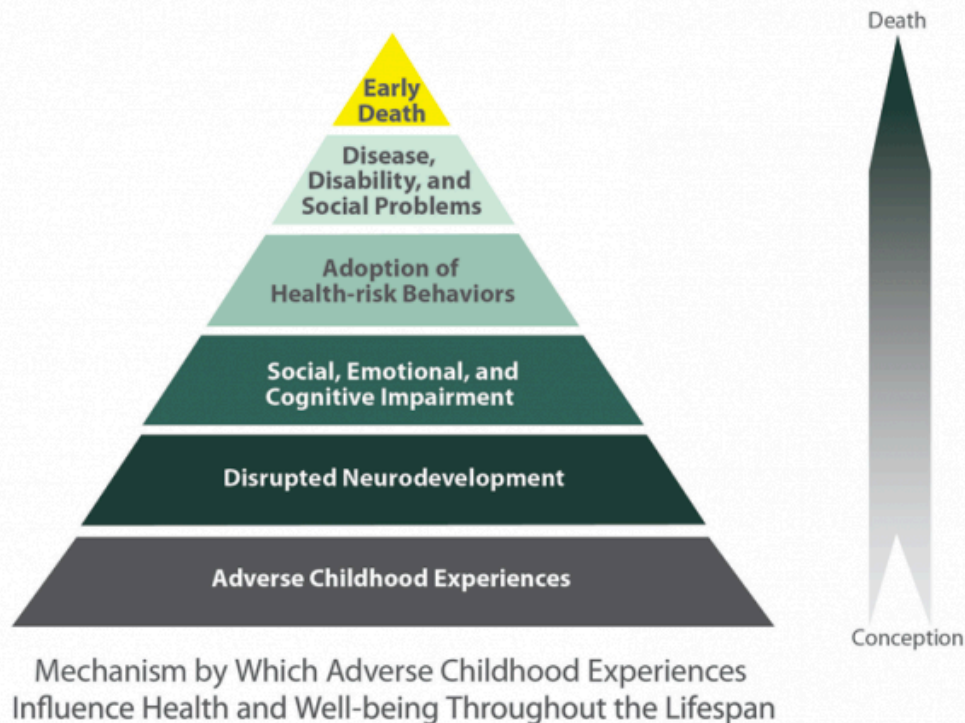


JUST STRESS OR SOMETHING MORE?

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Center for
Disease
Control,
2016.



A research brief on Adverse Childhood Experiences and how they affect the learning environment.

By Chelsea Bredeson Hayes

Introduction

Adverse Childhood Experiences (ACEs) are a common and widespread problem in our society. According to the National Child Traumatic Stress Network (NCTSN), in 2008, one in every three children in U.S. schools had been exposed to a traumatic event (NCTSN, 2008). In a Minnesota study of 6th, 9th, and 12th grade students, 28% of youth self-reported at least one adverse childhood experience. For every additional ACE reported, the likelihood of acts of violence against self or others, increased by 35% to 144% (Duke, Pettingell, McMorris, & Borowsky, 2010).

Trauma is a complex issue that is not easily explained and not always visible. Trauma used to be classified into just two categories – acute and chronic (Bell, Limberg, Robinson, 2013). However, now the NCTSN breaks trauma down into thirteen different categories: community violence, complex trauma, domestic violence, early childhood trauma, medical trauma, natural disasters, neglect, physical abuse, refugee trauma, school violence, sexual abuse, terrorism, and traumatic grief (NCTSN, 2017). Furthermore, children who have been exposed to trauma will respond in differing ways. Factors such as biology, environment, and support all affect how a child responds to trauma (Bell, et al., 2013).

The purpose of this research brief is to explore trauma and its effects on children's learning and how schools can address the problem.

With trauma being so widespread and trauma symptoms varying in results from person to person, it is imperative that this social issue be addressed and dealt with, as the individual and greater classroom and societal impacts are too great to ignore. With some 50 million students enrolled in the public schools, our nation's teachers become the first responders in our nation's trauma crisis (National Center for Education Statistics, 2016). Looking at Table 1, it becomes obvious that teachers will need support and specific training, if they are to tackle the giant of trauma, all while juggling their other numerous duties.

