can explore the surrounding environment.

(Bowlby, 1988)

CHARACTERISTICS OF ATTACHMENT
• **Safe Haven** - Returning to the attachment figure for comfort and safety in the face of a fear or threat.

• **Separation Distress** - Anxiety that occurs in the absence of the attachment figure.

(...\videos\separation anxiety - YouTube.mp4

(Bowlby, 1988)
SEPARATION DISTRESS – CLINGING

CIRCLE OF SECURITY

ATTACHMENT CONTINUUM:

- SECURE
- INSECURE

CIRCLE OF SECURITY
PARENT ATTENDING TO THE CHILD’S NEEDS

I need you to...
- Watch over me
- Delight in me
- Help me
- Enjoy with me

Support My Exploration

I need you to...

Welcome My Coming To You

Always: be BIGGER, STRONGER, WISER, and KIND.
Whenever possible: follow my child’s need.
Whenever necessary: take charge.

- Protect me
- Comfort me
- Delight in me
- Organize my feelings

SAFE HAVEN

SECURE BASE
**SECURITY**

- Mary Ainsworth, pioneer of attachment theory and the structured protocol “The Strange Situation” commented that the secure relationship is the most calm, direct, obvious, and straightforward.

It doesn’t take a lot of thinking to understand a secure relationship. A need is a need is a need, and it can be openly expressed.

**Insecurity**

*is the unresolved tension between experiences of being with and experiences of not being with.*

**CHARACTERISTICS OF CHILDREN WITH SECURE HEALTHY ATTACHMENTS?**

The more secure children are the more they are able to:

- Know that most problems will be solved.
- Have high self esteem.
- Get along better with friends.
- Know how to be kind to those around them.
- Solve problems on their own.
THE MORE SECURE CHILDREN ARE THE MORE THEY ARE ABLE TO:

• Have better relationships with brothers and sisters.
• Feel less anger at their parents.
• Solve problems with friends.
• Turn to their parents for help when in trouble.
• Trust the people they love.
• Enjoy more happiness with their parents.

“If you think you are too small to be effective, you have never been in bed with a mosquito.”
- Betty Reese

PULLING IT TOGETHER. THE SCIENCE OF NEGLECT

• Harvard Center for the Developing Child

videos\InBrief The Science of Neglect - YouTube.mp4
TRAUMA DEFINED

- **Acute Trauma**: A single traumatic event that is limited in time. An earthquake, dog bite, or motor vehicle accident are all examples of acute traumas.

- **Chronic Trauma**: Chronic trauma may refer to multiple and varied (traumatic) events such as a child who is exposed to domestic violence at home, is involved in a car accident, and then becomes a victim of community violence, or longstanding trauma such as physical abuse of war.

- **Complex Trauma**: Complex trauma is a term used by some experts to describe both exposure to chronic trauma—usually caused by adults entrusted with the child’s care, such as parents or caregivers—and the immediate and long-term impact of such exposure on the child.

- **Poly-victimization**: Experiencing very high levels of victimization of different types.

- **Hypervigilance**: Abnormally increased arousal, responsiveness to stimuli, and scanning of the environment for threats. Hypervigilance is a symptom that adults and youth can develop after exposure to dangerous and life-threatening events. The American Psychiatric Association’s diagnostic criteria manual identifies it as a symptom related to Post Traumatic Stress Disorder.

- **Resiliency**: A pattern of positive adaptation in the context of past or present adversity.

- **Traumatic Reminders**: A traumatic reminder is any person, situation, sensation, feeling, or thing that reminds a child of a traumatic event. When faced with these reminders, a child may re-experience the intense and disturbing feelings tied to the original trauma.
HOW ARE CHILDREN TRAUMATIZED?

- Exposure to community violence in their neighborhoods and homes.
- Exposure and witnessing domestic violence.
- Exposure to or hearing about unusual traumatic events such as accidents, terrorist attacks, wars, natural disasters (hurricanes, tornados, fires).
HOW ARE CHILDREN TRAUMATIZED?

- Exposure to media.
- Abuse: emotional, physical, sexual.
- Medical Trauma

BROAD TYPES OF TRAUMA

- Single incident trauma
  - World Trade Center

- Chronic toxic stress
  - Exposure to neglect and abuse
  - Alcoholic parent (ACEs)

WORDS HURT...

