Adverse Childhood Experiences Part II: ACE Screening in Pediatrics

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Learning Objectives

At the end of this educational activity, participants should be able to:

• Compare and contrast protocols and practices for ACE screening.
• Identify the steps to integrate ACE screening into medical practice.
• Apply and utilize appropriate ACE referrals, services and treatment and intervention strategies.
• List the supports and opportunities offered by the National Pediatric Practice Community to facilitate integration of ACE screening into practice.
Center for Youth Wellness Team

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Center for Youth Wellness Vision

All primary care pediatric serving medical providers implement universal screening for adverse childhood experiences (ACEs) and routinely use an understanding of ACEs and toxic stress to enhance the quality of patient care and health outcomes.
National Pediatric Practice Community

- A network of pediatric medical providers who are leaders in advancing knowledge in the field of ACEs and toxic stress in primary care
- Peer to peer information exchange and hub for learning about ACEs and toxic stress
- Join the network: NPPCaces.org
National Pediatric Practice Community

NPPC ACES is a co-designed community, committed to collaborative learning.

Please share your stories, lessons learned and feedback on materials available on this website.

Featured Resources
Are You Ready for ACEs Screening? 20 Key Questions to Ask

Member Spotlight
Institute of Family Health, New York, NY
Providing healthcare to medically

Member Q&A
Q: How can I make a strong case to clinical leadership about the importance of this approach?
Adverse Childhood Experiences (ACEs):

**ABUSE**
- Physical
- Sexual
- Emotional

**NEGLECT**
- Physical
- Emotional

**HOUSEHOLD INSTABILITY**
- Mental Illness
- Incarcerated Relative
- Divorce
- Mother Treated Violently
- Substance Abuse
ACEs are common:

- Nearly 2 out of 3 adults have at least one ACE
- Nearly half of children (34.8 million) have at least one ACE

![Pie chart showing the distribution of ACEs:]
- No Adverse Childhood Experiences: 64%
- 1 Adverse Childhood Experiences: 26%
- 2 Adverse Childhood Experiences: 16%
- 3 Adverse Childhood Experiences: 9.5%
- 4 or more Adverse Childhood Experiences: 12.5%

![Bar graph showing the percentage of children with different numbers of ACEs:]
- No ACEs: 53.7%
- 1 ACE: 24.6%
- 2+ ACEs: 21.7%

Source: CDC-Kaiser ACE Study (1998)

The cost of inaction in childhood: Health and behavioral issues

- Growth delay
- Cognitive delay
- Sleep disruption

- Asthma
- Infection
- Learning difficulties
- Behavioral problems

- Obesity
- Bullying
- Smoking
- Teen pregnancy

And not all individuals experience toxic stress as a result of negative experiences
What can we do?

Start with **early detection**

Providing **appropriate medical management**

Coupled with **enhancing protective factors**, addressing modifiable risk factors + connecting to therapeutic intervention

Adapted from Bucci et al. Toxic Stress in children and adolescents. Advances in Pediatrics, 2016
Screening Rationale
Why screen for ACEs in primary care?

• It is the ideal setting for screening, health promotion, and disease prevention
• Early detection can prevent negative health outcomes
• The Provider/Patient relationship creates an atmosphere to discuss adverse experiences
Challenges to Universal ACEs Screening

- Lack of time
- Lack of provider comfort and fear of incorrect information
- Perceived negative patient reaction
- Concerns regarding strength of referral system
- Fear of clinic liability and increases in cases of mandated reporting
- Questions about tools and scientific foundation
- Perception that ACEs pertain to only certain populations
- Perception that ACEs are outside physician core function

Source: CYW Insights Research with Pediatricians, unpublished; Kecker et al., 2016
Using a QI Performance Improvement Methodology

Documenting the PDCA Cycle for your Clinic:

**Plan:** Target Population to be screened, screening interval, and rationale for screening

**Do:** Final implementation workflow, and operational definitions for performance measures

**Check:** Summarize 6 month data, and other significant insights (EHR, Staff training needs)

**Act:** Summary of the pilot and conclusions including lessons learned. Capture and document any “mission moments” where clinical provider and/or the patient families had unique insights or experienced high levels of satisfaction or engagement.
Benefits of Performance Improvement Framework

