Trauma and learning in America's classrooms

All teachers confront the need to create safe and supportive environments for students who have had adverse childhood experiences.

By Salvatore Terrasi and Patricia Crain de Galarce

Michael, a 2nd-grade student, has become defiant with this teachers, and his mother reports that he doesn't want to go to school. Until recently, he was happy to attend, made friends easily, and had no trouble keeping up with his schoolwork. But now, he frequently seems agitated. Every day, typically around lunchtime, he acts out, often hiding under a desk, knocking things down, hitting other children, and running out of the classroom. The teachers have had telephone conversations and meetings with Michael's mother, and they've created a behavioral incentive chart for him, but these efforts have had little effect on the boy's behavior.

One day, after he dashed out of the building and into the street, his mother told the teachers that his behavior was becoming increasingly unmanageable at home, too. He wanted to be with her all the time, wanted to sleep in her bed, and became upset if she wasn't nearby. He had been acting this way for a few months, she finally told them, ever since she had been hit in the arm by a stray bullet while she and Michael were walking down their street in the middle of the day.

Learning of this traumatic event, Michael's teacher, Ms. Jones, began to work more closely with his mother to help him feel safe and supported in and out of school. But Ms. Jones is stretched thin, and she has serious concerns about several of the other 22 children in her classroom as well. Julia, for example, acts much older than her age, often making sexualized comments or gestures — her parents say that Julia spends a great deal of time with older cousins,

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and she has picked up some bad habits from them. Anita's older sister has serious mental health issues. Jose's parents are struggling with substance abuse. Patty has been the victim of violence at the hands of her brother. Jake has witnessed gang violence in his neighborhood. Paul was jolted from a sound sleep when police raided his home and arrested his mother.

Every day, these children show up in Ms. Jones' classroom carrying far more than the content of their backpacks.

Whether they work in a rural, urban, or suburban district, all teachers should expect to confront the sorts of issues that Ms. Jones encounters — more than half of the students enrolled in public schools have faced traumatic or adverse experiences and one in six struggles with complex trauma (Felitti & Anda, 2009) — and all teachers should understand how trauma affects students' social, emotional, and academic growth.

While trauma has a negative effect on learning, learning also can undo trauma.

A growing body of research indicates that adverse childhood experiences (ACEs) tend to have major and lasting effects (Shonkoff & Garner, 2012). In a seminal study of more than 8,500 adult patients at Kaiser Permanente's San Diego Health Appraisal Clinic, researchers documented strong relationships between adverse childhood experiences and poor well-being in adulthood (Felitti & Anda, 2009). Children's exposure to abuse (psychological, physical, or sexual) and/or negative conditions at home (such as chronic mental illness, domestic violence, substance abuse, and criminal behavior) was found to be predictive of increased rates of smoking, obesity, depression, suicide, alcoholism and other substance abuse, and sexually transmitted diseases. Findings also showed a strong relationship between ACEs and the leading causes of premature death among adults, including heart disease, cancer, stroke, chronic lung disease, and diabetes. Moreover, these relationships are graded, meaning that the greater the number of adverse childhood experiences, the greater the likelihood and severity of health problems in adulthood.

See the Adverse Childhood Experiences Questionnaire on p. 39.

Complex trauma defined

Michael, the 2nd grader, was affected by a violent traumatic event, leaving him with feelings of vulnerability that were difficult for him to articulate. For him, as for many other children dealing with such experiences, fear becomes a chronic condition, and it leads in turn to academic struggles, absenteeism, social challenges, and various kinds of anxiety. As medical researchers often note, trauma is a stress reaction that tends to overwhelm one's capacity to cope with further experiences of stress.

Children who live in a consistently dysfunctional environment often manifest symptoms of what has become known as *complex trauma*, which is the cumulative effect of traumatic experiences that are repeated or prolonged over time. Such trauma typically occurs within the child's social or familial network (frequently involving caregivers or trusted adults), and it often occurs during developmentally vulnerable periods, such as toddlerhood, when children are learning to regulate emotions, or during early adolescence, when interpersonal skills and problem solving abilities usually take off (Cook et al., 2005). Common sources of complex trauma include physical, sexual, or emotional neglect and abuse; being a witness to repeated acts of domestic violence; experiencing severe poverty, deprivation, or homelessness; and being stigmatized or cast off for reasons having to do with race, religion, or sexual identity.

