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Early Childhood Trauma: Implications for Educators and the Importance of Trauma-Sensitive Schools

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Introduction

Dr. Bruce Perry, renowned child psychiatrist, defines trauma as "an experience, or pattern of experiences, that impairs the proper functioning of the person's stress-response system, making it more reactive or sensitive" (Supin, 2016, p. 5). According to the National Child Traumatic Stress Network, one study discovered that more than half of children aged 2–5 had experienced some form of a severe traumatic stressor in their lifetime (Zero to Six Collaborative Group, 2010). Consequently, there is a high likelihood of finding a child who has experienced trauma within any educator's classroom walls. Because of this fact, future and present educators must understand how undergoing trauma affects the brain. The link between sustaining trauma and the size of the brain cortex can negatively affect a child's memory, attention span, perceptual awareness, communication abilities, and consciousness (Bachner & Orwig, 2008). Since all of these skills are necessary for success in a classroom setting, answering the question of how to reach students who have undergone trauma is of utmost importance.

In fact, a team of child psychologists from a San Diego health facility took notice of the trend between early childhood trauma and high-risk behavior in adulthood. This led to the creation of the Adverse Childhood Experiences study (ACEs), a study which evaluated trauma on the basis of ten questions over a breadth of categories including abuse, neglect, and mental health issues (See Appendix A for a copy of the ACE questionnaire). With a higher ACEs score comes a greater risk for destructive patterns in adulthood (Buckwalter & Powell, 2017).

Some examples of the ways trauma can occur include abuse, neglect, abandonment, the death of a parent, guardian or close relative, and severe accidents. While the scope of traumatic experiences is broad, the psychological effects are similar regardless of the cause. For a child who has been exposed to one ACE category, the likelihood of exposure to another traumatic

experience increases to approximately 80% (Buckwalter & Powell, 2017). A study conducted by Nadine Burke, a pediatrician, in conjunction with a few child psychologists found that less than 3% of children who had an ACE score of zero exhibited learning and behavior issues. Whereas, children with an ACE score of four or greater had a 51.2% propensity toward educational hindrances (Burke et al., 2011). Because children who have experienced trauma experience great consequences in both the psychological and educational realms, further exploration becomes necessary. Within the following paper, the psychological effects of early-childhood trauma will be expounded upon. Following that discussion, an explanation of the implications for pedagogical techniques and for trauma-sensitive schooling will ensue.

Psychological Effects of Early Childhood Trauma

Development in children and adolescents usually occurs in roughly the same way from conception through adulthood; however, certain factors can influence development. One such factor is the experience of childhood trauma. Children who undergo substantial trauma experience changes in their developmental growth with potentially lifelong effects on their physical, psychological, and behavioral development. These effects are seen even more clearly when such cases are juxtaposed with cases of children who have not sustained the same level of trauma (Perry, 2008).

According to the Department of Mental Health, trauma can be categorized in three levels. The first level is acute trauma: trauma that occurs within a limited time frame. The second level of trauma is chronic trauma, which is trauma experienced multiple times over an extended time period. The most severe type of trauma classification is complex trauma. This type of trauma starts at a young age and often occurs as a result of actions performed by adults who should have protected the child (Trauma, n.d.).

A child may undergo complex trauma, such as physical abuse, which substantially limits their development and ability to do some of the most basic daily tasks (van der Kolk, 2005). Physical abuse is defined as the repeated or single act of hurting a child's body (Odhayani, et al., 2013). The methods an abuser chooses to use to inflict pain on a child take many forms, some of which include slapping, burning, or cutting a child, and the effects of that abuse can be either external or internal, including, but not limited to, bruised organs, lacerations, and bruises (Odhayani et al., 2013). This type of complex trauma could exhibit itself in the form of a child experiencing extensive corporal punishment. Broken bones can only be broken so many times before they begin to stop functioning as intended. It could also take the form of neglect: a baby

who is forced to lie down in a dark room for the entirety of their infancy will not learn how to properly sit, stand, crawl, or roll over. In addition to exhibiting symptoms noticeable to the naked eye, changes in a person's immune system occur as a result of sustaining prolonged trauma in the early part of his or her life (De Bellis, 2014). These changes culminate in health issues later in life.

