Creating a Trauma-Informed Early Childhood System:

Review of the Literature and Summary of Findings

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child care resources inc.

United Way of Central Carolinas

Preface

Child Care Resources Inc. and United Way of Central Carolinas are pleased to present: *Creating a Trauma-Informed Early Childhood System: Review of the Literature and Summary of Findings*. Funded by United Way of Central Carolinas, Child Care Resources Inc. (CCRI) undertook this study to inform its understanding of the impact of trauma on young children, their families, and those caring for them in early care and education programs and to identify evidence-based and evidence-informed strategies to promote, develop, and further a resilience framework within the early childhood system, and particularly, within early care and education programs.

CCRI's multi-faceted approach to complete this work included: 1) an extensive review of the research on trauma-informed care in early childhood settings and viable evidence-based, scalable workforce strategies; 2) focus groups of diverse local early care and education teachers; technical assistance providers; center directors; parents, early intervention, infant, and mental health specialists; and other early care and education stakeholders to gain their perspectives about this topic, related needs, existing resources, and additional resources that would be necessary for focused and sustained engagement; and 3) interviews with experts on early childhood trauma to gain insights into key strategies, practices, and components that should be included in a trauma-informed intervention approach designed to promote children's, families' and staff's resilience in community-based child care programs.

CCRI contracted with Jen Neitzel, Ph.D., (formerly of the Frank Porter Graham Child Development Institute at the University of North Carolina – Chapel Hill) to lead this effort and gratefully acknowledges her work.

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Background and Importance of this Work

In 2013, Harvard University and the University of California-Berkeley completed the "Equality of Opportunity" study in which they used administrative records to examine upward mobility in major metropolitan areas within the United States. In their findings, Chetty and colleagues (2014) found that Charlotte-Mecklenburg ranked 50th out of 50 among large American cities with the worst rates of intergenerational poverty of any city in the country. In other words, if children are born into poverty in Charlotte, it is unlikely that they will progress out of poverty. The authors also found that in cities where there is little upward mobility, there is (1) greater residential segregation according to race and income; (2) less income equality; (3) lower quality schools in high poverty areas; (4) less social capital; and (5) less family stability. Because of this study, the Charlotte-Mecklenburg Opportunity Task Force was formed to determine key factors that are related to the disparities within the city.

As part of their work, the Task Force completed a report designed to provide a better understanding about the barriers associated with the lack of upward mobility and identify mechanisms that could be put into place to combat income inequality (Mecklenburg County Public Health, 2017). The members of the Task Force found that the cycle of intergenerational poverty was the result of "a complex set of interrelated systemic, structural, and cultural issues" that influence the life trajectories of children and families. Three key determinants were identified as areas of focus for breaking the cycle of poverty: (1) early care and education; (2) family and child stability; and (3) college and career readiness. Trauma, or toxic stress, was identified as a critical factor that needed to be addressed to create more positive outcomes for the children and families living in poverty within Charlotte.

Research suggests that up to 70% of young children are exposed to traumatic events, including extreme poverty, domestic violence, and physical abuse (Roberts, Ferguson, & Crusto, 2013; Roberts et al., 2014). Children who experience these types of traumatic occurrences are more likely to have attention, language, behavioral, problem solving, and self-regulation difficulties (Walkley & Cox, 2013). Without effective intervention, these adverse factors can affect brain development and have negative effects on long-term outcomes, including increased likelihood for mental illness and low educational achievement (Franke, 2014; Sheridan & Nelson, 2009). According to the Opportunity Task Force, mental health and its relationship to long-term outcomes is the leading health concern in Mecklenburg County starting in early childhood (Mecklenburg County Public Health, 2017). As such, there is an increased need for interventions that can be feasibly implemented within early learning programs to alleviate the effects of trauma on the development of young children; increase early childhood practitioners' abilities to effectively meet the needs of young children and families who are experiencing trauma; decrease suspensions and expulsions in early childhood settings; and decrease the emotional strain on providers (Bartlett, Smith, & Bringewatt, 2017).

In response to the Task Force report, Child Care Resources Inc. (CCRI), with support from United Way of Central Carolinas, began work on identifying strategies and practices that could be incorporated into early childhood programs to meet the needs of young children who are experiencing trauma. Several key activities were initiated as part of this important work:

1. Conducting a comprehensive review of the current literature (research-based and conceptual), including identifying trauma-informed intervention approaches that can be used or adapted for use in community-based child care programs.
2. Convening focus groups with (a) child care program administrators; (b) child care providers; (c) parents; and (d) other early childhood related service providers.

3. Interviewing trauma experts in the field to gain insight into key strategies, practices, and components that should be included within a trauma-informed intervention approach designed for use in community-based child care programs. Experts included: (a) Bruce Perry, Senior Fellow of the Child Trauma Academy (Houston, TX); (b) Neal Horen, Director of the Early Childhood Division at the Center for Child and Human Development, and the Director of the HOYA clinic in the Department of Psychiatry (Georgetown University); (c) Cathy Ayoub, Associate Professor, Harvard Medical School and Faculty, Brazelton Touchpoints Center; and (d) Ariana Shahinfar, Department of Psychological Science at the University of North Carolina-Charlotte.