Trauma and learning

A typical reaction to a traumatic experience is hyperarousal (sometimes described as a "fight, flight, freeze" response). Over time, such chronic stress produces neurobiological changes in the brain, which researchers have linked to poor physical health and to poor cognitive performance.

For school-aged children, the detrimental effects of stress are especially formidable, impeding their physical, social, emotional, and academic development. Students like Michael are "too scared to learn" (Lacoe, 2013). They may be unable to trust their environment and the people in it, and they often have difficulty forming relationships, interpreting verbal and nonverbal cues, and understanding other people's perspectives.

When children perceive their environment as a dangerous place, they can become hypervigilant, experiencing everyone and everything as a potential threat to their safety. Psychologically, they have a fragmented sense of self and are vulnerable to anxiety and depression; behaviorally, they are prone to the extremes of withdrawal or serious acting-out behaviors. None of these outcomes bodes well for school success. To compound the problem, teachers who are unaware of the dynamics of complex trauma can easily mistake its manifestations as willful disobedience, defiance, or inattention, leading them to respond to it as though it were mere "misbehavior." When students struggle to focus on tasks or complete assignments, teachers might interpret it as laziness or lack of motivation. Or when students isolate themselves, teachers may interpret this as a rejection of their own efforts to reach out, leading them to respond punitively, which only pushes students further into isolation.

Fortunately, researchers have shed much light on the specific mechanisms by which severe stress can alter the brain and impede development (Teicher et al., 2003). Broadly speaking, the problem is that

when stress hormones repeatedly flood the brain, they have a negative effect on a range of executive functions, weakening children's concentration, language processing, sequencing of information, decision making, and memory. (For readers with an interest in the biology of stress, the research offers a wealth of very detailed findings. For example, when limbic cell communication is disrupted, children tend to show signs of aggression or self-destruction. When the amygdala becomes enlarged and cerebellar vermis becomes overactive, what often results are quick and exaggerated emotional responses and an inability to sustain attention on academic content.)

At the same time, the research also shows that children are resilient, and their brains are flexible. Given the right environmental conditions and appropriate interventions, the severity of trauma symptoms can be reduced (Davidson & McEwen, 2012), and when teachers fully understand their students' needs, they can provide the physical and emotional space that support what researchers call neuroplasticity — or the brain's ability to rewire itself, forming new neural connections (Kempermann & Gage, 1999).

Thus, while trauma has a negative effect on learning, learning also can undo trauma. Rather than lowering expectations for these young people, teachers can and should do the opposite. Once students feel safe, welcomed, and included, there is no reason why they cannot develop positive relationships, healthy habits, and the ability to regulate their own emotions and behaviors, as well as to succeed academically. When schools provide safe havens that allow students to thrive in this way, we refer to them as trauma-sensitive schools.

The role of teachers

The shift to trauma-sensitive schools requires educators to think very differently about what they observe in the classroom. For example, instead of assuming that a student like Michael is being willfully defiant, Ms. Jones has learned to filter his behaviors through an entirely different lens, understanding them to be manifestations of trauma (Martin, Cromer, & Freyd, 2010).

But as a result, teachers may feel conflicted, torn between playing a traditional teaching role and attempting to serve as mental health clinicians. Further, they may feel torn between trying to serve the whole class and focusing on the urgent needs of individual students like Michael (Alisic, 2012). In short, leaders of trauma-sensitive schools must help teachers clarify their roles and responsibilities. Teachers need to know how to talk and interact with students affected by trauma. They need to find that delicate balance between maintaining normal classroom routines and giving special attention to individual students. And they also need to understand their own limits and know when to refer those students to mental health professionals.

Recognizing that several of her students have experienced serious trauma, for example, Ms. Jones has sought to build a classroom environment that supports resilience. With others in her school, she has learned to teach specific social and emotional skills, to encourage students to practice self-regulation, and to maintain a predictable environment, featuring carefully planned transitions, clear boundaries, and explicit behavioral expectations. She has adapted the classroom space to provide quiet areas for students who benefit from a place to reflect or use calming techniques (such as yoga, or breathing and mindfulness activities). She offers students weighted blankets and other sensory materials, such as fidget toys (see Craig, 2016, for additional classroom practices and resources). While Ms. Jones may have taken these steps out of concern for the children in her class who have been affected by traumatic events, these strategies will help all of her students feel safe and be successful.

