Toxic Stress Screenings in Primary Care

Curriculum for Health Psychologists
Toxic Stress
Stress: levels of severity

**POSITIVE**
Brief increases in heart rate, mild elevations in stress hormone levels.

**TOLERABLE**
Serious, temporary stress responses, buffered by supportive relationships.

**TOXIC**
Prolonged activation of stress response systems in the absence of protective relationships.
Types of Stress

It’s helpful to understand how three commonly used terms about early adversity relate to each other.

ACEs - Adverse Childhood Experiences

Number of ACEs

Poor Life Course Outcomes

ACES: Negative Experiences
- Physical, sexual, or emotional abuse and neglect
- Mental illness or drug or alcohol abuse
- Witnessing domestic violence or loss of a parent

Poor Life Course Outcomes:
- Poor school achievement
- Substance abuse
- Physical and mental health issues
- Chronic disease, disability
- Can lead to early death
Types of Stress

ACEs + Stressors Outside the Family → Toxic Stress

Toxic stress is the body’s biological response to ACEs, as well as other stress-causing situations outside the family.

Toxic stress explains WHY ACEs can be so bad for long-term outcomes.
AAP Policy

Committee on Psychosocial Aspects of Child and Family Health recommends screening for children and families at risk for toxic stress.
Why Screen for Stress when Assessing a Child’s Development?

**Significant Adversity Impairs Development in the First Three Years**

Children with Developmental Delays, percent

<table>
<thead>
<tr>
<th>Risk Factors for Adversity</th>
<th>Children with 6-7 risk factors have a 90-100% chance of a developmental delay by age three that is serious enough to require special services when they reach school.</th>
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<tbody>
<tr>
<td>1-2</td>
<td>20</td>
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<tr>
<td>3</td>
<td>40</td>
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<tr>
<td>4</td>
<td>60</td>
</tr>
<tr>
<td>5</td>
<td>80</td>
</tr>
<tr>
<td>6</td>
<td>100</td>
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</tbody>
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Why Screen for Stress when Assessing a Child’s Development?

Risk Factors for Adult Depression are Embedded in Adverse Childhood Experiences

- Adults that had 5 or more ACEs in childhood had 5 times the likelihood of having clinical depression as an adult.

<table>
<thead>
<tr>
<th>Odds Ratio</th>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5+</th>
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<tr>
<td>5</td>
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Why Screen for Stress when Assessing a Child’s Development?

Risk Factors for Adult Heart Disease are Embedded in Adverse Childhood Experiences

The biology of stress explains that if the regulatory system is stressed to an extreme in early childhood, there’s a wear and tear effect on physical health.

Why Screen for Stress when Assessing a Child’s Development?

The diagram illustrates the development of new brain circuits, with a focus on sensory pathways (vision, hearing) and language development during the first year of life. Sensory pathways develop from -8 to -2 months, while language development occurs from about 6 months to 10 months. Higher cognitive function is shown to develop more gradually from 1 year onwards. The graph is sourced from C.A. Nelson (2000).
Why Screen for Stress when Assessing a Child’s Development?

Graph Source: Pat Levitt (2009).
Buffering children from toxic stress

**Screen!**

Detection rates, an example of children with existing delays:

<table>
<thead>
<tr>
<th></th>
<th>Without Screening Tools</th>
<th>With Screening Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developmental Disabilities</td>
<td>14-54% Identified</td>
<td>70-80% Identified</td>
</tr>
<tr>
<td>Mental Health Problems</td>
<td>20% Identified</td>
<td>80-90% Identified</td>
</tr>
</tbody>
</table>
Toxic Stress in Immokalee

PRELIMINARY DATA
Toxic Stress in Southwest Florida

Number ACE Events
Children from SW FL Sample in Comparison to U.S. Adults

<table>
<thead>
<tr>
<th>Number of ACE Events</th>
<th>SW FL</th>
<th>ACE Study</th>
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</thead>
<tbody>
<tr>
<td>1 ACE Event</td>
<td>27%</td>
<td>26%</td>
</tr>
<tr>
<td>2 ACE Events</td>
<td>18%</td>
<td>16%</td>
</tr>
<tr>
<td>3 ACE Events</td>
<td>10%</td>
<td>10%</td>
</tr>
<tr>
<td>4 or More ACE Events</td>
<td>8%</td>
<td>13%</td>
</tr>
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</table>
Toxic Stress in SW FL

Top 4 ACE Events reported:

1) Having a family member in jail/prison or taken away by the police:
2) Having painful or “scary” medical treatment:
3) Having a close family member pass away unexpectedly:
4) Being threatened or picked on/bullied:
New FSU Center in Immokalee
Center is consistent with FSUCOM Mission

- training medical professionals to meet the primary health care needs of the state, especially the needs of the state’s elderly, rural, minority, and other underserved citizens.