Symptom Category	Symptoms	Classroom Examples
Physical	Recurring physical complaints, may be prompted by a similar occurrence	Repeatedly complaining of a stomachache, lightheadedness, headaches, or other sickness when a similar prompt is given (i.e. working in groups or when the weather is bad)
	Hyper-vigilance/heightened startle reaction: an above normal state of alertness	Constantly looking around the room, checking behind oneself; may appear to jump or be startled at small or everyday noises
	Sleep disorders/recurring nightmares: sleeping too much or not enough	Consistently coming late to class, appearing exhausted or lethargic, resting head on desk repeatedly throughout the day
	Weight change: sudden gain or loss of weight	Clothes appear extremely tight or loose, change in type of wardrobe (i.e. usually wears fitted clothes but begins to wear only loose-fitting clothes)
Behavioral	Regression: returning to previous developmental behaviors	Younger children may return to sucking thumbs, older children may regress to temper tantrums or exhibit extreme separation anxiety from caregivers
	Changes in play: play patterns shifting to repeated play behaviors, role playing of the traumatic event or restriction of play	Child who normally plays freely with different toys now plays solely with the blocks (building and knocking them down again and again), or does not play and instead sits alone, or assigns roles to other children or dolls to play out event
	Social isolation: withdrawal from normal social network	Chooses to sit alone, does not talk to others during breaks, avoids social interactions; quitting extracurricular activities
	Risk-taking: increase in behaviors that may cause harm to self or others	Hearing about child having unprotected sex, trying drugs, abusing alcohol
	Bids for attention: acting in a way to draw attention through negative or positive actions	Suddenly becoming an overachiever or underachiever, acting out to draw attention
Emotional	Increased aggression	Yelling, becoming upset quickly, inability to stop aggression
	Difficulty regulating emotions/easily angered: emotions are not consistent or lack a logical flow	Mood swings, easily angered or irritated
	Fear: phobias that may seem connected and apparent to trauma or not	Fear of the recurrence of the trauma (i.e. rape victim afraid she will be raped again), fearing that one may not be able to heal
	Stress	Late or not turning in assignments, easily overwhelmed by new projects
	Distrust	Unwilling to work with partners or in groups, sitting apart from classmates
Cognitive	Lack of self-confidence	Uncertainty in presenting knowledge verbally or in writing, lack of effort due to belief that it will not be adequate
	Inability to focus	Fidgeting, frequently glancing around the room, not completing assignments/ readings
	Learning disabilities/poor skill development	Patterns of learning problems become apparent, accompanied by other trauma symptoms
	Trauma flashbacks: involuntary visual, auditory, and/or sensory memories of the traumatic event	May not see flashbacks within classroom; however, may see side effects such as low energy/motivation, lack of sleep, anxiety
	Dissociation: splitting off from current consciousness	Student appears to "blank out," poor memory, highly inconsistent work
	Changed attitudes about people in general, life, and the future	Expressions of how humanity is generally "bad," expectations that another trauma will soon follow, lack of planning for the future

Table 1 (Bell, Limberg, Robinson, 2013).

The Statement of the Problem

The effects of childhood trauma impede children's development socially, and emotionally, and cognitively. Educators, support staff, and all school staff who come in contact with students, need specific training and proper resources to adequately respond to students who have experienced trauma.

Trauma, including occurrences such as serious traffic accidents, the sudden death of a loved one, violence, and natural disasters, are quite common in the lives of youth in the United States. In a 2007 study, 54% of 9- to 13-year olds had exposure to at least one traumatic event (Alisic, 2012, p.51).

Trauma is more prevalent in certain populations of youth, such as youths of color, those living in poverty, LGBTQ youth, those in foster care, and those in the juvenile justice system. For youths of color, especially those living in poverty, violence is an ongoing societal issue that has lifelong effects on the brains of the youth being exposed to it (Crosby, 2015). For example, youth who were in foster care, consistently have greater rates of trauma and post-traumatic stress disorder (PTSD). Into adulthood, PTSD rates are 20% higher than the general population (Crosby, 2015, p.223).

The United States has seen a rise in families comprised of a single mother primary care-giver, especially in lower-income regions. These single mother caregivers are often victims themselves of trauma, abuse, and come from dysfunctional families, and therefore not capable of being emotionally and psychologically present. When trauma occurs to children living in these households, their brains, which are still developing, are pushed into survival mode. Survival mode prevents the brain from developing in so-called normal ways, and creates a child or youth who is more likely to be aggressive and violent in nature (Rawles, 2010 p. 3).

