Addressing Children’s Mental Health in an Early Childhood System of Care

Deborah F. Perry, PhD
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Neurons to Neighborhoods

…”virtually every aspect of early human development, from the brain’s evolving circuitry to the child’s capacity for empathy is affected by the environments and experiences that are encountered in a cumulative fashion, beginning in the prenatal period and extending throughout the early childhood years.”

Shonkoff and Phillips, 2000
The brain is a pathway by which experiences get under the skin to affect health, learning and behavior.
Human Brain Development – Synapse Formation

- Conception
- Sensing Pathways (vision, hearing)
- Language
- Higher Cognitive Function

AGE

Months

-6 -3 0 3 6 9 12 16

Years

• Conditions of early life affect the differentiation and function of billions of neurons in the brain.

• This early experience sets up the pathways (connections) among the different centers in the brain.
Social, Emotional, and Cognitive Development are Highly Interrelated

- Emotional well-being and social competence provide a strong foundation for emerging cognitive abilities.
- Social skills, emotional health, and cognitive capacities are all important prerequisites for success in school and later in the workplace.
Brain Plasticity Diminishes Over Time

- Brain circuits stabilize with age, making them increasingly more difficult to alter.

- The window of opportunity for adaptive development remains open for many years, but the costs of remediation grow over time.

- It is more efficient, both biologically and economically, to get things right the first time than to try to fix them later.
Relationships are the “Active Ingredients" of Early Experience

- Crucible of infant experiences are in caregiving relationships
- Nurturing and responsive relationships build healthy brain architecture that provides a strong foundation for learning, behavior, and health.
- When protective relationships are not provided, elevated levels of stress hormones disrupt brain architecture by impairing cell growth and interfering with the formation of healthy neural circuits.
Early Childhood Adversity Can Have Lifelong Consequences

Research on the biology of stress helps explain some of the underlying reasons for differences in learning, behavior, and physical and mental health related to early childhood adversity.
Adverse Childhood Experiences Are Common

**Household dysfunction:**
- Substance abuse: 27%
- Parental sep/divorce: 23%
- Mental illness: 17%
- Battered mother: 13%
- Criminal behavior: 6%

**Abuse:**
- Psychological: 11%
- Physical: 28%
- Sexual: 21%

**Neglect:**
- Emotional: 15%
- Physical: 10%
Adverse Childhood Events and Adult Depression

Odds Ratio

Adverse Events

Chapman et al, 2004
Adverse Childhood Events and Adult Ischemic Heart Disease

Dong et al, 2004

Odds Ratio vs Adverse Events

- 0
- 1
- 2
- 3
- 4
- 5,6
- 7,8
Physiological Responses to Stress

- Increased Cortisol Levels
- Higher baseline of stress and startle response
- Tension and contraction of muscles
- May affect the growth and pruning of neural connections
- May contribute to dissociative states, memory, learning, and cognitive abilities
Levels of Stress

- **Positive Stress**: normative, helps in development
- **Tolerable Stress**: outside the normal range, one time events, buffered by caregivers
- **Toxic Stress**: prolonged activation of the stress response system, in absence of buffering adult
Emotional Stimulus

HPA Pathway Control

- Amygdala
- Hippocampus
- Hypothalamus PVN
- CRH
- ACTH
- PIT
- Adrenal Cortex
- Cortisol

LeDoux, Synaptic Self
Interaction of the Brain and Immune System

- Hypothalamus
  - CRH
  - CRF
  - ACTH
  - Cortisol
- Pituitary Gland
  - ACTH
  - Cortisol
- Adrenal Gland
  - Cortisol
- Immune Cells
  - Cytokines
- Immune Organs
- Locus Ceruleus
- Sympathetic Nervous System
- Vagus Nerve
How maternal depression affects S-E development

Disruptions in specific parenting behaviors:
- Maternal responsivity
- Maternal sensitivity
- Emotional availability
- Negative mood (intrusive/hostile)
- Inconsistency in discipline
- Modeling negative affect
- Inability to assist with emotional regulation
Systems-Building

- Need to address complex, multi-factorial problems that evolve over time and across settings
- Lack of fit between increasing specialization & real needs of young children & their caregivers
- Requires integration & adaptation of evidence-based practices (EBP)
Disconnect Between Policy and Reality