- Provides structure and standardization to the implementation process
- Documentation of the PDCA cycle can be utilized to engage Leadership regarding the value, and gains of the initiative
- Can be utilized to meet requirements of funders, and other community stakeholders
- Can be used for HRSA and Patient Centered Medical Home Certification PI requirements
- Meets Joint Commission Standards:
  - Performance Improvement Chapter Standards--PI01.01.01, PI01.02.01, PI01.03.01
  - Leadership Standards--LD 03.02.01, LD 03.05.01, LD 04.04.03
  - Quality Improvement and Patient Safety Standards--QPS 03.04, QPS 04.02
Making screening a reality in your practice

- Implement a Performance Improvement Project
- Start with a pilot population
- Incorporate into annual well-child visits
- Utilize coaching and tools provided
- Build upon shared lessons from fellow LC practices and the NPPC
ACEs Screening Protocol Development

- Clear rationale for ACEs screening
- Population and screening intervals selected
- Identify screening tool to be utilized
- Outline scoring algorithm
- Develop education and intervention plan
**Screening Tool: How to screen for ACEs?**

## CYW Adverse Childhood Experiences Questionnaire (ACE-Q) Child

**To be completed by Parent/Caregiver**

### Today's Date

<table>
<thead>
<tr>
<th>CHILD'S Name</th>
<th>Date of Birth</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Many children experience stressful life events that can affect their health and wellbeing. The results from this questionnaire will assist your child's doctor in assessing their health and determining guidance. Please read the statements below. Count the number of statements that apply to your child and write the total number on the line provided. Please DO NOT mark or indicate which specific statements apply to your child.

1) Of the statements in Section 1, HOW MANY apply to your child? Write the total number in the box.

<table>
<thead>
<tr>
<th>Section 1.</th>
<th>At any point since your child was born...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Your child's parents or guardians were separated or divorced</td>
</tr>
<tr>
<td></td>
<td>Your child lived with a household member who served time in jail or prison</td>
</tr>
<tr>
<td></td>
<td>Your child lived with a household member who was depressed, mentally ill or attempted suicide</td>
</tr>
<tr>
<td></td>
<td>Your child was or heard household members hurt or threatened to hurt each other</td>
</tr>
<tr>
<td></td>
<td>A household member was, hunted, threatened, or put down your child in a way that scared your child or a household member acted in a way that made your child afraid that she might be physically hurt</td>
</tr>
<tr>
<td></td>
<td>Someone touched your child's private parts or asked your child to touch their private parts in a sexual way</td>
</tr>
<tr>
<td></td>
<td>More than once, your child went without food, clothing, a place to live, or had no one to protect them</td>
</tr>
<tr>
<td></td>
<td>Someone pushed, punched, slapped or threw something at your child Or your child was hit so hard that your child was injured or had marks</td>
</tr>
<tr>
<td></td>
<td>Your child lived with someone who had a problem with drinking or using drugs</td>
</tr>
<tr>
<td></td>
<td>Your child's mother or father was unemployable, unemployed and/or imprisoned</td>
</tr>
</tbody>
</table>

7) Of the statements in Section 2, HOW MANY apply to your child? Write the total number in the box.

<table>
<thead>
<tr>
<th>Section 2.</th>
<th>At any point since your child was born...</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Your child was in foster care</td>
</tr>
<tr>
<td></td>
<td>Your child experienced harassment or bullying at school</td>
</tr>
<tr>
<td></td>
<td>Your child lived with a person or guardian who died</td>
</tr>
<tr>
<td></td>
<td>Your child was separated from her/his primary caregiver through deportation or immigration</td>
</tr>
<tr>
<td></td>
<td>Your child had a serious medical procedure or life threatening illness</td>
</tr>
<tr>
<td></td>
<td>Your child often saw or heard violence in the neighborhood or in her/his school neighborhood</td>
</tr>
<tr>
<td></td>
<td>Your child was often treated badly because of race, sexual orientation, place of birth, disability or religion</td>
</tr>
</tbody>
</table>

CYW ACE-Q Child 05-10-2017 ©Center for Youth Wellness 2015
Ex: Screening workflow

1. Administer tool
2. Assess for symptoms
3. Determine follow up
4. Linkages

**Process**
Ex: Scoring Algorithm

Administer tool

Assess for symptoms

Determine follow up

Linkages

Low Risk

Score of X

Provide education on ACEs and Toxic Stress

Intermediate Risk

Score of Y

Provide education on ACEs and Toxic Stress

High Risk

Score of Z

Provide education on ACEs and Toxic Stress

With symptoms

With or without symptoms

??

