Health & Development of Children in Foster Care

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Tonight’s Goals:

• Celebrate YOU and your impact
• Health: ACEs, Attachment, & Brain Development
• Review typical child development
  1. Infancy through preschool
  2. School Age
  3. Adolescents
My experience:

- Assistant Clinical Professor at UCSF Graduate School of Nursing
- Foster Youth Health Project
  - “Health Risk Behaviors of Youth in Foster Care” (2009)
- Former foster parent
- Pediatric Nurse Practitioner
  - School based health center, private practice, school & camp nurse
Get out your phones...

When poll is active, respond at PollEv.com/bridgetgramk985
Text BRIDGETGRAMK985 to 37607 once to join

Answers to this poll are anonymous

This is an interactive presentation!
What brought you this mentoring role?
Who is Healthy?

How does childhood influence health?
Influencing Pediatric Practice

“Adverse childhood experiences are the single greatest unaddressed public health threat facing our Nation today.”

Robert Block, MD, FAAP
Past President, AAP
Categories of ACEs from Felitti and Anda, 1998

**ABUSE**
- Physical
- Emotional
- Sexual

**NEGLIGENCE**
- Physical
- Emotional

**HOUSEHOLD DYSFUNCTION**
- Mental Illness
- Incarcerated Relative
- Mother treated violently
- Substance Abuse
- Divorce
The theory of ACEs Lifelong Impact
ACEs Impact on Mortality

• Adults with ≥ 6 ACEs died nearly 20 years earlier than those without ACEs (60.6 yrs vs 79.1 yrs)

A review of children’s health in foster care

Data from PubMed Database search July, 2017
Adverse Childhood Events
Institutional Care versus Foster Care
Health of children in foster care
Orphanages- group homes- institutionalized care

Data from Russia, Guatemala and Romania (Marshall, 2015, Science)

• Reduced brain function in:
  1. general cognitive performance,
  2. emotion,
  3. maintaining attention and executive function, and
  4. sensory processing

• More psychiatric disorders (53.2% versus 22.0% in foster care).
• More internalizing disorders (44.2% versus 22.0% in foster care)

• Good News: foster care at age 2- regained development
Regulation of Emotions & Sensory Input

Extreme deprivation in infancy

Regional Child Abuse Prevention Councils 2011
What are the national trends?  

2011
- Children who received a child protective services investigation: 3,081,000.
- Victims: 658,000

2015
- 3,358,000: increased 9%
- 683,000: increase of 3.8 percent
Activity #1: A feeling of vulnerability

What is it like to enter foster care?

Abraham Maslow, 1943, "A Theory of Human Motivation"
Long term outcomes

For people who have spent time in foster care
Three Core Concepts in Early Development

- Experiences Build Brain Architecture
- Serve & Return Interaction Shapes Brain Circuitry
- Toxic Stress Derails Healthy Development

NATIONAL SCIENTIFIC COUNCIL ON THE DEVELOPING CHILD
Center on the Developing Child Harvard University
Brain Development

Normative Brain Development

Toxic Stress
Stress Response: The HPA Axis

- Stress activates
- Release of epinephrine and cortisol.
- Stimulates multiple areas of body and immune system.

Jim Bien, MD, FAAP, Indiana University, Health Arnett
Brief increases in heart rate
Mild elevations of stress hormones

**Examples:**
• Dropping off at Day Camp
• Losing a soccer game
• Overcoming fear of swimming

**Possible consequences:**
Development of a sense of mastery that is critical for healthy development
Tolerable Stress Response

- More prolonged activation of the stress response system

**Examples:**
- A summer away from home
- Death of a loved one
- Persistent discrimination
- Frightening accident

**Possible consequences:**
- Range from positive to harmful depending on relationships, the environment, prior experiences, and innate factors

Jim Bien, MD, FAAP, Indiana University, Health Arnett
Toxic Stress Response

Prolonged activation of stress response systems

**Examples:**
- Physical or emotional abuse
- Chronic neglect
- Exposure to violence
- Extreme poverty

**Possible consequences:**
Lifelong impacts on brain architecture and other parts of the body’s stress response system that increase the risk of stress-related physical and mental illness later in life
“The excessive or prolonged activation of the physiologic stress response systems in the absence of the buffering protection afforded by stable, responsive relationships.”

