# Beyond the ACE Score: Perspectives from the NCTSN on Child Trauma and Adversity Screening and Impact

This document is a guide for providers, family advocates, and policymakers who are interested in understanding the concept of Adverse Childhood Experiences (ACEs)[i] –including the use of ACE scores or checklists as an approach to screen for childhood trauma and adversity – and the limitations of an "ACEs only" approach.[1,2,3] This guide highlights the gaps that remain in our understanding of the impact of childhood trauma and adversity on mental and physical health, how these terms (childhood trauma vs. adversity) differ, and recommendations for ways in which ACEs and other childhood trauma-related concepts and resources can be combined to advance care for children and families who have experienced trauma.

**Background and Introduction**

The original ACE Study was a landmark public health survey with results that revealed a connection between specific childhood experiences and physical health outcomes related to high morbidity and mortality in adulthood.[4] These and other research findings in the areas of trauma, maltreatment, and cumulative risk have raised public awareness about the high prevalence and impact of negative events on children's lives. Public health discussions related to ACEs have helped to redefine ways in which clinicians, researchers, policymakers, and the public understand the impacts of adversity and childhood traumatic events on physical and mental health.

The ACE Study was designed as a retrospective epidemiological survey for adults and not as a comprehensive mental health screening tool for use with adults or children. In fact, one of the authors of the instrument now cautions against its use as a tool for risk screening or intervention and service planning for individuals until it has been reviewed by the US Preventive Services Task Force.[3] However, as the concept of ACEs has gained momentum, so have efforts to use ACE checklists as a screening tool to produce an ACE score, which reflects the total number of specific types of traumatic events and adversities that a child or adult reports having experienced, but does not capture the frequency, severity, duration, or developmental timing of exposure to such events. For example, a child could experience sexual abuse many times by multiple adults and still have an ACE score of "one". The 10-item list used in the original ACE study also captures a narrow experience of childhood adversity, excluding experiences such as traumatic bereavement, medical trauma, natural disasters, racial trauma, community violence, and more. Although knowledge about ACEs has opened many doors in healthcare and community mental health programs, the ACE survey's use as a screening or assessment tool is incomplete and can be misinterpreted and misused. This is because an ACE score alone cannot—and should not—be used to determine a child's risk for poor lifetime outcomes, nor the specific clinical and service needs of children who experience trauma and adversity.[5] An ACEs checklist approach can also overlook important public health or clinical health needs for a child, which has direct implications for service, research, and policy initiatives.

The National Child Traumatic Stress Network (NCTSN) is committed to building on the foundation of the ACEs research and broadening the national conversation to reflect the rich and practically useful context that a trauma-informed approach can provide in addition to ACEs and the ACE score. These ideas can be integrated to promote the well-being and recovery of children and families who experience trauma and adversity. The NCTSN offers the following considerations for providers, family advocates, and policymakers that help illustrate why an ACE score alone is insufficient to understand the nature and role of trauma and adversity in a child's life.[6]

[i] In this document, ACEs (Adverse Childhood Experiences) is defined as the adversities included in the original 10-item questionnaire that was part of the Felitti and Anda study, which has been further advanced by the Centers for Disease Control and Prevention. Those items were: 1) physical abuse, 2). sexual abuse 3) emotional abuse; 4) physical neglect or 5) emotional neglect, 6) violence against the mother; 7) household member who were substance abusers, 8) household member who had a mental illness or were suicidal, 9) household member ever been imprisoned; and 10) losing a parent to separation or divorce.

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## 1. Terms Overlap but are not Interchangeable.

"ACEs" has joined a host of related terms such as "child trauma," "childhood traumatic events," "childhood adversity," "childhood stressors," "toxic stress," and more, that aim to describe bad things that may happen to children. Across many national, state, and local forums, when "adverse childhood experiences" are referred to as "ACEs," they most often refer to the 10 items listed in the original ACE Study questionnaire.

***Traumas and Adversities.*** The original "ACEs"[i] include six childhood traumatic events (psychological, physical, or sexual abuse; physical or emotional neglect; violence against the mother) and four other adversities study authors called "household dysfunction" (substance abuse, parental separation or divorce, mental illness, and incarceration). While a traumatic event is one form of adversity, questions have emerged regarding when an adversity is also a traumatic event, and whether the distinction between terms (trauma vs. adversity) is important in the care of children. A "traumatic event is a frightening, dangerous, or violent event experienced or witnessed that is threatening to life or body integrity."[7] Traumatic events can evoke strong negative emotions and physical reactions including terror, powerlessness, and intense physiological arousal. Traumatic experiences overwhelm a child's capacity to cope with these strong feelings, which can persist long after the event and can be triggered by reminders.