- Categorical programs addressing narrow needs
- Child versus adult focused services
- Systems-building: “systems of systems”
- Lack of a common language about core aspects of early childhood development in multiple domains
Public Health Framework

Promotion/Universal – 80-100%

Intervention/Targeted – 5-10%

Prevention/Indicated – 10-15%

Promotion/Universal – 80-100%

Population-focused but consider subgroup variations in prevalence
Challenges & Opportunities

- Address the mental health needs of young children and their caregivers in context of their network of services and supports
- Integrate the best available science on what works for preventing and treating mental health needs of young children and their families
An Early Childhood Systems’ Framework

Developed by Roxane Kaufmann, GUCCHD; design by: Lucia Foley, Hampshire Educational Collaborative
System of Care Values/Principles

- Relationship-Based
- Culturally Competent
- Best Scientific Evidence
- Infused Into Natural Settings and Services
- Grounded in Developmental Knowledge
- Risk & Resilience
Relationship-Based

- Dyadic
- Two-generation models
- Family systems
- Relationships between MH and other service systems
- Relationships with stakeholders in systems building
System of Care Values/Principles

- Infused Into Natural Settings and Services
  - Stand-alone early childhood mental health systems won’t work

- Grounded in Developmental Knowledge
  - Lifespan approach, different approaches needed for infants, toddlers, preschoolers

- Risk & Resilience
  - Building family and community assets
Best Scientific Evidence

Growing number of evidence-based prevention and treatment models
- Developed through rigorous scientific experiments
- Need for adaptation for local context, but with eye to fidelity
- Difficulties in bringing these to scale

Valuing “practice-based evidence” and “family wisdom”
An Early Childhood Systems’ Framework

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Promotion

- Developmental and social-emotional screening in primary care and early care and education programs
- High quality child care
- High quality training on social-emotional development
- Use of an evidence-based early childhood curriculum
- Dissemination of information promoting healthy social-emotional development
Prevention

- Home visitation programs
- Mental health consultation in multiple settings
- Family mentors
- Social skills curricula (i.e., Second Step)
- Family supports
- Caregiver supports
Intervention

- On-site mental health consultation
- Crisis teams
- Wraparound services
- Relationship-based therapy
- Hotline for families
- Behaviorally-based programs in a variety of settings
- In-home treatment
Florida’s Model for IMH

Level 1. Services to strengthen caregiver skills and relationship with child.

Level 2. Services for families and children with identified social risks, delays, special health needs, and disabilities.

Level 3. Services to families of children diagnosed with serious emotional disorders or severe mental/behavioral health problems.

Source: Infant Mental Health Services for Young Children and Families. Florida State University, Center for Prevention and Early Intervention Policy. © 2000
System Infrastructure

- Strategic planning, policies and procedures
- Interagency partnerships
  - Public-private; philanthropic-government; mental health with other agencies
- Maximized and flexible funding
  - Current system: one identified patient; treatment focused; MH or SA or DV
System Infrastructure II

- Prepared workforce
  - Pre-service and in-service; infusion models require support for front-line staff

- Outcome Evaluation
  - Consider this early & often; allocate $ and resources
  - Results-focused, but contextual
  - Measure process as well as outcomes
  - Document adaptations made to EBP
We know what works...

- Early detection and prompt interventions can improve outcomes (i.e., “shift the odds”) for both children living in high-risk environments and those with biologically based disabilities. (IOM)

- Preventive interventions have been shown to be effective in reducing the impact of risk factors for mental disorders and improving social and emotional development. (Surgeon General)

- Interventions tailored to specific needs have been shown to be more effective in producing optimal outcomes than services that provide generic advice and support. (IOM)
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Judith C. Meyers, PhD
President and CEO
Child Health and Development Institute of Connecticut
Children’s Fund of Connecticut

February 26, 2009
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Early Childhood Health in CT: Window of Opportunity

- Increasing understanding of the science of early childhood brain development
- Recognition of need for comprehensive approach to school success
- Goals of Governor’s ECE Cabinet – Ready by Five/Fine by Nine
  - All children will reach appropriate developmental milestones from birth to age five
  - All child will begin kindergarten with the knowledge, skills, and behaviors for success in school
  - All children will achieve mastery in reading in third grade
- Mental Health Transformation Grant
Percent of Children Lagging on One or More Dimensions: Interconnectedness of Dimensions

While 24.5% of children lag in cognitive development, only 6.4% lag only in cognitive development!