The types of trauma substantiated by children can cause great developmental delays (De Bellis, 2014). In fact, researchers have documented differences in the brains of those who have histories of maltreatment. Dr. Sarah Burlingame, a clinical psychologist who focused her

doctoral research on adolescents who sustained abuse, stated that even in lives of those without known head trauma, brain structures, such as the hippocampus, corpus callosum, cerebellum, and prefrontal cortex, of children and adults who were mistreated as children have been found to be smaller (Burlingame, 2017, personal interview). In fact, children who have undergone trauma struggle to store information in their implicit

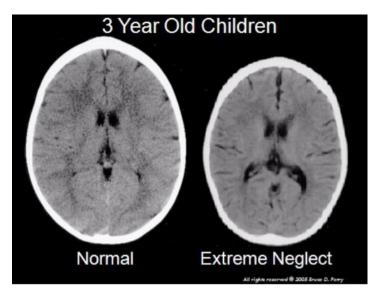


Figure 1: The above brain scans juxtapose the brain of child who has developed typically with the brain of a child exposed to trauma. The brain exposed to trauma is both smaller and severely underdeveloped. (Perry, 2008).

memory, which is the part of the brain that holds information without a conscious effort being made to remember it (Bachner & Orwig, 2008). Much of the information learned in the classroom is not necessarily information that students must make a concerted effort to memorize.

Rather, learning requires recalling facts and then extrapolating information from those facts to apply to other areas. Because of this deficit in the memory recall of students who have undergone trauma, learning can be extremely difficult for them. In addition to memory issues, the physical, cognitive, and psychological effects that follow are logical consequences of different growth patterns in the brains of maltreated children.

Shaken baby syndrome is the most common cause of death or serious neurological injury resulting from child abuse because bleeding in the brain easily occurs (Blumenthal, 2002). Similarly, trauma from blows to the head show parallel effects (Blumenthal, 2002). As a result, the children will develop cognitively at a much slower rate. Studies conducted comparing the cognitive functioning of maltreated children and non-maltreated children show early traumatic experiences such as maltreatment appear to have a toxic effect on children's inhibitory controls, or damage in a child's ability to suppress a dominant response, strongly related to a child's ability to utilize self-control (Bruce et al., 2013).

Furthermore, children who have undergone trauma are more susceptible to added stress in life. The consequence of this added stress is a highly activated stress system—the hypothalamic-pituitary-adrenal axis (Lohr & Jones, 2016). The hypothalamic-pituitary-adrenal axis controls the hormones associated with stress, so when that area of the brain is overstimulated during childhood, the result is more susceptibility for diagnosis of mental disorders. Additionally, the overstimulation of the hypothalamic-pituitary-adrenal axis creates an overproduction of the adrenocorticotropic hormone which can lead to excess cortisol, or the body's response to stress when it is trying to bring the body back to a state of homeostasis, the body's normal state (Tsigos & Chrousos, 2002).

Psychological issues evident in children who have undergone trauma divide into two categories: externalizing behaviors and internalizing behaviors (Lohr & Jones, 2016).

Externalizing behaviors usually exhibit themselves in a way such that others will be able to notice a behavioral difference between the child and his or her peers. In 2001, Ann Garland published research she had performed on children who had been exposed to some form of trauma resulting from placement in foster care. According to this research, she found that while only 12% of all children meet the criteria for diagnoses with oppositional defiant disorder (ODD), conduct disorder, or attention-deficit/hyperactivity disorder (ADHD), 39% of the children in her study were diagnosed with these disorders (Garland, 2001). Thus, approximately four out of every ten children who have experienced trauma will suffer the consequences of these disorders as compared to approximately one out of every ten children in the general population. These behavioral issues are likely to be diagnosed in children who have experienced complex trauma because of lowered cognitive functioning due to changes in brain structure (Lohr & Jones, 2016).

Where externalizing behaviors are usually noticeable from the outside, internalizing behaviors result in the inward suppression of emotion. The excess production of the corticotropic hormone lends itself to a higher heart rate and metabolic rate, in addition to raised blood pressure and greater alertness (De Bellis, 2014). This reaction causes students to sit in a place of heightened awareness and unease. The corticotrophin being released is the same hormone that is released in the brains of soldiers who have undergone extensive combat wounds, resulting in post-traumatic stress disorder (PTSD) and causes similar effects in the brains of trauma children (De Bellis, 2014). Researchers have found that PTSD diagnoses are high among children because of the trauma experienced at young ages. PTSD is diagnosed when the symptoms remain for longer than one month, causing extreme amounts of stress and dissociative symptoms

(Lohr & Jones, 2016). The dissociative symptoms that Lohr and Jones reference contribute to the emotional separation and anxiety that a child who has undergone trauma may feel. Reactive attachment disorder, similarly, demonstrates internalizing behaviors and is "characterized by ...emotionally withdrawn behavior to caregivers and problems with emotional responses to stress resulting from extremes of insufficient care" (Lohr & Jones, 2016, p. 343). The child effectively distances himself from feeling because the hypothalamic-pituitary-adrenal axis, his stress system, is overstimulated leading to effects on the child's ability to suppress dominant responses. Students who experience disruptions in their cortisol production typically have behavioral disorders or exhibit antisocial behaviors (De Bellis, 2014).