In contrast, "adversity" is a broader term used to describe serious hardship or misfortune that "requires significant adaptation by a child in terms of psychological, social, and neurodevelopmental systems, and which are outside the normal expected environment,"[2,8] and which may or may not be a traumatic event or lead to traumatic stress reactions. Trauma as an adversity represents threat and danger, [8,17] whereas other adversities may relate to deprivation (such as neglect, poverty)[2,11] and have different impacts. Many traumatic events (e.g., child abuse) are often accompanied by other adversities (e.g., poverty, drug exposure) and frequently generate other adversities (such as movement to foster care, separation from family and friends).[9] Assessing "which adversities are traumas" becomes important for pediatric and mental health providers, given that the treatment needs of youth with different exposures may be quite different. In addition to physical health concerns, children who experience danger and life threat (trauma) may experience traumatic stress reactions and emotional responses that require trauma-focused treatment as well as caregiver support. Other non-traumatic adversities (ACEs such as "divorce" or "an incarcerated parent") may also lead to significant mental health consequences (e.g., depression, anxiety, behavior problems), but the treatment needs will vary according to the child's symptoms, distress, functioning, and caregiver response.

***Scoring and Screening.*** In some instances, professionals who use the ACE Study checklist for screening or assessment have chosen to add one or two adversities and trauma types to address a particular type of childhood experience. Such additions have led to multiple versions of ACEs tools and to confusion and lack of standardization across surveys and research studies. The lack of practice guidelines for measuring ACEs across studies, and populations, results in ACE scores that cannot be fully understood – e.g., does the ACE score refer to the original 10 items, or to other items as well, and if it is broader, which particular traumas and adversities were included, which were left out, and why? These considerations are important if the intent is to use the checklist and/or its score for decision-making, clinical or service definitions, resource allocation, treatment, raising public awareness or other critical questions related to health services for children.

The NCTSN currently gathers data on childhood exposure to 20 trauma types, including those labeled as ACEs (as seen in Figure 1). This more comprehensive approach is similar to those used in other clinical and public health surveys[10,11,12] and recognizes that other important traumatic events including community violence, school shootings, disasters, racial trauma, and bereavement (e.g., parental/sibling drug overdose, suicide, or other death) – cannot be left out of research, service, and policy initiatives.[ii] Additionally, Felitti and Anda (1998) described their 10 ACEs as occurring in "households," positioning these original ACEs within the most recognized

### Child Adversities & Trauma Types Collected in NCTSN

**with ACEs highlighted(Felitti)**

1. **Sexual Abuse**
2. **Physical Abuse**
3. **Emotional Abuse/ Psychological Maltreatment**
4. **Neglect**
5. **Domestic Violence**
6. **Impaired Caregiver**
   - A. **Substance Abuse**
   - B. **Parental Mental Illness**
7. **(Parent Divorce or Separation)**
8. Sexual Assault/Rape
9. Physical Assault
10. War/Terrorism/ Political Violence
11. Community Violence
12. School Violence
13. Separation from Family Member
    - A. **Parent Incarceration**
14. Death or Bereavement of Loved One
15. Illness/Medical Trauma
16. Serious Injury or Accident
17. Natural Disaster
18. Kidnapping
19. Forced Displacement
20. Extreme Interpersonal Violence
21. Bullying
22. Other Trauma (Including Sex Trafficking)

NCTSN Core Data Set 2016
NCTSN Clinical Improvement Through Measurement Initiative, 2015

FIGURE 1

[ii] Anda & Felitti have noted that the original ACE questionnaire was developed as a research tool to examine links between ACEs and health consequences. Writing about the ACEs survey, Felitti et al wrote in Best Practices on the Academy of Violence and Abuse website that "It is neither a comprehensive nor a diagnostic clinical tool." David Finkelhor has demonstrated that additional stressors such as being the victim of bullying or racism and being exposed to community violence are equally or more traumatic than some of the original ACEs.[10]

high-impact risk category given that these adversities occur within children's homes and within their critical caregiving relationships, which are foundational in facilitating healthy development (see section 3). Notably, Felitti and Anda's ACEs are not labeled "intrafamilial ACEs," which would help to differentiate these from other types of traumatic events and adversities. Although a few other types of adversities/traumas specific to these relationships in the home must also be considered (e.g., death in the family – the most prevalent traumatic event found in children served in the NCTSN)[13] – labeling ACEs as those that primarily occur within the relationships found in the home could lend important clarity as to when or why a provider might use an ACEs checklist rather than a more expansive tool that includes other traumas and adversities.

