PEDIATRIC PRIMARY CARE CONSULTATION IN EARLY CHILDHOOD MENTAL HEALTH

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Our pediatric, perinatal, early intervention and child care partners and the children they serve!
OBJECTIVES

- Be familiar with the rationale for early childhood prevention activities
- Appreciate the opportunities for early childhood integration
- Be familiar with a model of early childhood consultation
Why Focus Prevention Efforts on Early Childhood?

- Rapid brain development
  - Provides foundation for all developmental domains
  - Sensitive to environmental influences
- Many risk factors for childhood mental health problems are identifiable in early childhood
- Young children can have mental health problems that are responsive to treatment
- ... Opportunities for universal, selective, AND indicated prevention in primary care
PRINCIPLES OF BRAIN DEVELOPMENT

- **Genes** provide basic plan for brain development.

- **Experience**
  - Adjusts the genetic plan
  - *Shapes the architecture of its neural circuits*, according to the needs and distinctive environment of the individual.

Slide from C Zeanah
Making connections: 700 synapses per second!!!!

Harvard Center for the Developing Child
Building a brain: start with the foundation

• Circuits related to basic information processing are created first

• Later circuits build on existing circuits

• Higher level capabilities much harder to develop if foundational circuits are not wired properly
**Pruning: Use it or lose it**

- Experience shapes which synapses are maintained
- At birth - 50 trillion
- At 1 year - 1000 trillion
- At age 20 - 500 trillion

![Neuro images at different ages](Birth_12months_20years.png)
EARLY CHILDHOOD: CAPACITY FOR CHANGE IS BUILT INTO THE SYSTEM

Source: Levitt (2009)
CAPACITY FOR CHANGE CUTS BOTH WAYS
AVERSITY

- Changes brain architecture and how a child learns, remembers, plans, and reacts
- Changes genetic messages and codes that affect lifelong stress responses
- Can change the way the nervous system, immune system, and hormone system work later on in life

(Suglia et al 2012; Shonkoff et al 2013; Johnson et al 2013)
**Adverse Childhood Events Developmental Delay**

Chapman et al, 2004
ADVERSE CHILDHOOD EVENTS AND ADULT DEPRESSION

Number of Adverse Events

Chapman et al, 2004
ADVERSE CHILDHOOD EVENTS AND PEDIATRIC ASTHMA

Wing et al 2015
ADVERSE CHILDHOOD EVENTS AND ADULT ISCHEMIC HEART DISEASE

Dong et al, 2004
Early intervention matters in brain development: Alpha power

BEIP Vanderwert 2010 PLOSOne
Early intervention matters in brain development: Alpha power

Care as usual

Foster care before 20 mo

Never institutionalized

BEIP; Vanderwert 2010 PLOSOOne
Early intervention matters in brain development: Alpha power

BEIP Vanderwert 2010 PLOSOne
RISK FACTORS FOR CHILDHOOD MENTAL HEALTH PROBLEMS
# Factors Shaping Child Brain Development

## Present prenatally
- Community/household factors
  - Community violence
  - Social network
  - Lead exposure
  - Trauma exposure
- Parent/family factors
  - Age
  - Depression and other mental health problems
  - IQ
  - Financial and social resources
  - Family violence
  - Maternal education
  - Inadequate nutrition
- Pregnancy
  - Nutrition
  - Stress

## Develop postnatally
- Parent-child interaction
  - Parental sensitivity
  - Cognitive stimulation
  - Maltreatment
- Child Factors
  - Genetics
  - Temperament
  - Anemia
  - Chronic medical problems/Disabilities

Walker 2011 The Lancet
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Walker 2011 The Lancet
EARLY ADVERSITY AND RISK FOR MENTAL HEALTH PROBLEMS

• By age 3:
  • More than half of US children have had at least one adverse life event
  • 1/3 have had more than one
EXAMPLES OF SELECTIVE INTERVENTIONS IN EARLY CHILDHOOD

- Nurse Family Partnership
- Parents as Teachers
- Healthy Start
- Incredible Years (Classroom based)
- Pediatric based
  - Video Interaction Project (Mendelsohn 2015)
    - Videotaping in pediatric office with developmental support and feedback
      - Enhanced parental interactions
      - Enhanced cognitive and language development
      - Decreased TV exposure
      - Decreased maternal depression
      - Decreased physical punishment
      - Decreased social emotional problems
  - Reach out and Read
    - INcr
Mental health problems in early childhood
**Early Childhood Mental Health Problems 101**

- Are common...
  - 12% of 2-5 year olds’ emotional and behavioral problems get in the way of normal development
  - Anxiety disorders and disruptive behavior disorders are most common