This emotional dysregulation occasionally surfaces in the form of mood disorders. For example, one study conducted on children who had undergone substantial trauma found a higher increase of bipolar disorder (Larsson et al, 2013). In addition to a higher aptitude for developing bipolar tendencies, children who experience trauma are more likely to show symptoms of depression. The excess production of the aforementioned stress hormones activates two separate stress systems, the serotonin system and the limbic-hypothalamic-pituitary-adrenal axis, leading to a higher susceptibility for clinical depression (De Bellis, 2014). The effects of childhood trauma often result in alleles which are risk factors for depression diagnoses later in life (De Bellis, 2014. In fact, "a third of adult onset mental disorders are preceded by child abuse and neglect and family dysfunction" (De Bellis, 2014, p. 21). Because maltreated children experience these behavioral disorders at a higher rate than those of non-maltreated children, one can conclude that their cognitive and socioemotional development is prone to abnormalities, displaying itself by way of psychological disorders (De Bellis, 2014).

Children who have undergone trauma not only develop differently than children who have not been abused in some fashion, they also mature socially in a manner atypical of peers their age. Consider, for example, a child diagnosed with reactive attachment disorder (RAD). When a child is diagnosed with RAD, their ability to form appropriate relationships is jaded by prior abuse. Because of the trauma suffered in early years, this child may struggle with feelings of inferiority and powerlessness. Generally speaking, these children struggle with powerlessness as a direct consequence of being uninformed about decisions that directly affected their life. Essentially, a student with RAD will possess an identity that has been defined by others (Bruskas, 2008). In order to experience some control, children with RAD attempt to regulate their emotions by observing those in power over them and then responding in a way that causes the least disruption (van der Kolk, 2005). Often, this reaction is not indicative of how the child feels; rather, it is perceived that the response that will keep them safe. To some, it may appear as though the child's action is manipulative, when, in fact, it is an action of self-preservation.

In addition to struggling in attachments with adults, when a child's sense of identity is questioned, his interactions with other students will also be affected. As discussed in *The Developing Child* (2011), Erikson, a well-known developmental theorist, addresses identity and its development within a child by arguing that identity is constructed through eight psychosocial stages. If a child's sense of trust is questioned within the first year, his or her ability to develop appropriate relationships will similarly be affected. The continuation of a person's sense of self can be altered through their toddler years by either affirming independence or creating feelings of shame and doubt—both of which will carry into adulthood. The third phase, which occurs when a child is four and five years old, addresses feelings of guilt that can surface from a

respected adult criticizing certain behaviors. While some guilt is good, "too much guilt can inhibit the child's creativity and interactions with others" (Bee & Boyd, 2012, p. 235).

Next, a child undergoes circumstances that can either exacerbate feelings of inferiority or create a sense of ability. The last part of identity, according to Erikson, develops before entering adulthood and is a "reintegrated sense of self, of what one wants to do and be, and of one's appropriate sexual role" (Bee & Boyd, 2012, p. 235). Past this phase, the additional areas of identity develop throughout adulthood and are no longer qualified in child and adolescent development. However, if a child fails to develop trust, independence, initiative and industry, then, in adulthood, their true understanding of self will be less developed. Erikson's proposal provides a viable foundation for understanding the effects of trauma on the development of children who have undergone trauma because their sense of self can be inhibited by maltreatment experienced at home (Bee & Boyd, 2012).

Understanding the development of a child is instrumental in the classroom as many students who have experienced maltreatment will display one or more of the behaviors previously described. In addition to higher diagnoses of ADHD, ODD, RAD, and PTSD, students also have a greater likelihood of not graduating high school or pursuing a college degree, skipping classes, having gaps in their academics, and scoring lower on state and national tests (Parker & Folkman, 2015). These educational deficits can be attributed to a lack of appropriate pedagogy and parental support, in addition to learning struggles from alterations in brain structure (Parker & Folkman, 2015).

