Maximizing Academic Success for Foster Care Students: A Trauma-Informed Approach

Anna Berardi and Brenda M. Morton

Abstract: Children in foster care have experienced significant trauma due to the loss of primary attachment figures and the circumstances associated with that loss. Children who have suffered trauma generally present with cognitive, social, physical, and emotional vulnerabilities. These vulnerabilities are often expressed in the P–12 academic setting through difficulties with behavioral and emotional self-regulation, academic functioning, and physical ailments and illness related to chronic stress-induced compromised immune systems. This results in academic failure for half of all children in care. Training in how to respond to children who have suffered trauma is essential to ensure that children are comfortable and feel secure in the classroom so that they can access their education. To that end, a framework to support children in P–12 settings who are particularly vulnerable to academic failure due to trauma is presented.

From one foster care placement to another, they are shuffled through life. Their complex needs due to abuse and neglect compound the challenges they will encounter as they work through their P-12 education. While Zetlin (2006) and Zetlin, MacLeod, & Kimm (2013) have identified children in foster care as one of the most academically vulnerable groups of learners in schools today, Wolanin (2005) has noted that people outside of the child welfare system know very little about the foster care system. This lack of information creates an unfortunate disadvantage for the student, teacher, and administrator, creating a significant disconnect.

In addition to academic struggles, foster youth face a bleak future in many areas of their lives. Pecora et al. (2005) reported that 56.3% of foster youth alumni earned a high school diploma, 22.2% experienced homelessness, 16.8% received Temporary Aid to Needy Families or General Assistance, 33.2% live at or below the poverty line, 54.4% report mental health concerns, 25.2% are diagnosed with Posttraumatic Stress Disorder, and 62% report having less than \$250 in total financial assets.

Barriers to Academic Success

Foster children experience a divided focus between survival (Rossen & Cowan, 2013), working through the challenges of state custody (Samuels & Pryce, 2008), and academics. Many foster children and youth will face significant trials as a result of abuse and neglect, including the potential of mental and developmental delays (Bruskas, 2008). For 14% of foster children, the abuse and neglect results in disabilities (Mitchell, Turbiville, & Turnbull, 1999).

Children with traumatic backgrounds have lower IQs and are underachieving in reading, comprehension, and writing compared to children in foster care for reasons other than neglect (Stone, 2007). Emerson and Lovitt (2003) found foster children to be significantly below their non-fostered peers on standardized tests, with math and reading to be of critical concern. These findings were echoed by Shin (2003), who reported that over one third of foster youth, with an average age of 17.5, were reading

below the sixth-grade level and 18% with a ninth- and eleventh-grade reading level.

The impact of frequent moves combined with increased need for special education services, the side effects of attachment-based trauma, and common responses to the foster child's behavior further identify the foster child's experience. It also illustrates our need to examine the efficacy of our current efforts.

Access and Continuity of Special Education Services

The long-lasting consequences of early traumatic stressors can manifest in the classroom in a variety of ways, including identification for special education services. Learning, behavior, and emotional disabilities are the most common diagnoses for Individual Educational Plans (IEP) and Section 504 plans for students who qualified for special education (Morton, 2015). With abuse and neglect as the prevailing reason children come into care, it is not surprising to learn that approximately 50% of the foster children with IEPs have them for emotional/behavioral issues (Morton, 2015).

The consistent movement of foster children makes it difficult to ascertain the number of foster children receiving special education or Section 504 services. Geenen and Powers (2006) conducted a study of students in an Oregon urban school district. They found 44% of foster children were enrolled in special education, of which 30% were placed in the most restrictive learning environment. This finding is consistent with that of Zetlin (2006), who found that one third to one half of foster children are identified for special education, versus 10% to 11.4% of the general school population (McLeskey, Rosenberg, & Westing, 2010). It is important to note that while foster children appear to be overrepresented in special education, there are foster children in schools that are being underserved. In these schools there are children, unable to qualify for special education, who still have challenges who need to be addressed. These can include academic, behavioral, or counseling needs (Stone, D'Andrade, & Austin, 2007). Due to frequent relocations and uncertain residency status, these needs often are not recognized or communicated to the appropriate school personnel.