Simplifying risk screening using an ACE score lens can be tempting, because it is easy to do and it seems to establish a measure of severity. However adding up ACEs to create an ACE summary score does not constitute a measure of severity given that it does not capture the intensity, frequency, or duration of exposure to any given traumatic/adverse event, nor measure children's reactions to adversity including distress symptoms. We know that experiencing multiple adverse events show cumulative risk (i.e., experiencing multiple adversities increases the likelihood of specific kinds of negative physical and mental health outcomes).[14,15] However, as mentioned earlier, the use of ACEs checklists for epidemiological purposes to determine risk for a *population* does not mean we can tally the number of ACEs as an accurate gauge of risk for an *individual person*, given that the former reflects population-based associations and not any single individual's risk profile or living circumstances.

Providers, family advocates, and policymakers can help establish shared definitions and terminology with the knowledge of what ACEs are and what ACEs are not, when they:

- Understand that confusion about terms, such as ACEs, trauma, and adversity, can become a barrier to providing effective care, conducting needed research, and policymaking.[16]
- Clarify and define what is and is not being considered a child ACE, adversity, or trauma. Explaining *why or why not* certain adversities and other traumatic events are included in those definitions is an important part of policy, research, and practice decisions. For example, excluding disasters from state definitions of ACEs would have direct implications in states that experience significant and frequent disasters, particularly when those definitions are used to determine emergency funding and who will qualify for mental health services.
- Raise awareness about the importance of comprehensive trauma-informed screening that is not limited to the 10-item ACE questionnaire. ACE checklists and a cumulative ACE score is not comprehensive enough to generate an adequate understanding of a child's exposure to traumas and adversities; the frequency, duration, or severity of their experiences, or the levels of distress and impairment they experience as a result. Use of an ACE score alone is not acceptable as a screening process in service settings.
- Recognize that consumers need information about what the "ACE score" is and what it is not. Although it can be validating for survivors and families to acknowledge what has happened to them, this is often insufficient in terms of follow up, and some have noted that the score does not capture the complexity of their experiences.

## 2. Not All ACEs are Created Equal.

*Certain traumatic events and adversity pairs interact together "synergistically" meaning their combined effect is more powerful than simply the sum of their individual effects.*

Some ACEs are more potent than others– meaning that certain traumatic and adverse events have a greater impact on physical and mental health outcomes. This could be because of the particular age of the child at the time of the event; because the stress and fear of life threat was more severe; or because the child's exposure to the traumas and adverse events was chronic and repeated, leading to complicated outcomes in many parts of the child's life.[17] Levels of fear, threat, physical harm, neglect, severity, duration, and frequency associated with traumatic and adverse events do not carry an equal impact compared to each other. Therefore, different ACEs should not be understood or counted as having equal impact with each other, nor should their effects be considered to occur without the context of age, life circumstances, prior history, availability of support and other protective factors. Of particular note, certain pairs of traumatic events and adversity interact together "synergistically"—meaning that their combined effect is more powerful than simply the sum of their individual effects–for some of the most significant major adult mental illnesses.[18] This interaction effect is shown in a study using the NCTSN Core Data Set,[iii] where certain pairs of ACEs, most notably sexual abuse – especially when experienced in combina-

[iii] The NCTSN Core Data Set is a comprehensive database that includes 19,000+ cases and 20 trauma types.

tion with physical abuse, neglect, or domestic violence–significantly increases the risk for serious behavioral problems far in excess of the added independent contributions of those ACEs.[19] Additionally, the 2017 National Comorbidity Survey–Replication study found that for females, the most potent adverse childhood experience that holds this synergistic effect is sexual abuse; for males it is poverty, an adverse experience that is not included in the original ACE list.[12] Simply adding the number of adverse experiences during childhood into a total score can mask these interactions and overlook other important traumas and adverse events that should be considered to provide proper care.

To understand trauma and adversity in a comprehensive way there are several steps that providers, family advocates, and policymakers can take, such as:

- Consider that exposure to each individual trauma or adversity and the accompanying distress can have significant impact on a child's wellbeing. As the number of these exposures increase, the cumulative risk for negative effects on physical and mental health outcomes increases. It is not true that "the score is all that matters".
- Highlight that specific combinations of childhood traumatic events and adversities (e.g., sexual abuse, domestic violence) can interact in ways that they may be disproportionately responsible for negative outcomes i.e., their combined effect on outcomes can be greater than an ACE score might suggest. In fact, synergistic pairs of ACEs (e.g., sexual abuse combined with physical abuse) may account for much of the risk for poor outcomes in children who have ACE scores of four or greater.[19] *Thus, an ACE score cannot be relied on to understand an individual's "amount" of trauma experienced, particularly without the broader context that accompanies the traumatic events.*
- Educate others that an ACE score provides insufficient information for treatment decision making. Additional screening and comprehensive assessment are needed to determine if a child is experiencing traumatic stress symptoms and requires intervention, reporting to child protective services, and/or treatment. Many tools can assist with in-depth assessment, case conceptualization, and treatment planning (see Appendix on page 9).
- Encourage providers, agencies, and systems using an ACE score (or any screening score) to consider what they will do with the score, what its value might be to the program or individual, and whether they have the means to address any issues that arise from asking someone about their past traumas through screening. Screening and assessment should always include careful planning related to interpretation of results by those administering the screening and assessment tools.

