JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

CAHMI The Child & Adolescent Health Measurement Initiative

AcademyHealth

ACEs Resource Packet: Adverse Childhood Experiences (ACEs) Basics

What are ACEs?

The term *Adverse Childhood Experiences* (ACEs) refers to a range of events that a child can experience, which leads to stress and can result in trauma and chronic stress responses. Multiple, chronic or persistent stress can impact a child's developing brain and has been linked in numerous studies to a variety of high-risk behaviors, chronic diseases and negative health outcomes in adulthood such as smoking, diabetes and heart disease. For example, having an ACE score of 4 increases a person's risk of emphysema or chronic bronchitis by 400 percent and suicide by 1200 percent.[i] [ii] [iii] [iv]

What is the "ACE Study"?

Published in 1998 as a collaboration between the Centers for Disease Control (CDC) and Kaiser Permanente, the original ACE study was one of the first studies to look at the relationship between chronic stress in childhood and adult health outcomes. Data were collected between 1995-1997 from 17,000 Kaiser members who completed surveys on their childhood experiences and current health status and behaviors. Many states are now collecting state-specific ACE data through the Behavioral Risk Factor Surveillance System (BRFSS), an annual phone survey established by the CDC that collects health-related risk factors, chronic health conditions and use of preventive services on U.S. adults.

How are ACEs measured?

ACEs have been measured in research, program and policy planning contexts. [v]For example, the 2011/12 National Survey Children's Health included nine ACEs items adopted from the original ACE study. Additionally, tools to assess ACES in clinical settings are available. In the original ACE study, researchers measured 10 ACEs. Counting each ACE as one, individuals were reported as having an ACE score of 0 to 10. Measures included:

- Physical, emotional and sexual abuse
- Physical and emotional neglect
- Households with mental illness, domestic violence, parental divorce or separation, substance abuse, or incarceration

You can calculate your own ACE score here: https://acestoohigh.com/got-your-ace-score/

Please note that there are many other sources of childhood trauma that are not included in the above mentioned ACEs scoring tool. For example, exposure to community violence or food insecurity is not included in the ACE score.

What is the prevalence of ACEs?

ACEs are common and pervasive in our society. In the original ACE study of adults, 64% of adults reported at least one ACE. More than one in five reported three or more ACEs and 12.4% reported four or more ACEs.

In a study based on the 2011-12 National Survey of Children's Health (NSCH), researchers found that almost half (47.9%) of US children ages 0-17 have had at least one of nine key adverse childhood experiences and 22.6% have had two or more. This study also looked at the variation among states and found the prevalence of children with one or more ACEs ranges from 40.6% in Connecticut to 57.5% in Arizona. [vi] To learn more about racial, gender and health status differences in ACEs prevalence, please visit the CAHMI Data Resource Center and explore the NSCH data (www.childhealthdata.org)

What is the impact of ACEs?

The original ACEs study found a relationship between the numbers of ACEs and a number of high-risk behaviors and negative health outcomes across the lifespan. As the number of ACEs a person has increases, so does the risk for outcomes such as heart disease, depression, heart disease, cancer, smoking and obesity.

Additional information on ACEs and the ACE study can be found here (see also the *Resources* section):

- Centers for Disease Control and Prevention, Violence Prevention Program, ACEs Study. http://www.cdc.gov/violenceprevention/acestudy/about.html
- Robert Wood Johnson Foundation, *The Truth about ACEs.* http://www.rwjf.org/en/library/infographics/the-truth-about-aces.html
- ACEs Connection. http://www.acesconnection.com/blog/aces-101-faqs

REFERENCES

[i] Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine* 1998;14:245–258.

[ii] Bethell C., Gombojav N., Solloway M. and Wissow, L. Adverse Childhood Experiences, Resilience and Mindfulness-Based Approaches: Common Denominator Issues for Children with Emotional, Mental, or Behavioral Problems. Child and Adolescent Psychiatric Clinics of North America, 2015 Apr;25(2):139-56. doi: 10.1016/j.chc.2015.12.001. Epub 2016 Jan 11.

[iii] Shonkoff J and Gardner A, (2012) The lifelong effects of early childhood adversity and toxic stress, *Pediatrics;* 129;e232.

[iv] Van der Kolk, BA (2014). The body keeps the score: Brain, mind and body in the healing of trauma. Penguin Random House, New York, NY. 10014. ISSN: 978-0-670-78593-3.

[v] Bethell, C. Carle, A., Hudziak, J., Gombojav, N., Powers, K., Wade, R., Braveman, P. Methods to Assess Adverse Childhood Experiences of Children and Families: Toward a Life Course and Well-Being Based Approach in Policy and Practice. Academic Pediatrics (forthcoming).

[vi] Bethell, C, Newacheck, P, Hawes, E, Halfon, N. Adverse childhood experiences: assessing the impact on health and school engagement and the mitigating role of resilience. (2014) Health Affairs Dec; 33(12);210-2016 .

Adverse Childhood Experiences (ACEs) Questionnaire

Prior to your 18th birthday:

1. Did a parent or other adult in the household often or very often…
   Swear at you, insult you, put you down, or humiliate you? or
   Act in a way that made you afraid that you might be physically hurt?
   ◯ Yes ◯ No

2. Did a parent or other adult in the household often or very often… Push, grab, slap, or throw something at you? or Ever hit you so hard that you had marks or were injured?
   ◯ Yes ◯ No

3. 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 or anal intercourse with you?
   ◯ Yes ◯ No

4. Did you often or very 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? ◯
   ◯ Yes ◯ No

5. Did you often or very 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?
   ◯ Yes ◯ No

6. Was a biological parent ever lost to you through divorced, abandonment, or other reason?
   ◯ Yes ◯ No

7. Was your mother or stepmother:
   Often or very often pushed, grabbed, slapped, or had something thrown at her? or
   Sometimes, often, or very often kicked, bitten, hit with a fist, or hit with something hard? or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?
   ◯ YeS ◯ No

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?
   ◯ Yes ◯ No

9. Was a household member depressed or mentally ill? or
   Did a household member attempt suicide?
   ◯ Yes ◯ No

10. Did a household member go to prison?
    ◯ Yes ◯ No

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

CAHMI The Child & Adolescent Health Measurement Initiative

AcademyHealth

ACEs Resource Packet: The Science Behind ACEs

What is the neurobiology of trauma and stress?

Stress is a normal response to challenging life events. However, when stress reaches excessive levels, it can affect how a child's brain develops. The Center for the Developing Child at Harvard University has outlined three different types of responses to stress:

- **Positive stress response** is a normal part of healthy development in response to challenges such as attending a new school or a taking a test. It is characterized by brief increases in heart rate and mild elevations in stress hormones, which quickly return to normal.
- **Tolerable stress response** results from more serious events such as a car accident and results in a greater activation of the body's alert system. When a child has sufficient support with trusted adults, the body can recover from these effects.
- **Toxic stress response** can occur when a child is exposed to severe, frequent or prolonged trauma without the adequate support needed from trusted adults. Toxic stress can result in changes in the brain's architecture and function, can affect learning and development processes and can impact long-term health outcomes.

Evidence from the field of neuroscience clearly demonstrates that ongoing exposure to traumatic events in childhood (also commonly referred to as ACEs) -- such as physical or emotional abuse or neglect, witnessing or experiencing violence in the home or community, substance abuse or mental illness in the home, the absence of a parent due to divorce or incarceration, severe economic hardship, or discrimination -- disrupts brain development, leads to functional differences in learning, behaviors and health[i] and is associated with both immediate and long-term impacts on health.[ii, iii, iv, v]

What is epigenetics and how does it relate to ACEs?

Epigenetics is the study of how external factors can alter gene expression of one's DNA. Researchers are learning that environmental factors —such as the exposure to toxic stress — can influence how genes are expressed and cause changes in the body. Studies are now showing that both adverse experiences and resilience can affect gene expression.[vi vii] Even more profound is that epigenetic changes can be passed from one generation to another.[viii ix x]

The gift of resilience

The good news is that people can be extremely resilient in the face of adversity when provided with protective relationships, skills and experiences. Research has shown that resilience – which can be learned - can mitigate the impact of ACEs and produce better health and educational outcomes.[xi xii] At the heart of resiliency is the need to cultivate healthy social-emotional development in children and families. This includes both intrapersonal skills – self-regulation, self-reflection, creating and nurturing sense of self and confidence – and interpersonal skills – establishing safe, stable and nurturing relationships.[xiii xiv xv xvi]

Additional information on the neurobiology of stress and trauma can be found here (see also the *Resources* section of this ACEs Resource Packet):

- The Center on the Developing Child, Harvard University. http://developingchild.harvard.edu/science/
- The Community Resilience Cookbook. http://communityresiliencecookbook.org/your-body-brain/

REFERENCES

[i] Shonkoff J and Gardner A, (2012) The lifelong effects of early childhood adversity and toxic stress, *Pediatrics;* 129;e232

[ii] Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine* 1998;14:245–258.