OTHER CRITICAL TRAUMA CORRELATES: THE RELATIONSHIP OF CHILDHOOD TRAUMA TO ADULT HEALTH

- **Adverse Childhood Events** (ACEs) have serious health consequences
- ACEs lead to the Adoption of health risk behaviors as coping mechanisms
  - eating disorders, smoking, substance abuse, self harm, sexual promiscuity
- Severe medical conditions: heart disease, pulmonary disease, liver disease, STDs, GYN cancer
- Early Death *(Felitti et al., 1998)* [www.acestudy.org]
THE ADVERSE CHILDHOOD EXPERIENCES ARE:
- Recurrent and severe physical abuse
- Recurrent and severe emotional abuse
- Sexual abuse
- Growing up in household with:
  - Alcohol or drug user
  - Family member being imprisoned
  - Mentally ill, chronically depressed, or institutionalized member
  - Mother being treated violently
  - Both biological parents absent
- Emotional or physical abuse

(Felitti et al. 1998)

ADVERSE CHILDHOOD EXPERIENCES (ACE) STUDY BY KAISER PERMANENTE AND THE CENTERS FOR DISEASE CONTROL AND PREVENTION (INITIAL PHASE 1995 TO 1997)

- 17,337 adult health maintenance organization (HMO) members responded to a questionnaire about adverse childhood experiences
  - 11% reported emotional abused as a child,
  - 30.1% reported physical abuse, and
  - 19.9% sexual abuse.
  - 23.5% reported being exposed to family alcohol abuse,
  - 18.8% were exposed to mental illness,
  - 12.5% witnessed their mothers being battered, and
  - 4.9% reported family drug abuse.

The ACE study showed that adverse childhood experiences are vastly more common than recognized or acknowledged and that they have a powerful relationship to adult health a half-century later.

Myth of the good ole days!

Demographic Categories | Percent (N = 17,337)
--- | ---
Gender |  
Female | 54%  
Male | 46%  
Race |  
White | 74.8%  
Hispanic/Latino | 11.2%  
Asian/Pacific Islander | 7.2%  
African-American | 4.6%  
Other | 1.9%  
Age (years) |  
19-29 | 5.3%  
30-39 | 9.8%  
40-49 | 18.6%  
50-59 | 19.9%  
60 and over | 46.4%  
Education |  
Not High School Graduate | 7.2%  
High School Graduate | 17.6%  
Some College | 35.9%  
College Graduate or Higher | 39.3%  

Born in 1935 or before
ADVERSE CHILDHOOD EXPERIENCES--ACE STUDY  FELITTI, ANDA, ET AL. (1998)

Long-Term Consequences

**Disease and Disability**
- Major Depression, Suicide, PTSD
- Drug and Alcohol Abuse
- Heart Disease
- Cancer
- Chronic Lung Disease
- Sexually Transmitted Diseases
- Intergenerational transmission of abuse

**Social Problems**
- Homelessness
- Prostitution
- Criminal Behavior
- Unemployment
- Parenting problems
- Family violence
- High utilization of health and social services

**Impact on Child Development**
- Neurobiologic Effects (e.g., brain abnormalities, stress hormone dysregulation)
- Psychosocial Effects (e.g., poor attachment, poor socialization, poor self-efficacy)
- Health Risk Behaviors (e.g., smoking, obesity, substance abuse, promiscuity)

**Adverse Childhood Experiences**
- Abuse and Neglect (e.g., psychological, physical, sexual)
- Household Dysfunction (e.g., domestic violence, substance abuse, mental illness)

SIGNIFICANT ADVERSITY IMPAIRS DEVELOPMENT IN THE FIRST THREE YEARS

ACE PREVALENCE IN NEBRASKA CLASSROOM OF 30

Graph Courtesy: Center on the Developing Child at Harvard University

Data Source: Barth, et al. (2008)

Graph: Data: www.AceStudy.org, www.nasmhpd.org

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DEFINITION OF TRAUMA INFORMED CARE

- Mental Health Treatment that incorporates:
  - An appreciation for the high prevalence of traumatic experiences in persons who receive mental health services
  - A thorough understanding of the profound neurological, biological, psychological and social effects of trauma and violence on the individual
    - (Jennings, 2004)