| What Counting ACEs Can Tell You | What Counting ACEs Can't Tell You |
|---|---|
| ACEs allows us to talk about prevalence, risk, and related outcomes of 10 common traumas, adversities, and household difficulties that occur within families. | Other traumas are not included as standard ACEs and are therefore unaccounted for. Many types of trauma not typically included in ACEs checklists have high prevalence rates and are strongly associated with negative outcomes. |
| The ACE Study demonstrated that adverse childhood experiences (focused on those that occur in one's household) carry significant risks for a broad range of major long-term physical and mental health consequences. | Counting ACEs using ACE score checklists do not allow consideration of frequency, duration, severity, age of onset, synergy between ACEs, current distress and functioning, or interrupted developmental tasks, that are often critical mediators of short and long-term consequences. |
| The ACE Study showed that ACEs have a cumulative impact with a stepped increase with each additional ACE, such that the higher the ACE score, the higher the risk with a broad range of negative physical and mental health outcomes. Thus, an ACE score (total number of ACEs types) provides useful information in surveys about general risk in a large community, state, or national population. | Simple screens generating ACE scores are not clinically useful, as they are incomplete trauma profiles and leave out information regarding distress (e.g., posttraumatic stress reactions), risky behavior, and functioning. This information is needed to determine next steps, including assessment, treatment, referral, or legally mandated child abuse reporting. |
| In provider-client discussions about ACEs, obtaining ACE histories can "open the door" to helping parents and child clients understand that adverse household (intrafamilial) experiences carry some risk of negative physical and mental health outcomes. | Risks identified in large-scale epidemiologic studies do not necessarily generalize to, or support the use of, individual ACE scores to gauge risks for specific individuals. Serious questions have been raised over the use of ACE scores for individual screening, assessment, or eligibility thresholds for services (e.g., scores of 4 or more ACEs qualify). [20,21,22] |
| Asking about ACEs can provide some clients with the language to articulate what they have experienced and why it is important. Labeling their experiences in this manner can be empowering. For some individuals, "ACEs" as a concept also carries less stigma than "trauma." | Some family, youth, and adults don't know what to do with the idea of an ACE score. Resistance to labeling, e.g., *"I am not a score,"* and feeling doomed are concerns clients express that require appropriate processing about what the score means or assisting them when action is warranted. |

FIGURE 2

### 3. Exposure to Trauma and Adversity Interacts Significantly with Child Development.

A child's developmental stage is a significant factor in understanding the impact of child trauma and adversity. The child's age, stage of brain development, and physical maturity provides important context because: 1) a child's developmental stage can determine how well they understand and how intensely a traumatic event may be experienced; and 2) these traumatic events may disrupt a child's normal development, particularly when the trauma occurs within the family. Too often, traumatic stress symptoms and other life challenges that accompany trauma in a child's life (such as, needing to move, or switch schools or caretakers) cause a child to be unprepared for or to miss opportunities that are necessary for developmental advances. Understanding how traumatic experiences (such as chronic neglect during infancy, or sexual abuse by a caregiver for several years before puberty) interact with a child's developmental stage is vital for both treatment and prevention. Further, these experiences do not occur at random or in isolation. For example, caregiver impairment, neglect, domestic violence, emotional abuse, and physical abuse are the top five most frequently occurring traumatic events in children ages 0-5.[23] In adolescence, two types of traumatic events that are highly prevalent are rape and criminal assault, both of which do not appear in the original ACEs checklist. Further, as mentioned in the previous section, the experience of one adversity or traumatic event can also increase the risk of another occurring; for example, parental substance use may lead to child neglect or traumatic separation. Thus, serious adversities in early childhood can create developmental difficulties in a child's future learning, social attachments, and interpersonal functioning. As a result, risk screening should be informed by the understanding that traumas and adversities will have different impact depending on the age and developmental period of the child when they occur (e.g., sexual abuse can have different consequences at ages 4, 12, and 16, etc.), and that certain traumas and adversities are more likely to occur at specific ages and periods of development (e.g., child neglect is most common in children under the age of 3, sexual assault is common in adolescents). Since childhood is the peak period of brain development, the "ACE effect", i.e., the stepwise increased risk for negative outcomes with each additional adversity, means that more than one trauma/adversity increases the traumatic stress impact on the developing brain. Similarly, different traumas/adversities (such as emotional abuse, physical abuse, and sexual abuse) can affect different regions of the brain.[24] This nuance is important because different types of harmful experiences and their consequences may call for different types of intervention (e.g., treatments focused on sexual abuse, bereavement, or coping with parental divorce). This understanding can also help inform other research, prevention, and intervention efforts for children at individual and system levels (e.g., promoting programs and services for families with children in early childhood, such as nurse home visiting programs, etc.).