[iii] Shonkoff J and Gardner A, (2012) The lifelong effects of early childhood adversity and toxic stress, *Pediatrics;* 129;e232

[iv] Wolff N, Shi J, "Childhood and Adult Trauma Experiences of Incarcerated Persons and Their Relationship to Adult Behavioral Health Problems and Treatment," 2012, Int. J. Environ. Res. Public Health, 9:1908-1926.

[v] Wallace BC, Conner LC, Dass-Brailsford P, "Integrating Trauma Treatment in Correctional Health Care and Community-Based Treatment Upon Reentry," Journal of Correctional Health Care, 2011, 17(4):329-343.

[vi] Schiele MA, Ziegler C, Holitschke K, Schartner C, Schmidt B, Weber H, Reif A, Romanos M, Pauli P, Zwanzger, P, Deckert J, Domschke K. Influence of 5-HTT variation, childhood trauma and self-efficacy on anxiety traits: a gene-environment-coping interaction study. J Neural Transm (Vienna). 2016 Aug;123(8):895-904. doi: 10.1007/s00702-016-1564-z. Epub 2016 May 4.

[vii] Lomanowska AM, Boivin M, Hertzman C, Fleming AS. Parenting begets parenting: A neurobiological perspective on early adversity and the transmission of parenting styles across generations. Neuroscience. 2015 Sep 16. pii: S0306-4522(15)00848-9. doi: 10.1016/j.neuroscience.2015.09.029. [Epub ahead of print]

[viii] Guarino, K., and Bassuk, E. (2010). Working with families experiencing homelessness: Understanding trauma and its impact. *Zero to Three (J), 30*(3).

[ix] Siegel DJ and Hartzell M. 2010.Parenting from the inside out: how a deeper self-understanding can help you raise children who thrive. *Mind Your Brain, Inc*

[x] Wickrama KA, Conger RD, Abraham WT. Early adversity and later health: the intergenerational transmission of adversity through mental disorder and physical illness. *J Gerontol B Psychol Sci Soc Sci.* 2005 Oct;60 Spec No 2:125-9.

[xi] Bethell C et al. Adverse Childhood Experiences: Assessing The Impact On Health And School Engagement And The Mitigating Role Of Resilience, Health Affairs, December 2014

[xii] Bethell, C, Gombojav, N, Solloway, M, Wissow, L. Adverse Childhood Experiences, Resilience and Mindfulness-based Approaches: Common Denominator Issues for Children with Emotional, Mental or Behavioral Problems. Child Adolesc Psychiatric Clin N Am 25 (2016) 139–156

[xiii] Bandura, A., G. V. Caprara, C. Barbaranelli, M. Gerbino, and C. Pastorelli. 2003. "Role of Affective Self-Regulatory Efficacy in Diverse Spheres of Psychosocial Functioning." Child Development 74 (3): 769–782. doi:10.1111/1467-8624.00567.

[xiv] McKay MT., Dempster, M. and Don G. Byrne DG., (2014). An examination of the relationship between self-efficacy and stress in adolescents: the role of gender and self-esteem, Journal of Youth Studies, 17:9, 1131-1151, DOI: 10.1080/13676261.2014.901494

[xv] Sege R, Linkenbach J. (2014) Essentials for childhood: promoting healthy outcomes from positive experiences. *Pediatrics*. 133(6):e1489-e1491. doi:10.1542/peds.2013-3425.

[xvi] Shonkoff JP. (2010) The Foundations of Lifelong Health Are Built in Early Childhood. *Cent Dev Child, Harvard Univ.* 2010. doi:papers://3A1C84B7-1D09-4494-9751-18F2A4917626/Paper/p6389.

JOHNS HOPKINS BLOOMBERG SCHOOL of PUBLIC HEALTH

CAHMI The Child & Adolescent Health Measurement Initiative

AcademyHealth

ACEs Resource Packet: What Can We Do?

What is the role of healthcare providers?

The healthcare system is a natural place to respond to ACEs and promote resilience in children, youth and families. Guidelines for well childcare are extensive in the early years – 13 visits in the first three years of life[i] --, which is a crucial period of child development. Health systems, and in particular pediatric providers, are in a unique position to identify issues for both children and their families that contribute to either promoting or inhibiting healthy development. The American Association of Pediatrics (AAP) issued a policy statement in 2012 that encourages, among other things, pediatricians to take a more proactive role in educating patients and families about the impact of toxic stress and in advocating for the development of interventions that mitigate its impact. [ii]

What is trauma-informed care?

Trauma-informed care encompasses three levels of focus from a systems level: addressing policy and procedures, creating approaches for organizing and delivering services and providing specific programs or interventions for families.

The federal agency Substance Abuse and Mental Health Services Administration (SAMHSA) has outlined six principles for trauma informed care: (1) creating a culture of physical and psychological safety for staff and the people they serve; (2) building and maintaining trustworthiness and transparency among staff, clients and others involved with the organization; (3) utilizing peer support to promote healing and recovery; (4) leveling the power differences between staff and clients and among staff to foster collaboration and mutuality; (5) cultivating a culture of empowerment, voice and choice that recognizes individual strengths, resilience and an ability to heal from past trauma; and (6) recognizing and responding to the cultural, historical and gender roots of trauma.[iii, iv]

How can I talk to my patients and families about ACEs and toxic stress?

Organizations such as The Center for Youth Wellness (CYW) screen all of their patients for ACEs. CYW has developed and made available an *ACE questionnaire* designed help other providers screen for trauma. The American Association of Pediatrics (AAP) has developed *The Trauma Toolbox for Primary Care*, a 6-part series designed to educate pediatricians about ACEs and provide tools to help providers talk to their patients about them. As part of this toolkit, the AAP has identified a 4-step process to help identify children who have experienced or are affected by trauma that is framed by the following questions:

- Why are we asking about ACEs? Why is this important?
- What are we looking for?
- How do we find it?
- What do we do once we have found it? What supports are available for patients and how do you refer them to appropriate services?

These examples from the field can be used to talk about ACEs:

- The Resilience Project, from the American Academy of Pediatrics
- Adverse Childhood Experiences and the Lifelong Consequences of Trauma, from the American Academy of Pediatrics
- Addressing Adverse Childhood Experiences and Other Types of Trauma in the Primary Care Setting, from the American Academy of Pediatrics
- The Medical Home Approach to Identifying and Responding to Exposure to Trauma, from the American Academy of Pediatrics
- ACEs Elevator Pitches, from ACEs Connection
- Iowa ACEs 360 awareness resources, including media guidelines, press release and letter to the editor templates
- Iowa ACEs 360 advocacy materials

These resources can be used to talk to children about traumatic events and disasters:

- Talking to Children about Disasters, from the American Academy of Pediatrics
- Tips for Talking With and Helping Children and Youth Cope After a Disaster of Traumatic Event, from SAMHSA
- Helping Youth After Community Trauma: Tips for Educators, from the National Child Traumatic Stress Network
- Teaching Tolerance, from the Southern Poverty Law Center
- How to Talk to Your Kids about Ferguson (Time Magazine)
- How to Teach Kids about What's Happening in Ferguson (The Atlantic)
- To Talk Baltimore With Kids, Focus on the Positive (The New York Times)

The following examples provide some specific ways to talk to different groups about ACEs:

Group	Sample Scripts
Children and Families, from The Medical Home Approach to Identifying and Responding to Exposure to Trauma	"Has your home life changed in any significant way (eg, moving, new people in the home, people leaving the home)?" "Has anything bad, sad or scary happened to your child recently (or "to you" if it is an older child)?" "You have told me that your child is having difficulty with aggression, attention, and sleep. Just as fever is an indication the body is dealing with an infection, when these behaviors are present, they can indicate the brain and body are responding to a stress or threat. Do you have any concerns that your child is being exposed to stress or something that would be scary to him?"