Children have differing responses to trauma – some may show extreme symptoms, while others may show no symptoms of trauma at all. There are four main categories of symptoms – physical, behavioral, emotional, and cognitive. Physical symptoms may be sleep disorders, recurring physical complaints, easily startled, and sudden change of weight. Behavioral symptoms are developmental regressions, changes in play, social

Key Terms

ACEs or Adverse Childhood Experiences – a traumatic event that occurs before a person turns 18 (NCTSN, 2017).

Acute trauma – trauma that occurs at a specific time and place and are usually short-lived (NCTSN, 2017).

Chronic trauma – trauma that occurs over a long period of time (NCTSN, 2017).

Complex trauma – trauma that is the result of caregivers over time; most ACEs fall into this category (NCTSN, 2017).

Trauma - experiences that cause intense physical and psychological stress reactions. It can refer to a single event, multiple events, or a set of circumstances that is experienced by an individual as physically and emotionally harmful or threatening and that has lasting effects on the individual's physical, social, emotional, or spiritual wellbeing (SAMHSA, 2017).

isolation, risk-taking, harming others, attention-getting behaviors, increased aggression. Emotional symptoms are difficulty regulating emotions, stress, fear, lack of confidence, and distrust. Cognitive symptoms are inability to focus, poor memory, erratic work, learning disabilities, trauma flashbacks, change in attitude to others, life, and future (Bell, Limberg, & Robinson, 2013).

With the wide variety of symptoms of trauma in children exposed to trauma, it is clear that educators need the knowledge and support to be able to properly support students who have experienced trauma and are negatively affected by it. Educators of all sorts - administrators, counselors, classroom teachers, and support staff – are in a unique position to help students who have experienced trauma, due to their persistent daily interactions with students. The educator's consistent role in a child's life, creates the perfect opportunities to identify changes in behaviors from the typical temperament. Without identification and intervention, undiagnosed and untreated trauma can cause future and long-term problems (Bell, et al., 2013). The consistent presence of stress in a child's life can cause long-lasting alterations in the brain, impairment in cognitive abilities, inability to self-soothe, memory loss, inability to create and maintain relationships, and a lack of communication skills, just to name a few (O'Neill, Guenette, & Kitchenham, 2010).

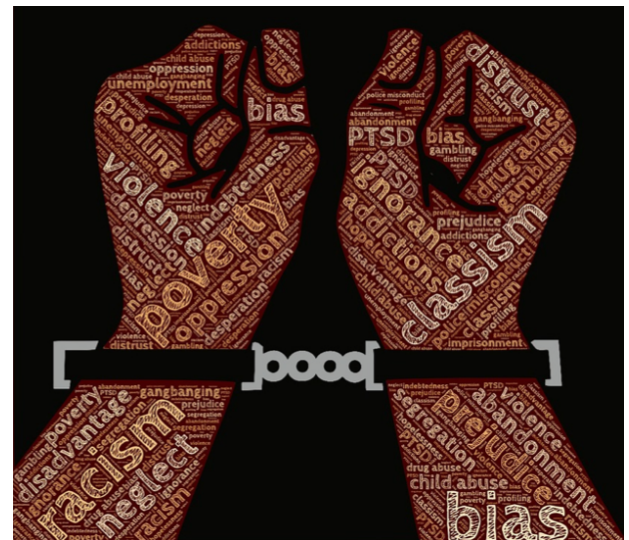


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Review of the Research

The research clearly shows the magnitude of trauma in childhood and makes connections again and again between trauma and challenges faced by students. Even more troubling is who childhood trauma is affecting – though it can affect all children, it more greatly affects children of color, LGBTQ children, those in foster care, children in the juvenile justice system, and those living in poverty (Crosby, 2015). The research shows that youth affected by trauma deal with the results well into adulthood, as brains exposed to trauma may become altered, causing individuals to have trouble dealing with everyday stress and self-soothing. In some cases those affected by trauma, may actually seek out stressful situations because of the reactions caused in the brain (Wallen, 1993). The most common themes that occur in the research are the cognitive impact of trauma, the social impact of trauma, the emotional, the school's role in addressing trauma, and resiliency.

Cognitive Impact of Trauma

The effects of trauma on a child's developing brain is substantial, especially since childhood is a time of crucial growth of the central nervous system. Trauma negatively affects the brain in several areas, such as the limbic system which controls emotional response, balance, and the flight or fight reaction. The midbrain which controls spatial awareness, motor function, and coordination. The cerebral cortex which affects the ability to plan, solve problems, higher order thinking, and utilizing language (Plumb, et al., 2016).