Three Levels of Change Needed to Improve Health Outcomes for Children

- System
- Policy
- Practice
Vision of a Comprehensive System for Children’s Health

Every child in Connecticut will receive high quality health promotion and prevention services within a family-centered medical home, and will have timely access to community-based services and supports as needed to assure optimal development.
Child Health Services Building Blocks

- Universal
  - Medical Home
    - Developmental / Behavioral Surveillance & Screening
    - Family Education / Parent & Child Counseling / Anticipatory Guidance
    - Literacy Promotion
    - Health Supervision Services
    - Oral Health / Dental Home
    - Nutritional Services
- Selective
  - Service Integration
    - Medical / Surgical Subspecialty Services
    - Early Childhood Consultation Services
    - Developmental / Behavioral Health Services
      (Mid-level, Comprehensive assessments; Treatment)
    - Home-based Services
    - Help Me Grow
- Indicated
  - Care Coordination
    - Part C (B-to-3)
    - Title V (CYSHCN)
    - Links to Preschool
    - Special Ed and
    - Special Ed (LEA)
- Policy and System Changes
- Practice Improvement
Child Mental Health Services Building Blocks

 Desired Outcomes for School Readiness
Optimal Social/Emotional Development

Early Care and Education

Pediatric Primary Care

Universal
Selective
Indicated
Care Coordination

Child Mental Health System
Addressing Early Childhood Mental Health in Connecticut

- Linking Mental Health and Primary Care
  - Help Me Grow
  - EPIC
  - Behavioral Health Partnership/Enhanced Care Clinics

- Linking Mental Health and Early Childhood Education
  - Early Childhood Consultation Partnership
  - Integrated Consultation

- Mental Health Systems of Care
  - Building Blocks
  - Child FIRST

- State/Community Partnerships

- Developing an Infant Mental Health Workforce
Linking Mental Health and Primary Care
Pediatricians significantly under-identify behavioral health treatment needs

Between 40% to 80% of children with behavioral health problems are not identified when pediatricians rely on clinical judgment

2006 survey of Connecticut child health providers showed that with the exception of the Vanderbilt for ADHD, virtually no providers routinely screen for behavioral health concerns
Screening Tools

- PEDS
- Ages and Stages SE
- Pediatric Symptom Checklist
- Brief Infant Toddler Socio-emotional Assessment
- Maternal Depression: PHQ9, Edinburgh
What is Help Me Grow?

- Serves children (birth through 8) who are at risk for behavioral and developmental delays and may not be eligible for special services (e.g. Birth to Three or Pre-school Special Education)

What Help Me Grow Does

- Central Call Number – Care Coordination
- Finds existing resources and services – community liaisons
- Connects families to appropriate services
- Provides follow-up to ensure linkage to service
Educating Practices in the Community (EPIC)

- Identify and disseminate timely, accurate, evidence-based materials for primary care providers
- Practice change using clinical information, tools, resources
- Practice-based for entire office team
- Food and CME’s
- Behavioral health modules
  - Universal BH screening
  - Brief BH counseling for less complex concerns
  - Connecting children to services through CT BHP
  - Co-management across sectors
Children’s Behavior Problems: Brief Office Interventions

Physicians and their staffs are well positioned to support parents in addressing behavioral problems. In this module of the EPIC program, you will learn in-office strategies for addressing problem behaviors and supporting parents in maintaining perspective and managing their child’s behaviors, as well as how to handle cases that require referral to behavioral health professionals.
Enhanced Care Clinics

- 25% enhanced reimbursement rate
- Access – 2 hrs/2 days/2 weeks
- Coordination with Primary Care
  - Shared care plans
  - PCP Medication management for children with backup telephone consultation
  - Communication protocols
  - Ongoing co-management of health and mental health
- Address Reimbursement Issues (care coordination, consultation)
Linking Mental Health and Early Care and Education
Early Childhood Consultation Partnership (ECCP)

- 20 mental health clinicians statewide
- Range of service intensity
  - Child Specific
  - Core Classroom
  - Intensive Site
  - Home-based
- $2.1 m state funding
- Rigorous evaluation – Walter Gilliam – Yale Child Study Center
Significant Findings

ECCP was successful at achieving its primary goal – reducing classroom behavior problems in children.