Group	Sample Scripts
Colleagues, from ACEs Elevator Pitches	"As you probably know, if bad things happen to you to as a child, it can impact your health for the rest of your life. Research shows that kids who experience physical abuse or live with an alcoholic parent are more likely to have cancer as an adult. They are more likely to attempt suicide. And they are more likely to drop out of school or end up in prison. The good news is that there are doctors, teachers, social workers, judges, parents and others who are using this research (known as the Adverse Childhood Experiences Study) to create new tools to protect kids and families early, and give anyone who suffers the chance to heal."

We also recognize that asking about child abuse and neglect may trigger a need for mandated reporting. States differ on their use of mandatory reporter requirements. To find your state's requirements, please click here.

How can I help create a trauma-informed practice at my organization?

Creating a trauma-informed organization often involves a fundamental shift in culture, practices and policies throughout all levels of the practice. There are a number of existing models to help guide organizations in this transformation. One of the most well-known is the *Sanctuary Model*, an evidence-based model developed by Sandra Bloom, designed to help providers create and sustain a trauma-informed environment. This model consists of a set of tools designed to transform an organization's culture; these tools are designed to support the development of structures, processes and behaviors for both staff and clients that are responsive to the impact of trauma. A number of organizations, such as the National Technical Assistance Center for Children's Mental Health at the Georgetown Center for Center and Human Development and the Center for Health Strategies, have also published issue briefs on the key principles of creating trauma-informed organizations.

There are a number of training activities that can be useful for creating a trauma-informed organization and workforce. These include:

- Conducting an organizational assessment of policies, practices and capacity to implement trauma-informed care. A list of free organizational assessment tools is available at http://www.t2bayarea.org/resource/grid/index.html.
- Conducting training for leadership and staff on trauma-informed care;
- Undertaking a process of organizational cultural change to align with trauma-informed principles;
- Implementing or participating in a "Train the Trainer" model for enhancing and/or scaling existing efforts to provide trauma-informed care.

Core Competencies and Skills for Staff Training: Trauma-informed trainings are designed to *provide a set of critical skills and competencies* for staff that also result in new skills for families. Trauma-informed staff training should build skills and competencies, including the following (examples of trauma-informed training programs are shown in Table 1):

1. Understanding the neurobiology of trauma, with a subsequent shift away from "shame and blame" to a more compassionate understanding of what happened, or is happening, to them;
2. A focus on interpersonal interactions – the ability to create trust, respect and connection with others;
3. Creating safe, stable nurturing physical and social environments that can support trauma healing;
4. Deep and compassionate listening to self and others;
5. Self-reflection to develop the ability to shift perception and attitudes, release fear and promote choice and empowerment;
6. Understanding the historical trauma associated with race, culture and gender and the need for ongoing self-reflection of cultural biases;
7. Self-management of difficult emotions and behaviors; and,
8. Activation of self-care.[v]

Additional information on trauma-informed approaches can be found here:

- The Substance Abuse and Mental Services Administration: http://www.samhsa.gov/nctic/trauma-interventions
- The Center for Youth Wellness: http://www.centerforyouthwellness.org
- American Academy of Pediatrics: The Trauma Toolbox for Primary Care
- National Technical Assistance Center for Children's Mental Health's Trauma Informed Care: Perspectives and Resources: http://gucchdtacenter.georgetown.edu/TraumaInformedCare/Module3Resources.html#Downloadable
- Center for Health Care Strategies, Inc: http://www.chcs.org/project/advancing-trauma-informed-care/

Table 1: Examples of Trauma-Informed Training Programs

Trauma-Informed Training Programs	Program Focus
Risking Connection www.riskingconnection.com	Staff training that teaches a relational framework and skills for working with survivors of traumatic experiences
Sanctuary Model and S.E.L.F. (Safety, Emotional Management, Loss, Future) www.sanctuaryweb.com	Organizational model with training to shift organizational culture and promote recovery
Trauma Center at Justice Resource Institute www.traumacenter.org	Training programs for mental health professionals

Trauma-Informed Training Programs	Program Focus
Futures Without Violence: Measuring Trauma-Informed Practice: Tools for Organizations www.futureswithoutviolence.org/measuring-trauma-informed-practice-tools-for-organizations/	Training on validated tools for measuring organizational trauma-informed care
Trauma-Informed Guide Team (TIGT) created by San Diego County[vi]	"Train the Trainer" program for mental health specialists. Specifies core competencies: • Engaging leadership at the top; • Making trauma recovery consumer-driven; • Emphasizing early screening; • Developing a trauma-competent workforce; Instituting standard practice guidelines; and • Avoiding recurrence or re-traumatization

REFERENCES

[i] *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents,* 3rd Edition, American Academy of Pediatrics (2008).

[ii] Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, and Section on Developmental and Behavioral Pediatrics, Andrew S. Garner, Jack P. Shonkoff, Benjamin S. Siegel, Mary I. Dobbins, Marian F. Earls, Andrew S. Garner, Laura McGuinn, John Pascoe, David L. Wood. Early childhood adversity, toxic stress, and the role of the pediatrician: translating developmental science into lifelong health. Pediatrics. 2012.

[iii] Substance Abuse and Mental Services Administration. http://www.samhsa.gov/nctic/trauma-interventions.

[iv] SAMHSA's Concept of Trauma and Guidance for a Trauma Informed Approach, July 2014. http://store.samhsa.gov/shin/content/SMA14-4884/SMA14-4884.pdf.

[v] CAHMI synthesis of in-depth literature reviews, environmental scans, and expert interviews, 2015-2016.

[vi] Leonelli, L. *Trauma-Informed Mental Health Care in California: A Snapshot,* California Mental Health Planning Council, Continuous System Improvement Committee, December 2014, p7.

ACEs Resource Packet: Resources on ACEs and Resilience

TOOLS FROM THE CHILD AND ADOLESCENT HEALTH MEASUREMENT INITIATIVE (CAHMI), JOHNS HOPKINS SCHOOL OF PUBLIC HEALTH

CAHMI's ACEs Champion's Communication Toolkit an online resource developed by the CAHMI designed to provide resources and tools to provider champions on ACEs and resilience, how to engage others and how to take action. ***CAHMI's ACEs Page*** provides a variety of resources and information on ACEs as well as an overview of the CAHMI's work in this area.

Get ACEs data at CAHMI's Data Resource Center for Child and Adolescent Health: The mission of the Data Resource Center for Child and Adolescent Health (DRC) is to advance the effective use of public data on the status of children's health and health-related services for children, youth and families in the United States. The DRC provides easily accessible national, state, and regional data from large, population-based, parent-reported surveys that do not require statistical expertise to use. Users can instantly browse ACEs and resilience data from the National Survey of Children's Health (NSCH) on the DRC's interactive data query.

ACES & RESILIENCE TOOLS

Individual ACEs Screening and Assessment

1. Adverse Childhood Experience (ACEs) Questionnaire, a tool to calculate your own ACE score
2. Adverse Childhood Experiences International Questionnaire, from the World Health Organization
3. Behavioral Risk Factor Surveillance System 2014, from the CDC
4. Standardized measures to assess complex trauma from the National Child Traumatic Stress Network

Organizational Assessment Tools

1. Organizational Assessment Tools from Trauma Transformed
2. Resilience Research Centre Evaluation Tool
3. Trauma Sensitive School Checklist
4. Trauma-Informed Organizational Toolkit for Homeless Services

ACEs Related Toolkits

1. A Trauma-Sensitive Toolkit for Caregivers of Children, from the Spokane Regional Health District
2. Community Conversations about Mental Health Toolkit and Brief, from SAMHSA
3. Essentials for Childhood: Steps for Creating Safe, Stable, Nurturing Relationships and Environments, from the CDC

4. Find Your ACE Score using the original ACEs survey tool (note that a research priority is to refine the measures and metrics used to assess ACEs)
5. Pediatric Medical Traumatic Stress Toolkit for Health Care Providers by the National Child Traumatic Stress Network
6. Resilience Research Centre Evaluation Tool
7. The Adverse Childhood Experiences (ACEs) Survey Toolkit for Providers by the National Crittenton Foundation
8. The Resilience Project Toolkit, by the American Academy of Pediatricians
9. The Trauma Toolbox for Primary Care by the American Academy of Pediatrics