Jim Bien, MD, FAAP, Indiana University, Health Arnett
ACEs Trigger Toxic Stress Responses

<table>
<thead>
<tr>
<th>ABUSE</th>
<th>NEGLECT</th>
<th>HOUSEHOLD DYSFUNCTION</th>
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<td>Physical</td>
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<tr>
<td>Sexual</td>
<td></td>
<td>Substance Abuse</td>
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Foster Care = 2 year developmental delay
Bottom Line for Brain Development

When children experience stable nurturing relationships, they foster the development of healthy brain and body circuitry.

When children experience unstable, traumatic, abusive or neglectful relationships, they disrupt the circuitry of the brain’s architecture as it is being built.

Jim Bien, MD, FAAP, Indiana University, Health Arnett
What can a mentor do?
Serve and Response Development
Foster versus Non-Foster: Health Differences

• Foster children have worse health than:
  • Economically insecure (3-7 times more health problems)
  • Homeless (3-4 times more problems)

What types of health problems?
Vision, immunizations, many chronic illnesses, migraines, endometriosis, fibromyalgia, arthritis, mental health, developmental delay, risk taking behaviors ...
Health Comparison of Economically Secure, Economically Insecure and Foster Care Populations

“An odds ratio (OR) is a measure of association between an exposure and an outcome. The OR represents the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure.” NIH, 2017

Health Comparison of Economically Secure, Economically Insecure and Foster Care Populations


©2014 by American Academy of Pediatrics

[Graph showing odds ratios for cardiovascular risk factors and other chronic diseases, with statistical significance indicated by asterisks (** for p < .01, *** for p < .001).]
Differences in the system:

- Type of placement
  - Relative placement/kinship care
  - Traditional foster home
  - Group home
  - Specialized unit
  - Transitional care
- Social Worker
- CASA worker
Kinship vs. Non-kinship Placements

Children and Youth Services Review
(multiple articles 2009-2014)

• Kinship Placements:
  • better (according to studies):
    • behavioral development
    • mental health functioning
    • placement stability

• Non-kinship foster care used more mental health services.

• Consider: grief, stress, access, & same styles?
Group Homes
(Gramkowski et al, 2009)

Group home foster youth:
1. Higher individual risks
2. More behavioral threats to achievement
3. More peers with risky behavior
Evidence supporting CASAs

CHILDREN WITH A CASA VOLUNTEER ARE MORE LIKELY TO PASS ALL CLASSES IN SCHOOL.
MEASURED: outcomes of mentorship

1. Less likely to: skip school, get an STI, drink alcohol, use drugs, show violence, have suicidal ideation
2. Better academic outcome/test scores
3. Those with mentors improved over time
4. Improved stability in out of home non-relative placement
5. 55% more likely to go to college than those without mentor
6. Positive relationship=better health
7. Those without mentors continued to decline in many areas

When you get your file...

Follow your instincts! Read and be yourself!
“At first I didn’t trust people because I knew that they would find something not to like about me,” Henry said. “I have learned most of the time things are not personal and I am able to talk to people.”

http://www.fcservices.org/meet-henry/ 2017
### Externalizing vs Internalizing behaviors

<table>
<thead>
<tr>
<th>Internalizing behaviors:</th>
<th>Externalizing behaviors:</th>
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<tbody>
<tr>
<td>• anxiety/depression</td>
<td>• attention problems</td>
</tr>
<tr>
<td>• withdrawal</td>
<td>• aggressive behavior</td>
</tr>
<tr>
<td>• somatic complaints</td>
<td>• rule-breaking actions</td>
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<tr>
<td>• eating disorders</td>
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Normative development

• Use your resources:
  • See the last slide of your packet
• Watch for red flags
• Trust your instincts
• Support your foster family
Fetal experience:

- Hearing
  - Mother’s voice
  - music
  - stories
- Increased domestic violence?
Sequential Development of Functions

Human Brain Development

Neural Connections for Different Functions Develop Sequentially

- Sensory Pathways (Vision, Hearing)
- Language
- Higher Cognitive Function

First Year

Birth (Months) 1 2 3 4 5 6 7 8 9 10 11
12 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19

(Months) (Years)
Areas of development:

• Gross Motor
• Fine motor
• Language
• Social-personal
• Physical- CDC for growth
Development and the system:

• Infant Development: when do they know they have changed caregivers?
  • With each cognitive milestone there is a greater appreciation of loss
  • 2 mos- recognizes parent
  • 3 mos- reaches for parent
  • 6 mos-knows stranger
  • 9 mos- fears stranger

It’s all about ATTACHMENT
Emotional development: Attachment!