??
Clinical Symptoms

**Inflammatory Responses**
- Frequent asthma exacerbations
- Frequent eczema flaring
- Frequent colds
- Frequent infections such as ear infections or pneumonia

**Endocrine System Responses**
- Diabetes
- Difficulty keeping weight on
- Frequent abdominal pain
- Obesity
- Poor growth
- Constipation
- Weight gain or loss
- Difficult/irregular menses
- Early or late onset of menses/puberty

**Neurological System Responses**
- New onset, or recent increase in anxiety
- New onset, or recent increase in depression
- Enuresis/Encopresis
- Behavior problems—impulsivity, oppositional defiance
- Frequent headaches/migraines
- Inconsolable crying
- Difficulty sleeping or nightmares
- Disassociation/apathy
- Regular Drug, alcohol, tobacco use
- Risky sexual behavior—frequent sexual activity, multiple partners, lack of use of condoms/contraception
- Self-Harm—cutting, suicidal Ideation/attempt
- School problems—school avoidance, frequent absence, poor/failing grades
- Learning problems—increase in ADD, ADHD symptoms
Referrals & Interventions – 3 Tiers

• Clinical Response
  o Early detection through screening
  o Patient Education
  o Anticipatory Guidance
  o Screen = intervention = increased rapport
  o Clinical management & considerations using an ACEs lens

• 6 Domains of Intervention (sleep, nutrition, exercise, mindfulness, mental health, and healthy relationships)
  • Prompt therapeutic interventions & enhancing protective family factors

• Additional intervention supports
  • Modifiable factors (housing, food, etc)
  • Parenting support
Anticipatory guidance, specific to the age of the patient, includes information about the benefits of healthy lifestyles and practices that promote wellness, coping with a chronic disease, or prevention.

Anticipatory guidance topics can be used as prompts to ask open-ended questions so that the parent and physician can have a timely, relevant, and appropriate discussion that meets everyone’s needs. The following Anticipatory Guidance handouts are available in this toolkit as patient education tools:

- Building Resilience
- Nutrition and Exercise
- What is ACEs Screening?
- Toxic Stress
- Self-Regulation
Adverse Childhood Experiences (ACEs)

Did you know that Adverse Childhood Experiences can be harmful to your child’s health?
- Adverse Childhood Experiences (ACEs) can cause harm to a child’s developing brain and body, influence behavior and learning, and lead to adult health problems.
- These long-term changes, in the absence of supportive caregivers, are called toxic stress.
- Everyone is built differently, some need more support than others.

Adverse Childhood Experiences as identified in the ACEs study are listed below:
- Parental separation or divorce
- Incarcerated household member
- Domestic violence
- Living with someone who is chronically ill
- Separation, institutionalized, or cult-like
- Alcohol/substance abuse in the home
- In addition, we believe these things can lead to toxic stress:
  - Life-threatening illness/injury
  - Gentrification death
  - Community violence
  - Substance, alcohol or drugs
  - Financial stress
  - Parental death
  - Domestic violence

Health begins with hope!

Toxic Stress

- Positive Stress: Short increases in heart rate, mild stress in social or home environments.
- Tolerable Stress: Serious, temporary stress in response to support maintenance.
- Toxic Stress: Phenomenal interaction of stress response systems in the absence of protective maintenance, resulting in stress response, surface by supportive maintenance.

How stress affects the human body
- Headaches, feeling or being stressed, lack of energy, feeling enlarged, wider, unstable, causing stress, mental health problems (such as pain stress, stress and depression), strain in the sun, stress.
- Acute and/or chronic pain
- Fatigue, stress, reduced stress, heart attack, and heart disease
- Weight loss, increased risk of chronic illness
- Mental wash, fever, and feverishness.

Institute of Medicine and National Research Council
- Neonatal, postpartum, children, adolescents, adults, older persons present
- Regional or more parents, adult, or interested in adult stress.
- Mental health and well-being.