4. Summarizing findings from the comprehensive review, focus groups, and interviews with experts into a written report that identifies a potential intervention approach, or key strategies/elements to be included in an intervention.

The goal of this work was to provide a path forward for the early childhood community. Within this report, key steps for implementing a trauma-informed early childhood system are provided.

What is Trauma?

In recent years, there has been growing awareness about trauma and its effects on early childhood development. According to recent statistics, approximately 35 million children have experienced one or more types of trauma, and young children are at higher risk than older children. In fact, over 25 % of all confirmed cases of child abuse and neglect involve children under three years of age (Bartlett, Smith, & Bringewatt, 2017).

Trauma in early childhood includes events that cause a child harm or pose a threat to the child's emotional and/or physical well-being, and induces intense fear, terror, and helplessness (Flouri et al., 2012; Flouri et al., 2014; Perry, 2004). In general, childhood trauma that: (a) begins early in a child's life; (b) is severe and pervasive; (c) takes different forms; and (d) involves harmful behavior by a primary caregiver is most related to negative outcomes. Recent research indicates that complex trauma (i.e., exposed to multiple traumatic events) is particularly harmful to young children's long-term outcomes. Statistics suggest that approximately 70% of children have experienced three or more types of trauma before they are 6-years-old (Bartlett, Smith, & Bringewatt, 2017). According to the Substance Abuse and Mental Health Services Administration (SAMSHA; 2014), trauma includes the actual event, the experiences of the event, and the lasting effects.

Examples of traumatic ***events*** in early childhood include:

- *Physical abuse* (use of physical force, such as hitting, kicking, shaking, burning, or other types of force against a child)
- *Sexual abuse* (actual or attempted sexual contact, exposure to age-inappropriate sexual materials or environments)
- *Emotional abuse* (behaviors that harm a child's self-worth or emotional well-being, such as name calling, shaming, rejection, withholding love, threatening)
- *Physical and/or emotional neglect* (failure to meet child's basic physical and emotional needs related to housing, food, clothing, education, and access to medical care)
- *Serious, untreated parental mental illness or substance abuse*

- *Witnessing domestic violence* (exposure to emotional abuse, actual/attempted physical or sexual assault, or aggressive control perpetrated between a parent/caregiver and another adult in the child's home environment)
- *Witnessing community violence* (extreme violence in the community, included gang-related violence)
- *Prolonged separation from or loss of a loved on*e (e.g., parental incarceration, death of loved one) (National Child Traumatic Stress Network, 2018)
- *Poverty:* Low income families are more likely to experience greater levels of prolonged stress which can contribute to difficulties in later adjustment (Blair et al., 2011; Day et al., 2015; Jiang, Granja, & Koboll, 2017; Wadsworth & Santiago, 2008). Previous research suggests that economic hardship negatively affects the health and well-being within a family because healthy development of brain circuits is dependent on healthy experiences (Shanks & Robinson, 2013; Tierney & Nelson, 2009). Negative consequences of poverty appear to intensify the longer a child is impoverished and the longer children are exposed to stress factors. Poverty also affects how parents interact with their children. For example, parents with limited financial resources tend to engage in fewer nurturing interactions with their children and use a more authoritarian approach to parenting in which inconsistent, harsher discipline is administered (Conger et al., 1993).

How individual children ***experience*** one or more of these events determines whether or not it is traumatic in nature. For example, a particular event may be traumatic for one child, but not another. Individual feelings of humiliation, guilt, shame, betrayal, or silencing often shape the experience of the event for individual children (SAMSHA, 2014). How children react to a traumatic event is linked to a number of factors, including cultural beliefs, age, gender, or the availability of social supports.

Research on trauma indicates that these types of negative events have an ***effect*** on early brain development, cognitive development, learning, social emotional development, the ability to develop secure attachments, and physical health (Bartlett, Smith, & Bringewatt, 2017). For instance, physical and emotional neglect are particularly damaging early in life because they affect a child's ability to form secure attachments and relationships with others (Perry et al., 2010). As noted previously, it is important to remember that how children respond to trauma varies based on the nature of the trauma, characteristics of the child and family, as well as the overall balance of risk and protective factors (Bartlett, Smith, & Bringewatt, 2017).

In general, children younger than five years of age tend to demonstrate greater reactivity to trauma than older children and adults. Responses to trauma in young children include both internalizing and externalizing behaviors (NIMH, 2001). For example, physical abuse is generally associated with externalizing behaviors such as aggression, depression, and anxiety. Sexual abuse and extreme neglect, on the other hand, often lead to internalizing behaviors, such as withdrawal (Caporino et al., 2003). Past research also suggests that girls tend to develop internalizing behaviors and become more passive; whereas boys often develop externalizing behaviors in response to trauma (Schwartz & Perry, 1994). A child's ability to adapt to, use internal coping mechanisms, and employ defense mechanisms are determined by (a) the child's developmental stage (e.g., brain development, self-regulation, psychosocial development, cognitive functioning and communication), (b) their attachment to caregivers, and (c) their individual resilience (e.g., ability to bounce back from adversity based on protective factors, such as good health, close relationships, consistent parenting) (Blumenfeld et al., 2010).