*Items on an ACE checklist can signal the need for further risk assessment, but intervention planning needs more comprehensive information that recognizes the role that developmental stage may take in impact and recovery.*

Providers, family advocates, and policymakers can help to reinforce the importance of developmental stage in discussions about trauma and adversities, when they:

- Encourage professionals, agencies, and systems to use evidence-based, trauma-informed screening and assessment tools that are appropriate for the child's age and stage of development.
- Conduct trainings and raise public awareness regarding age-related differences for things like (a) typical ages that different traumas and adverse experiences occur; and (b) how age-related co-occurrence can inform screening for risk of problematic mental and physical health outcomes.
- Understand that endorsed items on an ACE checklist can signal the need for further risk assessment, but intervention planning needs more comprehensive information—gathered during an in-depth assessment—that recognizes the role that developmental stage may play in impact and recovery.
- Promote evidence-based programs and services for children and families that support healthy development and can be helpful in mitigating and/or preventing some of the negative outcomes associated with trauma and ACEs (e.g., nurse home visiting programs, Early Head Start, etc.).

### 4. Early Intervention and Prevention can Stop Progression of Problems.

What happens in between an ACE (or other traumas) and those bad outcomes found in the ACE Study? A wide array of variables may emerge following adverse and traumatic events, and play a role in influencing the likelihood and severity of specific long-term outcomes. For example, traumatic events can introduce estrangements between family members or friends, creating problems within peer or family relationships that can serve as additional risk factors. As a second example, protective factors such as supportive parents, friends, or other Positive Childhood Experiences[25,26,27] can support resilience and are important to identify early and integrate into intervention planning. Notably, some variables may be direct consequences of the event (e.g., physical injury and impairment following physical assault). In contrast, some variables may already be present

and worsened by the event (e.g., pre-existing poverty worsens after incarceration of a caregiver). As illustrated in Figure 3, these "intervening" variables create windows of opportunity to *intervene* (by decreasing risk factors or supporting protective factors), – interrupting trauma or adversity from progressing towards long-term negative physical and mental health outcomes associated with ACEs.