Vicarious Trauma, Provider Burnout and Self-Care

1. The Trauma Stewardship Institute
2. Vicarious Trauma Fact Sheet, by the American Counseling Association
3. Joyful Heart Foundation
4. Self-Care Starter Kit, by the University of Buffalo Social Work School
5. American Academy of Pediatrics, Clinical Report on Physician Health and Wellness

READING LIST: SELECTED BOOKS, REPORTS AND SCHOLARLY ARTICLES

Books

1. Jackson Nakazawa, D. (2015). *Childhood Disrupted: How Your Biography Becomes your Biology and How You Can Heal.* Simon and Schuster, Inc. New York, NY.
2. Levine, Peter A. (2010*). In an Unspoken Voice: How the Body Releases Trauma and Restores Goodness*. North Atlantic Books. Berkeley, CA.
3. Porges, SW. (2011). *The Polyvagal Theory: Neurophysiological Foundations of Emotions, Attachment, Communications and Self-Regulation, First Edition*. WW Norton & Company, Inc. New York, NY. ISBN: 978-0-393-70800-7.
4. Siegel DJ and Hartzell M. (2010). *Parenting from the Inside Out: How a Deeper self-Understanding Can Help You Raise Children Who Thrive.* Mind Your Brain, Inc.
5. Van der Kolk, BA (2014*). The Body Keeps the Score: Brain, Mind and Body in the Healing of Trauma.* Penguin Random House. New York, NY. ISSN: 978-0-670-78593-3.

Reports

1. *Adverse Childhood Experiences and the Lifelong Consequences of Trauma*, American Academy of Pediatrics (2014).
2. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*, 3rd Edition, American Academy of Pediatrics (2008).
3. *Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science into Lifelong Health*, American Academy of Pediatrics (2012).
4. *Essentials for Childhood: Steps for Creating Safe, Stable, Nurturing Relationships and Environments*, CDC (2016).

5. *Crossing the Quality Chasm: A New Health System for the 21st Century,* Institute of Medicine (2001).
6. *Adverse Childhood Experiences Reported by Adults in the BRFSS in Five States*, CDC (2010).
7. *Skills for Social Progress: The Power of Social and Emotional Skills*, OECD Skills Studies (2015).
8. *Safe Schools Healthy Children*, Substance Abuse Mental Health Services Administration (SAMHSA)(2015)
9. *National Registry of Evidence-Based Programs and Practices,* Substance Abuse Mental Health Services Administration (SAMHSA).
10. *Practice Guidelines for the Delivery of Trauma-Informed and GLBTQ Culturally-Competent Care*, American Institute for Research (2013).

Scholarly Articles

1. Bethell C., Gombojav N., Solloway M. and Wissow L. (2015). Adverse Childhood Experiences, Resilience and Mindfulness-Based Approaches: Common Denominator Issues for Children with Emotional, Mental, or Behavioral Problems. *Child and Adolescent Psychiatric Clinics of North America,* 25(2):139-56. doi: 10.1016/j.chc.2015.12.001. Epub 2016 Jan 11.
2. Bethell C., Newacheck P., Hawes E. and Halfon N. (2014). Adverse Childhood Experiences: Assessing the impact on health and school: engagement and the mitigating role of resilience. *Health Affairs*, 33(12):2106-2115. doi: 10.1377/hlthaff.2014.0914
3. Felitti VJ, Anda RF, Nordenberg D, Williamson DF, Spitz AM, Edwards V, Koss MP, Marks JS. (1998). Relationship of childhood abuse and household dysfunction to many of the leading causes of death in adults: the adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14:245–258.
4. McLaughlin KA, Hatzenbuehler ML, Xuan Z, Conron KJ. (2012). Disproportionate exposure to early-life adversity and sexual orientation disparities in psychiatric morbidity. *Child Abuse & Neglect, 36*(9):645-55.
5. Schorr EL. (2015). Addressing millennial morbidities: accentuate the positive. *JAMA Pediatrics,*169(3):202-4.
6. Shonkoff JP. (2010). The Foundations of Lifelong Health Are Built in Early Childhood. Center on the Developing Child, Harvard MA. Retrieved from www.developingchild.harvard.edu.
7. Shonkoff J and Gardner A. (2012). The lifelong effects of early childhood adversity and toxic stress, *Pediatrics;* 129;(232).
8. Shonkoff JP and Phillips DA, eds. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development*. National Academy Press, Washington, DC.
9. Wickrama KA, Conger RD, Abraham WT. Early adversity and later health: the intergenerational transmission of adversity through mental disorder and physical illness. *J Gerontol B Psychol Sci Soc Sci.* 60(2):125-9.
10. Wissow LS, Brown J, Fothergill KE, et al. Universal Mental Health Screening in Pediatric Primary Care: A Systematic Review. (2013). *Journal of the American Academy of Child & Adolescent Psychiatry*. 52(11):1134-1147. doi:10.1016/j.jaac.2013.08.013.

SELECTED MEDIA: MOVIES AND PRESENTATIONS

Movies

1. *Toxic Stress, Health, and ACEs for Two Generations;* by Ascend at the Aspen Institute
2. *"Paper Tigers"*; a documentary about Adverse Childhood Experiences
3. *The Science of Youth Resilience;* by the Resilience Research Centre
4. *3 Ways Undiagnosed Trauma Disrupts Lives*; a short video from the National Institute for the Clinical Application of Behavioral Medicine discusses signs and symptoms of childhood trauma
5. *Childhood Trauma: America's Hidden Health Crisis*; a video from a national meeting sponsored by the CAHMI to begin to the design of a national research and action agenda on ACEs, summarizing the importance of looking at childhood trauma as a health issue
6. *Resilience Among LGB Youth*: Overcoming Victimization; video complementing research from the IMPACT LGBT Health and Development Program at Northwestern University

Presentations

1. *Dr. Christina Bethell: Thriving in a Changing Environment;* Child X Conference, Stanford University; 2016
2. *Dr. Nadine Burke-Harris, How Childhood Trauma Affects Health across a Lifetime;* TED Talk; 2014
3. *Dr. Peter Singer. Saving Brains: Innovations to Help Children Thrive*; Child X Conference, Stanford University; 2016
4. *Kudler, Presley, and Savage. Trauma-Informed Care: Addressing Mental Health Risk Factors*; Advancing Excellence in Transgender Health; 2015
5. *Reynolds and Tan. TIC TALK: Bringing Trauma-Informed Care to Trauma-Exposed LGBTQ Youth*; The Village Family Services

MAY 16, 2024

About Adverse Childhood Experiences

KEY POINTS

- Adverse childhood experiences can have long-term impacts on health, opportunity and well-being.
- Adverse childhood experiences are common and some groups experience them more than others.

What are adverse childhood experiences?

Adverse childhood experiences, or ACEs, are potentially traumatic events that occur in childhood (0-17 years). Examples include: [1]

- Experiencing violence, abuse, or neglect.
- Witnessing violence in the home or community.
- Having a family member attempt or die by suicide.

Also included are aspects of the child's environment that can undermine their sense of safety, stability, and bonding. Examples can include growing up in a household with: [1]

- Substance use problems.
- Mental health problems.
- Instability due to parental separation.
- Instability due to household members being in jail or prison.