Toxic Stress

Trauma is most often used to describe experiences that are detrimental to children's overall health and development. Adverse childhood experiences (ACEs) and toxic stress are related terms that have been used to describe trauma. Toxic stress has been used most often to understand the effects of these experiences on children's brain development. Having an understanding of toxic stress is critical to understanding trauma.

Stress, defined as a response to the demands encountered on a daily basis throughout one's lifetime, is related to both positive and negative experiences (Shonkoff & Gardner, 2011). Stressors may be physical, emotional, or environmental, and have varying levels of severity. *Positive stress* is a normal stress response and is essential for the growth and development of the child. Positive stress factors are generally infrequent, short-lived, and mild (e.g., encounter with a stranger, getting too close to a hot stove, conflict with another child). With positive stress factors, children often are supported through the event by the presence of positive, nurturing relationships with adult caregivers. Children may experience brief increases in heart rate or a mild elevation in cortisol (body's stress hormone); however, these variables are not sustained over time. Because of this, positive stress factors do not have negative effects on children's brain development (Shonkoff, 2010; Shonkoff & Gardner, 2011).

Tolerable stress, on the other hand, is more severe, frequent, or sustained. The body responds to a greater degree, and biochemical responses have the potential to negatively affect brain functioning. However, once the adversity is removed (e.g., hospitalization, divorce), the brain can fully recover. Supportive adults are critical in helping to moderate the effects of tolerable stress on the developing brain. Children who experience tolerable stress factors may have an increased heart rate and cortisol level when the stressor is present; however, the effect of these variables decreases once the stressor no longer exists (Shonkoff, 2010; Shonkoff & Gardner, 2011).

Toxic stress is the most severe form of stress because it results in the prolonged activation of the stress response from which the body cannot fully recover. Children who experience toxic stress generally face inadequate caregiver support, reassurance, and emotional attachments with important adults in their lives (Franke, 2014; Sheidow et al., 2014). Toxic stress is especially harmful and can lead to unhealthy lifestyles, socioeconomic inequality, and poor health (Shonkoff & Gardner, 2011). The most prominent reason for this is because toxic stress can permanently change the structure of the developing brain due to physiological changes in the body over an extended period of time that include higher cortisol levels and increased heartrate (Franke, 2014; Goldstein et al., 2007; Sheidow et al., 2014; Shonkoff & Gardner, 2011). Cortisol, a stress hormone, is produced in response to stress and helps the brain and body cope with adverse situations. Children exposed to chronic trauma experience a constant state of fight, flight, or freeze. According to Perry (2006), these children are in a persisting physiological state of alertness that helps them to identify threats to their well-being. Young trauma-exposed children often use a combination of hyperarousal and dissociation in response to perceived threat. Hyperarousal is one aspect of the fight/flight reaction, which results in behaviors such as agitation, hyperactivity, defiance, and aggression. When a child's response to stress is flight, they often try to escape from a situation. Dissociation is known as the freeze response in which children shut down and detach from the event (Herman, 1997). Children in such a state often look dazed, forgetful, or shut down emotionally. When the child is in this constant state of perceived threat, the body does not turn off cortisol, which can lead to long-term negative effects (e.g., suppression of immune function, memory, bone mineral loss, muscle atrophy) and damage the hippocampus, which is critical for both learning and memory (Shonkoff & Gardner, 2011).

Chronic, unrelenting stress is most often caused by extreme poverty, repeated abuse, or severe maternal depression. Prolonged exposure to these types of stress factors can be toxic to the developing brain, and lead to life-long problems, including difficulty learning, depressive disorders, behavioral dysregulation, psychosis, and physical health (e.g., stroke, heart disease, anxiety, alcoholism, drug abuse) (Center on the Developing Child, 2014; Shonkoff & Gardner, 2011).

Brain Development and Toxic Stress

Human brains are built over time and constructed through an ongoing process that begins before birth and continues into adulthood. Early development involves a complex interplay between environmental factors and a child's genetic makeup. During the first few years of life, more than 1 million new neural connections form every second and shape the developing brain through interactions between genes and experience (Shonkoff & Gardner, 2011). The brain is most flexible, or plastic, between birth and 3 years of age in which there is rapid cognitive, linguistic, social, emotional, and motor development, which is a particularly vulnerable time for children to experience trauma (Walker et al., 2011). Throughout life, these developmental constructs remain intertwined; however, early emotional well-being and social competence appear to be particularly critical in a child's development. Healthy brain functioning and development rely on responsive caregivers and positive relationships with adults who help them learn to handle stressful experiences.

Beginning in infancy, interactions with others serve as the context for learning and development, and provide the foundation for future brain growth. Promotive factors, such as responsive relationships with caregivers, support the development of skills during a sensitive period (i.e., periods of rapid brain growth and development) (Garmezy, 2002; Hardaway et al., 2016; O'Neal & