Childhood Trauma: The Impact of Childhood Adversity on Education, Learning, and Development

Michael Changaris, PsyD

Education is a child's main job. While the effects of many learning disabilities including dyslexia and ADHD are well recognized, the effects of PTSD on learning appear to not have garnered the same attention. Much data has shown that effects of childhood trauma are immense and can be catastrophic to the educational process (Yasik, Saigh, Oberfield, & Halamandaris, 2007). Symptoms of PTSD can interrupt neurological, social, and academic development (Gabowitz, Zucker, & Cook, 2008). While educators are trained in many aspects of child development there is often little training on the impact of PTSD on education, despite the fact that PTSD often carries with it behavioral, emotional and learning challenges that will directly impact the ability of a child to succeed academically (M. Slaone, personal communication, May 1, 2009).

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Childhood Trauma Is Not Rare

Children who experience traumatic events are more likely than adults to develop symptoms of PTSD. Sadly, the occurrence of childhood trauma is far from rare. Every year 3,000,000 children are involved in a child protective services (CPS) report in America and if a child is indirectly involved in the incident the number grows to 5,500,000 children (Hamblen & Barnett, 2009). These numbers are virtually pandemic. While not all children who experience traumatic events develop PTSD, many do and in some age groups rates can be as high as 25%. It is important to note that being from lower SES groups or other marginalized identities could mean a dramatic increase in these numbers. The effects of childhood adversity can be seen even fifty years later in poor health, behaviors destructive to health (e.g., drug abuse, smoking and obesity) and even early death (Felitti, 2004; Felitti, Anda, Nordenberg, Williamson, Spitz, & Edwards, 1998).

Effects of Trauma Are More Than Affect

Psychotherapists often have a strong focus on the emotional and social disruptions for traumatized children. However, children who are traumatized routinely have developmental disruptions in other key neuropsychological domains (Gabowitz, Zucker, & Cook, 2008). Deficits in these domains can affect a child's ability to achieve academic success. Some of these key domains are: attention/concentration, language development, memory, neuromotor development, visual processing, temporal special processing, higher-level thinking and social skills (Gabowitz, Zucker, & Cook, 2008; M. Slaone, personal communication, May 1, 2009). In most of these domains more than 60% of children who have been traumatized will display moderate to severe difficulties. There could be major compounding effects if the stereotype threat associated with a child's identity status is likely to increase the difficulties a child displays in a given neurocognitive domain.

One feature common to children with PTSD is difficulty with attention. This includes concentration (e.g., the ability to sustain focus on a single task) and levels of arousal (e.g., the brains' ability to produce optimal arousal for the task at hand) (Weinstein, Staffelbach, & Biaggio, 2000; Gabowitz, Zucker, & Cook, 2008; M. Slaone, personal communication, May 1, 2009). Children with symptoms of PTSD can show two main patterns of alterations in their modulation of arousal levels. At points children could become hyperactive and have difficulty containing themselves; the same children may also withdraw inward or dampen arousal levels through dissociative processes (Lanius, & Hopper, 2008; van der Kolk, McFarlane, & Weisaeth, 1996). Most children who have developed PTSD symptoms after a traumatic event will also display more aggression, oppositional behavior and anxiety in social settings (Herrenkoh & Herrenkoh, 2007). Social skills are learned behaviors. The disruptions in memory seen in traumatized children can impair social learning. Impaired social skills, in turn can lead to isolation, difficult relationships with authority figures and missing key social cues (M. Slaone, personal communication, May 1, 2009).

Trauma Symptoms Across Childhood

There are sets of symptoms that are more common for children of different age groups. Toddlers may be more likely to break their toys or become so anxious around other children that they hit the other child. Toddlers also often display hyperactivity and have delays in age appropriate development. As a group, toddlers display less avoidance and numbing symptoms then older children and adults (Scheeringa, Zeanah, Drell, Larrieu, 1995; Scheeringa, Zeanah, Myers, & Putnam, 2003). They may also have disruptions in their potty training, anticipate aggression from others, increased startle response and higher levels of separation anxiety (Mongillo, Briggs-Gowan, Ford, & Carter, 2009). They tend to engage in re-enactment play that can include violent or sexual themes. Many parents of young children who have been traumatized report dramatic changes in their personality. Scheeringa et al. (1995) called for a change in criteria for the diagnosis of PTSD for toddlers to include the symptom category called "new fears and aggression" and reduced the number of required symptoms to one in each of the other diagnostic categories.

School-age children display similar deficits. They may also have graphomotor (difficulty with handwriting) disruptions significant enough that it impacts their ability to complete assignments (M. Slaone, personal

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communication, May 1, 2009). Children who have been traumatized have affect instability and lower frustration tolerance (Herrenkoh, & Herrenkoh, 2007). The combination of difficulty with graphomotor ability and lower frustration tolerance could lead to temper tantrums and poor learning. Demands on memory peak for most children in the middle school years and children who have been traumatized have significant deficits in their declarative memory formation (M. Slaone, personal communication, May 1, 2009).

Education demands an increased amount of higher order processing from high school students compared to younger children. These higher-level thinking skills such as metacognition and rule formation show strong deficits in traumatized high-school students. Children who have been traumatized have a mean IQ score of eight points lower than average population (i.e., full-scale intelligence quotient FSIQ of 92; M. Slaone, personal communication, May 1, 2009). Working memory is one of the most affected domains for these children. This may be due to working memory's sensitivity to anxiety. High-school children who have been traumatized will also be more likely to engage in self-harm and other high-risk social behaviors such as drug use and unprotected sex (Herrenkoh, & Herrenkoh, 2007).