Center for Youth Wellness
www.centerforyouthwellness.org
NPPC
www.nppc.org
### Outcome and Performance Measures

<table>
<thead>
<tr>
<th>(1) % of patients screened</th>
<th>Numerator</th>
<th>The number of patients in a given month that were screened using an ACE questionnaire</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Denominator</td>
<td>The number of patients in a given month that were eligible* for the ACE questionnaire (write out what definitions for eligible patients)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(2) % patients with positive ACE score</th>
<th>Numerator</th>
<th>The number of patients screened in a given month with a positive* ACE questionnaire score (write out definition for positive)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Denominator</td>
<td>The number of patients in a given month that were screened using an ACE questionnaire</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(3) % patients positive ACE score patients that have appropriate referral</th>
<th>Numerator</th>
<th>The number of patients referred to additional services/resources related to positive ACE screen</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Denominator</td>
<td>The number of patients screened in a given month with a positive ACE questionnaire</td>
</tr>
</tbody>
</table>
Documentation in Patient Record

• Needs methodical planning of documentation with reporting and data analysis in mind

• Bring IT build representatives and report builders to the table during planning discussions

• Consider target population in discussions for report planning (visit type, age)
Documenting ACEs in NextGen

**Score (Section 1 and 2 added together)**
- **S** (for Symptoms)
- **R** = Referred to additional services
- **T** = currently in treatment or other services

Documented by MA

Documented by Provider
Provider may add S (for Symptoms) based on additional information in the visit.
Documentation of ACEs in EPIC

<table>
<thead>
<tr>
<th>ACE Score</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total for Section 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total for Section 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient is:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0=with no symptoms</td>
<td>1=with symptoms</td>
<td></td>
</tr>
<tr>
<td>Patient is:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0=Already receiving services</td>
<td>1=Declined Referral</td>
<td>2=Accepted Referral</td>
</tr>
</tbody>
</table>

- Close F9
- Cancel

Previous F7
Next F8
Screening at BCHC - CYW
Screening Rationale

- Standardized risk assessment for toxic stress
- Provides a context for a discussion of toxic stress and potential changes in health outcomes

Target Population

- Children 0 to 19 years old
History of Screening for ACEs at BCHC

**CYW ACE-Q**

- BCHC screened for traditional ACEs
- Limits: 1.5 years; 40 iterations Review from CAC & CRB
- Evaluation of tool’s use
- 3rd Revision: current CYW ACE-Q (parent & adolescent)
- PEARLS Tool Roll Out

- 2013-2014
- Fall 2014
- Spring 2015
- July 2015
- January 2019
Administer tool

Review Results and Assess for Symptoms

Determine Next Steps

Tool introduced by Medical Assistant (MA). Completed by parent/caregiver and patient 13+

Primary Care Provider (PCP) answers patient/family questions, gathers additional information

PCP determines course of action (anticipatory guidance, Warm Hand-Off, etc.), and documents in EHR
BCHC ACEs Screening Score Algorithm

**Low Risk**

Score of 0

No Symptoms

Provide patient education/anticipatory guidance on ACEs and Toxic Stress

**Intermediate Risk**

Score of 1-3

No Symptoms

Provide patient education/anticipatory guidance on ACEs and Toxic Stress. Other options: Brief Intervention; Enhanced Surveillance

**High Risk**

Score of 1-3

Symptoms

With or without symptoms

Score of 4+

Provide patient education/anticipatory guidance on ACEs and Toxic Stress, symptomatology, protective factors, and offer integrated behavioral health services
CYW Integrated Care Model

- CARE COORDINATION
- PSYCHOTHERAPY
- PSYCHIATRY
- BIOFEEDBACK (PERIPHERAL AND NEUROFEEDBACK)
Patient Story

- 15 year old female patient referred due to recent traumatic event (parental IPV and restraining order against dad), passive suicidal ideation, depressive symptoms, back pain, shoulder pain, and diagnosis of asthma

- CYW ACE-Q score of 4+0, Self-report of 6+2

- Measurement: Child Behavior Checklist (CBCL), Youth Self-Report (YSR), and Stress Index of Parents of Adolescents (SIPA)

- Received Care Coordination, Psychotherapy (DBT-focused), and Psychiatry

- Successfully completes treatment goals in 2 years
  - Patient Behavioral Health
  - Patient Physical Health
  - Parental/Caregiver Stress
  - Natural Supports

- Change in functioning is Much Improved and Prognosis is Good
Questions?
Thank you!

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Additional Resources

https://nppcaces.org/

www.stresshealth.org