Early Brain & Child Development: Building Bridges - Forging Futures

Home Visitors Conference 2013
Partners in Progress – Strengthening Oklahoma Families
Marny Dunlap, MD & Edd Rhoades, MD
October 15, 2013
The Foundation of a Successful Society is Built in Early Childhood

HEALTHY CHILD DEVELOPMENT

Educational Achievement  Economic Productivity  Responsible Citizenship  Lifelong Health

Successful Parenting of Next Generation

Strong Communities  Healthy Economy

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Health and Social Problems Worse in More Unequal Countries

Index of:
- Life expectancy
- Math & Literacy
- Infant mortality
- Homicides
- Imprisonment
- Teenage births
- Trust
- Obesity
- Mental illness – incl. drug & alcohol addiction
- Social mobility

*Wilkinson & Pickett, The Spirit Level*

[Graph showing the relationship between income inequality and health/social problems]

[Website: www.equalitytrust.org.uk]
Significant Adversity

Healthy Developmental Trajectory

Impaired Health and Development

Supportive Relationships, Stimulating Experiences, and Health-Promoting Environments

Current Conceptual Framework Guiding Early Childhood Policy and Practice
Brain Architecture Supports Lifelong Learning, Behavior, and Health

• Brains are built over time, starting in the earliest years of life. Simple skills come first; more complex skills build on top of them.

• Cognitive, emotional, and social capabilities are inextricably intertwined throughout the life course.

• A strong foundation in the early years improves the odds for positive outcomes and a weak foundation increases the odds of later difficulties.
700 New Neural Connections Every Second

Video: Experiences Build Brain Architecture
Center on the Developing Child at Harvard University

http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/brain_architecture
Foundation for Executive Function Skills is Built in Early Childhood

- **Self-Control** – ability to filter thoughts and impulses to resist temptations and distractions
- **Working Memory** – ability to hold and manipulate information in our heads over short periods of time
- **Mental Flexibility** – adjusting to changing demands, priorities, or perspectives
Critical Factors in Developing a Strong Foundation for Executive Function Skills

• **Children’s Relationships** – consistent reliable adults who support and protect them, and model and engage them in building executive function skills

• **Activities** - the opportunity to engage in activities that reduce stress, foster social connection, incorporate vigorous physical activity, and increase the complexity of skills at the right speed for each child

• **A safe and stable environment**
Serve & Return Builds Brains and Skills

- Ongoing, reliable interaction with trusted adults is essential for the development of healthy brain circuits
- Systems that support the quality of relationships in early care settings, communities, and homes help build brain architecture
Serve & Return Interaction Shapes Brain Circuitry
Center on the Developing Child at Harvard University

http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/serve_and_return/
Early Childhood Stress Influences Developmental Outcomes

• Brief increases in heart rate, mild elevations in stress hormone levels; important to development in the context of stable and supportive relationships

• Serious and temporary, but impact buffered by supportive relationships and safe environments

• Prolonged activation of stress response systems in the absence of protective relationships; disrupts brain architecture, increases the risk of stress-related physical and mental illness
Defining Adversity or Stress

Positive Stress

- Brief, infrequent, mild to moderate intensity
- Most normative childhood stress
  - Inability of the 15 month old to express their desires
  - The 2 year old who stumbles while running
  - Beginning daycare or school
- **Moderate, short-lived** physiological response
  - Increased heart rate, higher blood pressure
  - Mild elevation of stress hormone, cortisol, levels
- Social-emotional buffers allow a return to **baseline**
  (responding to non-verbal clues, consolation, reassurance, assistance in planning)
- Builds motivation and resiliency
- Positive Stress is **NOT** the **ABSENCE** of stress
Defining Adversity or Stress

Tolerable Stress

- Physiological responses large enough to disrupt brain architecture
- Activated by:
  - Death of loved one, divorce, natural disasters
- Relieved by supportive relationships:
  - that facilitate coping
  - restore heart rate and stress hormone levels
  - reduce child’s sense of being overwhelmed
Defining Adversity or Stress

Toxic Stress

- Long lasting, **frequent**, or strong intensity
- More extreme precipitants of childhood stress (**ACEs**)
  - Recurrent physical, sexual, emotional abuse
  - Recurrent physical, emotional neglect
  - Household dysfunction
  - Severe maternal depression
  - Family violence
  - Substance abuse
- Strong & prolonged activation of stress response systems in the **absence** of buffering protection of adult support
- **Insufficient social-emotional buffering**
  (Deficient levels of emotion coaching, re-processing, reassurance and support)
Defining Adversity or Stress

Toxic Stress (cont.)

