Assessing Parental ACEs in Primary Care Pediatrics: What we've learned, and how practice has changed

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Background

What we're doing... and why we decided to do it this way...

A Word from the American Academy of Pediatrics...

- Pediatric medical homes should:
 - 1. strengthen their provision of anticipatory guidance to support children's emerging social-emotional-linguistic skills and to encourage the adoption of positive parenting techniques;
 - 2. actively screen for precipitants of toxic stress that are common in their particular practices;
 - 3. develop, help secure funding, and participate in innovative service-delivery adaptations that expand the ability of the medical home to support children at risk; and
 - 4. identify (or advocate for the development of) local resources that address those risks for toxic stress that are prevalent in their communities.

What was missing...

Who do we screen?

Do we screen once, or multiple times?



When do we screen?

WHAT DO WE DO IF WE FIND IT???



Stories from the literature – why parent trauma matters....

2

3

4

Correlations exist between parent ACE scores and child's ACE score... the more ACEs a parent experiences, the more ACEs the child is likely to experience.

Parenting styles are at least in part inherited: if a parent experienced harsh parenting, they are more likely to engage in harsh parenting styles themselves.

Parents have new brain growth in the first six months after their child's birth – in both the amygdala (emotional center) and frontal cortex (logical center) UNLESS they are experiencing stress, which impairs frontal cortex development.

Children who have experienced three or more ACEs before entering Kindergarten have lower readiness scores: literacy, language and math skills are lower – and rates of behavioral problems are higher.

The assumption

lf...

- we can identify parents who are at greatest risk
- bring their trauma histories out of the closet
- agree to support them when they feel most challenged in a non-judgmental way

... we will be able to create a new cycle of healthier parenting.

The Theory...

- Certain moments in the life of an infant or toddler will be stressful
 - Tantrums, colic, toilet training, hitting / biting, sleep problems are examples
- What happens to a parent who has experienced trauma? Will their response be:
 - Fight?
 - Flight?
 - Freeze?
 - Can it be something else?
- How can we better prepare at-risk parents for these inevitable moments?



And thinking further...

- If a parent experienced trauma, do they have appropriate skills / ideas for:
 - Taking care of themselves?
 - Identifying when they need help?
 - Modeling appropriate conflict resolution?
 - Discipline that is developmentally appropriate?
 - Playing with their child?
- In other words, can we teach parents and children to be more resilient?



Case Study: The Children's Clinic

- 30 providers in three practice sites
- Strong interest in early childhood development / developmental promotion
- Since 2008 have implemented multiple standardized universal screening protocols
 - Developmental delay
 - Autism
 - Maternal Depression
 - Adolescent Depression
 - Adolescent Substance Abuse



 Adolescent questionnaire has always included questions about dating violence; many providers ask about bullying in their history for school aged children.

How do I Find it? Our First Step

- Eight providers piloted screening
- At the four month visit, parents are given the ACE screener, along with a questionnaire about resilience and a list of potential resources.
 - Cover letter explaining the rationale for the screening tool, and what we plan to do with the information
- Created a confidential field in the EMR that does not print into notes, but perpetuates into visits to document results while minimizing risk to families.
- Added questions about community violence, bullying, racism / prejudice and foster care exposure.

Pro tip: Be intentional with spread... use a pilot of people willing to get their hands dirty.



Initial Goals

- How do we best assess parental ACEs in primary care?
- (Is it feasible to assess parental ACEs in the course of a primary care visit?)

Reaching Out for Guidance

- Clinic sent a multidisciplinary team to a Pediatric Integrated Care Collaborative (PICC) led by Johns Hopkins University
- MD, RN, Care Coordinator and Parent Partner (mostly from our QI team) participated in several face-to-face sessions
 - Trauma-Informed Care basics
 - Engaging Parents
 - Teaching Resilience
 - Options for screening

Pro Tip: Use a team, including parents / patients

 Arranged for Trauma-Informed Care Trainings through Oregon Pediatric Society

Adjusted risk for suspected developmental delay

	Relative Risk (95% CI)		
	^a Maternal (n=311)	^b Paternal (n=122)	
°ACE			
≥ 1	1.25 (0.77, 2.00)	2.47 (1.09, 5.57)**	
< 1 (Ref)	-	-	
≥ 2	1.78 (1.11, 2.91)**	3.96 (1.45, 10.83)***	
< 2 (Ref)	-	-	
≥ 3	2.23 (1.37, 3.63)***	0.82 (0.12, 5.72)	
< 3 (Ref)	-	-	
Payer source			
Public	1.67 (1.05, 2.67)**	0.87 (0.37, 2.03)	
Private (Ref)	-	-	
Gestational age at birth			
< 37 weeks	1.70 (0.89, 3.24)	7.76 (3.12, 19.33)***	
≥ 37 weeks (Ref)	-	-	