Implications for Educators

The psychological differences between students who have undergone trauma and those who have not means that educators who serve trauma children must make pedagogical changes to accommodate them. For example, students who have undergone trauma have unknown triggers; therefore, it becomes the educator's responsibility to understand what feeds a child's emotional response (van der Kolk, 2005). At the surface the response may appear irrational, but within the student's brain, their outburst is the only way they can make sense of their emotions. These emotional responses lessen when students understand that they have a secure base from which to gather their thoughts (van der Kolk, 2005). Educators establish a safe base through earning students' trust, a process which does not happen overnight. This desire for safety is present in all students' lives, but students who have undergone trauma have a heightened sense of their surroundings and a less secure ability to trust. Often, these students will be found constantly looking over their shoulder, looking out the window, or struggling to focus (De Bellis, 2014). These characteristics do not imply a lack of desire to learn; rather, they speak to a distracted mind. The only way to lessen these distractions occurs when students feel safe. As seen in Erickson's discussion on identity, students are only able to develop secure attachments when trust has first been established. Sometimes, the solution is as simple as seating a child who has undergone trauma in the back of the classroom, away from the window. This modification allows the child to see the entire classroom, which provides them with concrete evidence that they are safe.

Other characteristics of children who have undergone trauma include anxiety, dysregulated behaviors, volatile natures, stubbornness, impulsiveness, disruptiveness, and laziness (van der Kolk, 2005). In order to respond appropriately to these children, educators must

engage with students and create an environment which values relationships. Setting this relational environment is instrumental in reaching these children. First, educators must make a concerted effort to establish rapport with the children's caregiver. With this rapport in place, interventions can be most specifically tailored to the child (Bachner & Orwig, 2008, p. 6). Secondly, educators must recognize that differences exist and should be met from a place of understanding (Powers, 2017). Thirdly, teachers understand that they are safe; however, students may not understand that fact. One must be mindful of body language when working with students because students who have undergone trauma are keen observers. They have a heightened awareness of their surroundings (Powers, 2017). Additionally, teachers must find ways to encourage their students. This encouragement ought to target students' insecurities and bolster their self-esteem. A student hearing their strengths helps transition their mindset from one of self-deprecation to one of self-worth (Powers, 2017). Also, teachers must reinforce to students that they are there to support the students no matter the circumstances. Lastly, teachers should seek to understand students and their passions. Connecting lessons to the hobbies that students enjoy allows for greater engagement (Powers, 2017).

Eliminating power struggles with students who have undergone trauma also proves a viable alternative for disciplining students (Powers, 2017). While the intuitive reaction to student misbehavior is to assert authority, the appropriate reaction is to disengage from power struggles with students. Often this requires an educator to observe their students and reflect on the moments when authority issues are most apt to occur. Secondly, they must empathize with their students. To empathize with a student requires personal interactions with the students. This interaction can be as simple as asking the student how he or she is doing. Listening to their stories provides the platform from which to empathize.

Stephen Zwolak of Lume Institute, a trauma-informed school in St. Louis, advocates for the idea of "ruthless compassion" when a child chooses to love with "angry love" (Zwolak, personal communication, October 13, 2017). Simply put, a child who has undergone trauma displays "angry love" because he or she does not know how to form appropriate relationships. Because of this inability to attach, they respond volatilely when someone shows them respect whether that be by throwing a chair, cursing, or completely withdrawing. This typically alludes to the fact that the child goes unheard at home, and in most instances, the misbehavior acts as a cry for love (Zwolack, 2017). This type of love ought to be met with compassion, regardless of the actions that a child displays, which encompasses the idea of "ruthless compassion." This compassion translates to open-ended questions and conversations with both the child and child's family (Zwolack, 2017). In the face of extremely angry behaviors, a teacher ought to remain patient, calm, and outwardly unaffected. While it is important for the student to be met with compassion, this does not eliminate the need for discipline. In a scenario where students have angry outbursts, it is important to redirect the behavior. If the scenario continues to escalate to the point where no learning occurs due to lack of respect, switching teachers may become necessary (Zwolack, 2017).

As an educator, it is important to understand students' personal triggers. This requires careful observation and documentation of behaviors so that further analysis can be conducted on student behavior. In order to properly understand from where a student's reaction stems, one must recognize the circumstances before the outburst. While teachers must understand these triggers, they should avoid reminding students of the triggers, as that deconstructs the sense of safety that the teacher is establishing with the student (van der Kolk, 2005).