The high mobility and frequent school changes create a cascade of additional complications, including record transfers and evaluation for academic placement. Because youth in care are more likely than their non-foster peers to lack a consistent advocate, they experience these special education violations in greater numbers than their non-foster peers (Geenen & Powers, 2006). Lack of consistent advocacy in the education of the foster child is a troubling result of high mobility. This begins to explain why students who received special education services at the previous school associated with their former foster care placement are no longer receiving the same services in a new school under the supervision of a new foster parent(s).

Services are often delayed at the new school due to late record transfers and districts' requirements for their own evaluations, resulting in extended periods of time without needed services (Zetlin, MacLeod, & Kimm, 2013). Unfortunately, foster parents, who are often most familiar with the academic needs of the child in their care, are typically unfamiliar with how to navigate and negotiate through special education and Section 504 services (Vacca, 2008). These delays have both academic and disciplinary consequences. Without understanding the needs of their students, teachers are at a loss to understand the challenging behavior that manifests in the classroom. Therefore, foster youth have a higher rate of suspensions for behavior problems than their non-foster peers (Courtney, Terao, & Bost, 2004).

Posttraumatic Stress Risks and Implications

Pecora et al. (2005) report that approximately 25% of foster children are at risk for developing posttraumatic stress disorder (PTSD), a significantly higher rate than the 7% risk rate for non-foster populations (Pecora et al., 2005; Vacca, 2008). This has significant implications for educators as they attempt to create a safe, welcoming environment without understanding the stimuli that could trigger a posttraumatic response from a student with an abuse or neglect background (Holmes, Levy, Smith, Pinne, & Neese, 2014).

The impact of stress and trauma affects each child in unique ways. Some children become overanxious and panicked in the classroom environment. Children suffering from posttraumatic stress disorder may instinctively freeze when they experience anxiety and can therefore be viewed as oppositional or defiant by others (Souers & Hall, 2016). This is one explanation for why foster children experience disciplinary actions that remove the child from the classroom disproportionately more often than non-foster peers. All of these children need permission to retreat to a place either within the classroom or school campus so they can practice learned skills of returning to an emotionally self-regulated state.

Because foster children could be suffering from anxiety or panic attacks due to PTSD, it is important to have a plan in place that is rehearsed with students so that they know how they will be supported if or when they become anxious. Training in how to respond to children who have suffered abuse or neglect is essential to ensure

that teachers know how to read and respond to the signs of an overstressed child. The attitudinal and behavioral shifts that this training inspires within educators changes classroom culture, promoting a greater sense of overall comfort and security for the child before anxiety escalates. Lacking this understanding, or without an IEP or Section 504 plan to help accommodate the student, educators are prone to reprimand an anxious child for defiant behavior rather than design interventions (which often include class removal) to empower the child to return to a sense of inner safety and control.

Suspension and Expulsion

Suspension and expulsion hinder the educational process. Scherr (2007) reported 24% of children and youth in foster care had either been suspended or expelled from school; the national average for all children is 7%. While the student is removed from the classroom, suspension and expulsion do not address the underlying issues that caused the negative behavior that began the removal process. It is clear that foster youth bring emotional and behavioral challenges into a classroom and that the educational system may not be adequately prepared to meet those unique needs. Foster children need specific and individualized programs designed to address their challenges. Suspensions are a predictor of student outcomes, which include crime, delinquency, and drug use (Hemphill, Plenty, Herrenkohl, Toumbourou, & Catalano, 2014). The absence of programs or processes to address these behaviors results in adults in the criminal justice system or as welfare recipients (Monahan, Van Derhei, Bechtold, & Cauffman, 2014).

Implications

As indicated, children in the foster care system generally present with psychosocial, cognitive, and physical vulnerabilities. These challenges are often expressed through difficulties with behavioral and emotional self-regulation (acting out or withdraw behaviors), academic functioning (completing grade-level academic tasks), and physical ailments and illness related to chronic stress-induced compromised immune systems (Commodari, 2013; Geddes, 2006; Nagel, 2009). Their needs are often unintentionally ignored due to school-based systems ill-equipped to understand the needs of the traumatized child. The foster child is perhaps the most visible representative of vulnerable children who need educators to rethink our approach to responding to their ongoing educational needs.