At the same time, even as Ms. Jones and her colleagues have learned how to create trauma-sensitive classrooms, they have also received professional development designed to help them avoid compassion fatigue. When dealing with children affected by trauma, teachers often take problems home with them — for example, Ms. Jones started getting colds and headaches, and now and then she would find herself weeping for no apparent reason. Sometimes, working with traumatized students even causes teachers to reawaken traumatic memories from long ago. When working with such students, then, it is critical for teachers to monitor their own emotions, practice mindfulness and other self-care strategies, and seek support when necessary.

Fear can become a chronic condition and lead to academic struggles, absenteeism, social challenges, and various kinds of anxiety.

The role of schools

Ms. Jones cannot do it alone. Children must feel safe in all of their classes and supported by all of their teachers and peers. Ultimately, the goal is for the whole school to be on the same page, maintaining consistency in their efforts to address trauma and stress.

The good news is that schools can be very effective venues for implementing such a comprehensive approach. Because children spend so much of their time at school, they have many opportunities to learn and practice the given social, emotional, and behavioral skills. Learning those skills in the context of a regular classroom routine tends to be less stigmatizing than visiting a clinic or medical office. When they receive this kind of therapeutic support at school, their families bear none of the transportation costs and inconvenience associated with visiting a community mental health provider. Many schools are

See the Trauma-Sensitive School Checklist on p. 40.

quite good at communicating with parents and other caregivers, keeping them informed of their progress and giving them relevant information, training, tools, and referrals.

However, to the extent that teachers' professional lives are dominated by new curriculum initiatives and high-stakes assessments, advocates for trauma-sensitive schools may have a hard time capturing their interest. Further, implementing such practices is no easy task. There exists no one-size-fits-all model that school or district leaders can simply pull off the shelf. Rather, they must design an approach that fits their given context and meets the needs of their particular students.

To help guide educators through this process, Cole, Eisner, Gregory, and Ristuccia (2013) have offered a useful framework, identifying a number of key issues and questions that will have to be addressed:

- ***Leadership*** — What role must school and district leadership play in implementation?
- ***Professional development*** — What kinds of professional development will be necessary?
- ***Services*** — What resources, supports, and services will be required by students, families, and staff?
- ***Strategies*** — What classroom strategies (academic and nonacademic) will support implementation?
- ***Policies*** — What policies, procedures, or protocols will we need to review, revise, or develop?
- ***Family engagement*** — How can we ensure that families are actively engaged?

Schools can be very effective venues for helping children learn and practice the necessary social, emotional, and behavioral skills to respond to traumas.

Today, Ms. Jones and her colleagues are grappling with such questions. Recently, for example, they've gone back and forth over how best to balance school accountability formulas with the need for flexibility in supporting traumatized students, and they've debated whether the need for predictable and safe environments extends as far as the playground and the school bus. As they've learned, the effort to create a trauma-sensitive environment is an ongoing process, requiring all members of the school community to weigh in on such decisions.

Toward resilience

Much work needs to be done to educate school communities about ways to deal with the prevalence of complex trauma, its manifestation in schools, and the development of trauma-sensitive environments. Moreover, school and district accountability models might be effectively redesigned to include provisions for the social-emotional development of students. In recent years, education reform efforts have asked educators to improve academic rigor by focusing on what students "need to know and be able to do." Perhaps now it is time for a greater focus on fostering the development of the kind of people students have a right to become.

Like Ms. Jones, we all have students in our classes who live with chronic trauma and stress every day. The more we understand how traumatic experiences affect student competencies, the more proactive we can be in creating trauma-sensitive learning environments. Informed educators build supportive relationships, explicitly teach executive functional skills, and nurture learning communities that care for all students. K

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Find additional resources at the Lesley Institute for Trauma Sensitivity
www.lesley.edu/center/special-education/trauma-and-learning

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Adverse Childhood Experience (ACE) Questionnaire

While you were growing up, during your first 18 years of life:

1. Did a parent or other adult in the household often . . .
   Swear at you, insult you, put you down, or humiliate you?
   Or
   Act in a way that made you afraid that you might be physically hurt?

   Yes No
   If yes, enter 1 __

2. Did a parent or other adult in the household often . . .
   Push, grab, slap, or throw something at you?
   Or
   Ever hit you so hard that you had marks or were injured?

   Yes No
   If yes, enter 1 __

3. Did an adult or person at least five years older than you ever . . .
   Touch or fondle you or have you touch their body in a sexual way?
   Or
   Try to or actually have oral, anal, or vaginal sex with you?

   Yes No
   If yes, enter 1 __

4. Did you often feel that . . .
   No one in your family loved you or thought you were important or special?
   Or
   Your family didn't look out for each other, feel close to each other, or support each other?