Building Educator Understanding

Educators are more and more forced to manage classrooms with too many children, too few resources, and to pay for supplies out of their own pockets. Classroom management is a vital skill set against that backdrop. Most educator classroom management techniques and interventions are driven by two factors; (a) behavioral interventions, and (b) punishment. While both of these factors can be effective with most children, children who have been traumatized do not respond well to these interventions (M. Slaone, personal communication, May 1, 2009). A child who has been traumatized may have so much difficulty with frustration tolerance that they are not able to effectively make use of traditional punishment. Their sensitivity to shame and disgust could make even small correction feel like an assault. Similarly a child who has difficulty with temporal spatial sequencing could have challenges establishing cause and effect relationships between their behavior and outcomes. This last skill is necessary for the effective use of behavioral techniques. Supporting educators to understand the impact of trauma on the learning process could increase educator effectiveness and student success.

Building Trauma Safe Classrooms

Helping teachers to understand the symptoms the child is facing and build a tool kit to foster optimal learning for the traumatized child could enhance the child's education tremendously. For many children teachers can be central attachment figures creating islands of safety in their classroom far from the child's chaotic life. On the other hand, education can feel to some children like a series of continual failures. Giving teachers tools to work with affect dysregulation and helping educators to understand trauma could lead to more classrooms being islands of safety rather than another place the child is ship wrecked.

A traumatized child who is having difficulty with temporal sequencing might forget school equipment, arrive late, and have difficulty putting together complex tasks. Highly intelligent children may have a solid understanding of a lesson and even identify a good solution to a problem, but still remain unable to organize the process necessary to create the output matching their understanding. This could increase the children's frustration with learning and possibly lead to them dropping out entirely. These factors could be increased dramatically if the child is from a marginalized identity group.

Teaching children with trauma has multiple challenges. A child who has been traumatized might need to be told multiple times how to complete a task (M. Slaone, personal communication, May 1, 2009). They may also require that the teacher function as scaffolding for their limited affect regulation ability while they are learning the new task. Learning itself can be challenging and very frustrating. Children who have been traumatized can display significant amounts of shame. Seemingly normal frustration at the inevitable mistakes made during learning could be nearly unbearable for the traumatized child. Many educators have observed children who get themselves kicked out of class rather than face the social stigma of not being able to complete an assignment.

Trauma's Impact on Educators

Working with traumatized children can have a profound effect on educators and staff. Children who have faced traumatizing events can have difficulty trusting authority figures. They often display high-levels of externalizing and internalizing behaviors (Dykman, McPherson, Ackerman, Newton, Mooney, Wherry, & Chaffin, 1997). Externalizing behaviors are some of the most challenging for educators to manage. On top of the behavioral difficulties, traumatized children are more likely to have multiple long-term difficulties with learning and language (M. Slaone, personal communication, May 1, 2009). Educators working with traumatized children also must tolerate the child's willfulness, distraction and difficulty learning. The child's tendency to externalize may in fact blame the educator for their difficulties. These factors could increase teacher and staff burn out.

Children who have been traumatized will also often have poor social skills, interrupt teachers, talk back and do other things that could damage their relationship with the teaching staff (M. Slaone, personal communication, May 1, 2009). Considering the statistics on the number of individuals who have faced traumatic events it is highly likely that teachers have their own affect dysregulation making these behaviors quite difficult to tolerate (Stamm, Varra, Pearlman, & Giller, 2002). While clinicians work with supervisors to learn to manage their counter-transference, teachers are not given the same level of professional development in this area. Adding to this is the possibility of vicarious traumatisation that teachers

might experience due to hearing year after year the horrific stories of children's lives (Dykman, McPherson, Ackerman, Newton, Mooney Wherry, & Chaffin, 1997; Stamm, Varra, Pearlman, & Giller, 2002). Building educator resilience through learning affect regulation skills and self-care could make teachers working in some of the most difficult educational environments more effective.

Multidisciplinary Teams … It takes a village

Working with children who have been traumatized takes a village. For many of the developmental domains, having specifically tailored programs aimed at building these neurological skills can be vital. Occupational therapists can help the child develop motor skills and motoric sequencing (M. Slaone, personal communication, May 1, 2009). Speech and language pathologists can help children who have been traumatized develop better expressive and receptive language skills. Trauma sensitive psychiatrists can help provide medication that allows the child to stabilize enough to effectively participate in other treatments. Psychotherapists can be effective consultants in the educational environment and support the child to integrate the traumatic event into their self-story, build affect regulation skills and support development of the multidisciplinary teams needed to help children become successful students and adults (M. Slaone, personal communication, May 1, 2009). Education is vital for the success of America as a nation and humans in general. The effects of PTSD on learning, although currently under-documented, are profound. It will take many professions working together to build truly trauma safe schools. As community violence continues to increase, it is up to the clinical community to begin the dialog to make this transformation possible.

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Michael Changaris, PsyD (mchangaris@gmail.com), is a post-doctoral fellow working with children and families at Kaiser in Antioch, CA. Currently, he is working on a training series for educators and psychologists on addressing the impact of PTSD in the learning context.