A Trauma-Informed Approach to Understanding the Foster Child

A trauma-informed lens proposes that the foster child's academic and social difficulties are indicators of a specific type of adverse childhood event, namely relation-based trauma disrupting the child's ongoing need for safe and nurturing attachment to his or her primary caretakers. This attachment-based trauma disrupts the physical, psychological, and social development of the child (Bowlby, 1988; Dozier & Rutter, 2016; Perry, 2009).

A trauma-informed approach represents an integration of neurobiology and development, traumatology, and attachment theory (Kinniburgh, Blaustein, Spinazzola, & Van Der Kolk, 2005; Van Der Kolk, 2014; Siegel, 2012). This integration provides a framework for increasing our understanding of the complex challenges foster children may bring into the school environment, inviting a paradigm shift in our response.

Characteristics of Secure Attachment

Attachment theory proposes that human development and functioning is dependent upon each person experiencing secure attachments characterized by sustained, consistent, and appropriate care throughout childhood (Bowlby, 1988; Cozolino, 2013). This care provided by trusted others creates internal working models/schemas that life is manageable despite inevitable uncertainties and coexisting anxieties. Anxiety is thus managed as we trust that if and when we need help along the way, we know we can reach out to an available community of care.

While our needs for secure attachments are lifelong, it is most formative during the first 18 years of life, and is crucial to all aspects of neural development and functioning, including a child's capacity to learn, emotionally self-regulate, and engage in prosocial behaviors characterized by empathy and moral reasoning (Cozolino, 2013; Siegel, 2012). Secure attachment also correlates to the developing immune system and is predictive of childhood and adult health (Bowlby, 1988; Everly & Lating, 2012; Van Der Kolk, 2014).

In addition to providing a sustained and consistent caring presence, quality attachment behaviors are characterized by genuine interest in the life and experience of the child, and the ability to cue into the emotional, social, physical, and cognitive needs of the child. The attuned attachment figure is able to discern age-appropriate responses, whether the child needs a structure-based (guidance, instruction, correction, etc.) or a nurture-based (comforting, reassurance, affection, etc.) response. Optimal attachment behaviors also include the adult's ability to discern when the child needs closer proximity and connection versus when the child needs greater independence and separation (Berardi, 2015; Siegel, 2012). The attuned parent honors and celebrates the child's changing needs rather than disparaging some needs (for example, the need for connection) while overvaluing others (for example, the need for separation).

Quality attachment requires clear delineation between the parent and child roles. This is most possible when the adult is able and willing to fully embrace the role of parent, both emotionally and financially. Likewise, the adult can manage his or her own needs for connection and validation through adult relationships, decreasing the likelihood of manipulating the emotional tone of the parent-child relationship, either through resenting the parenting role or using the child to appease personal feelings of inadequacy or loneliness (Bowlby, 1988; Siegel, 2012). When adults are not willing or able to assume the role of parent, interaction patterns can be characterized from covert messages of shame and guilt to overt behaviors of physical or emotional abuse and abandonment.

Sustained and consistent quality attachment over time does not imply that no deviation to this pattern should ever occur. Momentary parental failures and unavailability allow the child to understand the limitations of the parent-of everyone—to empathically respond to one another's needs at all times. Good-enough parenting strengthens our inner reserves so we can tolerate the inevitable frustrations of loved ones not being able to meet our every need. On a daily basis, the child learns that the parent cannot and should not prevent or protect from all things frustrating, scary, or painful. Rather, more times than not, the parent has taught the child that a caring presence is available for the asking. This repetition of safe connection, moments of misattunement followed by repair and the resumption of connection, sets the stage for the child to gradually learn to tolerate and accept life's limitations and the ultimate need and ability for each person to manage internal anxiety or grief when people or circumstances disappoint (Berardi, 2015).

This reflects the building blocks of self-efficacy, frustration, tolerance, and empathy. We are able to honor the needs of others (decenter ourselves) as an outgrowth of having received sustained care, even as we learn that self and other are never all-knowing or all-caring. Meanwhile, we have the inner confidence to know that we can tolerate and manage the anxiety, reach out if needed, and trust that eventually all will be well (Berardi, 2015).