- Significant decreases in behavior problems
- Positive effects were greatest in the areas of decreased oppositional behaviors and hyperactivity
Integrated Consultation in ECE Sites

Provide integrated approach to health, mental health and education consultation to preschool programs to enhance skills of directors and teachers to meet the comprehensive needs of children.

Issues to be addressed:

- Relationship, Roles and Responsibilities
- System for Collaboration
- Education and Experience
- Cross Disciplinary Training
- Registry/Data
State/Community Partnerships

Tools and techniques for integrating health/mental health into community early childhood planning initiatives

- Results Based Accountability
- Public/Private Partnerships – Promoting Health & Learning Incentive Grants
- Headline Indicators
  - % of children receiving well child visits and immunizations
  - % of low birth weight babies
  - # of children K-3 suspended for behavioral issues, chronic absenteeism and/or discipline record
  - % of substantiate cases of abuse and neglect
Preschool policies that support healthy development

Parent and family engagement in health issues

Health provider connection to early care and education

Addressing behavior problems before children expelled

Connection of children to important health services
Early Childhood Mental Health Systems of Care
Building Blocks

• A SAMHSA funded project to build a System of Care for children birth to six years and their families.
• Serves families in New London County
• Two major goals
  - Develop comprehensive mental health service system for children birth - five
  - Develop the capacity of the workforce serving young children to promote, prevent/intervene, and treat social and emotional issues
Child FIRST is an early childhood system of care that works to decrease the incidence of serious emotional disturbance, developmental and learning problems, and abuse and neglect among high-risk young children and families in Greater Bridgeport, Connecticut.
Child FIRST

- **Broad community-based services**: Screening, mental health and developmental consultation (in early care and education and pediatrics), and training and mentoring of community providers.

- **Intensive home-based intervention**: Comprehensive assessment, integrated family-driven plan, and home-based intensive services provided by a team of a masters level mental health clinician and care coordinator, especially for families with multiple challenges like depression and domestic violence.

- **Care coordination/case management**: Coordinated access to community resources with formal agreements with over 30 and collaboration with over 70 different agencies. This prevents duplication, gaps, and inefficiency.
Child FIRST Randomized Trial: Findings

Statistically significant, evidence-based outcomes of effectiveness, when compared to Usual Care controls:

- Child FIRST children were 4.2 times less likely to have language problems.
- 4.8 times less likely to have aggressive and defiant behaviors.
- Mothers had significantly lower levels of depression and mental health problems.
- Families were 4.1 times less likely to be involved with child protective services.
- Family members had a marked increase in access to services (91% vs. 33%).
Goal: Address shortage of professionals with the necessary knowledge, skills and work experience to:

- promote healthy social and emotional development
- provide for early detection and intervention
- treat serious early childhood mental health problems
Competency Guidelines

- Purchased from MI-AIMH
- Under leadership of CT-AIMH
- FOUR levels of competency
  - Infant Family Associate
  - Infant Family Specialist
  - Infant Mental Health Specialist
  - Infant Mental Health Mentor

Issues for planning
- Assess training and education across state
- Credential crosswalk
- Marketing/Communications
- Fiscal Needs
- Reflective Supervision
System Challenges

- Strong pre-k focus on school readiness doesn’t always include broader developmental focus
- Access to services – uninsured; undocumented
- Reimbursement policies – need for diagnosis
- Shift in demographics – language and cultural competence
- Data issues
  - Defining measurable outcomes
  - Lack of access to state data by city/town
- Workforce Issues - Competencies and capacity
What it Takes: Promoting and Sustaining Reform

- Leadership – executive, legislative, community
- Broad based commitment – public, private, state, local
- Sustained and adequate funding
- Building capacity in workforce at all levels
- Quality improvement and accountability through data and evaluation
- Sustained and adequate funding from multiple sources
- Integration of health and mental health into all systems
- Cultural Competence
- Genuine involvement for families
- Public awareness and public will
- Expansion of evidence-based practices
- Relationships, relationships, relationships
It is easier to build strong children than to repair broken men.

Fredrick Douglas
“We have learned to create the small exceptions that can change the lives of hundreds. But we have not learned how to make the exceptions the rule to change the lives of millions.”

Lee Schorr
Contact Information

Judith Meyers
Child Health and Development Institute of Connecticut
270 Farmington Ave. Suite 367
Farmington, CT 06032
860-679-1520
www.chdi.org