The fight or flight response is meant to keep humans alive, and children whose brains have been exposed to trauma will often go into this mode (O'Neill, et al., 2010). This fight or flight mode enables to the child experiencing trauma to deal with the experience, however if the fight or flight mode is continued, the brain can become stuck, and therefore unable to regulate emotions and deal with normal every day stresses (Plumb, et al., 2016). The ongoing stress of trauma on a brain leads to the breakdown of developing systems in the body, eventually leading to slowed brain functions, physical growth, and a suppressed immune system (O'Neill, et al., 2010).

Social Impact of Trauma

The exact cost of trauma and child abuse cannot be exactly calculated, however, when factoring in healthcare costs, loss of productivity, justice system costs, and child welfare costs, it is estimated to be as much as \$585 billion (Fang, Brown, Florence, & Mercy, 2011). This is an immense sum of money and therefore makes the prevention of trauma and child abuse even more important.

Children who have been exposed to trauma are more likely to avoid difficult tasks and difficult interactions, are more easily frustrated with challenging school work, and in general more likely to avoid coming to school. Children exposed to trauma are also more likely to exhibit non-compliance, have difficulty regulating their emotions, and simply building relationships with others (Tishelman, Haney, O'Brien, & Blaustein, 2011). The difficulties children encounter in their social lives, at school, greatly affect their ability to form relationships with their peers, much less their teachers and furthermore, prevents students from simply enjoying school and learning.

Children who have been exposed to trauma have difficulty in self-regulation, which in turn affects their tolerance levels. They are also not as aware of themselves and these two traits make it harder for children exposed to trauma to make friends and get along with peers (O'Neill, et al., 2010). Children may also struggle to make friends, keep friends, and may isolate themselves (Plumb, et al., 2016). Lack of social skills and relationships prevents children from partaking in the social aspect of learning in experiences such as modeling and some communication and language skills (O'Neill, et al., 2010).

School's Role in Addressing Trauma

Trauma makes a student more likely to drop out of school, more likely to be engaged in violent behavior, more likely to have lower grades and lower test scores, and more likely to be suspended and/or being expelled from school (Crosby, 2015). These are the common problems that today's schools face.

Children exposed to trauma are simply unable to be as successful as their developmentally non-trauma exposed peers. However, since research has proven that a great deal of the population has some form of trauma exposure, it makes sense to make trauma-sensitive care a normal part

of the education experience. The basis of this trauma-sensitive care is always on building relationships, safety, and consistency (O'Neill, et al., 2010).

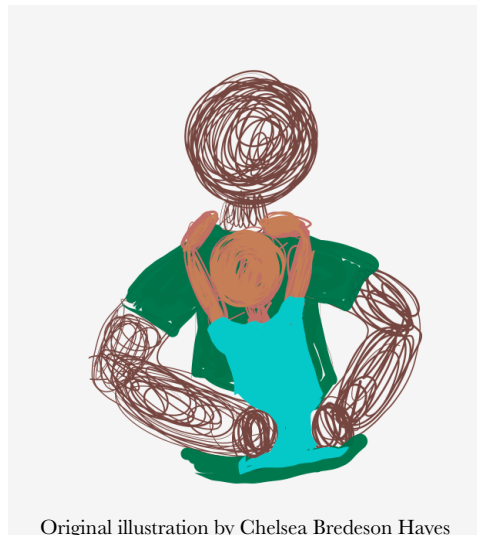
With the prevalence of trauma in the general population, it is extremely likely that several students in each classroom exhibit trauma symptoms. These symptoms can easily be overlooked and often mistaken for learning disabilities or behavioral problems. Teachers therefore, become the first line of defense in diagnosing and referring students for the mental help they require (Cohen, 2011).

Systematic research on teachers' perspectives on childhood trauma is simply not available, this is a gap in the research that would be beneficial for administrators and other policy makers when looking to adopt trauma-informed practices (Alisic, 2012). It is known that teachers often struggle with knowing when their task as a teacher ends and when the assistance of a trained social work or psychologist begins (Alisic, 2012). Finding the balance between helping individual students who have trauma, and working with the rest of the class becomes a burden to many teachers, and as a result, they often need extra supports from colleagues, administration, and school counselors. Imagine what could happen to the teacher burn-out rate if trauma education became a core part of preservice learning for all teachers?

