

Indiana University Health

The science of adversity and its growing impact on pediatric practice

Butler University Educational Neuroscience Symposium September 21, 2019

Jim Bien, MD, FAAP







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

Robert Block, MD, FAAP Past President, AAP



Agenda:

- Brief glimpse at brain development and the impact of stress
- Review the science of Adverse Childhood Experiences (ACEs)
- What should medical practices do?
- Think about how educators and pediatricians might work together differently.



Quotes from this morning:

- "This afternoon is about your physiology, your brain state, self-regulation..." Dr. Lori
- "Don't count ACEs. Watch their reactions. How do you feel?...be witness to their state." – Dr. Porges
- "People who have capacity to feel safe and trust others, that is the definition of success." – Dr Porges





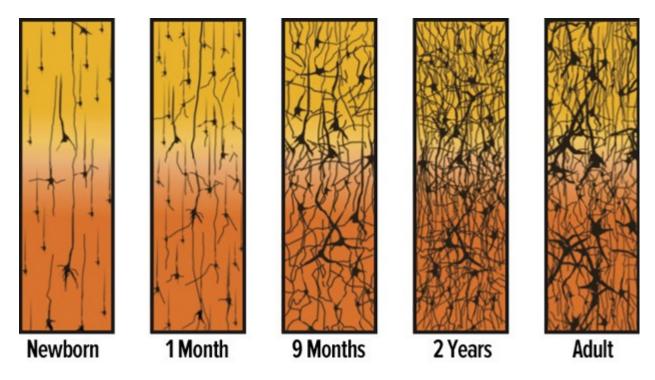
Review of Brain Development

- At birth, most neurons the brain will have are present, approx. 100 billion neurons
- Neuron connections stimulated by experience
- Tremendous overproduction in neuronal connections in first years of life (700/second)
 - approx. 1000 trillion connections by age 3 yrs.
- Selective reduction of neurons and connections among neurons – PRUNING
- Pathways that are nurtured are strengthened and sustained





Synapse density over time



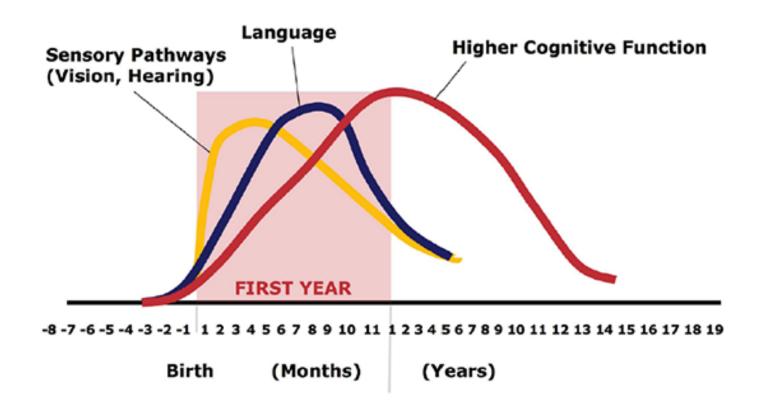
Source: Corel, JL. The postnatal development of the human cerebral cortex. Cambridge, MA: Harvard University Press; 1975.

Sequential Development of Functions



Human Brain Development

Neural Connections for Different Functions Develop Sequentially



Core Concepts of Brain Development



- Occurs from the womb through adulthood
- First basic circuits are built, and then complex
- Critical periods of brain development require stimulation.
- The brain flexible early in life, but as it develops and refines its circuitry, it looses much of its flexibility.



Core Concepts of Brain Development

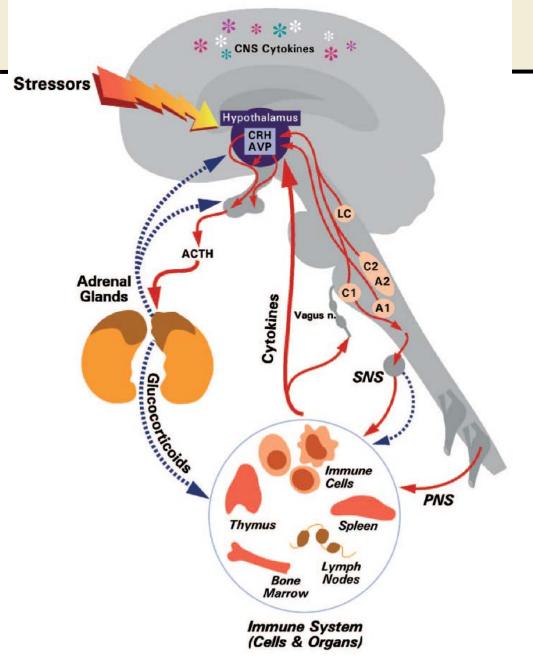


- The interaction between genetics, the environment, and experience shapes brain architecture.
 - Genetics provides the plan
 - Environment enables expression of the potential of the genetic plan
 - Experience is the interaction of the child with the environment
- The brain is designed to be responsive to our experiences; experiences literally influence the formation of its circuitry.



Stress Response: The HPA Axis





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

Positive Stress Response

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





Toxic Stress Response

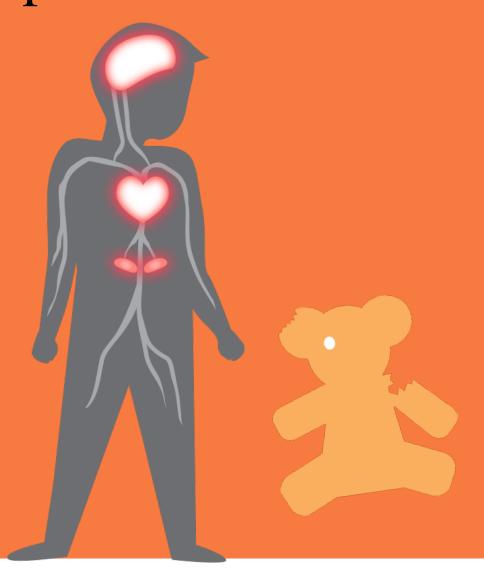
Prolonged activation of stress response systems

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



Toxic Stress: definition



The excessive or prolonged activation of the physiologic stress response systems in the absence of the buffering protection afforded by stable, responsive relationships.