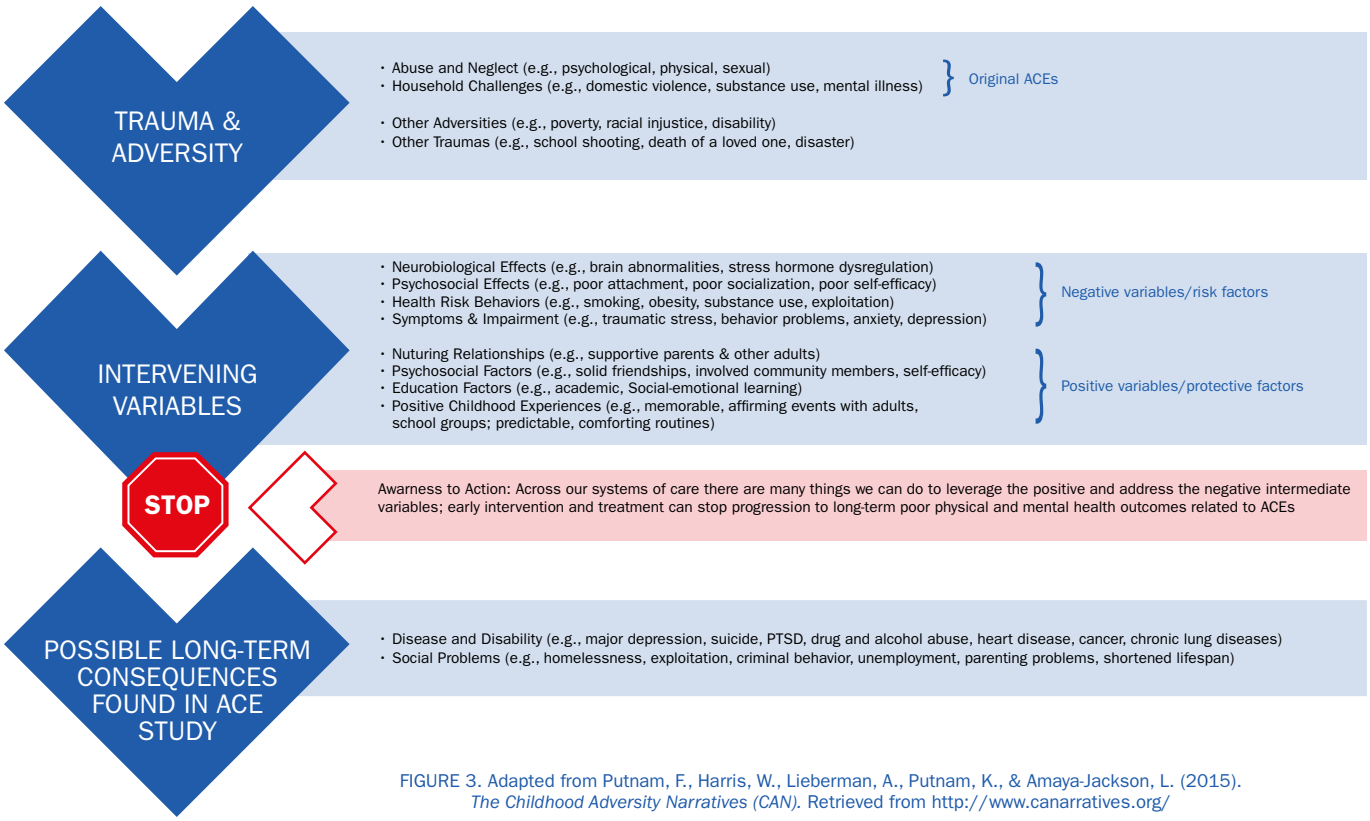


FIGURE 3. Adapted from Putnam, F., Harris, W., Lieberman, A., Putnam, K., & Amaya-Jackson, L. (2015). *The Childhood Adversity Narratives (CAN).* Retrieved from http://www.canarratives.org/

For example, a child that has an impaired caregiver might be removed from the home, yet continues to struggle with intrusive nightmares and engages in risky behaviors not targeted by the intervention. By contrast, another child with an impaired caregiver might receive an evidence-based treatment that focused on caregiver difficulties and the child's symptoms and behaviors. This child might become involved in peer activities, such as a team sport, and experience more supportive family relationships that reduce the chances for risky behavior. Although these two examples involve similar traumatic and adverse experiences, the children's long-term implications for adverse health outcomes differ, underscoring the importance of including context when considering risk.

*Children with multiple or longstanding trauma and adversity may present with severe and complex needs and symptoms. This combined experience is often called "complex trauma."*

Armed with a comprehensive understanding of these areas for intervention and prevention, providers, family advocates, and policymakers can successfully intervene when they:

- Support the development of trauma-informed systems through evidence-based approaches to systems change.
- Infuse awareness campaigns about ACEs, trauma, and other adversities with information about areas of intervention that stop progression to negative outcomes by:
  - Evaluating the strengths, protective factors, and positive childhood experiences that occur in the child and family system (e.g., an involved caregiver or other social support).
  - Enhancing such protective factors that buffer the impact of a traumatic or other adverse event, and eliminating negative short-term consequences (e.g., sleep disturbances or the symptoms of disorders such as PTSD) that potentially pave the way to those negative outcomes.

- Promote intervention and prevention practices that target positive and negative intervening variables, which can make a significant difference in a child's short- and long-term response to ACEs or other traumas (See Figure 3).

- Emphasize that effective, evidence-based, trauma-informed treatment is available after an adverse or traumatic experience. "What is your ACE score?" approaches often leave treatment out of the discussion. Children who have one or more ACEs and other traumas often need comprehensive evaluation and intervention for their current symptoms and distress to prevent negative physical and mental health outcomes.

*Experiencing child sexual abuse for eight years by more than one adult would only offer an ACE score of "one"*

- Clarify that ACEs checklist scores reflect only the number of different *types* of adverse experiences, not the number of exposures to adverse experiences. Children with chronic traumas or adversities, or multiple traumas of the same type may create a false perception of a "low score." Children with multiple or longstanding trauma and adversity may present with severe and complex needs and symptoms. This combined experience is often called "complex trauma." This is where professionals across systems of care must work together to redirect a negative path toward more positive outcomes (See Figure 3).

- Encourage providers working with parents to inquire about the parents' own ACE and other trauma exposure as some parents are never asked about their own histories. This can validate and empower parents and raise their awareness about how their experiences may affect their parenting. Parents with high ACE scores often have children with high ACE scores - professionals may be able to assist with resources, materials, or interventions that empower caregivers to break the intergenerational cycle of ACEs.[26]

- Emphasize that population-based public health studies about child trauma and ACEs can help us understand risk for problematic long-term outcomes – but research with more precise measures is needed to assess and predict *individual*-level strengths, difficulties, and outcomes. Other research is needed that will examine mediators of long-term mental health outcomes to study how they impact physical outcomes as well. For example, years of clinical research indicates that when a child exhibits early trauma symptoms, effective trauma-informed intervention can help prevent longer-term mental health consequences.[29] Similarly, long-term research studies can clarify whether such interventions also prevent the physical health consequences related to high morbidity and mortality that are associated with ACEs (cancer, heart and lung disease, diabetes, etc.).