- Persist...
  - Most young children with emotional and behavioral problems will have a disorder up to 4 years later
  - Teacher reports of behaviors at 2 years old predict 75% of children who will have a diagnosis at age 5

*(Egger et al 2006; Lavigne et al 2012; Bufferd 2006; Carter et al 2004)*
TYPES OF EARLY CHILDHOOD MENTAL HEALTH PROBLEMS

- Disruptive behaviors
- ADHD
- Posttraumatic Stress Disorder
- Major depressive disorder
- Anxiety disorders
- Autism spectrum disorder
- (limited data regarding bipolar disorder)
**Impact of Early Childhood Mental Health Problems**

- Child care expulsion
- Family stress
  - Parental self-blame, conflict
  - Family sleep impairment
  - Limited opportunities to use extended family/friend support
- Increased risk of child maltreatment
Without treatment

- Early mental health issues associated with:
  - Learning problems
  - Mood disorders
  - Treatable (but significant) behavior disorders
  - Severe, difficult-to-treat behavioral issues/criminal behavior

*Nelson et al., 2007; Dube, Felitti, Dong, Giles, & Anda, 2003; Feletti, et al., 1998*
Early childhood mental health: Treatment works!

- Effective treatments exist for
  - Disruptive behavior problems
  - ADHD
  - Anxiety disorders
  - Depression
  - Posttraumatic stress disorders
  - Problems in the parent-child relationship

- Generally
  - Focus on parent-child interactions
  - Reinforcing positive patterns
  - Teaching child and parent effective coping strategies
  - Can reduce parental stress as well

TREATMENT OUTCOMES PERSIST

- Child Parent Psychotherapy
  - Benefits sustained 6 mo after treatment ended

- Parent child interaction therapy
  - Benefits of treatment measurable 3-6 years after treatment

- Cognitive Behavioral Therapy for PTSD
  - Treatment benefits STRONGER at 6 mo follow up!

Why integration in early childhood?
Feelings Need Check ups too
PRIMARY CARE = DEFAULT MENTAL HEALTH CARE SYSTEM

- 95% of LA children have health insurance
- Primary care providers provide the vast majority of pediatric mental health services in the US
  - Up to 19% of visits have a MH component
  - Mental health needs drive primary care utilization
  - 70-85% of psychotropic rx’s written by PCPs
- All children with mental health problems should have a medical home

Kidscount 2014; Kelleher, 2000; Bernal, 2003
Health Maintenance Periodicity Schedule

Visits at
- Birth
- 3-5 days
- 1 month
- 2 months
- 4 months
- 6 months
- 9 months
- 12 months
- 15 months
- 18 months

And
- 24 months
- 30 months
- 36 months
- 48 months
- 60 months

And annually thereafter

15 scheduled visits in 5 years
28 scheduled visits before 18!
Parents attend visits!
Required for school entrance!!
Health education must include anticipatory guidance and interpretive conference. Youth 2-20 must receive intensive health education which addresses psychological issues, emotional issues, substance usage, and reproductive health issues at each visit.
Well-Child Visits

- Multi-organ, multi-system assessment with prevention and health maintenance focus
- Identify parent and child concerns
- **Take a history**: ER visits, hospitalizations, chronic illness update, immunizations up to date, development (social, motor, language), sleep history, feeding/eating history, family changes (divorce, new sibling, move), academic functioning/school transition, social/dating/sexual development, safety (guns in home, domestic violence, physical, sexual abuse, community violence), paternal well-being
- **Perform a physical Exam**: Growth parameters, vital signs, HEENT, neck, CV, Resp, Abd, GU, Skin, Extremities, Neuro/cognitive
- **Provide anticipatory Guidance**: Safety proof home, Lead, nutrition & exercise, bullying, peer relationships and pressures, personal safety (strangers, know address, “good touch, bad touch”), helmets, smoke detectors, tooth brushing/dental hygiene, time-out, emotional regulation, sibling response, media exposure… substance abuse, sexual development,
- **Develop a plan**- can include any of these spheres: meds, immunizations, blood work, IEP referral and/or developmental assessment, get guns out of home, obtain free mattress cover for atopic children, refer/advocate re: housing issues (bars on windows, smoke detectors), maternal depression referral, smoking cessation (parent or child), behavioral plan for typical behavioral challenges...