Bottom Line for Brain Development

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

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







American Journal of Preventive Medicine 1998;14:245-258



Research Article

Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults

The Adverse Childhood Experiences (ACE) Study

Vincent J. Felitti, MD, FACP, Robert F. Anda, MD, MS, Dale Nordenberg, MD, David F. Williamson, MS, PhD, Alison M. Spitz, MS, MPH, Valerie Edwards, BA, Mary P. Koss, PhD, James S. Marks, MD, MPH





Categories of ACEs from Felitti and Anda



ABUSE

NEGLECT

HOUSEHOLD DYSFUNCTION



Physical



Physical



Mental Illness



Incarcerated Relative



Emotional



Emotional



Mother treated violently



Substance Abuse



Sexual



Divorce



HEALTH

ACE Study's Percent with ACEs

ACE Score	Total %
0	36.1
1	26.0
2	15.9
3	9.5
4 or more	12.5



BEHAVIOR









Smoking



Alcoholism



Drug use



Missed work

PHYSICAL & MENTAL HEALTH



Severe obesity



Diabetes



Depression



Suicide attempts



STDs



Heart disease



Cancer



Stroke



COPD

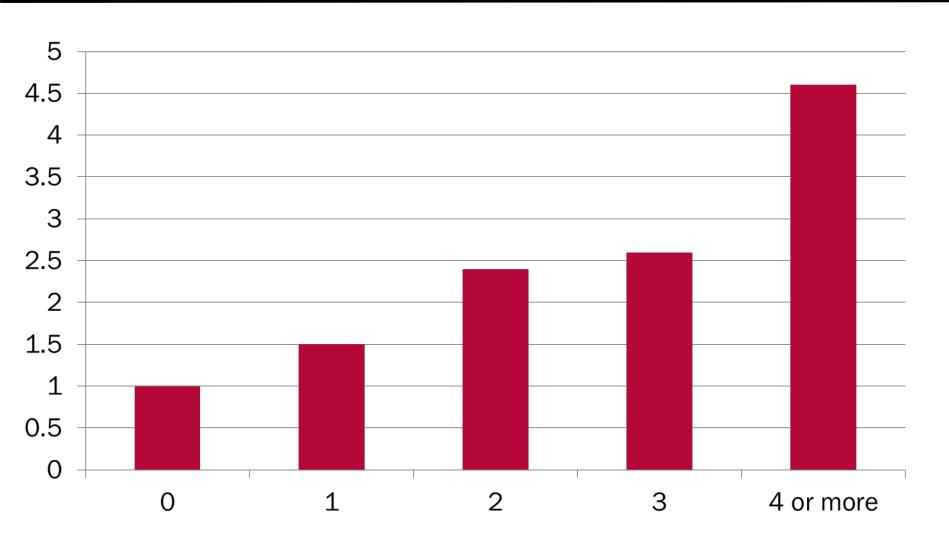


Broken bones





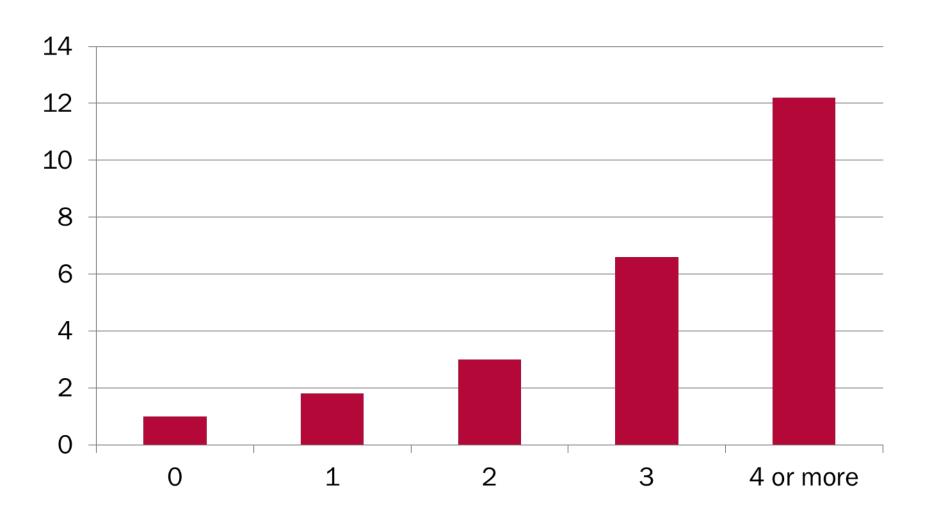
ACEs and Odds Ratio: Depression







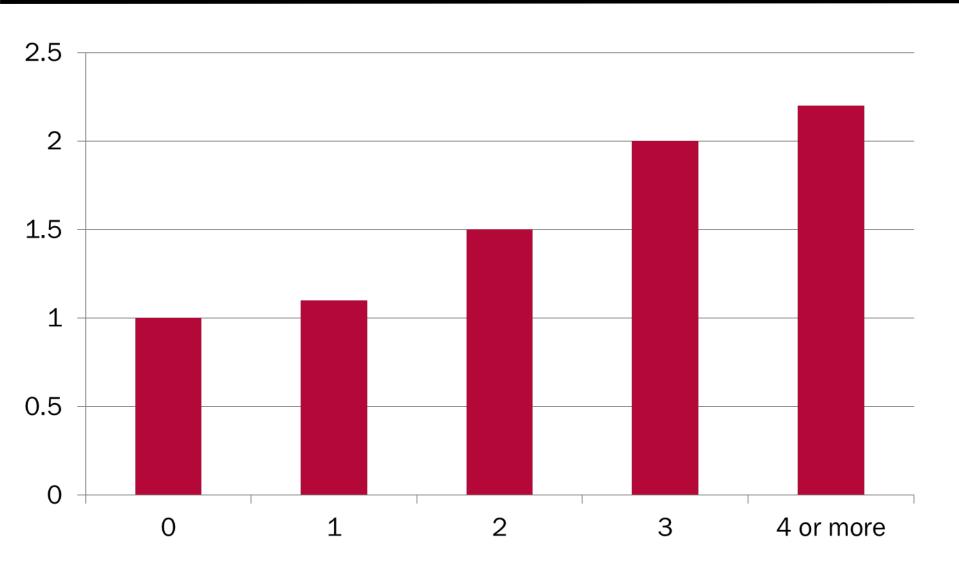
ACEs and O.R.: Ever Attempted Suicide







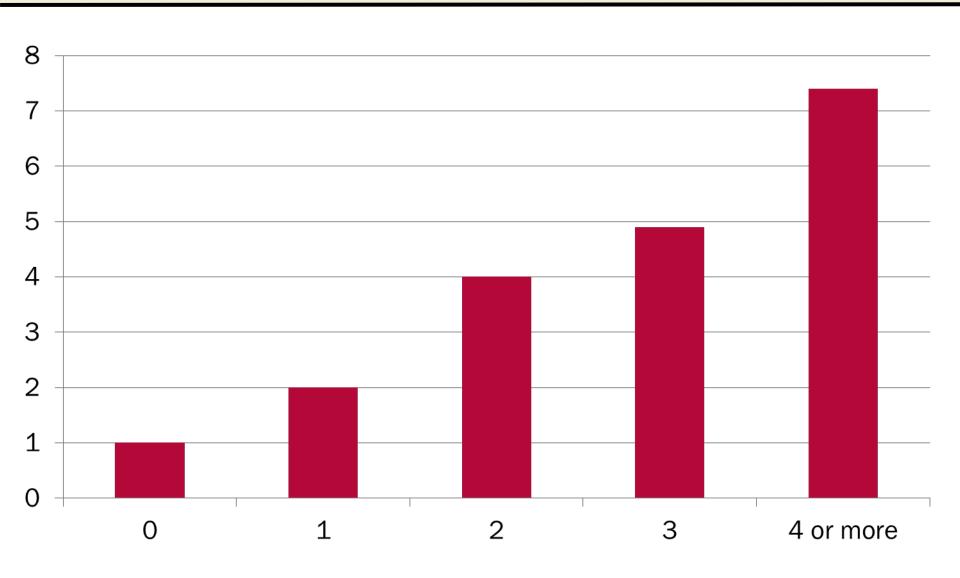
ACEs and OR: Smoking







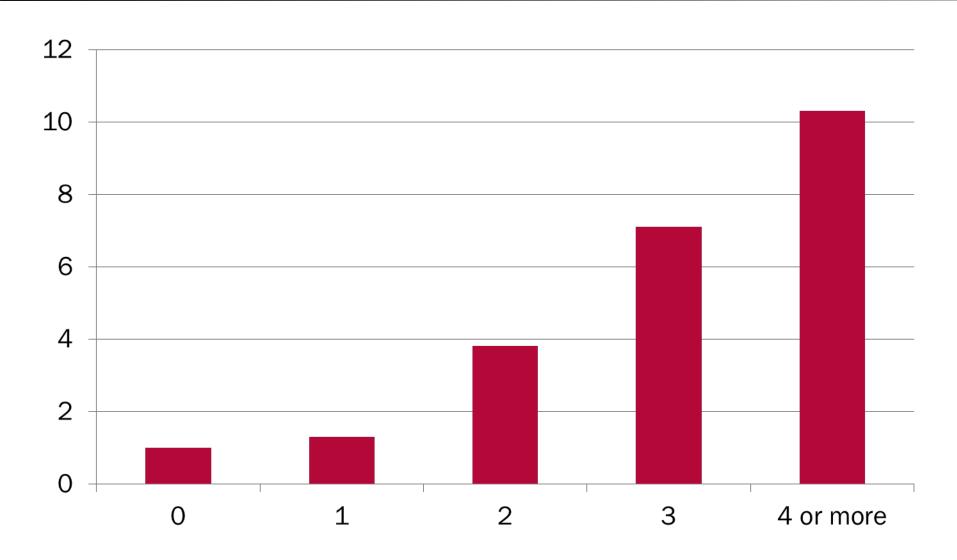
ACEs and OR: Alcoholic







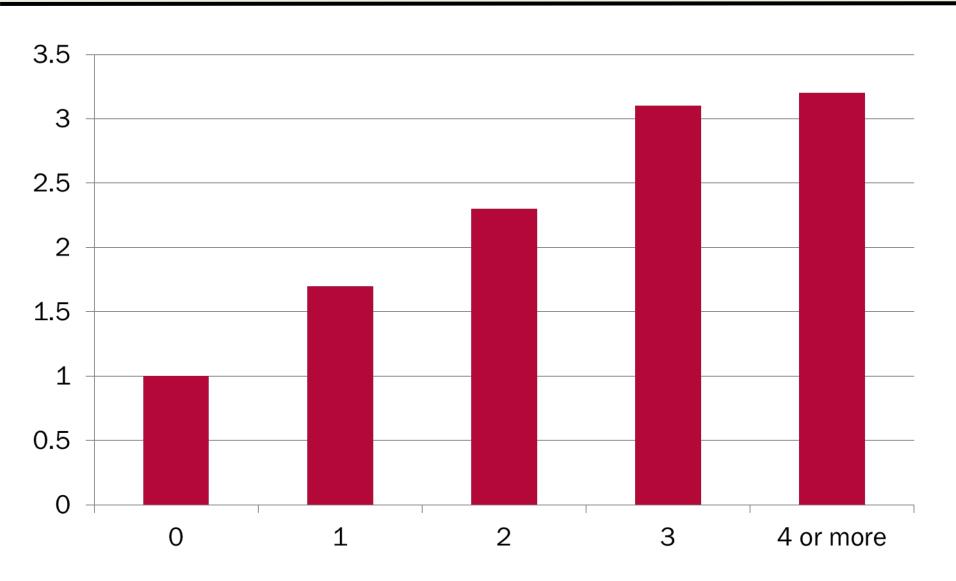
ACEs & OR: IV Drug Use







ACEs & Odds Ratio: Promiscuity



Additional Findings for those with ≥ 4 ACEs



- 2.2 times as likely to have <u>Ischemic Heart</u>
 <u>Disease</u>
- 1.9 times as likely to have <u>any cancer</u> <u>diagnosis</u>
- 2.4 times as likely to have had a <u>stroke</u>
- 3.9 times as likely to have <u>chronic lung</u> <u>disease</u>
- 1.6 times as likely to have <u>diabetes</u>