The examples above are not a complete list of adverse experiences. Many other traumatic experiences could impact health and well-being. This can include not having enough food to eat, experiencing homelessness or unstable housing, or experiencing discrimination. [2] [3] [4] [5] [6]

Quick facts and stats

ACEs are common. About 64% of adults in the United States reported they had experienced at least one type of ACE before age 18. Nearly one in six (17.3%) adults reported they had experienced four or more types of ACEs. [7]

Preventing ACEs could potentially reduce many health conditions. Estimates show up to 1.9 million heart disease cases and 21 million depression cases potentially could have been avoided by preventing ACEs. [1]

Some people are at greater risk of experiencing one or more ACEs than others. While all children are at risk of ACEs, numerous studies show inequities in such experiences. These inequalities are linked to the historical, social, and economic environments in which some families live. [5] [6] ACEs were highest among females, non-Hispanic American Indian or Alaska Native adults, and adults who are unemployed or unable to work. [7]

ACEs are costly. ACEs-related health consequences cost an estimated economic burden of $748 billion annually in Bermuda, Canada, and the United States. [8]

Outcomes

ACEs can have lasting effects on health and well-being in childhood and life opportunities well into adulthood. [9] Life opportunities include things like education and job potential. These experiences can increase the risks of injury, sexually transmitted infections, and involvement in sex trafficking. They can also increase risks for maternal and child health problems including teen pregnancy, pregnancy complications, and fetal death. Also included are a range of chronic diseases and leading causes of death, such as cancer, diabetes, heart disease, and suicide. [1] [10] [11] [12] [13] [14] [15] [16] [17]

ACEs and associated social determinants of health, such as living in under-resourced or racially segregated neighborhoods, can cause toxic stress. Toxic stress, or extended or prolonged stress, from ACEs can negatively affect children's brain development, immune systems, and stress-response systems. These changes can affect children's attention, decision-making, and learning. [18]

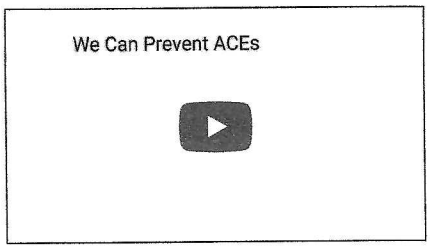
Children growing up with toxic stress may have difficulty forming healthy and stable relationships. They may also have unstable work histories as adults and struggle with finances, jobs, and depression throughout life. [18] These effects can also be passed on to their own children. [19] [20] [21] Some children may face further exposure to toxic stress from historical and ongoing traumas. These historical and ongoing traumas refer to experiences of racial discrimination or the impacts of poverty resulting from limited educational and economic opportunities. [1] [6]

Prevention

Adverse childhood experiences can be prevented. Certain factors may increase or decrease the risk of experiencing adverse childhood experiences.

Preventing adverse childhood experiences requires understanding and addressing the factors that put people at risk for or protect them from violence.

Creating safe, stable, nurturing relationships and environments for all children can prevent ACEs and help all children reach their full potential. We all have a role to play.



We Can Prevent ACEs

Keep Reading:
Preventing Adverse Childhood Experiences

SOURCES

CONTENT SOURCE:
National Center for Injury Prevention and Control

REFERENCES

1. Merrick MT, Ford DC, Ports KA, et al. Vital Signs: Estimated Proportion of Adult Health Problems Attributable to Adverse Childhood Experiences and Implications for Prevention — 25 States, 2015–2017. MMWR Morb Mortal Wkly Rep 2019;68:999-1005. DOI: http://dx.doi.org/10.15585/mmwr.mm6844e1.
2. Cain KS, Meyer SC, Cummer E, Patel KK, Casacchia NJ, Montez K, Palakshappa D, Brown CL. Association of Food Insecurity with Mental Health Outcomes in Parents and Children. Science Direct. 2022; 22:7; 1105-1114. DOI: https://doi.org/10.1016/j.acap.2022.04.010.
3. Smith-Grant J, Kilmer G, Brener N, Robin L, Underwood M. Risk Behaviors and Experiences Among Youth Experiencing Homelessness—Youth Risk Behavior Survey, 23 U.S. States and 11 Local School Districts. Journal of Community Health. 2022; 47: 324-333.
4. Experiencing discrimination: Early Childhood Adversity, Toxic Stress, and the Impacts of Racism on the Foundations of Health | Annual Review of Public Health https://doi.org/10.1146/annurev-publhealth-090419-101940.
5. Sedlak A, Mettenburg J, Basena M, et al. Fourth national incidence study of child abuse and neglect (NIS-4): Report to Congress. Executive Summary. Washington, DC: U.S. Department of Health an Human Services, Administration for Children and Families.; 2010.
6. Font S, Maguire-Jack K. Pathways from childhood abuse and other adversities to adult health risks: The role of adult socioeconomic conditions. Child Abuse Negl. 2016;51:390-399.

7. Swedo EA, Aslam MV, Dahlberg LL, et al. Prevalence of Adverse Childhood Experiences Among U.S. Adults — Behavioral Risk Factor Surveillance System, 2011–2020. MMWR Morb Mortal Wkly Rep 2023;72:707–715. DOI: http://dx.doi.org/10.15585/mmwr.mm7226a2.
8. Bellis, MA, et al. Life Course Health Consequences and Associated Annual Costs of Adverse Childhood Experiences Across Europe and North America: A Systematic Review and Meta-Analysis. Lancet Public Health 2019.
9. Adverse Childhood Experiences During the COVID-19 Pandemic and Associations with Poor Mental Health and Suicidal Behaviors Among High School Students — Adolescent Behaviors and Experiences Survey, United States, January–June 2021 | MMWR
.0. Hillis SD, Anda RF, Dube SR, Felitti VJ, Marchbanks PA, Marks JS. The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial consequences, and fetal death. Pediatrics. 2004 Feb;113(2):320-7.
.1. Miller ES, Fleming O, Ekpe EE, Grobman WA, Heard-Garris N. Association Between Adverse Childhood Experiences and Adverse Pregnancy Outcomes. *Obstetrics & Gynecology*. 2021;138(5):770-776. https://doi.org/10.1097/AOG.0000000000004570.
.2. Sulaiman S, Premji SS, Tavangar F, et al. Total Adverse Childhood Experiences and Preterm Birth: A Systematic Review. *Matern Child Health J.* 2021;25(10):1581-1594. https://doi.org/10.1007/s10995-021-03176-6.
.3. Ciciolla L, Shreffler KM, Tiemeyer S. Maternal Childhood Adversity as a Risk for Perinatal Complications and NICU Hospitalization. *Journal of Pediatric Psychology*. 2021;46(7):801-813. https://doi.org/10.1093/jpepsy/jsab027.
.4. Mersky JP, Lee CP. Adverse childhood experiences and poor birth outcomes in a diverse, low-income sample. BMC pregnancy and childbirth. 2019;19(1). https://doi.org/10.1186/s12884-019-2560-8.
.5. Hillis SD, Anda RF, Dube SR, Felitti VJ, Marchbanks PA, Marks JS. The association between adverse childhood experiences and adolescent pregnancy, long-term psychosocial consequences, and fetal death. Pediatrics. 2004 Feb;113(2):320-7.
.6. Reid JA, Baglivio MT, Piquero AR, Greenwald MA, Epps N. No youth left behind to human trafficking: Exploring profiles of risk. American journal of orthopsychiatry. 2019;89(6):704.
.7. Diamond-Welch B, Kosloski AE. Adverse childhood experiences and propensity to participate in the commercialized sex market. Child Abuse & Neglect. 2020 Jun 1;104:104468.
.8. Shonkoff, J. P., Garner, A. S., Committee on Psychosocial Aspects of Child and Family Health, Committee on Early Childhood, Adoption, and Dependent Care, & Section on Developmental and Behavioral Pediatrics (2012). The lifelong effects of early childhood adversity and toxic stress. Pediatrics, 129(1), e232–e246. https://doi.org/10.1542/peds.2011-2663
.9. Narayan AJ, Kalstabakken AW, Labella MH, Nerenberg LS, Monn AR, Masten AS. Intergenerational continuity of adverse childhood experiences in homeless families: unpacking exposure to maltreatment versus family dysfunction. Am J Orthopsych. 2017;87(1):3. https://doi.org/10.1037/ort0000133.
:0. Schofield TJ, Donnellan MB, Merrick MT, Ports KA, Klevens J, Leeb R. Intergenerational continuity in adverse childhood experiences and rural community environments. Am J Public Health. 2018;108(9):1148-1152. https://doi.org/10.2105/AJPH.2018.304598.
:1. Schofield TJ, Lee RD, Merrick MT. Safe, stable, nurturing relationships as a moderator of intergenerational continuity of child maltreatment: a meta-analysis. J Adolesc Health. 2013;53(4 Suppl):S32-38. https://doi.org/10.1016/j.jadohealth.2013.05.004.

MAY 16, 2024

Risk and Protective Factors

KEY POINTS

- Many factors can increase or decrease the likelihood of someone experiencing or perpetrating violence.
- Risk factors can increase the risk of experiencing or perpetrating violence and protective factors can reduce the risk.
- Preventing adverse childhood experiences requires understanding and addressing risk and protective factors.

What are risk and protective factors?