- Potentially permanent changes and long-term effects
  - **Epigenetics** (there are lifelong / intergenerational changes in how the genetic program is turned **ON** or **OFF**)
  - **Brain architecture** (the mediators of stress impact upon the mechanisms of brain development / **connectivity**)
- Increased susceptibility to cardiovascular disease, hypertension, obesity, diabetes and mental health problems
- Implications: “Toxic stress is the key intergenerational transmitter of social and health disparities.” - Andrew Garner, MD, COPACFH
Video: Toxic Stress Derails Healthy Development
Center on the Developing Child at Harvard University

http://developingchild.harvard.edu/resources/multimedia/videos/three_core_concepts/toxic_stress/
### Prevalence of Adverse Childhood Experiences (ACE)

<table>
<thead>
<tr>
<th>Category</th>
<th>Girls (n=9,367)</th>
<th>Boys (n=7,970)</th>
<th>Total (17,337)</th>
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<tbody>
<tr>
<td><strong>Abuse</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Emotional</td>
<td>13.1%</td>
<td>7.6%</td>
<td>10.6%</td>
</tr>
<tr>
<td>– Physical</td>
<td>27.0%</td>
<td>29.9%</td>
<td>28.3%</td>
</tr>
<tr>
<td>– Sexual</td>
<td>24.7%</td>
<td>16.0%</td>
<td>20.7%</td>
</tr>
<tr>
<td><strong>Household Dysfunction</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Mother Treated Violently</td>
<td>13.7%</td>
<td>11.5%</td>
<td>12.7%</td>
</tr>
<tr>
<td>– Household Substance Abuse</td>
<td>29.5%</td>
<td>23.8%</td>
<td>26.9%</td>
</tr>
<tr>
<td>– Household Mental Illness</td>
<td>23.3%</td>
<td>14.8%</td>
<td>19.4%</td>
</tr>
<tr>
<td>– Parental Separation or Divorce</td>
<td>24.5%</td>
<td>21.8%</td>
<td>23.3%</td>
</tr>
<tr>
<td>– Incarcerated Household Member</td>
<td>5.2%</td>
<td>4.1%</td>
<td>4.7%</td>
</tr>
<tr>
<td><strong>Neglect</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>– Emotional</td>
<td>16.7%</td>
<td>12.4%</td>
<td>14.8%</td>
</tr>
<tr>
<td>– Physical</td>
<td>9.2%</td>
<td>10.7%</td>
<td>9.9%</td>
</tr>
</tbody>
</table>

*Wave 2 data only (n=8,667)

90-100% Chance of Developmental Delays When Children Experience 6-7 Risk Factors

Data Source: Barth, et al. (2008)
Graphic adapted from 2011, Center on the Developing Child at Harvard University
3:1 Odds of Adult Heart Disease After 7-8 Adverse Childhood Experiences

Source: Dong, et al. (2004) via Center on the Developing Child at Harvard University
Intergenerational Transmission of Risk

Evidence from ACE Study indicates...
(V. Felitti et al, 2005)

Adverse childhood experiences are the **MOST BASIC CAUSE** of health risk behaviors, morbidity, disability, mortality, and healthcare costs.
Understanding Impact of Adverse Childhood Experiences

- **Death**
- **Conception**

Freely reproducible slide from the Centers for Disease Control and Prevention.
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
What are We Building?

Healthy Child Development

- Successful Parenting of Next Generation
- Educational Achievement
- Economic Productivity
- Responsible Citizenship
- Lifelong Health
- Strong Communities
- Healthy Economy

© 2011, Center on the Developing Child at Harvard University
Developmental Neuroscience

- **Brain Architecture** is experience dependent (both individual connections or “synapses” and complex circuits of connections are dependent upon activity)

- **Ecology** (environment/experience) influences how brain architecture is formed and remodeled (plasticity)

- Diminishing **cellular plasticity** limits remediation

- **Early childhood adversity** -> vicious cycle of stress

- **Potentially permanent alterations** in brain architecture and functioning
Development results from an on-going, re-iterative, and cumulative dance between nurture and nature.