**Summary**

The social movement around ACEs has broadened public interest and understanding about the impact of child trauma and adversity on children's long-term physical and mental health. Many years of research and practice demonstrate the importance of taking a comprehensive approach in the screening, assessment, treatment, and care of children and families who have experienced such trauma and adversity.

Providers, family advocates, and policymakers can expand upon this work by ensuring that discussions related to ACEs and the care of children include important concepts that help expand the national dialogue from awareness to action, such as:

- **Terms Overlap but are not Interchangeable.** "ACEs" is one of many related terms that aim to describe bad things that may happen to children. In some cases, these terms overlap, and in others, they carry different meanings, which has contributed to confusion for many. These definitional differences of adversity and trauma have real clinical, social, and policy implications.

- **Not all ACEs are Created Equal.** Different adversities and traumas have a bigger or smaller impact on health outcomes, depending on the individual, how the different ACEs, traumas, and adversities, may interact, and the contexts of each experience. This nuance is lost in the language of ACE scores.

- **Trauma Exposure Interacts Significantly with Child Development.** To understand the impact of trauma exposure, it is essential to know the child's age and developmental stage and how these will play a role with symptoms, interventions, and recovery.

- **Early Intervention and Prevention can Stop Progression of Problems.** By definition, intervening variables "intervene" between a child's first trauma or adverse event and potential trauma-related outcomes. Intervening variables offer opportunities to intervene to prevent trauma and hardship from progressing into additional problematic health outcomes.

In recent decades, the NCTSN has joined the work of many other organizations to build on the awareness of the ACE Study findings and the long-term impact of child trauma to help provide a comprehensive context for these important issues. Awareness of ACEs is valuable to public health, but is insufficient to meet the needs of children and families who have been exposed to trauma and adversity. Comprehensive, trauma-informed, and evidence-based solutions are needed to identify and address the effects of such exposure. Agencies or systems that are using ACEs screening tools or checklists will benefit from these broader approaches that include trauma-informed care and evidence-based practices. On a larger scale, more efforts are needed to work toward changes in policy, insurance coverage, training, and quality care. Such efforts can help ensure that meaningful and comprehensive trauma-informed care is available across all child-serving systems.

Authorized by Congress in 2000, the National Child Traumatic Stress Network (NCTSN) is a federally funded child mental health service initiative designed to raise the standard of care and increase access to services for traumatized children and their families across the US.[30] The NCTSN and its resources, including the services of a national coordinating center and over 116 child trauma centers and nearly 170 affiliate (formerly funded) centers and individuals, are available to assist providers, family advocates, and policymakers to emphasize the importance of a comprehensive and trauma-informed approach to screening, assessment, and treatment of trauma and other adversities. For more information about trauma and the NCTSN, please visit: https://www.nctsn.org/

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## APPENDIX

### Sample Child Trauma Screening and Assessment Tools

**Trauma Screening Tools for Youth:** Screening tools are intended to be brief and broadly administered to every child. Screening tools should assess both exposure and symptoms, and provide information to determine if a trauma-informed assessment is needed. Although not exhaustive, the following list includes some examples of trauma screening tools for youth.

**Child Stress Disorders Checklist – Short Form:**
Enlow, M.B., Kassam-Adams, N., Saxe, G. (2010). The Child Stress Disorders Checklist -Short Form: A four-item scale of traumatic stress symptoms in children. *General Hospital Psychiatry, 32*(3), 3231-327. https://doi.org/10.1016/j.genhosppsych.2010.01.009

**Child Trauma Screening Questionnaire:**
Kenardy, J. A., Spence, S. H., & Macleod, A. C. (2006). Screening for posttraumatic stress disorder in children after accidental injury. *Pediatrics, 118*(3), 1002-1009.

**Pediatric Emotional Distress Scale:**
Saylor, C.F, Swenson, C. C., Reynolds, S.S., & Taylor, M. (1999). The Pediatric Emotional Distress Scale: A brief screening measure for young children exposed to traumatic events. *Journal of Clinical Child Psychology, 28*(1), 70-81.

**The Child Trauma Screen:**
Lang, J. M., & Connell, C. M. (2018). The Child Trauma Screen: A follow-up validation. *Journal of Traumatic Stress, 31*(4), 540-548. doi:10.1002/jts.22310

Lang, J. M., & Connell, C. M. (2017). Development and validation of a brief trauma screening measure for children: The Child Trauma Screen. *Psychological Trauma: Theory, Research, Practice, and Policy, 9*(3), 390-398. doi:10.1037/tra0000235

**The Pediatric Traumatic Stress Screening Tool:**
Intermountain Healthcare. (2020). The Pediatric Traumatic Stress Screening Tool. Retrieved 29 January from https://utah-pips.org/cpm/

**The UCLA PTSD Reaction Index for DSM-5 Brief Form:**
Rolon-Arroyo, B., Oosterhoff, B., Layne, C.M., Steinberg, A.M., Pynoos, R.S., & Kaplow, J.B. (2020). The UCLA PTSD Reaction Index for DSM-5 Brief Form: A screening tool for trauma-exposed youths. *Journal of the American Academy of Child and Adolescent Psychiatry, 59*(3), 434-443. doi: 10.1016/j.jaac.2019.06.015

**Trauma Symptom Checklist for Children:**
Briere, J. (1996). Trauma Symptom Checklist for Children (TSCC): Professional Manual. Odessa, FL: Psychological Assessment Resources.