* = p <0.1, ** = p <0.05, *** = p <0.01

Domain-specific developmental risk by Maternal ACE exposure

	Maternal ACEs			
	≥ 1 (<i>n</i> =149)	<1 (<i>n</i> =162)	Relative Risk (95% CI)	
Communication, <i>n</i> (%)	24 (16.3)	18 (11.1)	1.47 (0.83, 2.60)	
Gross Motor, <i>n</i> (%)	20 (13.5)	17 (10.6)	1.28 (0.70, 2.35)	
Fine Motor, <i>n</i> (%)	18 (12.1)	16 (9.9)	1.22 (0.65, 2.31)	
Problem Solving, <i>n</i> (%)	17 (11.6)	8 (5.0)	2.31 (1.03, 5.20)**	
Personal-Social, n (%)	19 (12.9)	19 (12.9)17 (10.6)1.22 (0.		
	$\geq 2 (n=60)$	<2 (<i>n</i> =251)		
Communication, <i>n</i> (%)	12 (20.3)	30 (12.0)	1.69 (0.92, 3.11)*	
Gross Motor, <i>n</i> (%)	12 (20.0)	25 (10.0)	1.99 (1.06, 3.73)**	
Fine Motor, <i>n</i> (%)	9 (15.0)	25 (10.0)	1.51 (0.74, 3.06)	
Problem Solving, <i>n</i> (%)	11 (18.3)	14 (5.7)	3.23 (1.55, 6.76)***	
Personal-Social, n (%)	9 (15.0)	27 (10.9)	1.38 (0.68, 2.77)	
	≥3 (<i>n</i> =39)	<3 (<i>n</i> =272)		
Communication, <i>n</i> (%)	10 (26.3)	32 (11.8)	2.23 (1.19, 4.16)**	
Gross Motor, <i>n</i> (%)	9 (23.1)	28 (10.4)	2.23 (1.14, 4.36)**	
Fine Motor, <i>n</i> (%)	8 (20.5)	26 (9.6)	2.15 (1.05, 4.40)**	
Problem Solving, <i>n</i> (%)	6 (15.4)	19 (7.1)	2.17 (0.92, 5.10)*	
Personal-Social, n (%)	8 (20.5)	28 (10.4)	1.97 (0.97, 4.01)*	

* = p <0.1, ** = p <0.05, *** = p <0.01

Dose response relationship between Maternal ACE and risk for suspected developmental delay



Parental ACEs and Behavioral Outcomes

- Compared to children whose parents have no ACEs, a child whose parent has 4+ ACEs has:
 - 2.3 point higher score on the Behavior Problems Index (BPI)
 - 2.1x higher odds of hyperactivity
 - 4.2x higher odds of emotional disturbances
- Correlations were stronger for maternal ACEs than paternal ACEs.

Schickedanz et al., *Pediatrics*. 2018;142(2).

Parental ACEs and Health Outcomes

- For each additional parental ACE:
 - Worsening overall health status (aOR 1.19)
 - Increase rates of asthma (aOR 1.19)
 - Increase in excessive media use (aOR 1.16)
- Since these effects are cumulative, if a parent has 6+ ACEs, their child has 6.38x the risk of asthma.

Lê-Scherban et al., Pediatrics. 2018;141(6).

Parental ACEs and Utilization Patterns

- For each additional maternal ACE, there is a 12% increased risk of missing well visits in the first two years.
- This did not result in missing immunizations.
- However, given the risk of developmental delays, it is likely that:
 - Parents are not receiving anticipatory guidance on developmental promotion.
 - There may be an increased risk of missing on-time administration of standardized developmental screens, meaning a potential delay in referral to services.

Eismann EA et al.(... Gillespie RJ), J Pediatr 2019;211:146-51.

In other words...

- By addressing parental ACEs, we are tackling big-ticket items that providers care about:
 - Developmental health
 - Behavioral health
 - Utilization patterns (no-shows)
 - Some chronic illnesses like asthma
- Plus we're primarily using our clinic's data... which adds to buy-in and "believability".



How our practice has changed...

Big Change #1: Altering our view of screening tools

- Adding new screening or assessment protocols has often been seen as "one more thing" for providers to do.
- Sensemaking of our data changes the perception of how assessment tools relate to each other.

Screening Tools and Recommendations

CurrentMaternal Depression at 2 weeks, 2 months, 4 months, 6 monthsState:Developmental Delay at 9, 18 and 30 months

Autism at 18 and 24 months

Social-Emotional Development at semi-undefined intervals

ACEs (patient or parent), Social Determinants of Health at undefined intervals



Integrated Screening Model



Big Change #2: Changes in our model of care

• ACE screening is altering the way that we do well care – both in terms of prevention and in terms of response to assessment tools.