Additionally, teachers should recognize student strength and utilize that knowledge to further a student's self-efficacy. van der Kolk (2005) makes a powerful observation regarding students' ability to focus in the classroom setting.

Only after children develop the capacity to focus on pleasurable activities without becoming disorganized do they have a chance to develop the capacity to play with other children, engage in simple group activities, and deal with more complex issues. (p. 12)

A teacher's emphasis should be on making students feel comfortable and loved so that they are free to learn appropriately.

While consistency in a classroom is instrumental for most effective learning to occur, it must also be noted that students who have trauma backgrounds will struggle to function in such a class. Pfieffer, a speaker for the 2017 Association for Training and Trauma Conference in Denver, explains that for a child who is used to chaos, the routine found in classrooms can cause a heightened sense of awareness, or hypervigilance (Pfeiffer, personal communication, October 13, 2017). In a student's hypervigilant state, their focus shifts, so educators must find a way to calm students' nerves before the student will be able to learn. Some examples include allowing the student to have a choice in their seating, greeting them as they enter the class, or letting them leave to get water or use the restroom. However, for each student, the most effective technique differs.

Trauma-Sensitive Schooling

A trauma-sensitive school cultivates a sense of security for all students in order to heighten the learning that occurs within the school walls. Their goal is four-fold: to "help students feel safe, be connected, get regulated, and learn" (Attachment & Trauma Network, 2015). For a school to be considered trauma sensitive, they must fulfill ten criteria, which the National Child Traumatic Stress Network (n.d.) defines as,

- 1. Identifying and assessing traumatic stress.
- 2. Addressing and treating traumatic stress.
- 3. Teaching trauma education and awareness.
- 4. Having partnerships with students and families.
- 5. Creating a trauma-informed learning environment (social/emotional skills and wellness).
- 6. Being culturally responsive.
- 7. Integrating emergency management & crisis response.
- 8. Understanding and addressing staff self-care and secondary traumatic stress.
- 9. Evaluating and revising school discipline policies and practices.
- 10. Collaborating across systems and establishing community partnerships.

Students who attend trauma-sensitive schools are screened using a checklist developed by the National Child Traumatic Stress Network (Appendix B). From these initial screenings, students have more individualized educations.

In order to do this most effectively, trauma-sensitive schools train educators and equip them to apply modifications tailored to children who have undergone trauma. While these modifications are specifically formed for children who have experienced trauma, they effectively help all students learn. A trauma-sensitive school utilizes warm colors, as opposed to the harsh lighting characteristic of most classrooms because the warm colors trigger a calming response in the mind of the student (Buckwater & Powell, 2017). Trauma-sensitive schools also tend to incorporate a lot of calming blues in their physical design as blues calm children who are easily

triggered. Without performing any acts to help children who have undergone trauma, educators are able to reduce outbursts.

In addition to physically altering the design of the school to be inviting, trauma-sensitive schools also incorporate the idea of safe spaces. Safe spaces are designated areas for children to go to regroup before joining the class again. This removes the child from the place where their trigger occurred, allows them a moment to regain composure, and lessens the risk of severe behavior issues which heavily impact the class. In a trauma-sensitive schools, safe spaces include comfortable areas for a child to relax, which incorporate beanbags, pillows, and couches. These areas help an overstimulated child deescalate. One of the key roles an educator must play in helping students who have undergone trauma is helping those students learn how to self-regulate (Statman-Weil, 2015). While having a comfortable area to rest is vital, these safe spaces also have reading materials, calming music, and something to eat.

In some trauma-sensitive schools, a specific room is designated to helping children calm down. However, it is also practical to incorporate this in specific classrooms. Having a corner of the room with a reading chair, a couple of throw pillows, a small rug and a few books offers students a place to go when they feel overwhelmed by something that happens in class. This also services children who do not have trauma backgrounds, because it makes the classroom appear more inviting and it associates learning and school with something good. Buckwater and Powell, speakers at ATTACh, a conference on trauma explained this idea most fully when they stated that "a welcoming and attractive environment helps not only on a physiological level, but conveys a clear message that those who work in and use the building are valued and respected" (Buckwater & Powell, personal communication, 2017).