Neurobiological Correlates of Attunement

Physiological processes associated with attachment and self-regulation of thoughts, feelings, and actions are complex. However, an overview of key central and peripheral nervous system processes along with two of our innate stress-response systems illustrate the interconnectedness of attachment experiences and our physical, emotional, and cognitive development.

Habitual, quality attachment behaviors reinforce neurobiological processes associated with the building of internal attachment schemas that are characterized by trust in the love and availability of others, belief in one's innate sense of ability and worth, and confidence in one's ability to manage the inevitable anxiety that accompanies daily life challenges. Beginning with the empathic eye gaze and the soothing sounds and touch of a consistent caretaker, the growing infant's ability to be comforted indicates and supports the proper flow and regulation of oxytocin and acetylcholine, two of many neurochemicals responsible for promoting the functioning of the parasympathetic nervous system (PNS; Everly & Lating, 2012; Perry, 2009; Siegel, 2012). The PNS is designed to provide rest to the sympathetic nervous system (SNS), which is activated by norepinephrine and cortisol in response to even the most common and predictable stressors the child interprets as fearful.

Daily, the child experiences heightened states of anxiety when physically uncomfortable or scared. The limbic system registers that all is not well, triggering a cascade of neurochemical processes that release norepinephrine into the SNS, designed to ready the mind and body to respond to danger. This locus coeruleus/norepinephrine response

is commonly referred to as the Fight-Flight-Freeze response (Everly & Lating, 2012; Van Der Kolk, 2014; Vermetten & Bremner, 2002).

Norepinephrine is an effective but short-term facilitator of action. Thus, simultaneously a second stress response system is activated, called the General Adaptation Syndrome (Everly & Lating, 2012). Driven by the hypothalamic-pituitary-adrenocortical (HPA) axis, the body now prepares for the possible long-term energy needed in response to the perceived or actual danger. This is primarily fueled by cortisol, often described as the long-term stress response hormone (Everly & Lating, 2012; Vermetten & Bremner, 2002). Once the brain perceives that the threat has passed, the body begins to return to homeostasis, ideally characterized by a give-and-take among these systems, with distinct periods of calm, rest, and subjective feelings of safety.

Through repeated responses by the consistent care of the parent, each time a child's stress response systems are activated, the child is increasingly able to reestablish homeostasis as a result of integrated functioning between central and peripheral nervous system processes (Siegel, 2012). As the amygdala registers potential danger, the hippocampus becomes increasingly adept at identifying new and similar experiences with corresponding memories, the beginning of differentiating what may be a non-danger event (the coach is yelling so I can hear her) rather than an event requiring action (yelling leads to hitting, so watch out). As these messages are sorted by the frontal cortex, eventually a child can reason that while moments in the day are scary, these fears are tolerable and survivable. As the child self-soothes and uses internal and external resources to cope, they reinforce new memories of self-efficacy. As the child repeats these encounters over the years, language acquisition and the capacity of the prefrontal cortex to discern meaning and choose a response further promote the growing child's capacity to self-regulate amidst the stressors of the social environment and one's own internal need states (Siegel, 2012; Van Der Kolk, 2014; Vermetten & Bremner, 2002).

With each age and developmental stage, life presents new and increasingly stressful demands. The constant give-and-take of attachment relationships, including the child's relational reciprocations with family, friends, and the larger community, reinforces the neural networks associated with our sense of self, the capacity to self-regulate emotions and bodily processes, and the capacity to engage in complex reasoning processes. Thus, our increasing ability to understand how social and emotional health are primary building blocks to physical and cognitive health further reinforces the fundamental importance of attachment to whole, integrated growth and functioning.

Inadequate Attachment and Its Consequences

The definition of a foster child indicates that a primary attachment relationship has been interrupted at some point in the child's development. The loss of a primary attachment is always accompanied with grief and anxiety (Jones &

Morris, 2012). However, many of the daily routines comprising quality attachment are often impaired long before the physical loss of the attachment figure or subsequently are not adequately established in the foster care setting(s). These realities are the building blocks of risk for the growing child.