- **ALL IN 8-11 MINUTES**
**REQUIRED PEDIATRIC TRAINING IN CHILD PSYCHIATRY**

- “...encompasses the study and practice of physical and mental health promotion.....”
  *(Pediatrics Review Committee 2013)*

- Must demonstrate
  - Interviewing skills
  - Understanding of behavioral, psychosocial, and family factors
  - Knowledge of established and evolving ... social and behavioral sciences

- Required experiences to gain this knowledge
  - 1 month required developmental behavioral pediatrics
  - 0 months child psychiatry
THE CURRENT SITUATION

Opportunity for impact
THE CURRENT SITUATION

Opportunity for impact  Expectation on providers
THE CURRENT SITUATION

Opportunity for impact
Expectation on providers
Preparation for implementation
TRADITIONAL MODEL OF CARE

- Physical Health
  - Mental Health Care
  - Home and community safety promotion
  - Developmental Specialty Care
  - Educational issues
  - Other Medical Specialty Care
TRADITIONAL MODEL OF CARE

- Mental Health
  - Language barrier
  - Concerned about medications
  - Fear of being blamed
- Insurance issues
  - No one answered
  - “he’s just spoiled”
  - Long
  - Stigma
- Developmental support
  - Limited schedule
  - No local providers
- Physical Health
  - Home and community safety promotion
- Educational
  - Other Medical Specialty Care
- Non-Health Care
  - Stigma
  - Long Waitlist
  - Limited schedule
  - Fear of being blamed
  - No local providers
  - Concerned about medications
  - Insurance issues
  - Language barrier
MEDICAL HOME MODEL OF CARE

Medical Home

- Mental Health Specialty Care
- Developmenntal Specialty Care
- Home and community safety promotion
- Other medical health specialty care
- Educational issues
APPROACHES TO COLLABORATIVE CARE

- **Office-centered**
  - MH providers in the PCP office;
  - High MH:PCP ratio
  - Co-location allows high level of informal collaboration
  - May range from full integrated services to co-located EBTs

- **Hub-based**
  - PCPs reach out to MH providers
  - MH serve multiple practices
  - Most interactions planned
  - Very little attention to children < 6
TWO LOUISIANA CONSULTATION PROGRAMS

- **Tulane Early Childhood Consultation**
  - Funded by foundations and state partnership
  - Pediatric primary care consultation to 5 parish region
  - Referral support project

- **Louisiana Project LAUNCH**
  - Funded by SAMHSA
  - 3 domains of consultation in 3 parishes
    - Pediatric and perinatal primary care
    - Early Intervention (0-36 months home based developmental support)
    - Child care
  - Community messaging, education, and networking component
  - State level advocacy
Why Consultation?

- Pediatric primary care providers are the go-to resource for families with concerns
  - ..... But PCPs have variable knowledge and confidence in early childhood mental health
  - Parents want to use their PCPs for behavioral health questions
    - But rarely bring up these issues
    - Often do not feel that the issues were addressed

- Workforce shortage
- US National models with strong records
  - Primary care (mostly older children)
  - Child care

- INCREASE PCP CAPACITY!

Our Primary Care Goals

- Expand the capacity of pediatric and perinatal primary care providers to promote early childhood well-being
  - Support healthy emotional, behavioral, relational development in typically developing children
  - Identify children at risk of early mental health problems
  - Provide first line prevention and management of early mental health problems
  - Partner with specialty services in the care of children with more intensive mental health needs
Our model: Forms of Consultation

Web-based resources

- Screening support (CHADIS)
  - In-service trainings
  - Referral support

- Indirect Consultation
  *(PCP discusses question with consultant)*

- Direct Consultation
  *(PCP asks consultant to assess patient to answer specific question)*

Triple P Online
Tulane Early Childhood Collaborative program provides consultation to pediatric primary care providers to promote mental health in children under 6.

- Screens
- Developmental guidance
- Parent handouts
- Resource guides
LUNCH N’ LEARNS

- Early childhood screens and measures
- Attachment
- Promoting positive parenting approaches
- Internalizing and externalizing disorders in preschoolers
- Trauma
- ADHD
- Early identification of Autism

- Psychopharmacology in young children
- Parental mental illness
- Community resources
- Transference and countertransference
- Self-care
- Child abuse/neglect reporting

- Other lectures as requested
  - Perinatal depression screening
TYPES OF CONSULTATION

- Off-site consultation (phone, email, child psych clinic)
  - Assessment (behavioral/emotional patterns, parent-child relationship patterns)
  - Primary care management
  - Face-face diagnostic evaluation consultation

- On-site (in office) consultation
  - General and patient specific questions with or without face-face contact with patient
  - Brief on-site intervention regarding
COMMON APPROACHES AND PRINCIPLES

- Strength-focused
- Reinforce PCP’s existing knowledge and appropriate approaches
- Emphasize “Common Factors” approaches
  - (Screening)
  - Positive parenting principles
  - Relaxation approaches
- Encourage effective communication strategies
  - HELLPPP
- Promote use of handouts and written information
- (Wissow et al 2008; Wissow & Brown 2008)
Referral Support