Experience
- Protective and Personal (versus Insecure and Impersonal)

Brain Development
- Alterations in Brain Structure and Function

Epigenetic Changes
- Alterations in the Way the Genetic Program is Read

Behavior
- Adaptive or Healthy Coping Skills (vs. Maladaptive or Unhealthy Coping Skills)
Epigenetics: Experiences Alter Gene Expression and Shape Development

"Genes may load the gun, but the environment pulls the trigger"

© 2011, Center on the Developing Child at Harvard University
Epigenetics

- Which genes are turned on/off, when, and where
- Ecology (environment/experience) influences how the genetic blueprint is read and utilized
- Ecological effects at the molecular level
- Stress-induced changes in epigenetic switches (and gene expression)
Brain Stem & Cranial Nerves:
Vital functions
Swallowing

Cerebellum:
Smooth movements
Coordination

Occipital Lobe:
Visual processing

Parietal Lobe:
Integration of sensory data and movement

Temporal lobe (outside):
Processing sound and language

Limbic System (inside):
Emotions and impulsivity

Frontal lobes:
Abstract thought, reasoning, judgment, planning, impulse and affect regulation, consequences

+ The Gas Pedal +
Amygdala

- The Brake – PFC (with some hippocampal help)

Brain Stem & Cranial Nerves:
Vital functions
Swallowing

Differential Brain Maturation

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™
Impact of Early Stress

CHILDHOOD STRESS

Hyper-responsive stress response; calm/coping

Changes in Brain Architecture

Chronic “fight or flight;” cortisol / norepinephrine
Early Childhood Trauma and the Brain

- Trauma can be associated with reduced size of the cortex.
- Trauma decreases the size of the corpus callosum.
- Trauma may increase the amygdala volume and decrease hippocampal volume.
- These changes may affect IQ, the ability to regulate emotions, and can lead to increased fearfulness and a reduced sense of safety and protection.
Human Brain Development

Neural Connections for Different Functions Develop Sequentially

Sensory Pathways (Vision, Hearing)

Language

Higher Cognitive Function

FIRST YEAR

Birth (Months) (Years)

Linking Childhood Experiences and Adult Outcomes

**Childhood Adversity**

- Toxic Stress
  - Epigenetic Modifications
  - Disruptions in Brain Architecture

- Behavioral Allostasis
  - Maladaptive behaviors
  - Non-communicable Diseases

Improve caregiver/community capacity to prevent or minimize toxic stress (e.g. efforts to promote the safe, stable and nurturing relationships that turn off the physiologic stress response)

Improve caregiver/community capacity to promote healthy, adaptive coping skills (e.g. efforts to encourage rudimentary but foundational SE, language, and cognitive skills)
Eco-Bio-Developmental Model of Human Health and Disease

Ecology becomes biology, and together they drive development across the lifespan.

Source: Andrew Garner, MD, PhD, FAAP
Advantages of an EBD Framework

• Underscores the need to improve the early childhood ecology in order to:
  – Mitigate the biological underpinnings for educational, health and economic disparities
  – Improve developmental/life-course trajectories
• Highlights the pivotal role of toxic stress
  – Not just “step on the gas” or enrichment
  – But “take off the brake” by treating, mitigating or immunizing against toxic stress
The **BIG** Questions are...

If **TOXIC STRESS** is the missing link between **ACE exposure** and **poor adult outcomes**, it raises the following **BIG** questions:

Are there ways to:
- **treat,**
- **mitigate,** and/or
- **immunize against** the effects of toxic stress?

If so, is there a mismatch between:
- what we **KNOW** ... and ...
- what we actually **DO**?  (may not have time!)
Addressing Toxic Stress

Treatment of the consequences

• TF-CBT and PCIT are evidence-based
• Reactive – some “damage” already done!
• Very COSTLY
• Efficacy linked to age and chronicity
  o Declining brain plasticity?
• Insufficient number of / access to providers
  o Limited reimbursements; carve-outs
• Mental Health Parity?
• Persistent STIGMA
  o “Character Flaws” vs “Biological Maladaptations”
Addressing Toxic Stress

Secondary / Targeted Preventions

- Focused, targeted interventions for those deemed to be “at high risk”
- Visiting Nurse Programs (Nurse Family Partner.)
- Parenting Programs (Triple-P, Nurturing Parent.)
- More likely to be effective; minimize “damage”
- Requires screening (no screen is perfect)
- Still issues with stigma, numbers of/access to providers
Addressing **Toxic Stress**