Stressed parents caring for a child before they are emotionally ready may have difficulties knowing how to attune to the infant's needs, either missing cues for comfort and assurance or imposing attitudes and responses reflecting misunderstanding or intolerance (Cozolino, 2014; Siegel, 2012). The child searches for visual, auditory, and kinesthetic signs of the caretaker as a safe haven. For example, a hungry, scared, and overwhelmed infant may not be able to calm down enough to nurse, which in turn activates further annoyance from a parent unable to empathically connect to the child's needs, who then responds with anger, further activating the child's sense of fear and alarm.

Repeated misattunement robs the child of extended states of relaxation, impairing the parasympathetic nervous system's ability to return the body to a homeostatic state of calm. Rather, the child experiences an overabundance of norepinephrine and cortisol surges, placing stress on the child's emotional and cognitive processing, digestive, and immune systems, further increasing the child's vulnerability to social, emotional, and physiological dysregulation brought on by sustained distress (Everly & Lating, 2012; Van Der Kolk, 2014). Such dysregulation overwhelms the child's ability to cope, inviting reactive behaviors such as withdrawal or aggression, further complicating the child's social interactions (Cozolino, 2014).

An Invitation to Rethink School Culture

As this review indicates, foster children who have experienced poor, inadequate, or inconsistent attachment relationships are at increased risk for problematic social, emotional, cognitive, and physical functioning. Whether diagnosed with a reactive attachment style, major depression, conduct disorder, or a learning disability, these children often are displaying the cumulative and progressive effects related to ongoing loss of quality attachment, causing neurological impairment manifested in the child's biological, psychological, social, and cognitive development. Most alarming, data gleaned from the Adverse Childhood Experiences studies suggest this is a national epidemic, with well over 50% of the population, not just foster children, at risk for such impairment (Centers for Disease Control, n.d.).

Meanwhile, schools are under increasing pressure to answer for P-12 students who do not perform at grade level. Educators are often blamed for inadequate teaching methods while long-time educators know that today's students come to school more challenged than in previous generations.

A trauma-informed understanding of the foster child's needs and behaviors invites schools to take a different approach, a school structure informed by advances in traumatology, neurodevelopment, and attachment. The following proposes what such a framework requires.

A Movement Toward Trauma-Informed Schools Educator Response

Understanding that relation-based trauma has a profound impact on a student's physical, emotional, and cognitive development and that it is impacting a majority of P-12 students in addition to foster children provides a sober context to why many children struggle to be academically and socially successful in school. Change is imperative lest we continue to produce marginal to dismal outcomes in many of our most vulnerable school districts.

In response, there is a growing movement toward creating trauma-informed schools (Stevens, 2012). Consensus among multidisciplinary professionals (educators, researchers, mental health and health care practitioners) acknowledges that the nature and severity of need requires a systemic change within school districts, not just adjustments within a single classroom. Trauma-informed practices have steadily gained momentum over the past decade as youth residential care facilities, detention centers, hospitals, and other institutions serving vulnerable populations have abandoned token- and other positive reinforcement-based social learning methods with trauma-informed programming (Children's Defense Fund, 2014; Substance Abuse and Mental Health Services Administration, 2014). No longer is recovery from trauma viewed as primarily occurring within professional counseling environments. Rather, recovery requires a community-based way of being in relationship with each other, using relationship to heal relational injuries as prerequisite to and co-occurring with academic achievement.

As educators have embraced this shift, recognizing they are not serving as counselors but helping children learn by providing a nurturing and safe school environment, districts across the country and internationally are implementing change (Prewitt, 2014; Stevens, 2012). Encouraging data are emerging from schools that have successfully reformed district culture, including policies, structure, and teaching methods (Prewitt, 2014; Stevens, 2012).

These changes cannot be formalized and implemented in isolation, but in partnership with trauma-informed advocacy groups. Education and traumatology experts help districts design frameworks relevant to that district's culture and needs. For instance, Massachusetts Advocates for Children (Cole et al., 2005; Cole, Eisner, Gregory, & Ristuccia, 2013) has produced documents outlining the need for school reform, a framework for how to design a trauma-informed school, and a detailed process for how to begin advocating and changing public policy. The documentary, Paper Tigers (Redford, 2015), chronicles a high school in Washington state as it transitioned to trauma-informed school programming. And, Morton and Berardi (2016) cosponsor the Trauma-Informed School Initiative (TSI), a partnership with George Fox University's College of Education and its Trauma Response Institute to offer training and support for local school districts seeking to implement and monitor trauma-informed school programming.