ACEs Impact on Mortality

≥ 6 ACEs die nearly 20 years earlier than those with no ACEs

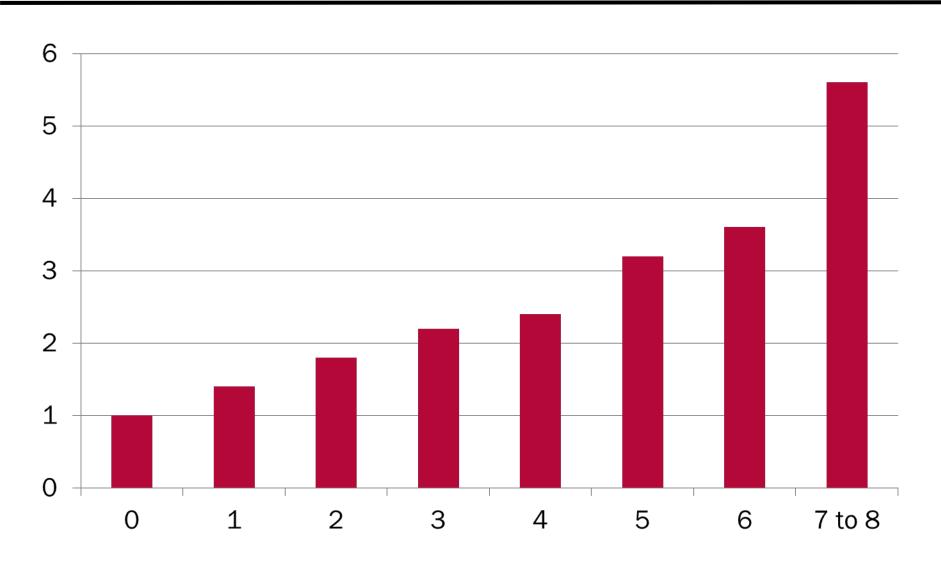
(Am J Prev Med 2009;37(5):389-396)



ACEs and Adolescent Pregnancy



(Pediatrics Vol 113 No. 2 Feb 2004)

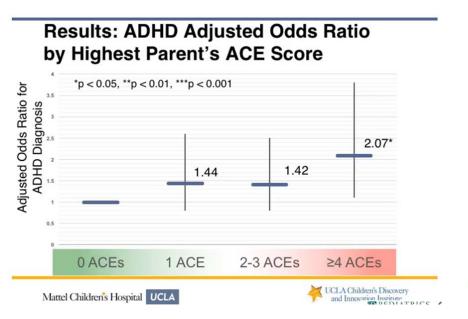


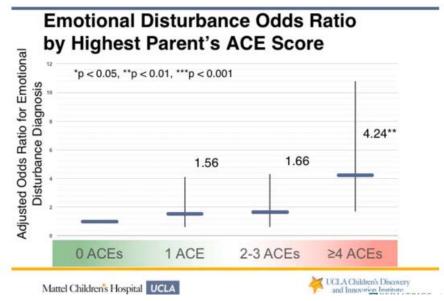


Pediatrics August 2018, VOLUME 142 / ISSUE 2 Article

Parents' Adverse Childhood Experiences and Their Children's Behavioral Health Problems

Adam Schickedanz, Neal Halfon, Narayan Sastry, Paul J. Chung





Parents' Adverse Childhood Experiences and Their Children's Behavioral Health Problems



Adam Schickedanz, Neal Halfon, Narayan Sastry, Paul J. Chung

Child Behavioral Outcome Measure or Condition	Mother's (top) or Father's (bottom) Adverse Childhood Experience Count				
(n = 1,979 Children With Data Available on All Parents' ACE Scores)	0 ACEs	1 ACE	2-3 ACEs	4 Or More ACEs	
		nildren's Behavioral or Adjusted Linear (
Hyperactivity (aOR)	Ref	1.85 (0.9, 3.6)	1.62 (0.9, 3.0)	3.10 (1.5, 6.2)**	
Emotional or Mental Disturbance (aOR)	Ref	1.93 (0.7, 5.4)	2.04 (0.8, 5.5)	5.66 (2.0, 15.9)**	
Behavior Problem Index - Total Score (Adjusted Linear Coefficient)	Ref	0.50 (-0.4, 1.4)	2.36 (1.4, 3.3)***	2.77 (1.7, 3.9)***	
		ildren's Behavioral or Adjusted Linear (
Hyperactivity (aOR)	Ref	0.99 (0.5, 1.9)	0.97 (0.5, 2.0)	1.29 (0.6, 2.9)	
Emotional or Mental Disturbance (aOR)	Ref	1.71 (0.5, 5.7)	0.89 (0.2, 3.2)	2.43 (0.7, 8.1)	
Behavior Problem Index - Total Score (Adjusted Linear Coefficient)	Ref	0.58 (-0.3, 1.5)	1.09 (0.04, 2.15)*	1.09 (-0.4, 2.6)	

The impact of adverse childhood experiences on an urban pediatric population[☆]



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

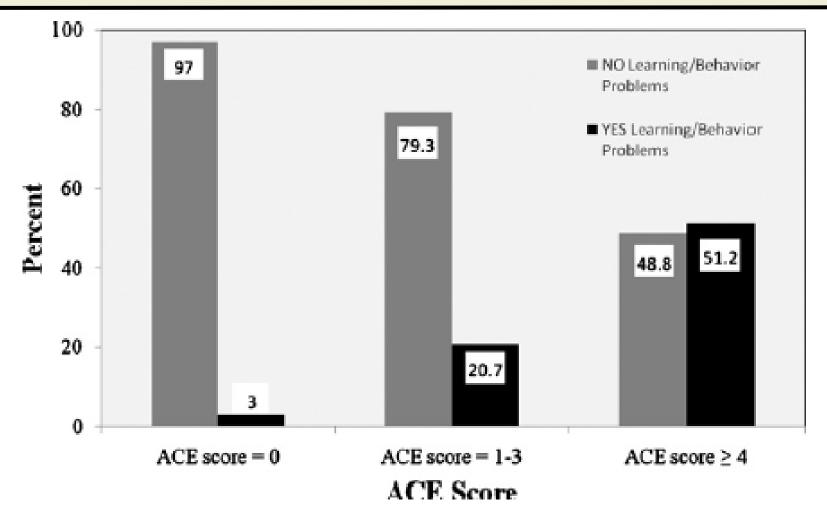


Fig. 2. Learning/behavior problems by ACEs score.