Adverse childhood experiences (ACEs) are not often caused by a single factor. Instead, a combination of factors at the individual, relationship, community, and societal levels can increase or decrease the risk of violence.

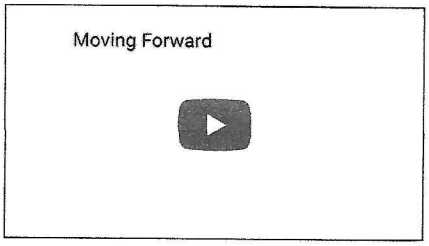
Although some risk and protective factors are at the individual and family level, no child or individual is at fault for the ACEs they experience.

Risk factors are characteristics that may increase the likelihood of experiencing adverse childhood experiences. However, they may or may not be direct causes.

Protective factors are characteristics that may decrease the likelihood of experiencing adverse childhood experiences.

Please note the term "caregiver" will be used throughout to refer to parents and those who care for children but may not be biological parents.

Watch the **Moving Forward** video to learn more about how increasing what protects people from violence and reducing what puts people at risk for it benefits everyone.



Moving Forward

Risk factors

Individual and family risk factors

- Families experiencing caregiving challenges related to children with special needs (for example, disabilities, mental health issues, chronic physical illnesses). [1]
- Children and youth who don't feel close to their parents/caregivers and feel like they can't talk to them about their feelings. [2]
- Youth who start dating early or engaging in sexual activity early. [3]
- Children and youth with few or no friends or with friends who engage in aggressive or delinquent behavior. [4]
- Families with caregivers who have a limited understanding of children's needs or development. [5]
- Families with caregivers who were abused or neglected as children. [6]
- Families with young caregivers or single parents. [7]
- Families with low income. [8]

- Families with adults with low levels of education. [9]
- Families experiencing high levels of parenting stress or economic stress. [7]
- Families with caregivers who use spanking and other forms of corporal punishment for discipline. [10]
- Families with inconsistent discipline and/or low levels of parental monitoring and supervision. [11]
- Families that are isolated from and not connected to other people (extended family, friends, neighbors). [12]
- Families with high conflict and negative communication styles. [13]

Community risk factors

- Communities with high rates of violence and crime. [5]
- Communities with high rates of poverty and limited educational and economic opportunities. [14]
- Communities with high unemployment rates. [15]
- Communities with easy access to drugs and alcohol. [16]
- Communities where neighbors don't know or look out for each other and there is low community involvement among residents. [17]
- Communities with few community activities for young people. [18]
- Communities with unstable housing and where residents move frequently. [19]
- Communities where families frequently experience food insecurity. [20]
- Communities with high levels of social and environmental disorder. [21]

Protective factors

Individual and family protective factors

- Families who create safe, stable, and nurturing relationships, meaning children have a consistent family life where they are safe, taken care of, and supported. [22] [23]
- Children who have positive friendships and peer networks. [24] [23] [25]
- Children who do well in school. [26] [27] [28] [25]
- Children who have caring adults outside the family who serve as mentors or role models. [29] [25]
- Families where caregivers can meet basic needs of food, shelter, and health services for children. [28] [25]
- Families where caregivers have college degrees or higher. [30] [31]
- Families where caregivers have steady employment. [28] [31]
- Families with strong social support networks and positive relationships with the people around them. [24] [27] [23] [32] [25]
- Families where caregivers engage in parental monitoring, supervision, and consistent enforcement of rules. [24] [27] [32] [28]
- Families where caregivers/adults work through conflicts peacefully. [27] [32] [30]
- Families where caregivers help children work through problems. [27] [32] [30]
- Families that engage in fun, positive activities together. [32] [30]
- Families that encourage the importance of school for children. [28]

Community protective factors

- Communities where families have access to economic and financial help. [33] [34] [35] [36]
- Communities where families have access to medical care and mental health services. [33] [35] [36]
- Communities with access to safe, stable housing. [33] [34] [36]
- Communities where families have access to nurturing and safe childcare. [33] [36]
- Communities where families have access to safe, engaging after school programs and activities. [34] [35] [36]
- Communities where families have access to high-quality preschool. [36]

- Communities where adults have work opportunities with family-friendly policies. [35] [36]
- Communities with strong partnerships between the community and business, health care, government, and other sectors. [35] [36]
- Communities where residents feel connected to each other and are involved in the community. [25] [35] [36]
- Communities where violence is not tolerated or accepted. [14] [36]

SOURCES

CONTENT SOURCE:
National Center for Injury Prevention and Control

REFERENCES

1. Crouch, E., Probst, J. C., Radcliff, E., Bennett, K. J., & McKinney, S. H. (2019). Prevalence of childhood experiences (ACES) among us children. *Child Abuse & Neglect, 92*, 209–218. https://doi.org/10.1016/j.chiabu.2019.04.010
2. Priyam, P., & Nath, S. (2021). A cross-sectional study on the effect of adverse childhood events and perception toward parents on emotional intelligence. *The Primary Care Companion For CNS Disorders, 23*(5). https://doi.org/10.4088/pcc.20m02861
3. Brown, M. J., Masho, S. W., Perera, R. A., Mezuk, B., & Cohen, S. A. (2015). Sex and sexual orientation disparities in adverse childhood experiences and early age at sexual debut in the United States: Results from a nationally representative sample. *Child Abuse & Neglect, 46*, 89–102. https://doi.org/10.1016/j.chiabu.2015.02.019
4. Biglan, A., Van Ryzin, M. J., & Hawkins, J. D. (2017). Evolving a more nurturing society to prevent adverse childhood experiences. *Academic Pediatrics, 17*(7), S150–S157. https://doi.org/10.1016/j.acap.2017.04.002
5. Wade, R., Shea, J. A., Rubin, D., & Wood, J. (2014). Adverse childhood experiences of low-income urban youth. *Pediatrics, 134*(1). https://doi.org/10.1542/peds.2013-2475
6. Schickedanz, A., Halfon, N., Sastry, N., & Chung, P. J. (2018). Parents' adverse childhood experiences and their children's Behavioral Health Problems. *Pediatrics, 142*(2). https://doi.org/10.1542/peds.2018-0023
7. Crouch, E., Radcliff, E., Brown, M., & Hung, P. (2019). Exploring the association between Parenting Stress and a child's exposure to adverse childhood experiences (aces). *Children and Youth Services Review, 102*, 186–192. https://doi.org/10.1016/j.childyouth.2019.05.019
8. Giovanelli, A., & Reynolds, A. J. (2021). Adverse childhood experiences in a low-income black cohort: The importance of context. *Preventive Medicine, 148*. https://doi.org/10.1016/j.ypmed.2021.106557
9. Hughes, K., Bellis, M. A., Hardcastle, K. A., Sethi, D., Butchart, A., Mikton, C., Jones, L., & Dunne, M. P. (2017). The effect of multiple adverse childhood experiences on health: A systematic review and meta-analysis. *The Lancet Public Health, 2*(8), e356–e366. https://doi.org/10.1016/s2468-2667(17)30118-4
10. Afifi, T. O., Ford, D., Gershoff, E. T., Merrick, M., Grogan-Kaylor, A., Ports, K. A., MacMillan, H. L., Holden, G. W., Taylor, C. A., Lee, S. J., & Peters Bennett, R. (2017). Spanking and adult mental health impairment: The case for the designation of spanking as an adverse childhood experience. *Child Abuse & Neglect, 71*, 24–31. https://doi.org/10.1016/j.chiabu.2017.01.014
11. Duke, N. N., Pettingell, S. L., McMorris, B. J., & Borowsky, I. W. (2010). Adolescent violence perpetration: Associations with multiple types of adverse childhood experiences. *Pediatrics, 125*(4). https://doi.org/10.1542/peds.2009-0597
12. Calvano, C., Engelke, L., Di Bella, J. *et al.* Families in the COVID-19 pandemic: parental stress, parent mental health and the occurrence of adverse childhood experiences—results of a representative survey in Germany. *Eur Child Adolesc Psychiatry* (2021). https://doi.org/10.1007/s00787-021-01739-0
13. Lackova Rebicova, M., Dankulincova Veselska, Z., Husarova, D. *et al.* Does family communication moderate the association between adverse childhood experiences and emotional and behavioural problems?. *BMC Public Health* 20, 1264 (2020). https://doi.org/10.1186/s12889-020-09350-9
14. Larkin, H., Shields, J. J., & Anda, R. F. (2012). The health and social consequences of adverse childhood experiences (ACE) across the lifespan: An introduction to prevention and intervention in the community. *Journal of Prevention & Intervention in the Community, 40*(4), 263–270. https://doi.org/10.1080/10852352.2012.707439
15. Manyema, M., & Richter, L. M. (2019). Adverse childhood experiences: Prevalence and associated factors among South African young adults. *Heliyon, 5*(12), e03003. https://doi.org/10.1016/j.heliyon.2019.e03003
16. Dube, S. R., Miller, J. W., Brown, D. W., Giles, W. H., Felitti, V. J., Dong, M., & Anda, R. F. (2006). Adverse childhood experiences and the association with ever using alcohol and initiating alcohol use during adolescence. *Journal of Adolescent Health, 38*(4), 444.e1–444.e10. https://doi.org/10.1016/j.jadohealth.2005.06.006
17. Khanijahani, A., Sualp, K. Adverse Childhood Experiences, Neighborhood Support, and Internalizing and Externalizing Mental Disorders among 6–17 years old US Children: Evidence from a Population-Based Study. *Community Ment Health J* 58, 166–178 (2022). https://doi.org/10.1007/s10597-021-00808-7
18. Bledsoe, M., Captanian, A., & Somji, A. (2021). Special report from the CDC: Strengthening Social Connections to prevent suicide and adverse childhood experiences (aces): Actions and opportunities during the COVID-19 pandemic. *Journal of Safety Research, 77*, 328–333.