Mobilizing for Change

Foster children attend school at a developmental disadvantage compared to peers from homes where adequate and sustained attachment is consistently provided. Anxiety management, capacity to focus and comprehend new concepts, and resilience in the face of daily challenges to one's sense of cognitive, social, and emotional competency can easily be impaired.

A trauma-informed response invites the educator to view the child's functioning through a trauma-attachment-neurobiological lens (Kinniburgh et al., 2005). Rather than labeling the child's behaviors as noncompliant or defiant, the behaviors make sense in that the child is reacting to the environment congruent with the nature of sustained loss and trauma. Before instruction can begin, overly stressed children need to be reassured that they are understood, valued, and are now safe in order to return to a state of calm. When such responses are characteristic of the broader school system, children begin to associate school as a secure base, allowing growth and development to resume and thrive. Such change includes:

- a paradigm shift within all school personnel regarding the purpose and function of the school as an institution, and the interpretation of the student's needs and behaviors;
- a commitment by all school personnel to learn about the interconnectedness between safe and secure relationships, neurological development, learning, and pro-social behaviors, along with new ways of response impacting discipline, classroom management, and teaching methods;
- an ongoing and working partnership with parents, school personnel, and students; and
- an ongoing collaboration with community traumainformed experts who assist in training and monitoring progress (Children's Defense Fund, 2014; Massachusetts Advocates for Children, 2005; Massachusetts Advocates for Children, 2013).

Examples of trauma-informed strategies for school personnel include:

- curiosity and compassion for the life circumstances of each student;
- unwavering acceptance of each child regardless of the student's successes or failures;
- overtly addressing in each class the culture of care, including the why and the how, that characterizes the classroom and the school at large; and
- a view of discipline or structure as a method of providing safety to self and others while affirming the student's ability to learn less harmful coping measures.

With all stakeholders committed to creating a traumainformed school environment, children impacted by trauma will receive the support needed to thrive. Creating such an environment, however, requires focus and commitment. School districts can begin this process by engaging in conversation with parents, educators, administrators, school boards, students, and local experts in trauma-informed training. Such partnerships can assure school districts of networking with other districts and allied organizations committed to increasing efficacy in serving the diverse developmental needs of all learners.

References

- American Academy of Pediatrics. (2000). Developmental issues for young children in foster care. *Pediatrics*, 106(5), 1145–1150.
- Berardi, A. (2015). In E. S. Neukrug (Ed.), *The SAGE encyclopedia of theory in counseling and therapy* (pp. 624–626). Thousand Oaks, CA: SAGE Publications.
- Bowlby, J. (1988). A secure base: Parent-child attachment and healthy human development. New York, NY: Basic Books.
- Bruskas, D. (2008). Children in foster care: A vulnerable population at risk. *Journal of Child and Adolescent Psychiatric Nursing*, 21(2), 70–77.
- Centers for Disease Control and Prevention. (n.d.). *Ace study: Major findings.* Retrieved from http://www.cdc.gov/violenceprevention/acestudy/index.html
- Children's Defense Fund. (2014). Issue brief: Building traumainformed systems of care for children in Ohio. Retrieved from http://www.cdfohio.org/research-library/ documents/building-trauma-informed.pdf
- Cole, S. F., Eisner, A., Gregory, M., & Ristuccia, J. (2013). Helping traumatized children learn 2: Safe, supportive learning environments that benefit all children. Retrieved from http://www.acesconnection.com/g/aces-in-education/fileSendAction/fcType/5/fcOid/421545695180517010/fodoid/421545695180517009/HTCL-Vol-2-Creating-and-Advocating-for-TSS.pdf
- Cole, S. F., O'Brien, J. G., Gadd, M. G., Ristuccia, J., Wallace, D. L., & Gregory, M. (2005). Helping traumatized children learn: Supportive school environments for children traumatized by family violence. Retrieved from http://www.acesconnection.com/g/aces-in-education/fileSendAction/fcType/5/fcOid/431821476960146743/fodoid/431821476960146742/HTCL%20Vol-1.pdf
- Commodari, E. (2013). Preschool teacher attachment, school readiness and risk of learning difficulties. *Early Childhood Research Quarterly*, 28(1), 123–133.
- Courtney, M. E., Terao, S., & Bost, N. (2004). Midwest evaluation of the adult functioning of former foster youth: Conditions of youth preparing to leave state care (pp. 1–60). Chapin Hall Center for Children at the University of Chicago.
- Cozolino, L. (2013). The social neuroscience of education: Optimizing attachment and learning in the classroom. New York, NY: W. W. Norton.