   Yes No
   If yes, enter 1 __

5. Did you often feel that . . .
   You didn't have enough to eat, had to wear dirty clothes, and had no one to protect you?
   Or
   Your parents were too drunk or high to take care of you or take you to the doctor if you needed it?

   Yes No
   If yes, enter 1 __

6. Were your parents ever separated or divorced?

   Yes No
   If yes, enter 1 __

7. Was your mother or stepmother . . .
   Often pushed, grabbed, slapped, or had something thrown at her?
   Or
   Sometimes or often kicked, bitten, hit with a fist, or hit with something hard?
   Or
   Ever repeatedly hit over at least a few minutes or threatened with a gun or knife?

   Yes No
   If yes, enter 1 __

8. Did you live with anyone who was a problem drinker or alcoholic or who used street drugs?

   Yes No
   If yes, enter 1 __

9. Was a household member depressed or mentally ill, or did a household member attempt suicide?

   Yes No
   If yes, enter 1 __

10. Did a household member go to prison?

Add your Yes answers: _____. This is your ACE Score.

Trauma-sensitive school checklist

A trauma-sensitive school is a safe and respectful environment that enables students to build caring relationships with adults and peers, self-regulate their emotions and behaviors, and succeed academically, while supporting their physical health and well-being.

This checklist is organized by five components involved in creating a trauma-sensitive school. Each component consists of several elements. Please assess your school on each element according to the following scale:

1 = Not in place 2 = Partially in place 3 = Mostly in place 4 = Fully in place

Schoolwide policies and practices

School contains predictable and safe environments (including classrooms, hallways, playgrounds, and school bus) that are attentive to transitions and sensory needs.
1 ____ 2 ____ 3 ____ 4 ____

Leadership (including principal and/or superintendent) develops and implements a trauma-sensitive action plan, identifies barriers to progress, and evaluates success.
1 ____ 2 ____ 3 ____ 4 ____

General and special educators consider the role that trauma may be playing in learning difficulties at school.
1 ____ 2 ____ 3 ____ 4 ____

Discipline policies balance accountability with an understanding of trauma.
1 ____ 2 ____ 3 ____ 4 ____

Support for staff is available on a regular basis, including supervision and/or consultation with a trauma expert, classroom observations, and opportunities for team work.
1 ____ 2 ____ 3 ____ 4 ____

Opportunities exist for confidential discussion about students.
1 ____ 2 ____ 3 ____ 4 ____

School participates in safety planning, including enforcement of court orders, transferring records safely, restricting access to student-record information, and sensitive handling of reports of suspected incidents of abuse or neglect.
1 ____ 2 ____ 3 ____ 4 ____

Ongoing professional development opportunities occur as determined by staff needs assessments.
1 ____ 2 ____ 3 ____ 4 ____

Classroom strategies and techniques

Expectations are communicated in clear, concise, and positive ways, and goals for achievement of students affected by traumatic experiences are consistent with the rest of the class.
1 ____ 2 ____ 3 ____ 4 ____

Students' strengths and interests are encouraged and incorporated.
1 ____ 2 ____ 3 ____ 4 ____

Activities are structured in predictable and emotionally safe ways.
1 ____ 2 ____ 3 ____ 4 ____

Opportunities exist for students to learn and practice regulation of emotions and modulation of behaviors.
1 ____ 2 ____ 3 ____ 4 ____

Classrooms employ positive supports for behavior.
1 ____ 2 ____ 3 ____ 4 ____

Information is presented and learning is assessed using multiple modes.
1 ____ 2 ____ 3 ____ 4 ____

Opportunities exist for learning how to interact effectively with others.
1 ____ 2 ____ 3 ____ 4 ____

Opportunities exist for learning how to plan and follow through on assignments.
1 ____ 2 ____ 3 ____ 4 ____

Collaborations and linkages with mental health

Policies describe how, when, and where to refer families for mental health supports; and staff actively facilitate and follow through in supporting families' access to trauma-competent mental health services.
1 ____ 2 ____ 3 ____ 4 ____

Access exists to trauma-competent services for prevention, early intervention, treatment, and crisis intervention.
1 ____ 2 ____ 3 ____ 4 ____

Protocols exist for helping students transition back to school from other placements.
1 ____ 2 ____ 3 ____ 4 ____

Mental health services are linguistically appropriate and culturally competent.
1 ____ 2 ____ 3 ____ 4 ____