https://doi.org/10.1016/j.jsr.2021.03.014

9. Barnes, A.J., Gower, A.L., Sajady, M. *et al.* Health and adverse childhood experiences among homeless youth. *BMC Pediatr* 21, 164 (2021). https://doi.org/10.1186/s12887-021-02620-4

0. Chilton, M., Knowles, M., Rabinowich, J., & Arnold, K. T. (2015). The relationship between childhood adversity and food insecurity: 'it's like a bird nesting in your head.' *Public Health Nutrition*, *18*(14), 2643–2653. https://doi.org/10.1017/s1368980014003036

1. Gentner, M. B., & Leppert, M. L. (2019). Environmental influences on Health and Development: Nutrition, substance exposure, and adverse childhood experiences. *Developmental Medicine & Child Neurology*, *61*(9), 1008–1014. https://doi.org/10.1111/dmcn.14149

2. Asmundson. (2019). ACEs : Using Evidence to Advance Research, Practice, Policy, and Intervention.

3. Luther. (2019). *Developing a More Culturally Appropriate Approach to Surveying Adverse Childhood Experiences Among Indigenous Peoples in Canada*

4. Guo, S., O'Connor, M., Mensah, F., Olsson, C. A., Goldfeld, S., Lacey, R. E., Slopen, N., Thurber, K. A., & Priest, N. (2021). Measuring Positive Childhood Experiences: Testing the structural and predictive validity of the Health Outcomes from Positive Experiences (HOPE) framework. Acad Pediatr. https://doi.org/10.1016/j.acap.2021.11.003

5. Narayan, A. J., Rivera, L. M., Bernstein, R. E., Harris, W. W., & Lieberman, A. F. (2018). Positive childhood experiences predict less psychopathology and stress in pregnant women with childhood adversity: A pilot study of the benevolent childhood experiences (BCEs) scale. *Child Abuse Negl*, *78*, 19-30. https://doi.org/10.1016/j.chiabu.2017.09.022

6. Goetschius, L. G., McLoyd, V. C., Hein, T. C., Mitchell, C., Hyde, L. W., & Monk, C. S. (2021). School connectedness as a protective factor against childhood exposure to violence and social deprivation: A longitudinal study of adaptive and maladaptive outcomes. Dev Psychopathol, 1-16. https://doi.org/10.1017/S0954579421001140

7. Bethell, C. D., Garner, A. S., Gombojav, N., Blackwell, C., Heller, L., & Mendelson, T. (2022). Social and Relational Health Risks and Common Mental Health Problems Among US Children: The Mitigating Role of Family Resilience and Connection to Promote Positive Socioemotional and School-Related Outcomes. Child Adolesc Psychiatr Clin N Am, 31(1), 45-70. https://doi.org/10.1016/j.chc.2021.08.001

8. Liu, S. R., Kia-Keating, M., Nylund-Gibson, K., & Barnett, M. L. (2020). Co-occurring youth profiles of adverse childhood experiences and protective factors: Associations with health, resilience, and racial disparities. *American journal of community psychology*, *65*(1-2), 173-186. https://onlinelibrary.wiley.com/doi/10.1002/ajcp.12387

9. Bellis, M. A., Hughes, K., Ford, K., Madden, H. C. E., Glendinning, F., & Wood, S. (2022). Associations between adverse childhood experiences, attitudes towards COVID-19 restrictions and vaccine hesitancy: a cross-sectional study. BMJ Open, 12(2), e053915. https://doi.org/10.1136/bmjopen-2021-053915

0. Nabors, L. A., Graves, M. L., Fiser, K. A., & Merianos, A. L. (2021). Family resilience and health among adolescents with asthma only, anxiety only, and comorbid asthma and anxiety. *J Asthma*, *58*(12), 1599-1609. https://doi.org/10.1080/02770903.2020.1817939

1. Merrick, M. T., Ford, D. C., Ports, K. A., & Guinn, A. S. (2018). Prevalence of Adverse Childhood Experiences From the 2011-2014 Behavioral Risk Factor Surveillance System in 23 States. *JAMA Pediatr*, *172*(11), 1038-1044. https://doi.org/10.1001/jamapediatrics.2018.2537

2. Bethell, C. D., Gombojav, N., & Whitaker, R. C. (2019). Family Resilience And Connection Promote Flourishing Among US Children, Even Amid Adversity. *Health Aff (Millwood)*, *38*(5), 729-737. https://doi.org/10.1377/hlthaff.2018.05425

3. Sege, R. D., & Harper Browne, C. (2017). Responding to ACEs With HOPE: Health Outcomes From Positive Experiences. *Acad Pediatr*, *17*(7S), S79-S85. https://doi.org/10.1016/j.acap.2017.03.007

4. Liebenberg, L., Ungar, M., & LeBlanc, J. C. (2013). The CYRM-12: A brief measure of resilience. *Canadian Journal of Public Health*, *104*(2). https://doi.org/10.1007/bf03405676

5. Dietz, E. (2017). A New Framework for Addressing Adverse Childhood and Community Experiences: The Building Community Resilience Model.

6. Benzies, K., & Mychasiuk, R. (2009). Fostering family resiliency: a review of the key protective factors. *Child & Family Social Work*, *14*(1), 103-114. https://doi.org/10.1111/j.1365-2206.2008.00586.x

World Health Organization

Adverse Childhood Experiences International Questionnaire (ACE-IQ)

28 January 2020 | Publication

Overview

Adverse Childhood Experiences (ACE) refer to some of the most intensive and frequently occurring sources of stress that children may suffer early in life. Such experiences include multiple types of abuse; neglect; violence between parents or caregivers; other kinds of serious household dysfunction such as alcohol and substance abuse; and peer, community and collective violence.

It has been shown that considerable and prolonged stress in childhood has life-long consequences for a person's health and well-being. It can disrupt early brain development and compromise functioning of the nervous and immune systems. In addition because of the behaviours adopted by some people who have faced ACEs, such stress can lead to serious problems such as alcoholism, depression, eating disorders, unsafe sex, HIV/AIDS, heart disease, cancer, and other chronic diseases.

The ACE International Questionnaire (ACE-IQ) is intended to measure ACEs in all countries, and the association between them and risk behaviours in later life. ACE-IQ is designed for administration to people aged 18 years and older. Questions cover family dysfunction; physical, sexual and emotional abuse and neglect by parents or caregivers; peer violence; witnessing community violence, and exposure to collective violence.

Findings from ACE-IQ surveys can be of great value in advocating for increased investments to reduce childhood adversities, and to inform the design of prevention programmes. Researchers are encouraged to use the ACE-IQ materials on this site, and in doing so to reference WHO as the source, using the following citation:
World Health Organization. Adverse Childhood Experiences International Questionnaire. In Adverse Childhood Experiences International Questionnaire (ACE-IQ). [website]: Geneva: WHO, 2018.