- Cozolino, L. (2014). The neuroscience of human relationships: Attachment and the developing social brain (2nd ed.). New York, NY: W.W. Norton.
- Dozier, M., & Rutter, M. (2016). Challenges to the development of attachment relationships faced by young children in foster and adoptive care. In J. Cassidy & P. R. Shaver (Eds.), Handbook of attachment: Theory, research, and clinical applications (3rd ed., pp. 696–714). New York: Guilford.
- Emerson, J., & Lovitt, T. (2003). The educational plight of foster children in schools and what can be done about it. *Remedial and Special Education*, 24(4), 199–203.
- Everly, G. S., & Lating, J. M. (2012). A clinical guide to the treatment of the human stress response. New York, NY: Springer.
- Geddes, H. (2006). Attachment in the classroom: The links between children's early experience, emotional well-being and performance in school. London, England: Worth Publishers.
- Geenen, S., & Powers, L. E. (2006). Are we ignoring youths with disabilities in foster care? An examination of their school performance. *Social Work*, *5*1(3), 233–237.
- Hemphill, S. A., Plenty, S. M., Herrenkohl, T. I., Toumbourou, J. W., & Catalano, R. F. (2014). Student and school factors associated with school suspension: A multilevel analysis of students in Victoria, Australia and Washington State, United States. *Children and Youth Services Review*, 36, 187–194.
- Holmes, C., Levy, M., Smith, A., Pinne, S., & Neese, P. (2014). A model for creating and supporting traumainformed culture for children in preschool settings. *Journal of Child and Family Studies*, 24(6), 1650–1659. doi:10.1007/s10826-014-9968-6
- Jones, A. M., & Morris, T. L. (2012). Psychological adjustment of children in foster care: Review and implications for best practice. *Journal of Public Child Welfare*, 6(2), 129–148. doi:.10.1080/15548732.2011.617272
- Kinniburgh, K. J., Blaustein, M., Spinazzola, J., & Van Der Kolk, B. A. (2005). Attachment, self-regulation, and competency. *Psychiatric Annals*, *35*(5), 424–430.
- McLeskey, J., Rosenberg, M., & Westing, D. (2010). *Inclusion: Effective practices for all students.* Upper Saddle River, NJ: Pearson Education.
- Mitchell, L. M., Turbiville, V., & Turnbull III, H. R. (1999). Reporting abuse and neglect of children with disabilities: Early childhood service providers' views. *Infants & Young Children*, 11(3), 19–26.
- Monahan, K. C., Van Derhei, S., Bechtold, J., & Cauffman, E. (2014). From the school yard to the squad car: School discipline, truancy, and arrest. *Journal of Youth and Adolescence*, 43(7), 1110–1122.
- Morton, B. M. (2015). Barriers to academic achievement for foster youth: The story behind the statistics. *Journal of Research in Childhood Education*, 29(4), 476–491.
- Morton, B., & Berardi, A. (2016). Trauma-Informed School Initiative. Trauma Response Institute at George Fox University. http://www.georgefox.edu/counseling-programs/clinics/tri/Trauma-Informed%2School%20Initiative/index.html