Child Abuse & Neglect 35 (2011) 408-13



Expanding the Concept of Adversity





American Journal of Preventive Medicine

Volume 49, Issue 3, September 2015, Pages 354-361

Research Article

Adverse Childhood Experiences: Expanding the Concept of Adversity

Peter F. Cronholm MD, MSCE a, b, c ≥ ⊠, Christine M. Forke MSN, CRNP d, e, Roy Wade MD, PhD, MPH f, Megan H. Bair-Merritt MD, MSCE J, Martha Davis MSS k, Mary Harkins-Schwarz MPH h, Lee M. Pachter DO i, Joel A. Fein MD, MPH e, g

Table 1. Demographics of the Philadelphia Census, Philadelphia Sample, and the Original Kaiser Sample

Demographics	Philadelphia census (n=1,201,541), %	Philadelphia sample (n=1,784), %	Kaiser sample ^a (n=8,056), %		
Race					
White	38.8	45.2	79.8		
Black	36.1	43.6	4.8		
Latino	11.4	3.6	5.4		
Asian	6.2	3.7	6.3		
Other ^b	7.4	3.9	3.7		
Education					
Less than high school	20.0	10.3	6.0		
High school graduate ^o	35.7	35.0	19.1		
Some college	21.8	19.0	31.5		
College graduate	22.5	35.7	43.4		
Male	46.3	41.7	47.9		
Age					
18-34	36.8	29.7	10.0		
35-64	46.7	52.2	57.6		
≥65	16.4	18.1	32.4		

	Adversity exposure	Philadelphia sample (N=1,784), %	Kaiser samplea, b (N=8,056), %	<i>p</i> -value
	Conventional ACEs			
	Physical abuse	38.1	10.8	<0.001
	Substance using household member	34.8	25.6	<0.001
	Emotional abuse	33.2	11.1	<0.001
	Mentally ill household member	24.1	18.8	<0.001
1	Witnessed domestic violence	20.2	12.5	<0.001
ļ	Sexual abuse	16.2	22.0	<0.001
	Incarcerated household member	12.9	3.4	<0.001
l	Emotional neglect	7.7	14.8	<0.001
l	Physical neglect	7.0	9.9	<0.001
1	Expanded ACEs			
l	Witnessed violence	40.5	N/A	N/A
	Felt discrimination	34∙5	N/A	N/A
	Unsafe neighborhood	27.3	N/A	N/A
l	Experienced bullying	8.0	N/A	N/A
	Lived in foster care	2.5	N/A	N/A



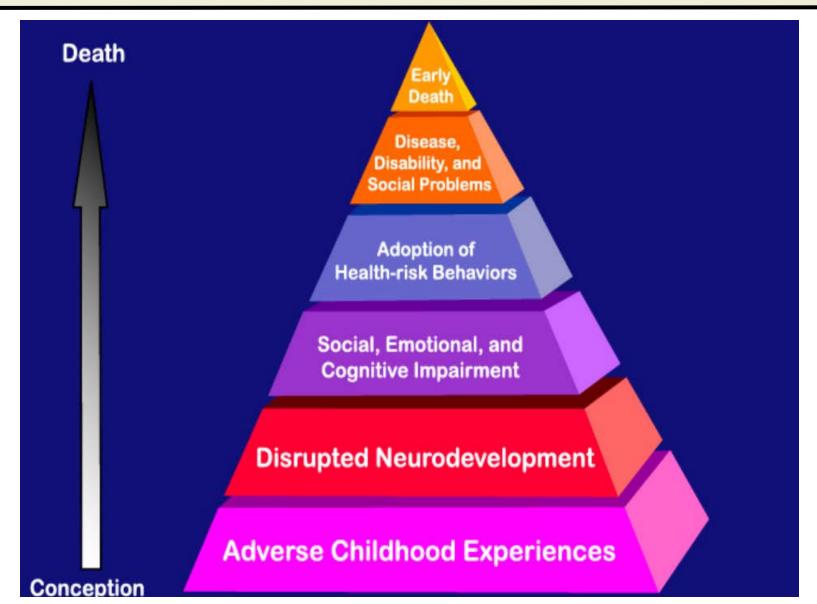
Pediatrics August 2019, VOLUME 144 / ISSUE 2 From the American Academy of Pediatrics Policy Statement

The Impact of Racism on Child and Adolescent Health

Maria Trent, Danielle G. Dooley, Jacqueline Dougé, SECTION ON ADOLESCENT HEALTH, COUNCIL ON COMMUNITY PEDIATRICS, COMMITTEE ON ADOLESCENCE