This is where the research calls for trained counselors, psychologists, and social workers, both in and outside of the school setting (Buss, 2015). Counselors become the link between the student, school, and family, and help to foster trusting relationships so that students can begin to succeed. Parents may not appear supportive due their own dealings with trauma, or they simply are not aware of the degree of trauma their child has been exposed to. Parents may not have the resources, parenting skills, community or personal support, nor stress-management to support their own child's needs (Wallen, 1993).

Resiliency

The last common element in the research was, understanding why some children, against all odds succeed. Some children, even having grown up with ACEs, can develop and thrive successfully, this is known as resiliency. There are three common elements of resilient children: 1.) strong relationship between child and parent (or another adult mentor); 2.) strong cognitive skills, which anticipate success in school, and likelihood to follow rules; and 3.) the ability to self-regulate attention, emotion, and behaviors (Cole, O'Brien, Gadd, Ristuccia, Wallace, & Gregory, 2005). It should come as no surprise why, relationship building is a common problem and solution in the research, when it comes to trauma.



Original illustration by Chelsea Bredeson Hayes

**Resiliency Element
#1: Strong relationship
with parent or adult
caregiver.**

Research-Based Recommendations

Teachers

- Learn the basics on trauma: causes, symptoms, and how they manifest themselves in the classroom.
- Download the NCTSN Child Trauma Toolkit for Educators.
- Learn about ACEs and understand the relationship between ACEs and behavior.
- Seek out professional development about trauma and trauma-informed care.
- In the classroom, utilize methods to help traumatized children, such as the ARC model of:
 - building secure **A**ttachments between child and caregiver(s);
 - enhancing self-**R**egulatory capacities; and
 - increasing **C**ompetencies across multiple domains (Cole, et al., 2005).
- Build resilience and teach coping skills (Plumb, et al., 2016).
- Create an atmosphere that is consistent, predictable, and has established routines.
- Foster relationships with your students – students who feel loved want to be at school and want to learn.
- Familiarize yourself with school and district expectations and policies around trauma.
- Know when and where to refer students when additional support is needed.
- Take care of yourself, avoiding secondary trauma, fatigue, burn-out, and emotional burden of teaching children with trauma (Alisic, 2012).

Administrators

- Create clear policies on the role of teachers and what is expected of them (Alisic, 2012), including:
 - how to assist in teaching students coping;
 - how to see signs of recovery;
 - where to refer students and family for specialized care; and
 - self-care for staff (Alisic, 2012).
- Organize and provide professional development for staff on trauma.

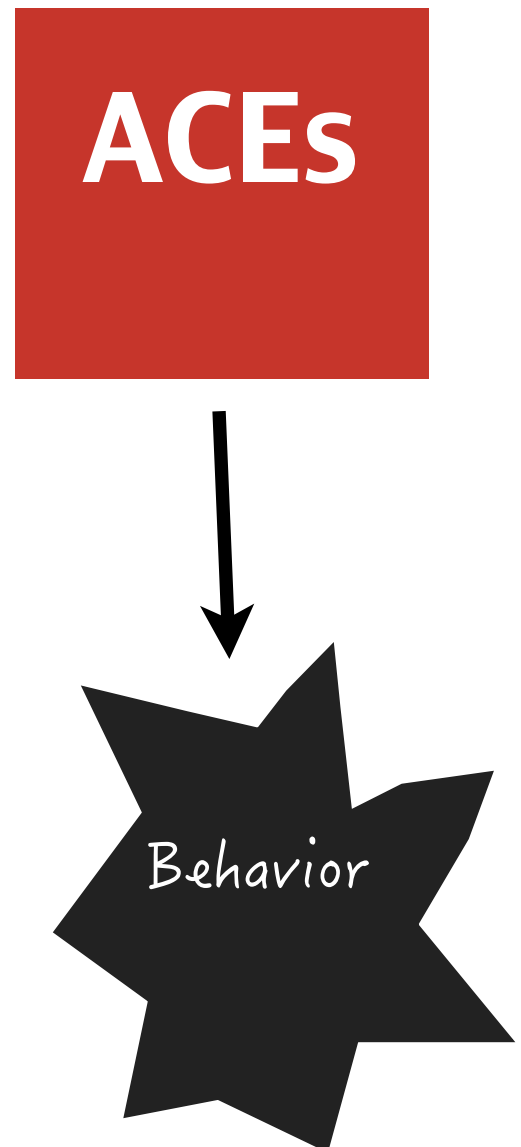
NCTSN
The National Child
Traumatic Stress Network
**Child Trauma Toolkit
for Educators**