**Primary / Universal Prevention**
- Proactive, universal interventions to make stress positive, instead of tolerable or toxic
- Acknowledges that preventing all childhood adversity is impossible and even undesirable
- Actively building resiliency (“immunizing” through positive parenting, 7C’s, promoting optimism, formalized social-emotional learning)
- **SE Buffers** allow the physiologic stress response to return to baseline
- **Parenting/Caregiver** skills for younger children
- **SELear** skills for older children ([www.casel.org](http://www.casel.org))
Social-Emotional Safety Nets
A Public Health Approach to “Toxic Stress”

Universal Primary Preventions
- Anticipatory guidance
- Consistent messaging (CTC)
- No identification
- No stigma
- Ceiling effects = Limited evidence base

Targeted Interventions
(for those “at risk”)
- Nursing home visits (NFP)
- Parenting programs (PPP)
- Early Intervention

Less ceiling = More evidence
Requires screening
Issues with stigma

Evidence-Based Treatments
(for the symptomatic)
- PCIT; TF-CBT; Pharmaco-Tx

Treatment works!
Screening / stigma / access
WHAT are we DOING?!

Universal Primary Preventions
Bright Futures
Connected Kids / NCH
Circle of Security / ZTT
Relationships as a “vital” sign
Decrease Stress/Build Skills

Targeted Interventions
Screening for risks
(assess the ecology)
Refer to/advocate for EBI
Collaborating/Developing EBI
ID Risks/Provide EBI

Evidence-Based Treatments
Screening for diagnoses
Common factors approach
Refer for/advocate for EBT
Collaborating/Developing EBT
ID Symptoms/Provide EBT
Public Health Implications

ACE data provide a working model for understanding and addressing the childhood antecedents of adult disease.

Is there a gap between what we do and what we know?

What we do:

95% of the trillions of dollars that we spend on health is on treatment and NOT prevention.
Public Health Implications

What we **KNOW:**

That **70% of early deaths are preventable**, with...

**Public Health Implications**

The **majority (40% overall)** due to **behavioral patterns** that lead to **chronic disease.**

**Behavioral Allostasis** due to toxic stress?

McGinnis, Williams-Russo and Knickman, 2002
A Public Health Dilemma:

Do we continue to treat disease, the unhealthy lifestyles that lead to disease, or the TOXIC STRESS that leads to the adoption of unhealthy lifestyles??
WHAT NEXT?

- Let’s build bridges!
- Let’s build systems!
- Common vision
- Next steps
The critical challenge now is to **translate** game-changing advances in **developmental science** into effective **policies and practices** for families w/ children to improve education, health and **lifelong productivity**
Building an Enhanced Theory of Change that Balances Enrichment and Protection

Significant Adversity

New Protective Interventions
Healthy Developmental Trajectory

Supportive Relationships, Stimulating Experiences, and Health-Promoting Environments
The Mismatch Between Opportunity and Investment

Brain's "Malleability"

Spending on Health, Education and Welfare

Age

0 3 10 70
Documented Positive Impacts From Quality Preschool Programs

**Perry Preschool**

**Abecedarian**

Source: Eric Knudsen, James Heckman, Judy Cameron and Jack Shonkoff

*Proceedings of National Academy of Sciences (PNAS), July 5, 2006*
Perry Preschool
Costs and Benefits Over 27 Years

Program Cost
K-12 Ed
Higher Participants'
Justice System
Crime Victims
Welfare Payments

Source: Lifetime Effects: The High/Scope Perry Preschool Study Through Age 40 by L. J. Schweinhart et al. (2005)
Cost/Benefit for Three Early Childhood Programs

<table>
<thead>
<tr>
<th>Program</th>
<th>Return per $1 Invested</th>
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<tbody>
<tr>
<td>Abecedarian Project (0-5)</td>
<td>$3.23</td>
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<tr>
<td>Nurse Family Partnership (prenatal - 2)</td>
<td>$5.70</td>
</tr>
<tr>
<td>Perry Preschool (3-4)</td>
<td>$9.20</td>
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</tbody>
</table>

Total Return per $1 Invested

Data Sources: Karoly et al. (2005); Heckman et al. (2009)
Graph Source: © 2011, Center on the Developing Child at Harvard University
Rates of Return to Human Development Investment Across All Ages

“The most effective strategy for strengthening the future workforce, both economically and neurobiologically, and improving its quality of life is to invest in the environment of disadvantaged children during the early childhood years.”