Arousal/Relaxation Cycle:

- Relaxed
- Need met
- Stress
- Arousal
- Need
Secure attachment

Needs of an infant, child or adolescent
“the serve”

Learn to trust & seek out caregiver for needs

Caregiver meets needs appropriately & consistently
“the return”
The Brain and Neglect

If we have time... 5 minutes on neglect and brain development
Attachment disorders:

Inhibited (group home example)
- Withdrawn, detached, hypervigilant

Disinhibited (school bully example)
- Seeks attention constantly from anyone (parent vs stranger) and appears anxious
They said I had attachment disorder

Really I had a life disorder

I attached accordingly
What do some of the responses to trauma look like throughout childhood?

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• May remain excessively anxious long after a real threat has passed
• May feel threatened or anxious even when no real threat is present
• May misinterpret facial expressions as hostile or anger when they are actually neutral
Typical development
2-6 months
Typical development: 6-12 months
Object permanence...stranger anxiety
Typical development: 12-24 months

Children are sponges and mirrors....
Typical development 2-4 yrs
Preschool

- Typically starts at age 3
- Developmentally appropriate
- Toilet training
- Extraordinary variety in philosophy and styles of programs
- NEEDED for children in foster care!
What do some of the responses to trauma look like throughout childhood?

• Sleep
  • Difficulty falling asleep
  • Difficulty staying asleep
  • Nightmares

• Eating
  • Rapid eating
  • Lack of satiety
  • Anorexia

• Toileting
  • Encopresis, enuresis, regression of skills
Kindergarten readiness

- Recognize rhyming sounds
- Pay attention for short periods of time to adult-directed tasks
- Understand actions have both causes and effects
- Show understanding of general times of day
- Cut with scissors
- Trace basic shapes
- Begin to share with others
- Start to follow rules
- Be able to recognize authority
- Manage bathroom needs
- Button shirts, pants, coats, and zip up zippers

- Begin to control oneself
- Separate from parents without being upset
- Speak understandably
- Talk in complete sentences of five to six words
- Look at pictures and then tell stories
- Identify rhyming words
- Identify the beginning sound of some words
- Identify some alphabet letters
- Recognize some common sight words like "stop"
- Sort similar objects by color, size, and shape
- Recognize groups of one, two, three, four, and five objects
- Count to ten
- Bounce a ball
Typical Development Middle Childhood
Middle and late childhood: Age of Mastery!

- Identity development
- Self esteem & success
- Self-efficacy
  - The belief that one can master a situation and produce positive outcomes
- Competency: school, activities
The impact of adverse childhood experiences on an urban pediatric population

Nadine J. Burke\textsuperscript{a}, Julia L. Hellman\textsuperscript{a}, Brandon G. Scott\textsuperscript{b}, Carl F. Weems\textsuperscript{b}, Victor G. Carrion\textsuperscript{c,\*}

Fig. 2. Learning/behavior problems by ACEs score.
Childhood trauma and academics

• Impacts on Working Memory
  • Difficulty acquiring developmental milestones
  • School skill acquisition difficulty
  • Confabulation to make up for deficits- CASA story ‘found it’

• Impact on Inhibitory Control
  • Tantrums, aggressiveness, poor attachment
  • Peer difficulties, disruptive
  • Impulsive actions threaten health and well-being

• Impact on Cognitive Flexibility
  • Frustration intolerance
  • Disorganization, inattention, distractible, learning problems
  • Difficulty assuming more complex tasks: work duties, driving
Academic Issues:

• Often the first warning sign
  • Very common for children in foster care
• Academic drop offs often occur:
  • Kindergarten to first - social/language/attention ↑
  • 3rd to 4th - reading to learn
  • 6th to 7th - ↑ organization, workload, responsibility
  • 8th-9th - ↑ abstract thought, workload, responsibility
Activity #2

What age group interests you most? (toddler, preschool, school age, adolescent)

• What draws you to this age group?
• What experience do you have?
• What concerns do you have?
Adolescents in foster care

• 45% of foster population

• “Mentoring relationships are associated with positive adjustment during the transition to adulthood for youth in foster care.” (Ahrens, 2008)
Adolescent Development: Stages

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<thead>
<tr>
<th>Stage</th>
<th>Girls Ages</th>
<th>Boys Ages</th>
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<tbody>
<tr>
<td>Early</td>
<td>9-13</td>
<td>11-15</td>
</tr>
<tr>
<td>Middle</td>
<td>13-16</td>
<td>14-17</td>
</tr>
<tr>
<td>Late</td>
<td>17-25</td>
<td>18-25</td>
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Brain synapse density over time