**Trauma Symptom Checklist for Young Children:**
Briere, J (2005). Trauma Symptom Checklist for Young Children (TSCYC): Professional Manual. Psychological Assessment Resources, Inc. Odessa, FL.

**Trauma-Focused Assessment Tools for Youth:** Assessment tools are generally more comprehensive than screening tools and provide additional and needed detail for those youth who would benefit from trauma-focused treatment. Although not exhaustive, the following list includes some examples of trauma-focused assessment tools for youth.

**Child PTSD Symptom Scale:**
Foa, E.B., Asnaani, A., Zang, Y., & Capaldi, S. (2017). Psychometrics of the Child PTSD Symptom Scale for DSM-5 for trauma-exposed children and adolescents. *Journal of Clinical Child & Adolescent Psychology, 47*, 38-46. https://doi.org/10.1080/15374416.2017.1350962

**The Structured Trauma-Related Experiences and Symptoms Screener:**
Grasso, D.J., Felton, J.W., & Reid-Quiñones, K. (2015). The Structured Trauma-Related Experiences and Symptoms Screener (STRESS): Development and preliminary psychometrics. Child Maltreat. 2015 Aug 20(3),214-20. doi: 10.1177/1077559515588131. Epub 2015 Jun 19. PMID: 26092442.

**Trauma Symptom Checklist for Children:**
Briere, J. (1996). Trauma Symptom Checklist for Children (TSCC), Professional Manual. Odessa, FL: Psychological Assessment Resources.

**Trauma Symptom Checklist for Young Children:**
Briere, J (2005). Trauma Symptom Checklist for Young Children (TSCYC): Professional Manual. Psychological Assessment Resources, Inc. Odessa, FL.

**Traumatic Events Screening Inventory – Child Report Form Revised:**
Ford, J.D., Racusin, R., Rogers, K., et al. (2002). Traumatic Events Screening Inventory for Children (TESI-C). Version 8.4. White River Junction, UT: National Center for PTSD and Dartmouth Child Psychiatry Research Group.

**Traumatic Events Screening Inventory – Parent Report Revised:**
Ippen, C.G., Ford, J., Racusin, R., et al. (2002). Traumatic Events Screening Inventory -Parent Report Revised. White River Junction, UT: National Center for PTSD and Dartmouth Child Psychiatry Research Group.

**UCLA PTSD Reaction Index for DSM-5:**
Steinberg, A. M., Brymer, M., Decker, K., Pynoos, R. S. (2004). The University of California at Los Angeles Post-Traumatic Stress Disorder Reaction Index. *Current Psychiatry Reports, 6,* 96-100.

Steinberg, A. M., Brymer, M. J., Kim, S., Ghosh, C., Ostrowski, S. A., Gulley, K., Briggs, E. C., Pynoos, R. S. (2013). Psychometric properties of the UCLA PTSD Reaction Index: Part I. *Journal of Traumatic Stress, 26*, 1-9.

Elhai, J. D., Layne, C. M., Steinberg, A. S., Brymer, M. J., Briggs, E. C., Ostrowski, S. A., Pynoos, R. S. (2013). Psychometric properties of the UCLA PTSD Reaction Index. Part 2: Investigating factor structure findings in a national clinic-referred youth sample. *Journal of Traumatic Stress, 26*, 10-18.2.

## Additional Resources:

National Child Traumatic Stress Network. (n.d.). Screening and Assessment.
https://www.nctsn.org/treatments-and-practices/screening-and-assessment

Beidas, R. S., Stewart, R. E., Walsh, L., Lucas, S., Downey, M. M., Jackson, K., Fernandez, T., & Mandell, D. S. (2015). Free, brief, and validated: Standardized instruments for low-resource mental health settings. *Cognitive and Behavioral Practice, 22*, 5-19.

Cohen, J. A., Bukstein, O., Walter, H., Benson, S. R., Chrisman, A., Farchione, T. R., Hamilton, J., ... & AACAP Work Group on Quality Issues (2010). Practice parameter for the assessment and treatment of children and adolescents with posttraumatic stress disorder. *Journal of the American Academy of Child & Adolescent Psychiatry, 49*, 414-430.

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