15% Return on Investment

Carneiro, Heckman, Human Capital Policy, 2003
Eric Knudsen, James Heckman, Judy Cameron and Jack Shonkoff
Proceedings of National Academy of Sciences (PNAS), July 5, 2006
Video: Early Childhood Program Effectiveness
Center on the Developing Child at Harvard University

http://www.youtube.com/watch?v=_BgtFYEC1Yk&feature=player_detailpage
Approaches that Actively Build Resiliency

- Positive parenting education
- Circle of Security
- 7 Cs
- 5 Rs
- Incorporate formalized social-emotional learning into early learning experiences
Early Literacy and Early Care

Maternal Mental Health Promotion (awareness, screening, treatment)

Parental Support and Education

Community Support and Advocacy (quality pre-k, child care, home visiting, social services)

Routine Screenings and Surveillance including Toxic Stress

Financial Literacy, Tax Credit, Education and Legal Supports

Community Linkages across Systems/Relationships; Ongoing Care Management Team

American Academy of Pediatrics
DEDICATED TO THE HEALTH OF ALL CHILDREN™
Young Children and Their Families Need New Champions

“The time has come for fresh leadership in both the public and private sectors to address significant inequalities in opportunity, beginning in the earliest years of life, as both a moral responsibility and a critical investment in our nation’s social and economic future.”

Jack P. Shonkoff, M.D, Center on the Developing Child. Presentation 1/18/07.
Early care and education opportunities in nurturing environments where children can learn what they need to succeed in school and life.

Comprehensive health services that meet children’s vision, hearing, nutrition, behavioral, and oral health as well as medical health needs.

Early identification, assessment and appropriate services for children with special health care needs, disabilities, or developmental delays.

Economic and parenting supports to ensure children have nurturing and stable relationships with caring adults.

Health, Mental Health and Nutrition

Special Needs/Early Intervention

Family Support

Early Learning
Core Elements of an Early Childhood Development System

- **Governance**: to set policy direction for the comprehensive system
- **Provider / practitioner support**: to offer technical assistance and promote professional development
- **Monitoring**: to track program performance and results based on standards
- **Standards**: reflect effective practices, programs, & practitioners and are aligned across the system
- **Research & development**: includes cross-system data, planning, analysis, and evaluation
- **Communications**: to inform families, providers, and the public
- **Financing**: sufficient to assure comprehensive quality services based on standards

Families Supported and Children Thriving
Supportive Communities & Effective Policy Strategies

- Effective collaborative relationships
- Business leader champions
- Community volunteering and family engagement
- Public private investments
- Public private partnerships
- Public will
- Policies that benefit children and families
### Early Childhood Development System Transformation Framework

<table>
<thead>
<tr>
<th>Components</th>
<th>What System Do We Have Now? ECD 1.0</th>
<th>What System Are we Trying to Build ECD 2.0</th>
<th>What System Do we Need to Design for the Future ECD 3.0</th>
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</thead>
<tbody>
<tr>
<td>Logic Model</td>
<td>5 to zero, looking back</td>
<td>Zero to 5, transactional</td>
<td>Optimizing development</td>
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<tr>
<td>Organization of ECD Producing Sectors</td>
<td>Isolated sectors</td>
<td>Cross-sector paths</td>
<td>Integrated systems</td>
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<tr>
<td>Organization &amp; Delivery of Individual Services</td>
<td>Fragmented</td>
<td>One stop</td>
<td>Integrated network</td>
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<td>Education &amp; Workforce Development</td>
<td>Ad-hoc</td>
<td>ECE workforce &amp; economic Development</td>
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<td>Market Structure</td>
<td>Disorganized, fragmented</td>
<td>embedded</td>
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<tr>
<td>Funding</td>
<td>Silos,</td>
<td>Consolidation, augmentation</td>
<td>New investment mechanisms</td>
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<tr>
<td>Planning</td>
<td></td>
<td>City, state, &amp;</td>
<td>National plan</td>
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<tr>
<td>Regulation &amp; Governance</td>
<td>Fragmented across sectors</td>
<td>Joint planning/ ECCS</td>
<td>Integrated system</td>
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<tr>
<td>Performance Monitoring</td>
<td></td>
<td>Early Development Instrument &amp; Ages and Stages Questionnaire</td>
<td>Map trajectories</td>
</tr>
</tbody>
</table>
Can we go from this......