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Figure 2. Percent distribution of all deaths to teenagers 12–19 years, by cause of death: United States, 1999–2006

Percent distribution of unintentional injury deaths by detailed mechanism of injury

- Motor vehicle traffic accident: 73%
- Unintentional poisoning: 7%
- Unintentional drowning: 5%
- Other land transport accident: 3%
- Unintentional discharge of firearm: 2%
- Other unintentional deaths: 10%

Role of Risk Behaviors
(Shapiro, 2004)

1) Peer acceptance
2) Autonomy from parents
3) Defining own norms and values
4) Coping
5) Transition into young adulthood
### Developmental Assets!
*(Search Institute)*

**External Assets**
- Support
- Empowerment
- Boundaries and expectations
- Constructive use of time

**Internal Assets**
- Commitment to learning
- Positive values
- Social competencies
- Positive identity
Activity #3:

• Get out your phones!
• Think of an activity or skill YOU had as a teenager that you were proud of or felt ‘good’ at doing.

Ex: highest level of a video game
strengths poll
Strengths to look for:

- + relationships
- Humor
- Self directed
- Perceptive
- Independent
- Optimistic
- Flexible

Love learning
Motivated
Competent
Confident
Spiritual
Persistent
Creative
Percentage of 6th- to 12th-Grade Youth Reporting Selected High-Risk Behavior Patterns, by Level of Developmental Assets

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</thead>
<tbody>
<tr>
<td>Problem Alcohol Use</td>
<td>45%</td>
<td>26%</td>
<td>11%</td>
<td>3%</td>
</tr>
<tr>
<td>Violence</td>
<td>62%</td>
<td>38%</td>
<td>18%</td>
<td>6%</td>
</tr>
<tr>
<td>School Problems</td>
<td>44%</td>
<td>23%</td>
<td>10%</td>
<td>4%</td>
</tr>
</tbody>
</table>

* Data based on aggregate Search Institute sample of 148,189 students across the United States surveyed in 2003.

More assets... less risk-taking & problems
And then...

Aging out
Transition Planning
Aging Out...Emancipation... Transition Planning

- Transitional living programs
- ILSP - 16 years old - mandatory!
- Examine School
  - Math
  - PE
  - Vocational opportunities?
The When and What of Medical Evaluations:

WHEN?
• Within 3 days of entry
• Within 24 hours if abused
• 3 visits in first 3 months
• Every 6 months
• Every new placement
• Any new medical need or situation

WHAT?
• Strengths
• School
• Home
• Activities
• Drugs
• Emotions
• Sexuality
• Safety

AB 499: Adolescents aged 12 and over can give their own consent for: reproductive health & preventative reproductive health services

American Academy of Pediatrics Guidelines on caring for children in foster care
CASA Success:

- TRUST YOURSELF!
  - Chose a child that speaks to you
  - Stick with it
- Use your resources: CASA!!!!
  - If you think it is a problem- find out!
  - Have a buddy
  - Savor positive moments
Activity #4: hand to fist

“Sometimes, reaching out and taking someone’s hand is the beginning of a journey. At other times, it is allowing another to take yours.”

— Vera Nazarian
Recommended References

1. Early Start Program (special services for delays etc):
   www.dds.ca.gov/EarlyStart
2. Bright futures (health promotion, growth and development):
   www.brightfutures.org
3. CDC (immunizations, flu, growth charts): www.cdc.gov
4. American Academy of Pediatrics (AAP) foster care website:
   www.aap.org/fostercare/
5. Mayo clinic (specific diseases and treatments):
   www.mayoclinic.com/health/DiseasesIndex
6. Research Studies/Science: www.pubmed.org
7. Birth Defects, description and prevention:
   www.marchofdimes.com/professionals
Adolescent Resources

2. Search Institute- www.search-institute.org
5. California Permanency for Youth: www.cpyp.org
Extra time Discussions/Topics

- Educational outcomes/Surrogate
- Age group support system
- Questions?
Video Links

Center on the Developing Child, Harvard University, National Scientific Council on the Developing Child (you tube it!)

- Normative development
- Serve and Response
- Toxic Stress
- Neglect
Educational outcomes: Foster versus Non-Foster (Gypen et al, 2017)
Employment of Foster versus Non Foster (Gypen et al, 2017)