Introductory materials

Questionnaire

Questionnaire in Portuguese

Guide to administering ACE-IQ

- Question-by-question document
- Interviewer's guide

Data management

- Guidance for analyzing ACE-IQ
- Questionnaire with data entry coding

Supporting documents

- Ethical approval overview
- Ethical approval form
- Participant information sheet
- Consent form

Participant Identification Number: [ ][ ] [ ][ ] [ ][ ]

Adverse Childhood Experiences International Questionnaire (ACE-IQ)

0	DEMOGRAPHIC INFORMATION	
0.1 [C1]	Sex (*Record Male / Female as observed)*	Male Female
0.2 [C2]	What is your date of birth?	Day [ ][ ] Month [ ][ ] Year [ ][ ][ ][ ] Unknown *(Go to Q.C3)*
0.3 [C3]	How old are you?	[ ][ ]
0.4 [C4]	What is your [*insert relevant ethnic group / racial group / cultural group / others*] background?	[*Locally defined*] [*Locally defined*] [*Locally defined*] Refused
0.5 [C5]	What is the highest level of education you have completed?	No formal schooling Less than primary school Primary school completed Secondary/High school completed College/University completed Post graduate degree Refused
0.6 [C6]	Which of the following best describes your <u>main</u> work status over the last 12 months?	Government employee Non-government employee Self-employed Non-paid Student Homemaker Retired Unemployed (able to work) Unemployed (unable to work) Refused
0.7 [C7]	What is your civic status?	Married *(Go to Q.M2)* Living as couple Divorced or separated Single Widowed *(Go to Q.M2)* Other Refused
1	**MARRIAGE**	
1.1 [M1]	Have you ever been married?	Yes No *(Go to Q.M5)* Refused
1.2 [M2]	At what age were you first married?	Age [ ][ ] Refused
1.3 [M3]	At the time of your first marriage did you yourself choose your husband/wife?	Yes *(Go to Q.M5)* No Don't know / Not sure Refused
1.4 [M4]	At the time of your first marriage if you did <u>not</u> choose your husband/wife yourself, did you give your consent to the choice?	Yes No Refused
1.5 [M5]	If you are a mother or father what was your age when your first child was born?	Age [ ][ ] Not applicable Refused

2	**RELATIONSHIP WITH PARENTS/GUARDIANS**	
	When you were growing up, during the first 18 years of your life . . .	
2.1 [P1]	Did your parents/guardians understand your problems and worries?	Always Most of the time Sometimes Rarely Never Refused
2.2 [P2]	Did your parents/guardians **really** know what you were doing with your free time when you were not at school or work?	Always Most of the time Sometimes Rarely Never Refused
3		
3.1 [P3]	How often did your parents/guardians **not** give you enough food even when they could easily have done so?	Many times A few times Once Never Refused
3.2 [P4]	Were your parents/guardians too drunk or intoxicated by drugs to take care of you?	Many times A few times Once Never Refused
3.3 [P5]	How often did your parents/guardians **not** send you to school even when it was available?	Many times A few times Once Never Refused
4	**FAMILY ENVIRONMENT**	
	When you were growing up, during the first 18 years of your life . . .	
4.1 [F1]	Did you live with a household member who was a problem drinker or alcoholic, or misused street or prescription drugs?	Yes No Refused
4.2 [F2]	Did you live with a household member who was depressed, mentally ill or suicidal?	Yes No Refused
4.3 [F3]	Did you live with a household member who was ever sent to jail or prison?	Yes No Refused
4.4 [F4]	Were your parents ever separated or divorced?	Yes No Not applicable Refused
4.5 [F5]	Did your mother, father or guardian die?	Yes No Don't know / Not sure Refused

These next questions are about certain things you may actually have heard or seen IN YOUR HOME. These are things that may have been done to another household member but not necessarily to you.

When you were growing up, during the first 18 years of your life . . .		
4.6 [F6]	Did you see or hear a parent or household member in your home being yelled at, screamed at, sworn at, insulted or humiliated?	Many times A few times Once Never Refused
4.7 [F7]	Did you see or hear a parent or household member in your home being slapped, kicked, punched or beaten up?	Many times A few times Once Never Refused
4.8 [F8]	Did you see or hear a parent or household member in your home being hit or cut with an object, such as a stick (or cane), bottle, club, knife, whip etc.?	Many times A few times Once Never Refused
These next questions are about certain things YOU may have experienced. **When you were growing up, during the first 18 years of your life . . .**		
5		
5.1 [A1]	Did a parent, guardian or other household member yell, scream or swear at you, insult or humiliate you?	Many times A few times Once Never Refused
5.2 [A2]	Did a parent, guardian or other household member threaten to, or actually, abandon you or throw you out of the house?	Many times A few times Once Never Refused
5.3 [A3]	Did a parent, guardian or other household member spank, slap, kick, punch or beat you up?	Many times A few times Once Never Refused
5.4 [A4]	Did a parent, guardian or other household member hit or cut you with an object, such as a stick (or cane), bottle, club, knife, whip etc?	Many times A few times Once Never Refused
5.5 [A5]	Did someone touch or fondle you in a sexual way when you did not want them to?	Many times A few times Once Never Refused
5.6 [A6]	Did someone make you touch their body in a sexual way when you did not want them to?	Many times A few times Once Never Refused
5.7 [A7]	Did someone attempt oral, anal, or vaginal intercourse with you when you did not want them to?	Many times A few times Once

		Never
		Refused
5.8 [A8]	Did someone actually have oral, anal, or vaginal intercourse with you when you did not want them to?	Many times
		A few times
		Once
		Never
		Refused
6	**PEER VIOLENCE**	
	These next questions are about BEING BULLIED when you were growing up. Bullying is when a young person or group of young people say or do bad and unpleasant things to another young person. It is also bullying when a young person is teased a lot in an unpleasant way or when a young person is left out of things on purpose. It is not bullying when two young people of about the same strength or power argue or fight or when teasing is done in a friendly and fun way. **When you were growing up, during the first 18 years of your life . . .**	
6.1 [V1]	How often were you bullied?	Many times
		A few times
		Once
		Never *(Go to Q.V3)*
		Refused
6.2 [V2]	How were you bullied most often?	I was hit, kicked, pushed, shoved around, or locked indoors
		I was made fun of because of my race, nationality or colour
		I was made fun of because of my religion
		I was made fun of with sexual jokes, comments, or gestures
		I was left out of activities on purpose or completely ignored
		I was made fun of because of how my body or face looked
		I was bullied in some other way
		Refused
	This next question is about PHYSICAL FIGHTS. A physical fight occurs when two young people of about the same strength or power choose to fight each other. **When you were growing up, during the first 18 years of your life . . .**	
6.3 [V3]	How often were you in a physical fight?	Many times
		A few times
		Once
		Never
		Refused
7	**WITNESSING COMMUNITY VIOLENCE**	
	These next questions are about how often, when you were a child, YOU may have seen or heard certain things in your NEIGHBOURHOOD OR COMMUNITY (not in your home or on TV, movies, or the radio). **When you were growing up, during the first 18 years of your life . . .**	
7.1 [V4]	Did you see or hear someone being beaten up in real life?	Many times
		A few times
		Once
		Never
		Refused
7.2	Did you see or hear someone being stabbed	Many times

[V5]	or shot in real life?	A few times Once Never Refused
7.3 [V6]	Did you see or hear someone being threatened with a knife or gun in real life?	Many times A few times Once Never Refused
8	**EXPOSURE TO WAR/COLLECTIVE VIOLENCE**	
	These questions are about whether YOU did or did not experience any of the following events when you were a child. The events are all to do with collective violence, including wars, terrorism, political or ethnic conflicts, genocide, repression, disappearances, torture and organized violent crime such as banditry and gang warfare. **When you were growing up, during the first 18 years of your life . . .**	
8.1 [V7]	Were you forced to go and live in another place due to any of these events?	Many times A few times Once Never Refused
8.2 [V8]	Did you experience the deliberate destruction of your home due to any of these events?	Many times A few times Once Never Refused
8.3 [V9]	Were you beaten up by soldiers, police, militia, or gangs?	Many times A few times Once Never Refused
8.4 [V10]	Was a family member or friend killed or beaten up by soldiers, police, militia, or gangs?	Many times A few times Once Never Refused