- All referral recommendations from consults
  - Followed up at 1 week
    - Track until appointment made
    - Identify barriers to calling for appointment, keeping appointment
    - Support parents’ problem solving
TECC CONSULTEE POPULATION

- Baseline n=45
- Mean years since medical school graduation 8.9 (0-35)
  - 48.9% (n=22) residents
- Women 75% (n=34)
- Estimated number of patients covered: 1000-2000
  - Majority of visits are for under 6
- Most work in practices serving predominantly publically insured children (70-90%)
PERCEPTION OF COMMUNITY RESOURCES (N=45)

A vs C $t(40)=4.3, p \leq 0.000$; A vs D $4(40)=5.1, p \leq 0.000$
SELF REPORTED BASELINE COMFORT
MANAGING IMH CONCERNS

Disruptive behaviors

Hyperactivity
Emotional problems
PCR
Trauma
Mat Depression

Very comfortable
Moderately comfortable
Somewhat comfortable
Uncomfortable
Very uncomfortable
Not an appropriate focus of pediatrics
Factors influencing Resource perception, Practice patterns, attitudes

- No difference by training status, specialty, or gender
  - Assessment of resources
  - Practice patterns
  - Physician belief scale

- Residents (vs Faculty): More comfort managing
  - Emotional problems (2.86 vs 3.86; (37))=2.2, p≤0.05)
  - Traumatic events (3.24 vs 3.89, t(37)=2.1, p≤0.05)

- MH trained providers: More comfort managing
  - Emotional problems (2.17 vs 3.36; t(37)=2.9; p<0.007)
  - Traumatic event exposure (2.5 vs 3.7, t(37)=3.1; p<0.004)
EXPERIENCE AND PRACTICE

- Years in practice associated with
  - Lower frequency using a validated measure in assessment ($r=-.33$, $p \leq 0.04$)
  - Frequency of prescribing ADHD medication ($r=0.41$, $p \leq 0.05$)
  - Higher rating of access in community for IMH ($r=-.33$, $p<0.04$)
  - Less comfort managing IMH patterns ($r=0.34$, $p<0.02$)
CONSULTATIONS

- On-site consultations
  - 140 directly with family
  - 79 just with PCP
- Off-site consultation
  - 22 evaluation consultations with family
  - 4 phone/email consultations
- Mean age of child 37.6 months
Types of Questions

- Diagnosis/assessment
- Child Care...
- Community Resources
- Medication questions
- General MH questions
- Advice for parents
Domains of Child Condition

Not measured, but a big topic: Provider well-being

- Hyperactivity/Inattention
- Disruptive behavior patterns
- Mood problems
- Anxiety
- Adjustment/trauma
- Typical Development
- Neurodevelopmental
- Parent mental health
- Parent-child relationship
- Development
CASE EXAMPLE
INNOVATIONS

- Centering Pregnancy Groups
  - Centering groups provided at the clinic for pregnant women as part of routine prenatal care
    - Promotes self efficacy in recording data
    - Circle discussions about topics
    - TECC supplements discussions regarding
      - Attachment
      - perinatal depression
      - newborn anticipatory guidance and developmental expectations
      - domestic violence

https://www.centeringhealthcare.org
INNOVATIONS: TECC CONSULT FOLLOW-UP

• Year 1:
  • 1 week phone follow up for everyone who received referrals
    • Assess status of referral
    • Access contributing factors systematically
    • Problem-solve as needed
  • Focus groups with providers and parents about barriers to care

• Year 2:
  • Apply lessons learned in year 1 to an improved system of referral support
LESSONS LEARNED AND LEARNING

- Tremendous variability in actively using consults
  - inter-provider
  - Inter-practice
- Provider well-being strongly influences consultation and practice
- Cultural issues (professional and family of origin) influence the relationship development
- Balance of clinical work and relationship building with data collection needs is delicate
Being present in the clinic and visible makes use of the consultation very accessible and readily available.

Very educational. For me as a provider and for parents, I am pleased and grateful for the consultations. TECC has made a big difference in my practice. It's wonderful to be able to offer help to families of young children that is convenient for them and having TECC available in our clinic I am learning to better manage common mental health and behavioral problems in young children myself.

TECC consultants were extremely helpful in meeting with my patients/parents, put the parent and patient at ease with their approach, and the parent left with a clear plan for initial management of their child's behavioral concerns. Follow-up plans were also given at the initial appointment. Would not change a thing.
Contact us with any questions!

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