Universal Resilience Interventions

- Complements of Amy Stoeber, PhD all providers are trained in a series of interventions that will be implemented universally at well visits
- Interventions relate to parent self-care, promoting attachment / attunement, and building resilience in parents
- Building in data collection to measure outcomes for kids based on whether interventions were delivered (and which ones)

Resilience Curriculum

- 3-5 days: Circle of Support
- 2 weeks: Parental Self-Care
- 2 months: Mirror work: Becoming a Baby Observer
- 4 months: Focusing on Attachment
- 6 months: Special Time
- 9 months: Review Mirror Work & Special Time
- 12 months: Beginning Discipline

Expanding our Assessment for Kids at Risk

- Currently the AAP guidelines for maternal depression recommend specific social emotional screening for kids whose parents experience depression
- Given the effects of ACEs on a parent's attachment and attunement with their child, makes sense to create an analogous workflow for positive ACEs
- TCC has added integrated Behavioral Health Consultants into practice
 - BHCs will be engaged with families to conduct screening and give more indepth interventions for families at risk
 - Planning co-visits with pediatrician and BHC at 6 month visits as needed

Pro tip: Use an expanded care team to offer more tailored services to families in need.

Expanded workflow / clinical response

Parent ACE score 0

- Resilience interventions
- Universal education about trauma and resilience

• Parent ACE score 1-3

- Resilience interventions
- Universal education about trauma and resilience
- Safety assessment and resource needs assessment
 - Refer to Care Coordinator or Help Me Grow as needed

• Parent ACE score 4+, or 1-3 with symptoms / safety concerns

- Resilience interventions
- Universal education about trauma and resilience
- Safety assessment and resource needs assessment
 - Refer to Care Coordinator or Help Me Grow as needed
- Schedule joint 6 month visit with BHC
 - Social emotional development screening
 - Video interaction intervention
 - If concerns schedule joint 9 month visit, consider referral to PCIT or other therapy

Pro tip: Adapt your model of care based on patient and family needs.

Big Change #3: The purpose of screening tools

- Previously, screening tools were all about assessing risk, and connecting to resources as needed.
- Now, using screening tools as teachable moments and opportunities for education.

Public Health	Types of	Approaches to		Approaches to
Level	Prevention	Toxic Stress	Examples	Relational Health
3	Tertiary	Indicated Treatments for toxic stress related symptoms and diagnoses (e.g., anxiety, PTSD)	ABC PCIT CPP TF-CBT	<u>Repair</u> strained or compromised relationships
2	Secondary	<u>Targeted Interventions</u> for those at higher risk of toxic stress responses	Parent/Child ACEs SDoH BStC	<u>Identify / Address</u> potential barriers to SSNRs
1	Primary	<u>Universal Preventions</u> (anticipatory guidance, consistent messaging)	Positive Parenting ROR Play	Promote SSNRs by building 2-Gen relational skills

Slide adapted from *Thinking Developmentally: Nurturing Wellness in Childhood to Promote Lifelong Health*, Garner and Saul, 2018. Used with permission.

Public Health Approach to ACE Assessments

• Primary Prevention:

- ACE assessment tools become an opportunity to provide UNIVERSAL education about trauma and resilience
- Secondary Prevention:
 - ACE assessment tools help to identify families that MAY BE AT RISK and therefore get extra help in positive parenting, relational / attachment repair, or other interventions
- Tertiary Prevention:
 - ACE assessments give an opportunity to identify TRAUMA SYMPTOMS and therefore which patients / families need further evidence-based treatments

Big Change #4:

We're now different.

Surveying Providers

- Survey sent to providers asking about their experiences.
- 14 questions rated on a Likert scale, remainder were more qualitative.

The Big Picture

- Providers generally **DISAGREE** that parents were unwilling to discuss ACEs.
- Providers generally **AGREE** that ACE screening provided important information for providing care.
- Providers generally **DISAGREE** that time was a barrier.
- Provider **COMFORT** with discussing ACEs was mixed.

Before starting to screen, what is / was your greatest fear?



opening a can of worms...opening Pandora's box

not feeling confident

I won't be able to help

not knowing Triggering a full emotional / mental collapse what to say **NO RESOURCES**

How has screening for ACEs changed your practice?

there is no subject that is "off the table" more empathy better I know the insight better understanding parents better of the forces shaping improved parental responses **communication** my office is a safe place to talk cultivates a trusting about things relationship

Was it as scary as you thought?

NO

Have you had any huge surprises?

- The parents' willingness to discuss difficult experiences.
- One of my patients in with her 4th kid (but first time we did ACE) and I was amazed by what she had endured as a child and how much she has had to overcome.
- How grateful parents are at our asking the question... and the sense of relief they expressed at no longer having this be a secret.
- How easy it has been.

What Else Did We Find?

- "I would never go back to the way we did things before."
- Average initial conversation lasts 3-5 minutes.
- Most effective conversation prompt: How do you think these experiences affect your parenting now?



Parting Thoughts

- Understanding Toxic Stress and the effects of ACEs has the potential to transform well care.
- "Knowledge is not morally neutral and often demands action." (from S. Dube)