One of the most critical ways that educators in a trauma-sensitive school distinguish themselves is through cultivating an environment of care for the students in their classes. When forming attachments, children who have undergone trauma tend to attach to educators similarly to how a child forms attachment with his or her mother. With this knowledge, it becomes of even greater importance to form proper attachments with students, especially in their most formative years. It is of utmost importance that teachers do not simply think of students with maladaptive behaviors as bad kids, but rather, they must recognize the misbehavior as a sign of poor attachment (Bachner & Orwig, 2008). On the surface, a teacher may be able to understand the type of attachment that has been formed between himself and a student by observing the student's reaction to simple gestures. For example, if a teacher smiles and the student smiles in return, then a correct attachment between student and teacher exists. If a teacher smiles and the student hardens toward the educator, then a bad attachment has formed. If a teacher smiles and the student responds with trepidation, then the student is in a state of confused attachment, a vulnerable, yet pivotal, place to be (Pfeiffer, personal communication, October 13, 2017). Through knowledge of these attachments, educators can make informed decisions regarding how to proceed in their interactions with the student.

Conclusion

Trauma affects the lives of the majority of children in an American classroom. Because of this fact, it is quite necessary that educators are cognizant of the psychological and developmental effects associated with trauma. Oftentimes, children fail to learn in a way that mirrors the learning patterns of children who do not have trauma backgrounds because of their differing brain structures. In order to provide education for all, school systems must be trauma-informed, and teachers must be equipped with strategies to teach children who have undergone trauma.

References

- ACE Questionnaire. Retrieved from
 - https://www.ncjfcj.org/sites/default/files/Finding%20Your%20ACE%20Score.pdf
- Attachment & Trauma Network. (2015). *Childhood trauma*. [Conference handout] ATTACh Conference: Denver, Co.
- Bachner, H. A., & Orwig, J. F. (2008). Moving beyond discipline of disruptive behavior:

 Recognizing and treating the effects of trauma on adolescents. In G. R. Walz, J. C.

 Bleuer, & R. K. Yep (Eds.), *Compelling counseling interventions: Celebrating VISTAS'*fifth anniversary (pp. 1-10). Ann Arbor, MI: Counseling Outfitters.
- Bee, H., & Boyd, D. (2012). Personality development: Alternative views, *The developing child* (217-40). New Jersey: Pearson Education.
- Blumenthal, I. (2002). Shaken baby syndrome. *Postgraduate Medical Journal*, 78(926), 732–735. http://doi.org/10.1136/pmj.78.926.732
- Bruce, J., Fisher, P. A., Graham, A. M., Moore, W. E., Peake, S. J., & Mannering, A. M. (2013).
 Patterns of brain activation in foster children and nonmaltreated children during an inhibitory control task. *Development and Psychopathology*, 25(4), 931-41.
 doi:http://dx.doi.org/10.1017/S095457941300028X
- Bruskas, Delilah,R.N., M.N. (2008). Children in foster care: A vulnerable population at risk. *Journal of Child and Adolescent Psychiatric Nursing*, 21(2), 70-7. Retrieved from https://search.proquest.com/docview/232976398?accountid=28323
- Buckwalter, K. D. & Powell, C. (2017). *Creating attachment-based trauma-informed classrooms*. [Conference handout] ATTACh Conference: Denver, CO.

- Burke, J., Hellman, J., Scott, B., Weems, C. & Carrion, V. (2011). The impact of adverse childhood experiences on an urban pediatric population. *Child Abuse and Neglect*, *35*(6), 408-13. doi: 10.1016/j.chiabu.2011.02.006
- Burlingame, S. E. (2017, Feb. 25). Personal interview.
- De Bellis, M. D., & Zisk, A. (2014). The biological effects of childhood trauma. *Child and Adolescent Psychiatric Clinics of North America*, 23(2), 185-222, vii.
- Dinehart, L.H., Katz, L. F., Manfra L., & Ullery, M. A. (2012). Providing quality early care and education to young children who experience maltreatment: A review of the literature.