The theory of ACEs Lifelong Impact



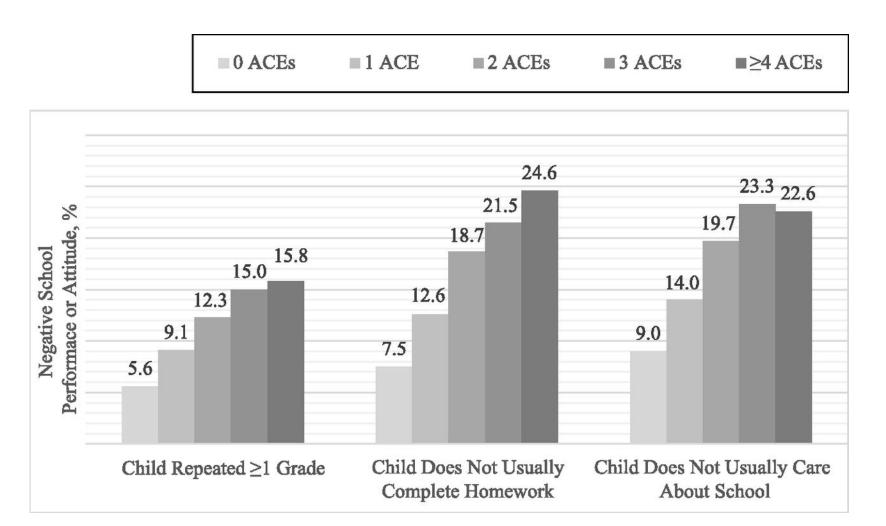
Resilience



- The single most common factor for children who develop resilience is at least one stable and committed relationship with a supportive parent, caregiver, or other adult.
- Predisposing factors for positive outcomes:
 - facilitating supportive adult-child relationships
 - building a sense of self-efficacy and perceived control
 - opportunities to strengthen adaptive skills and selfregulatory capacities
 - mobilizing sources of faith, hope, and cultural traditions



Prevalence of negative school performance and attitude outcomes by number of ACEs among children ages 6 to 17 (2011–2012 NSCH).

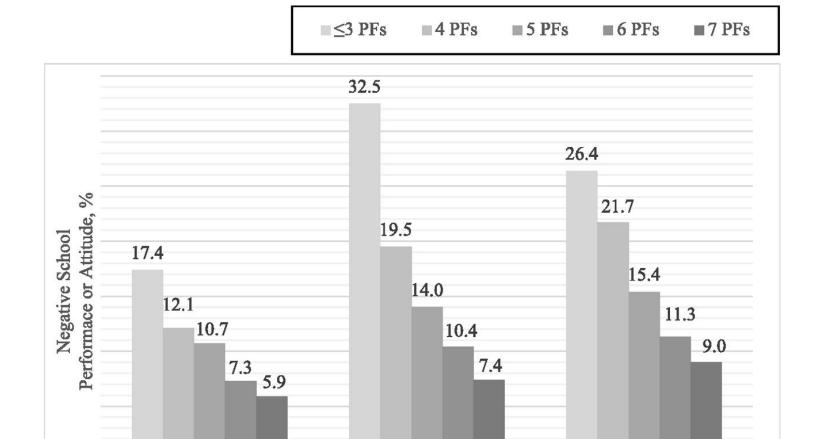


Angelica Robles et al. Pediatrics 2019;144:e20182945





Prevalence of negative school performance and attitude outcomes by number of PFs among children ages 6 to 17.



Child Does Not Usually

Complete Homework

Angelica Robles et al. Pediatrics 2019;144:e20182945

Child Repeated ≥1 Grade



Child Does Not Usually Care

About School

Child Abuse & Neglect

Volume 92, June 2019, Pages 209-218

Prevalence of adverse childhood experiences (ACEs) among US children



Elizabeth Crouch ^a $\stackrel{\triangle}{\sim}$ M, Janice C. Probst ^a, Elizabeth Radcliff ^a, Kevin J. Bennett ^b, Selina Hunt McKinney ^c

Table 1 Prevalence of adverse childhood experiences and characteristics of children studied, 2016 National Survey of Children's Health (n = 45,287).

		Percent
Adverse Experiences ^a		
-	Parent or guardian divorced or separated	21.9
	Parent or guardian died	2.9
	Parent or guardian served time in jail	7.0
	Saw or heard parents or adults slap, hit, kick, punch one another in the home	5.0
	Was a victim of violence or witnessed violence in neighborhood	3.3
	Lived with anyone who was mentally ill, suicidal, or severely depressed	7.1
	Lived with anyone who had a problem with alcohol or drugs	8.1
	Treated or judged unfairly because of his or her race or ethnic group	3.3
	Economic Hardship: Hard to cover basics like food or housing b	22.5
Child Characteristics		
Sex	Male	50.8
	Female	49.2
Age	5 years old or younger	32.5
	6 to 12 years old	39.3
	13 to 17 years old	28.2
Race/Ethnicity	Non-Hispanic White	53.8
	Non-Hispanic African-American	12.2
	Hispanic	23.3
	"Other" Non-Hispanic	10.7

Influencing Pediatric Practice: PEDIATRICS Volume 129, Number 1, Jan 2012





Organizational Principles to Guide and Define the Child Health Care System and/or Improve the Health of all Children

POLICY STATEMENT

Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science Into Lifelong Health

abstract



Advances in a wide range of biological, behavioral, and social sciences are expanding our understanding of how early environmental influences (the ecology) and genetic predispositions (the biologic program) affect learning capacities, adaptive behaviors, lifelong physical and mental health, and adult productivity. A supporting technical report from the American Academy of Pediatrics (AAP) presents an integrated ecobiode-velopmental framework to assist in translating these dramatic advances in developmental science into improved health across the life span.

COMMITTEE ON PSYCHOSOCIAL ASPECTS OF CHILD AND FAMILY HEALTH, COMMITTEE ON EARLY CHILDHOOD, ADOPTION, AND DEPENDENT CARE, AND SECTION ON DEVELOPMENTAL AND BEHAVIORAL PEDIATRICS

KEY WORDS

advocacy, brain development, ecobiodevelopmental framework, family pediatrics, health promotion, human capital investments, new morbidity, toxic stress, resilience

ABBREVIATIONS

AAP—American Academy of Pediatrics EBD—ecobiodevelopmental



AAP Policy Recommendations

- Psychosocial problems should no longer be viewed as categorically different from the causes and consequences of other biologically based health impairments.
- 2. The scientific knowledge of ACEs and toxic stress should be fully incorporated into all levels of pediatric training.
- 3. Pediatricians should adopt a more proactive leadership role in educating families, child care professionals, teachers about toxic stress.



AAP Policy Recommendations

- 4. Pediatricians should be advocates for the development and implementation of evidence-based interventions that reduce sources of toxic stress and or mitigate their effects.
- 5. Pediatric Medical Homes should
 - Strengthen anticipatory guidance re: development
 - Actively screen for precipitants of toxic stress
 - Participate in adaptations that expand their ability to support children at risk
 - Identify or advocate for local resources that address risks for toxic stress.