- Nagel, M. (2009). Mind the mind: Understanding the links between stress, emotional well-being and learning in educational contexts. *The International Journal of Learning*, 16(2), 33–42.
- Pecora, P. J., Kessler, R. C., Williams, J., O'Brien, K., Downs, A. C., English, D., & Holmes, K. (2005). Improving family foster care: Findings from the Northwest foster care alumni study. Retrieved from http://www.nxtbook.com/nxtbooks/casey/alumnistudies/
- Perry, B. D. (2009). Examining child maltreatment through a neurodevelopmental lens: Clinical applications of the neurosequential model of therapeutics. *Journal of Loss and Trauma*, 14(4), 240–255.
- Prewitt, E. (2014, April 30). State, federal lawmakers take action on trauma-informed policies, programs. Aces Too High News. Retrieved from http://acestoohigh.com/2014/04/30/state-federal-lawmakers-take-action/
- Redford, J. (Producer and Director). (2015). Paper tigers [Documentary]. United States: Brainstorm Media.
- Rossen, E., & Cowan, K. (2013). The role of schools in supporting traumatized students. *Principal's Research Review* 8(6), 1–8.
- Samuels, G. M., & Pryce, J. M. (2008). What doesn't kill you makes you stronger: Survivalist self-reliance as resilience and risk among young adults aging out of foster care. Children and Youth Services Review, 30(10), 1198–1210.
- Scherr, T. G. (2007). Educational experiences of children in foster care: Meta-analyses of special education, retention and discipline rates. *School Psychology International*, 28(4), 419–436.
- Shin, S. H. (2003). Building evidence to promote educational competence of youth in foster care. *Child Welfare*, 82(5), 615–632.
- Siegel, D. J. (2012). The developing mind: How relationship and the brain interact to shape who we are (2nd ed.). New York, NY: Guilford Press.
- Souers, K., & Hall, P. (2016). Fostering resilient learners: Strategies for creating a trauma-sensitive classroom. Alexandria, VA: Association of Supervision and Curriculum Development.
- Stevens, J. E. (2012). Massachusetts, Washington state lead U.S. trauma-sensitive school movement. Aces Too High News. Retrieved from http://acestoohigh.com/2012/05/31/massachusetts-washington-state-lead-u-s-trauma-sensitive-school-movement/
- Stone, S. (2007). Child maltreatment, out-of-home placement and academic vulnerability: A fifteen-year review of evidence and future directions. Children and Youth Services Review, 29(2), 139–161. http://dx.doi.org/10.1016/j.childyouth.2006.05.001
- Stone, S., D'Andrade, A., & Austin, M. (2007). Educational services for children in foster care: Common and contrasting perspectives of child welfare and education stakeholders. *Journal of Public Child Welfare*, 1(2), 53–70.

- Substance Abuse and Mental Health Services Administration. (2014). Trauma-informed care in behavioral health services. Treatment Improvement Protocol (TIP) Series 57. HHS Publication No. (SMA) pp. 13–4801. Rockville, MD: Author.
- Vacca, J. S. (2008). Breaking the cycle of academic failure for foster children: What can the schools do to help? *Children and Youth Services Review*, 30(9), 1081–1087.
- Van Der Kolk, B. (2014). The body keeps the score: Brain, mind, and body in the healing of trauma. New York, NY: Penguin.
- Vermetten, E., & Bremner, J. D. (2002). Circuits and systems in stress: Preclinical studies. *Depression and Anxiety*, 15(3), 126-147.
- Wolanin, T. R. (2005). The education opportunities for foster youth: A primer for policymakers. Retrieved from http://www.ihep.org/Publications/publicationsdetail. cfm?id=58
- Zetlin, A. (2006). The experiences of foster children and youth in special education. *Journal of Intellectual & Developmental Disability*, 31(3), 161–165.
- Zetlin, A., MacLeod, E., & Kimm, C. (2013). Beginning teacher challenges instructing students who are in foster care. *Remedial and Special Education*, 33(1), 4–13.

Authors

Anna A. Berardi, PhD, is the director of the Trauma Response Institute, cofounder of the Trauma-Informed School Initiative, and a professor of marriage and family therapy in the Graduate School of Counseling at George Fox University, Portland, OR. Her research interests include the impact of trauma on persons and relational systems, and the role of privilege and marginalization on risk and resiliency. Dr. Berardi is also a practicing psychotherapist.

Brenda M. Morton, EdD, is an Associate Professor in the School of Education and cofounder of the Trauma-Informed School Initiative at George Fox University, Portland, OR. Her research interests include the impact of trauma on the academic outcomes of P–20 students and life outcomes of foster children.