Adapted from: Margaret Dunkle The George Washington University & The LA County Children’s Planning Council 2002
To Building and Sharing the Pyramid!
CURRENT EARLY BRAIN AND CHILD DEVELOPMENT EFFORTS IN OKLAHOMA

EDUCATION

• OSDE
  – Universal pre-K
  – SoonerStart Early Intervention (EI)
  – Parents as Teachers (PAT)

• Head Start
  – Early Head Start
CURRENT EARLY BRAIN AND CHILD DEVELOPMENT EFFORTS IN OKLAHOMA

HEALTH

• OSDH
  – Child Guidance
  – Incredible Years
  – PCIT
  – MIECHV (Home Visitation)
  – ECCS
  – Start Right
  – SoonerStart EI
  – Children First (NFP)

• OHCA
  – SoonerCare
  – Medical Home

• OUHSC
  – SoonerSuccess
  – SafeCare

• Healthy Start
  – Oklahoma City Healthy Start
  – Tulsa Healthy Start
CURRENT EARLY BRAIN AND CHILD DEVELOPMENT EFFORTS IN OKLAHOMA

HUMAN SERVICES

• OKDHS
  – Child Care
  – STARS/QRIS
  – Comprehensive Home Based Services (CHBS)
  – SafeCare

• Child Care Resource & Referral Association, Inc.

• OCCY
  – Office of Planning and Coordination
  – Oklahoma Statewide Promising Practices Team
CURRENT EARLY BRAIN AND CHILD DEVELOPMENT EFFORTS IN OKLAHOMA

MENTAL HEALTH

• ODMHSAS
  – Strengthening Families Program
  – Celebrating Families
  – Trauma Focused – Cognitive Behavioral Therapy

• Project Launch
CURRENT EARLY BRAIN AND CHILD DEVELOPMENT EFFORTS IN OKLAHOMA

OTHER STATE AND COMMUNITY INITIATIVES

- Oklahoma Partnership for School Readiness
  - SmartStart Oklahoma
  - Early Childhood Advisory Council (ECAC)
- Educare of Tulsa
- Educare of Oklahoma City
- Oklahoma Family Network
- Tulsa Transforming Early Childhood Community Systems (TECCS)
- Parent Aide Services (PAS)
- Early Childhood Association of OK
How To Get There

- Create cross-sector paths for families
- Plan and implement programs and services across systems and sectors
- Collect and share data across systems
- Create one-stop, user-friendly networks (there is no wrong door)
- Support early childhood education workforce & economic development
- Consolidate, augment and share funds across systems
- Involve families in system design
How To Get There (cont’d)

- Measure progress and results
- Engage and educate the public
- Think outside the box
- Reward innovation
- Support and reward relationship-based work throughout the system
- Engage business leaders and unlikely champions
- RELATIONSHIPS, RELATIONSHIPS, RELATIONSHIPS
- BE THE CHANGE!!!!
What’s Needed to Move from Patchwork to Innovative Community-based Systems?

- Leaderships and state policymakers thinking differently about how to use federal, state, and local, public and private resources
- Agencies and professionals will work together for transformation
- Systems and policy changes will be essential
- Service providers will become learning communities
- Parent support becomes central to any EC system

Source: Our Nation’s Future, 2013
Components Unique to the Community-based Early Childhood Pathway

- Agreement on the guiding child outcomes
- Providing all parents and care givers access to information
- Informal and formal touch points for support
- Universally accepted screening and assured follow-up
- Methods for identifying the most vulnerable populations
- Certain universal supports and services

Source: Our Nation’s Future, 2013
Core Functions to Support Systematic, Integrated and Comprehensive Approaches

- An accountability system to track and assess outcomes
- An agreed upon organizing entity
- A quality control and measurement system
- Professional development and capacity building

Source: Our Nation’s Future, 2013
Its All About

- Building health, First 1000 Days
- “Building brains, forging futures!”
- The earliest relationships and their sturdiness
- Breaking the generational transmission of abuse, ACE transmission and toxic stress mitigation
- Partnerships and shared values of communities of all agencies that becomes a collective impact approach
- A culture of quality, measurement and accountability
- Population approaches and management upstream
- Driving innovation in all we do
- Proven, wise and sustainable investments for young children’s future
The Foundation of a Successful Society is Built in Early Childhood

Successful Parenting of Next Generation

Strong Communities

Healthy Economy

Educational Achievement

Economic Productivity

Responsible Citizenship

Lifelong Health

HEALTHY CHILD DEVELOPMENT

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