 Early Childhood Education Journal, 41, 283-290. doi:10.1007/s10643-012-0553-6
- Essential elements for a trauma-informed school system. *The National Traumatic Stress**Network. Retrieved from https://www.nctsn.org/trauma-informed-care/trauma-informed-systems/schools/essential-elements
- Garland AF, Hough RL, McCabe KM, Yeh M, Wood PA, Aarons GA. Prevalence of psychiatric disorders in youths across five sectors of care. *Journal of the American Academy of Child and Adolescent Psychiatry*. 2001; 40:409–418. [PubMed: 11314566]
- Larsson, S., Aas, M., Ole, K., Agartz, I., Mork, E., Nils, E. S., Barret, E. A., Lagerberg, T. V., Rossberg, J. I., Melle, I., Andreassen, O. A., & Lorentzen, S. (2013). Patterns of childhood adverse events are associated with clinical characteristics of bipolar disorder. BMC Psychiatry, 13: 97. Retrieved from http://www.biomedcentral.com/1471-244X/13/97
- Lohr, W. D., & Jones, V. F. (2016). Mental health issues in foster care. *Pediatric Annals*, 45(10), e342-348. doi:http://dx.doi.org/10.3928/19382359-20160919-01

- Odhayani, A. A., Watson, L., & Watson, W. J. (2013). Behavioural consequences of child abuse.

 *Canadian Family Physician. 59(8): 831-836. Retrieved from https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3743691/
- Perry, B. D. (2008). Child maltreatment: A neurodevelopmental perspective on the role of trauma and neglect in psychopathy. In T. Beauchaine & S. P. Hinshaw (Eds.), *Child and Adolescent Psychopathology* (pp. 93-129). Hoboken, NJ: John Wiley & Sons.
- Powers, D. (2017) *Applying responsive trauma-informed strategies in schools*. [Conference handout]. ATTACh Conference: Denver, CO.
- Parker, J., & Folkman, J. (2015). Building resilience in students at the intersection of special education and foster care: Challenges, strategies, and resources for educators. *Issues in Teacher Education*, 24(2), 43-62. Retrieved from https://search.proquest.com/docview/1765089757?accountid=28323
- Statman-Weil, K. (2015). Creating trauma sensitive classrooms. YC Young Children, 70(2), 72-79. Retrieved from https://search-proquest-com.ezproxy.obu.edu:2443/docview/1789785786?accountid=28323
- Supin, J. (2016). The long shadow: Bruce Perry on the lingering effects of childhood trauma. *The Sun.* (11), 5-13. Retrieved from https://childtrauma.org/wp-content/uploads/2016/12/Sun-Interview-Bruce-Perry-Nov-2016.pdf
- Trauma. Retrieved from https://dmh.mo.gov/healthykids/providers/trauma.html
- Tsigos, C., & Chrousos, G. P. (2002). Hypothalamic-pituitary-adrenal axis, neuroendocrine factors and stress [Abstract]. *Journal of Psychosomatic Research*, *53*(4), 865-71.

 Retrieved from https://www.ncbi.nlm.nih.gov/pubmed/12377295

- van der Kolk, B.A., (2005). Developmental trauma disorder: Towards a rational diagnosis for children with complex trauma histories.
- Zero to Six Collaborative Group, National Child Traumatic Stress Network. (2010). *Early Childhood Trauma*. Los Angeles, CA & Durham, NC: National Center for Child Traumatic Stress.

Appendix A: ACE Questionnaire

Adverse Childhood Experience (ACE) Questionnaire Finding your ACE Score

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

	y - a 8 8 aF, a a y - a y - a a y - a a y - a a y - a a	
1.	1. Did a parent or other adult in the household often	
	Swear at you, insult you, put you down, or humilia	ate you?
	or	•
	Act in a way that made you afraid that you might l	pe physically hurt?
	Yes No	If yes enter 1
2.	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 in	njured?
	Yes No	If yes enter 1
3.	3. Did an adult or person at least 5 years older than you ever	•
	Touch or fondle you or have you touch their body	in a sexual way?
	or	•
	Try to or actually have oral, anal, or vaginal sex w	rith you?
	Yes No	If yes enter 1
4.	4. Did you often feel that	
	No one in your family loved you or thought you w	vere important or special?
	or	
	Your family didn't look out for each other, feel clo	ose to each other, or support
	each other?	
	Yes No	If yes enter 1
5.	5. Did you often feel that	
	You didn't have enough to eat, had to wear dirty c	lothes, and had no one to
	protect you?	
	Or	
	Your parents were too drunk or high to take care of	of you or take you to the doctor
	if you needed it?	
	Yes No	If yes enter 1
6.	6. Were your parents ever separated or divorced?	
	Yes No	If yes enter 1
7.	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	
	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 mosuicide?	ember depressed or menta	ally ill or did a household member attempt
	Yes	No	If yes enter 1
10	. Did a household me	mber go to prison?	
	Yes	No	If yes enter 1
	Now add up y	your "Yes" answers:	This is your ACE Score

https://www.ncjfcj.org/sites/default/files/Finding%20Your%20ACE%20Score.pdf





Trauma Informed System Initiative

Screening Checklist

Identifying Children at Risk Ages 0-5

Please check each area where the item is known or suspected. If history is positive for exposure and concerns are present in one or more areas, a comprehensive assessment may be helpful in understanding the child's functioning and needs.