How to begin the conversation

- "I have begun to ask all of the women/parents/caregivers/patients in my practice about their family life as it affects their health and safety, and that of their children. May I ask you a few questions?"
- "Violence is an issue that unfortunately effects everyone today and thus I have begun to ask all families/patients in my practice about exposure to violence. May I ask you a few questions?"

Screening Children: Pediatric ACEs and Relevant Life Experiences



- Developed by the Center for Youth Wellness
- Validated for use in clinical settings to assess ACEs experienced by children and teens
- Multiple versions
 - Youth (parent completed)
 - Teen (parent completed)
 - Teen (self-completed)
- Includes "enhanced ACEs"
- Available for download on CYW website or NPPC website

Pediatric ACEs and Relevant Life Events Screener (PEARLS) – Child

To be completed by Caregiver Today's Date: _____ Child's Name: _____ Date of Birth: _____ Your Name: _____ Relationship to Child: ______



Many families experience stressful life events. Over time these experiences can affect your child's health and wellbeing. We would like to ask you questions about your child so we can help them be as healthy as possible. At any point in time since your child was born, has your child seen or been present when the following experiences happened? Please include past and present experiences. Please note, some questions have more than one part separated by "OR." If any part of the question is answered "Yes," then the answer to the entire question is "Yes."

- Has your child ever lived with a parent/caregiver who went to jail/prison?
- Do you think your child ever felt unsupported, unloved and/or unprotected?
- Has your child ever lived with a parent/caregiver who had mental health issues? (for example depression, schizophrenia, bipolar disorder, PTSD, or an anxiety disorder)
- Has a parent/caregiver ever insulted, humiliated, or put down your child?
- Has the child's biological parent or any caregiver ever had, or currently has a problem with too much alcohol, street drugs or prescription medications use?
- Has your child ever lacked appropriate care by any caregiver (for example, not being protected from unsafe situations, or not cared for when sick or injured even when the resources were available)?
- Has your child ever seen or heard a parent/caregiver being screamed at, sworn at, insulted or humiliated by another adult?
 Or Has your child ever seen or heard a parent/caregiver being slapped, kicked, punched beaten up or hurt with a weapon?
- Has any adult in the household often or very often pushed, grabbed, slapped or thrown something at your child? Or Has any adult in the household ever hit your child so hard that your child had marks or was injured? Or Has any adult in the household ever threatened your child or acted in a way that made your child afraid that they might be hurt?
- Has your child ever experienced sexual abuse? For example, anyone touched your child or asked your child to touch that person in a way that was unwanted, or made your child feel uncomfortable, or anyone ever attempted or actually had oral, anal, or vaginal sex with your child?
- Have there ever been significant changes in the relationship status of the child's caregiver(s)? For example a parent/caregiver got a divorce or separated, or a romantic partner moved in or out?

Add up the "yes" answers for this first section:

- Has your child ever seen, heard, or been a victim of violence in your neighborhood, community or school? (for example targeted bullving, assault or other violent actions, war or terrorism)
- Has your child experienced discrimination (for example being hassled or made to feel inferior or excluded because of their race, ethnicity, gender identity, sexual orientation, religion, learning differences, or disabilities)?
- Has your child ever had problems with housing (for example being homeless, not having a stable place to live, moved more than two times in a six-month period, faced eviction or foreclosure, or had to live with multiple families or family members)?
- Have you ever worried that your child did not have enough food to eat or that the food for your child would run out before you could buy more?
- Has your child ever been separated from their parent or caregiver due to foster care, or immigration?
- Has your child ever lived with a parent/caregiver who had a serious physical illness or disability?
- Has your child ever lived with a parent or caregiver who died?

Add up the "yes" answers for the second section:

Pediatric ACEs and Relevant Life Events Screener (PEARLS) – Teen (Self Report)

To be completed by Patient Today's Date: _____ Date of Birth: _____ Your Name: _____

Many families experience stressful life events. Over time these experiences can affect your health and wellbeing. We would like to ask you questions so we can help you be as healthy as possible.

At any point in time since you were born, have you seen or been present when the following experiences happened? Please include past and present experiences. Please note, some questions have more than one part separated by "OR." If any part of the question is answered "Yes," then the answer to the entire question is "Yes."

Have you ever lived with a parent/caregiver who went to jail/prison?

Have you ever felt unsupported, unloved and/or unprotected?

Have you ever lived with a parent/caregiver who had mental health issues? (for example depression, schizophrenia, bipolar disorder, PTSD, or an anxiety disorder)

Has a parent/caregiver ever insulted, humiliated, or put you down?

Has your biological parent or any caregiver ever had, or currently has a problem with too much alcohol, street drugs or prescription medications use?

Have you ever lacked appropriate care by any caregiver (for example, not being protected from unsafe situations, or not being cared for when sick or injured even when the resources were available)?

Have you ever seen or heard a parent/caregiver being screamed at, sworn at, insulted or humiliated by another adult? **OR** Have you ever seen or heard a parent/caregiver being slapped, kicked, punched beaten up or hurt with a weapon?

Has any adult in the household often or very often pushed, grabbed, slapped or thrown something at you? **OR** Has any adult in the household ever hit you so hard that you had marks or were injured? **OR** Has any adult in the household ever threatened you or acted in a way that made you afraid that you might be hurt?

Have you ever experienced sexual abuse? For example, has anyone touched you or asked you to touch that person in a way that was unwanted, or made you feel uncomfortable, or anyone ever attempted or actually had oral, anal, or vaginal sex with you?

Have there ever been significant changes in the relationship status of your caregiver(s)? For example a parent/caregiver got a divorce or separated, or a romantic partner moved in or out?

Add up the "yes" answers for this first section:

Have you ever seen, heard, or been a victim of violence in your neighborhood, community or school? (for example targeted bullying, assault or other violent actions, war or terrorism)

Have you experienced discrimination (for example being hassled or made to feel inferior or excluded because of their race, ethnicity, gender identity, sexual orientation, religion, learning differences, or disabilities)?