- training of students, in a humane environment, in the scientific, clinical, and behavioral practices required to deliver patient-centered health care.

- Goal is to reach beyond Immokalee...across the country...where our patients go
Center Activities

- Develop research on impact of toxic stress in children from rural backgrounds.
- Translate evidence-based prevention strategies and treatments for use with rural and minority children.
- Provide education and resources on toxic stress and its impact on physical and mental health through a website and professional education.
- Train health care providers in the use of integrated primary care for children with physical and behavioral healthcare needs.
- Develop health information technology applications to improve access to care.
- Provide a telemedicine consultation service which will make integrated behavioral health expertise available to physicians around the state.
What Can You Do to Help Your Child?

- Provide good social support
- Positive parent-child interactions
- Talk to your doctor or healthcare provider
- Join a parent group to learn effective parenting techniques/skills

Good Social Support
Encourage your child to...

- Join a church group
- Participate in sports
- Join a club in school
- Participate in community activities

Where Can You Find Help?

www.fsustress.org

Center for Child Stress & Health
Florida State University College of Medicine
Immokalee Health Education Site
1441 Heritage Boulevard
Immokalee, Florida 34142
1-239-658-3123

Avoiding TOXIC STRESS
Learn about how toxic stress impacts the health of your child.
Goal: Healthy Child and Healthy Future Adult

We need:
- Early identification of problems within the primary care setting
- Emotionally healthy parents
- Parents with good parenting skills
- Child with coping skills and good emotional regulation
Tiered system of interventions

**Universal Preventive Interventions**
- General Parent education targeting health literacy
- Universal Screening during well-child visits

**Selective Preventive Interventions**
- Targeted interventions for developmentally appropriate areas
- Parent Guidance
- Parent training

**Indicated Preventive Interventions**
- Evidence based interventions for identified physical / behavioral problems
Screen all children / youth 5-17 once a year during well-child visits

- ACE (Adverse Childhood Events)
- Pediatric Symptom Checklist (emotional and behavioral difficulties)
- PHQ 9: for mothers of children 5-11 and patients 12-17
Patient Options

Physician Guidance

Behavioral Health Provider

Referral to resources by Promotora

fsustress.org
Pilot Procedure
Toxic Stress Screenings:
Procedure for Pediatrics

Ages 0-4
Standard Procedure

Ages 5-17
Screen for Toxic Stress

Ages 5-11
Medical Clerk gives parent a bar code and asks the parent to log into a kiosk

Ages 12-17
Medical Clerk gives the parent and the patient two separate bar codes and asks them to log into two different kiosks

Parent/Patient respond to surveys on kiosk

Kiosk scores survey & sends print out of results to designated printer at check-in

Medical clerk scans results into patient’s electronic medical records (EMR), under the physician’s name, and places hard copy in the patient’s paper chart

Ages 5-11

Ages 12-17

Nurse inputs patient PHQ-9 responses into EMR

POSITIVE SCREEN:
- Nurse alerts Psychologist/Behavioral Health (BH) provider & routes results to BH provider in EMR
- BH provider sees patient, signs off results in EMR & communicates follow-up with physician

NEGATIVE SCREEN:
- Nurse signs off results in EMR
- If score on mother’s PHQ-9 was between 5-9, give mother depression brochure
How BH addresses Toxic Stress
Buffering children from toxic stress

- Teach positive parent-child interaction
  - Moment to moment interactions (parent/child) have the potential to change structure and process of brain development
- Recommend quality early care and education
- Address maternal mental health: anxiety, depression, own experience of maltreatment
Buffering children from toxic stress

- Teach positive parent-child interaction

  **Application:** “immunizing” through positive parenting

  **The 7 Cs:** The Essential Building Blocks of Resilience

  - Competence
  - Confidence
  - Connection
  - Character
  - Contribution
  - Coping
  - Control
Buffering children from toxic stress

The Protective Factors

- Knowledge of Parenting and Child Development
- Social and Emotional Competence of Children
- Concrete Support in times of need
- Social Connections
- Parental/Family Resilience

Image courtesy of FRIENDS National Resource Center for Community-Based Child Abuse Prevention
FEEDBACK?

WE WANT TO HEAR FROM YOU!

TELL US YOUR THOUGHTS: NOW & LATER
References & Resources

Center on the Developing Child - http://developingchild.harvard.edu/about/