PREVALENCE OF TRAUMA MENTAL HEALTH POPULATION – UNITED STATES

- Most have multiple experiences of trauma
  - (Mueser et al., 2004, Mueser et al., 1998)
  - 97% of homeless women with Serious Mental Illness have experienced severe physical & sexual abuse – 87% experience this abuse both in childhood and adulthood
    - (Goodman et al., 1997)

PREVALENCE OF TRAUMA MENTAL HEALTH POPULATION – UNITED STATES

- 90% of public mental health clients in have been exposed to trauma
  - (Mueser et al., 2004, Mueser et al., 1998)
- Nearly 80% of clients seen in community mental health clinics have experienced at least one incident of trauma during their lifetime, representing roughly five out of every six clients
  - (Breslau & Kessler, 2001).
- 51-98% of public mental health clients in have been exposed to trauma
  - (Goodman et al., 1997, Mueser et al., 1998)

PREVALENCE OF TRAUMA CHILD MENTAL HEALTH/YOUTH DETENTION POPULATION - U.S.

- Canadian study of 187 adolescents reported 42% had PTSD
- American study of 100 adolescent inpatients; 93% had trauma histories and 32% had PTSD
- 70-90% incarcerated girls – sexual, physical, emotional abuse
WHAT DOES THE PREVALENCE DATA TELL US?

- Growing body of research on the relationship between victimization and later offending
- Many people with trauma histories have overlapping problems with mental health, addictions, physical health, and are victims or perpetrators of crime

THEREFORE…

- We need to presume the clients we serve have a history of traumatic stress and exercise “universal precautions” by creating systems of care that are trauma-informed. (Hodas, 2005)
- Five guiding principles of trauma-informed practice:
  - Safety, Trustworthiness, Choice, Collaboration, and Empowerment.

WHAT DOES THE PREVALENCE DATA TELL US?

- Victims of trauma are found across all systems of care

PARADIGM SHIFT

- From
- What’s the matter with you?
- To
- What happened to you?
TRAUMA IN EARLY CHILDHOOD

- Children exposed to domestic violence are at risk for depression, anxiety, aggressive behavior, and academic problems.
- It is estimated that between 3.3 million and 10 million children in the U.S. witness domestic violence annually.
- Very young children are more likely to be exposed to domestic violence than older children.
- Very young children exposed to domestic violence may experience extreme stress that can have a potentially serious impact on brain development.
- Children who witness domestic violence are at high risk for child abuse or neglect.

IMPACT ON THE CHILDREN...

DOMESTIC VIOLENCE

RELATIONSHIPS BUFFER TOXIC STRESS

- Learning how to cope with moderate, short-lived stress can build a healthy stress response system.
- Toxic stress—when the body’s stress response system is activated excessively—can weaken brain architecture.
- Without caring adults to buffer children, toxic stress can have long-term consequences for learning, behavior, and both physical and mental health.
- Hardwired for relationships.
CAPTA (NOT RANDOM/BASED ON THE SCIENCE)

• The Child Abuse Prevention and Treatment Act requires a referral of a child under the age of 3 who is involved in a substantiated case of abuse or neglect to Early Intervention Services.

SIGNIFICANT ADVERSITY IMPAIRS DEVELOPMENT IN THE FIRST THREE YEARS

Graph Courtesy: Center on the Developing Child at Harvard University

QUALITY EARLY CARE AND EDUCATION PAYS OFF: COST/BENEFIT ANALYSES SHOW POSITIVE RETURNS

Graph Courtesy: Center on the Developing Child at Harvard University

KEYS TO HEALTHY DEVELOPMENT

A balanced approach to emotional, social, cognitive, and language development, starting in the earliest years of life.

Supportive relationships and positive learning experiences that begin with parents but are strengthened by others outside the home.

Highly specialized interventions as early as possible for children and families experiencing significant adversity.

Data Sources: Barth, et al. (2008)

For more on business champions: www.ReadyNation.org

For more on the science: www.developingchild.harvard.edu

Abecedarian Project (early care and education aged 0-5)
Nurse Family Partnership (home visiting prenatal – age 2 for high risk group)
Perry Preschool (early education age 3-4)

Total Return per $1 Invested

$10
$8
$6
$4
$2
0
Break-Even Point

Number of Risk Factors

Children with Developmental Delays

Data Source: Barth, et al. (2008)
Maltreated children develop as if the entire world is chaotic, unpredictable, violent, frightening and devoid of nurturing.