Staff has regular opportunities for assistance from mental health providers in responding appropriately and confidentially to families.
1 ____ 2 ____ 3 ____ 4 ____

Family partnerships

Staff uses a repertoire of skills to actively engage and build positive relationships with families.
1 ____ 2 ____ 3 ____ 4 ____

Strategies to involve parents are tailored to meet individual family needs, and include flexibility in selecting times and places for meetings, availability of interpreters, and translated materials.
1 ____ 2 ____ 3 ____ 4 ____

All communications with and regarding families respect the bounds of confidentiality.
1 ____ 2 ____ 3 ____ 4 ____

Community linkages

School develops and maintains ongoing partnerships with state human service agencies and with community-based agencies to facilitate access to resources.
1 ____ 2 ____ 3 ____ 4 ____

When possible, school and community agencies leverage funding to increase the array of supports available.
1 ____ 2 ____ 3 ____ 4 ____

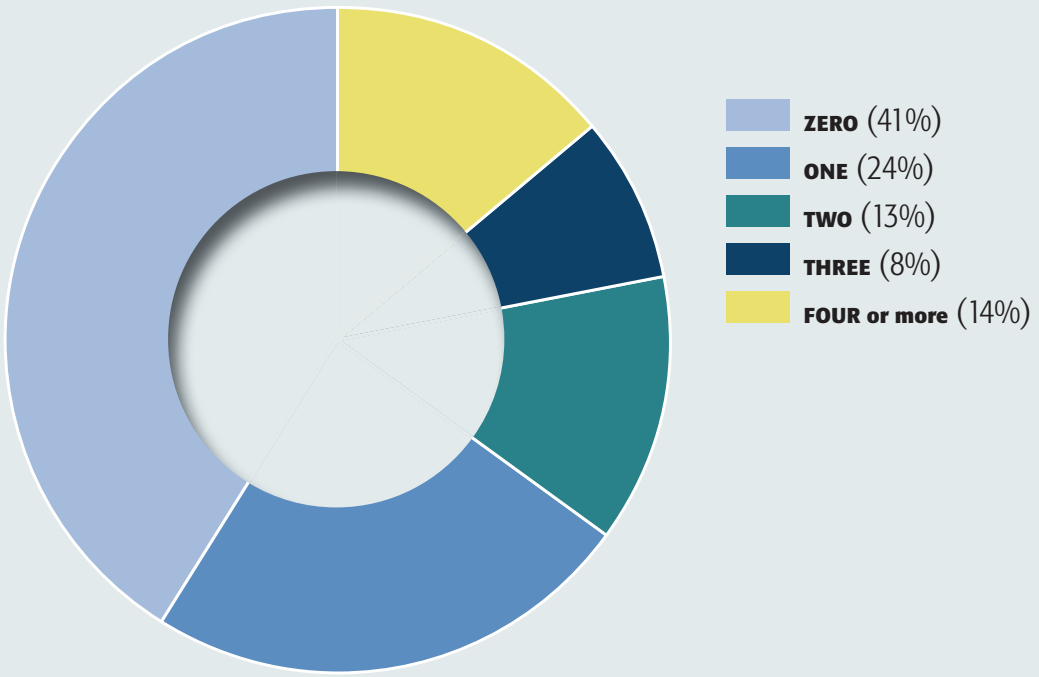
Source: Lesley University Center for Special Education. Reprinted with permission. http://bit.ly/TraumaSensitiveSchoolChecklist

Prevalence of adverse childhood experiences (ACEs)

Responses from a survey of 53,784 American adults in 10 states and the District of Columbia, 2010

ACE Category	Women	Men	Total
ABUSE			
Emotional abuse	34.2%	35.9%	35.0%
Physical abuse	15.8%	15.9%	15.9%
Sexual abuse	15.2%	6.4%	10.9%
HOUSEHOLD CHALLENGES			
Intimate partner violence	15.6%	14.2%	14.9%
Household substance abuse	27.2%	22.9%	25.1%
Household mental illness	19.3%	13.3%	16.3%
Parental separation or divorce	23.1%	22.5%	22.8%
Incarcerated household member	5.2%	6.2%	5.7%

Percent reporting adverse childhood experiences



Source: Centers for Disease Control and Prevention (CDC). *Centers for Disease Control & Prevention-Kaiser Permanente Adverse Childhood Experience (ACE) study.* Atlanta, GA: Author. www.cdc.gov/violenceprevention/acestudy.