- Research existing models for trauma-informed care, such as The Flexible Framework: (Cole, et al., 2005)
 - I. Schoolwide Infrastructure and Culture;
 - II. Staff Training;
 - III. Linking with Mental Health Professionals;
 - IV. Academic Instruction for Traumatized Children;
 - V. Nonacademic Strategies; and
 - VI. School Policies, Procedures, and Protocols.
- With school counselor, organize opportunities for parents/guardians to learn of trauma (Bell, et al., 2013).
- Encourage staff to seek resources, while also reinforcing the importance of confidentiality (Cohen & Mannarino, 2011).

Policy-Makers

- Fully fund professional development and learning opportunities for all educational staff on trauma.
- Fully fund positions for school counselors, social workers, and school psychologists.
- Create realistic caseloads:
 - School counselor – 1 counselor for every 250 students in general education and 1 counselor to every 50 students, in a high needs school (Plumb, et al., 2016).
 - Social workers – at least 1 per school building, and with a ratio of 1 to every 250 students (Plumb, et al., 2016).
- Do away with “zero-tolerance” policies, as they go against research on ACEs and connected behaviors (Buss, Warren, & Horton, 2015).
- Adopt The Flexible Framework as a way to ensure all schools and all students succeed (Cole, et al., 2005).
- Understand that PBIS (Positive Behavioral Intervention and Supports) is a great start, but that there is a causal relationship between ACEs and behaviors and this is the element most often left out of PBIS programs (Plumb, et al., 2016).
- Understand that children with trauma are commonly misdiagnosed with learning disabilities, and implementation of trauma-informed care will reduce spending on special education care (Plumb, et al., 2016).



Further Resources

Child Trauma Toolkit for Educators - download a free PDF with trauma facts, impact on different age ranges, self care for educators, and information for parents and caregivers.

http://www.nctsn.org/sites/default/files/assets/pdfs/Child_Trauma_Toolkit_Final.pdf

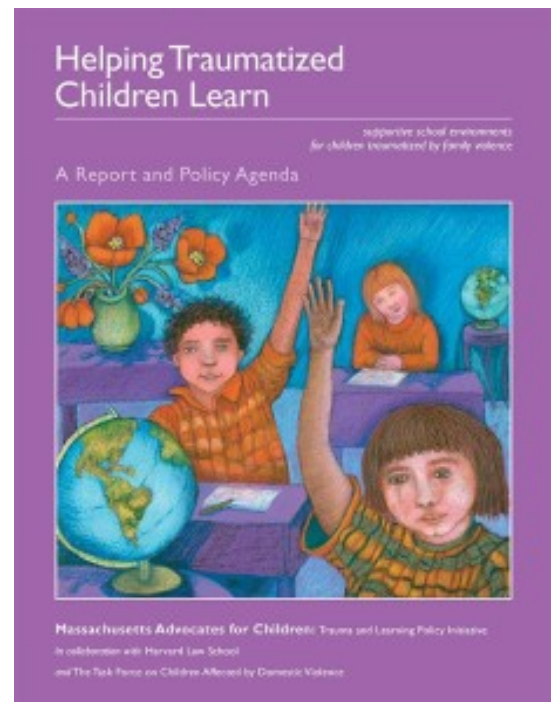
Helping Traumatized Students Learn – download a free copy of this book with comprehensive overview of the impact on learning, behaviors, The Flexible Framework, and policy recommendations. <https://traumasensitiveschools.org/tlpi-publications/download-a-free-copy-of-helping-traumatized-children-learn/>

International Society for Traumatic Stress Studies – education, resources, checklists for diagnosis, and treatment options. <http://www.istss.org/public-resources/remembering-childhood-trauma/what-is-childhood-trauma.aspx>

The National Child Traumatic Stress Network – overviews of types of trauma, treatments that work, resources, and a section on policy. <http://nctsn.org>

PBIS & Mental Health – Strategies and resources for ensuring that students with mental health challenges are successful in school. <https://www.pbis.org/school/school-mental-health/children-support>

Substance Abuse and Mental Health Services Administration – comprehensive overview of ACEs, preventative tools, and further resources. <https://www.samhsa.gov/capt/practicing-effective-prevention/prevention-behavioral-health/adverse-childhood-experiences>



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