Have you ever had problems with housing (for example being homeless, not having a stable place to live, moved more than two times in a six-month period, faced eviction or foreclosure, or had to live with multiple families or family members)?

Have you ever worried that you did not have enough food to eat or that food would run out before you or your parent/caregiver could buy more?

Have you ever been separated from your parent or caregiver due to foster care, or immigration?

Have you ever lived with a parent/caregiver who had a serious physical illness or disability?

Have you ever lived with a parent or caregiver who died?

Have you ever been detained, arrested or incarcerated?

Have you ever experienced verbal or physical abuse or threats from a romantic partners (for example a boyfriend or girlfriend)?

Add up the "yes" answers for the second section:



Screening Parents



 Not a validated tool, but based on the original ACE questions, with enhanced ACEs added in.

- Used as a tool to
 - 1. Educate parents about ACEs and their effects
 - 2. Create a culture change within practice
 - 3. Identify families that may need more support
- Goal is never to force a disclosure, but to initiate a conversation

ACE QUESTIONS

HOW MANY of these apply to you during the first 18 years of your life? You don't have to mark which specific statements apply to you. Write the total in the box:

- Did a parent or other adult in the household often swear at you, insult you, put you down, or humiliate you OR act in a way that made you afraid you would be physically hurt?
- Did a parent or other adult in the household often push, grab, slap or throw something at you
 OR ever hit you so hard that you had marks or were injured?
- Did an adult or person at least 5 years older than you ever touch or fondle you, or have you
 touch their body in a sexual way OR attempt or actually have oral, anal or vaginal intercourse
 with you?
- Did you often feel that no one in your family loved you or thought you were important or special OR your family didn't look out for each other, feel close to each other, or support each other?
- Did you often feel that you didn't have enough to eat, had to wear dirty clothes, and had no one
 to protect you OR your parents were too drunk or high to take care of you or take you to the
 doctor if you needed it?

HOW MANY of these apply to you during the first 18 years of your life? You don't have to mark which specific statements apply to you. Write the total in the box:

- Were your parents ever separated or divorced?
- Was your mother or stepmother often pushed, grabbed, slapped, or had something thrown at her OR sometimes or often kicked, bitten, hit with a fist or with something hard?
- Did you ever live with anyone who was a problem drinker or alcoholic, or who used street drugs?
- Was a household member depressed or mentally ill, or did a household member attempt suicide?
- Did a household member go to prison?

HOW MANY of these apply to you during the first 18 years of your life? You don't have to mark which specific statements apply to you. Write the total in the box:

- Did you experience repeated bullying as a child?
- Did you repeatedly experience discrimination based on ethnicity, skin color or sexual orientation?
- Did you live in a neighborhood that experienced gang-related violence?
- Did you ever live in a foster home or group home?



Comments:	
Questions:	
Concerns:	
I would be interested in: Parenting Classes	
Parent Support Groups	
Visiting Home Nurse Programs	
Twitter Feeds: (helpful hints on parenting)	
More information on your Web Site	
Relief Nursery Services	
Other (please tell us more)	
Other (piease tell as more)	
This questionnaire was filled out by: Mom Dad	
Have you filled this survey out before at TCC (for example, with another child)?	
Yes No	

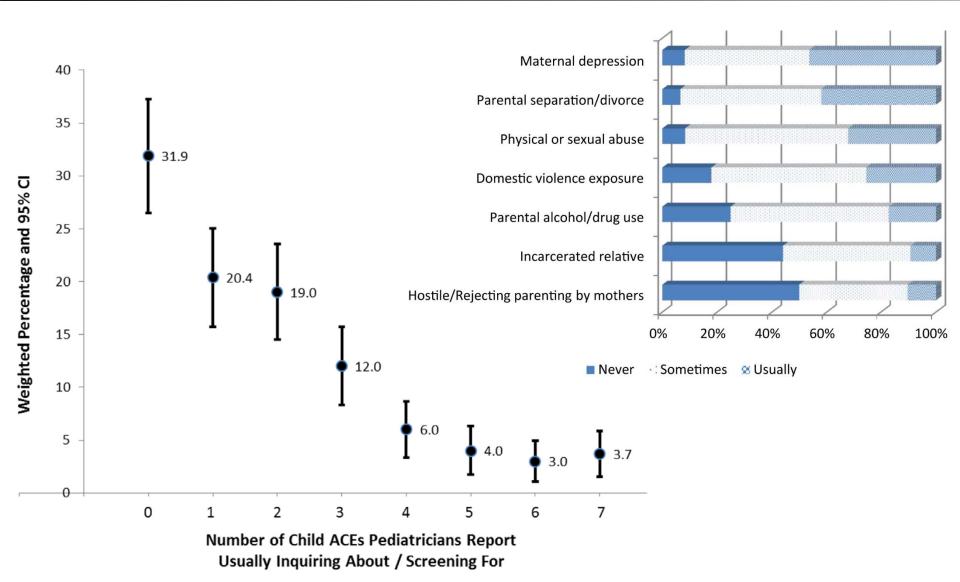
Academic Pediatrics

Volume 16, Issue 2, March 2016, Pages 154-160

Do Pediatricians Ask About Adverse Childhood Experiences in Pediatric Primary Care?

HEALTH

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In light of this information:

 How should educators and physicians work together in supporting children?

HEALTH

Help me learn

 Mrs Mattis' classroom. An example for me of a regulated classroom.

- What is one thing about your work with children that you think would be helpful for pediatricians to know?
- How might this insight be communicated in your environment/community?

We don't understand each other's worlds.



- influenced to see schools in an adversarial light
 - 'demanding' diagnoses and medications
 - 'refusing' to adequately assist in evaluations
 - Inconsistent communication with physicians.
- 7 year old girl with behavior problems and school failure.

 What is your perception of the medical system as it works with your students?



Partnerships have power.

BabyTALK and CHIC

 Where have you seen educators and medical professionals collaborating to enhance the development of children?



Together we may be more impactful.

- What might we do together to strengthen support for youth?
- To enable them to thrive?
- To feel safe and trusting?
- To be Succesful?