1. A	re you aware of or do you suspect the child has experienced any of the following:
_	Physical abuse
_	Suspected neglectful home environment
_	Emotional abuse
_	Exposure to domestic violence
_	Known or suspected exposure to drug activity aside from parental use
_	Known or suspected exposure to any other violence not already identified
_	Parental drug use/substance abuse
_	Multiple separations from parent or caregiver
_	Frequent and multiple moves or homelessness
_	Sexual abuse or exposure
_	Other
question attentio Note	re not aware of a trauma history, but multiple concerns are present in as 2, 3, and 4, then there may be a trauma history that has not come to your n. Concerns in the following areas do not necessarily indicate trauma; however, e is a strong relationship.
	Does the child show any of these behaviors: Excessive aggression or violence towards self or others
_	Repetitive violent and/or sexual play (or maltreatment themes)
_	Explosive behavior (excessive and prolonged tantruming)
_	Disorganized behavioral states (i.e. attention, play)

	Very withdrawn or excessively shy		
	Bossy and demanding behavior with adults and peers		
	Sexual behaviors not typical for child's age Difficulty with sleeping or eating		
	Regressed behaviors (i.e. toileting, play)		
	Other		
3.	Does the child exhibit any of the following emotions or moods: Chronic sadness, doesn't seem to enjoy any activities.		
	Very flat affect or withdrawn behavior		
	Quick, explosive anger		
	Other		
4.	Is the child having relational and/or attachment difficulties? Lack of eye contact		
	Sad or empty eyed appearance		
	Overly friendly with strangers (lack of appropriate stranger anxiety)		
	Vacillation between clinginess and disengagement and/or aggression		
	Failure to reciprocate (i.e. hugs, smiles, vocalizations, play)		
	Failure to seek comfort when hurt or frightened		
	Other		
When	checklist is completed, please fax to:		
Child ⁹	's First Name: Age: Gender:		
Count	ty: Date:		
Henry, E Westeri	Black-Pond, & Richardson (2010) Michigan University est Michigan Children's Trauma Assessment Center (CTAC)		





Trauma
Informed
System
Initiative

Screening Checklist: Identifying Children at Risk Ages 6-18

Please check each area where the item is known or suspected. If history is positive for exposure and concerns are present in one or more areas, a comprehensive assessment may be helpful in understanding the child's functioning and needs.

1.	Are you aware of or do you suspect the child has experienced any of the following:
	Physical abuse
	Suspected neglectful home environment
	Emotional abuse
	Exposure to domestic violence
	Known or suspected exposure to drug activity aside from parental use
	Known or suspected exposure to any other violence not already identified
	Parental drug use/substance abuse
	Multiple separations from parent or caregiver
	Frequent and multiple moves or homelessness
	Sexual abuse or exposure
	Other
3, and Conce strong	are not aware of a trauma history, but multiple concerns are present in questions 2, 4, then there may be a trauma history that has not come to your attention. Note: erns in the following areas do not necessarily indicate trauma; however, there is a grelationship. Does the child show any of these behaviors: Excessive aggression or violence towards self
	Excessive aggression or violence towards others
	Explosive behavior (Going from 0-100 instantly)
	Hyperactivity, distractibility, inattention
	Very withdrawn or excessively shy
	Oppositional and/or defiant behavior

	Sexual behaviors not typical for o	child's ag	e
	Peculiar patterns of forgetfulness		
	Inconsistency in skills		
	Other		
3.	Does the child exhibit any of the following. Excessive mood swings	ng emotio	ns or moods:
	Chronic sadness, doesn't seem to	enjoy an	y activities.
	Very flat affect or withdrawn bel	avior	
	Quick, explosive anger		
	Other		
4.	Is the child having problems in school? Low or failing grades		
	Inadequate performance		
	Difficulty with authority		
	Attention and/or memory problem	ns,	
	Other		
When	checklist is completed, please fax to:		
Child'	's First Name: A	\ge:	Gender:
Count	ty/Site:	I	Date:
Henry, E	Black-Pond, & Richardson (2010)		
	n Michigan University		
Southwe	est Michigan Children's Trauma Assessment Cente	r (CTAC)	