Unfortunately, the systems designed to help these children continue to expose these children to neglect, unpredictability, fear, chaos and, all too often, more violence.

Trauma and Altered Neurodevelopment

Altered cardiovascular regulation
- Behavioral impulsivity
- Increased anxiety
- Increased startle response
- Sleep abnormalities

www.ChildTrauma.org
Children who have been traumatized have emotional and state memories indelibly burned into their brainstem and midbrain!

The challenge is
Once you know how to ride a bicycle...can you unlearn it?

LONG-TERM CONSEQUENCES OF MALTREATMENT

- Increases in violent behavior
- Increases in neuropsychiatric disorders
- Increased risk of substance abuse
- Increased risk for teenage pregnancy
- Increased risk for anti-social/criminal actions
- Increased risk of becoming perpetrators of abuse
- Increased risk of becoming victims of other abuse

A PUBLIC HEALTH CRISIS

- If anxiety, impulsivity, aggression, sleep problems, depression, vulnerability to substance abuse, antisocial and criminal behavior, retardation, school failure, respiratory and heart problems in 8 million people every year were caused by a virus, we would consider it a national public health crisis.

- Yet over 8 million maltreated children each year are vulnerable to these problems. Our society has yet to recognize this epidemic, let alone develop an ‘immunization’ strategy.

B.D. Perry

“If you can't feed a hundred people, then feed just one.”
- Mother Teresa
ABNORMAL BRAIN DEVELOPMENT DUE TO CHILD ABUSE AND NEGLECT

• Abnormal Cortical Development
• Diminished Corpus callosum size
• Diminished left-hemisphere development
• Diminished left hippocampal volume and development
• Decrease right-left cortical integration
• Increase EEG abnormalities

NEURO-IMAGING EVIDENCE

“These images illustrate the negative impact on the developing brain.

The CT scan on the left is from a healthy three year old with an average head size (50th percentile).

The image on the right is from a three year old child following severe sensory deprivation neglect since birth.

The brain is significantly smaller than average and has abnormal development of cortical, limbic, and midbrain structures.”
### Arousal Continuum, Bruce Perry, MD PhD, 2006

<table>
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<tr>
<th>Sense of Time</th>
<th>Extended Future</th>
<th>Days Hours</th>
<th>Hours Minutes</th>
<th>Minutes Seconds</th>
<th>Loss of Sense of Time</th>
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<td>Hyperarousal Continuum</td>
<td>Rest Male child</td>
<td>Vigilance</td>
<td>Resistance Crying</td>
<td>Defiance Tantrums</td>
<td>Aggression</td>
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<tr>
<td>Dissociative Continuum</td>
<td>Rest Female child</td>
<td>Avoidance</td>
<td>Compliance Robotic</td>
<td>Dissociation Fetal rocking</td>
<td>Fainting</td>
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<td>Primary Secondary Brain Areas</td>
<td>Neocortex Subcortex</td>
<td>Subcortex Limbic</td>
<td>Limbic Midbrain</td>
<td>Midbrain Brainstem</td>
<td>Brainstem Autonomic</td>
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<td>Concrete</td>
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<td>Mental Status</td>
<td>Calm</td>
<td>Arousal</td>
<td>Alarm</td>
<td>Fear</td>
<td>Terror</td>
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</tbody>
</table>

### The Alarm Phase

**Acute Response to Trauma**

- **Terror**
- **Fear**
- **Alarm**
- **Vigilance**
- **Calm**

- **Normal with supports**
- **Vulnerable low supports**
- **Dissociation or Resilient**
- **Vulnerable “with supports”**

- **Traumatic Event**

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**Bruce Perry, ChildTraumaAcademy.org**

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**Power of a Secure Base/Safe Haven.**

- “If you think you are too small to be effective, you have never been in bed with a mosquito.”
  - Betty Reese
CONNECTION

SO WHAT IF ANYTHING HAVE WE LEARNED TODAY.

- Trauma changes us. All of us.
  - Even vicarious Trauma
- Relationships matter. They matter a lot.
- Children need to feel SAFE. Perception.
- CONNECTION.
- Behavior has a story. Meaning of the behavior.

- Circle of Security Parenting. Take a Group. All ages.
  - Then you can tell parents, “I have done the group myself.”
- Being Trauma Informed. What Happened to You?
  - (not What’s the Matter with you.)
- Support is Subtle but very POWERFUL.
- Communication.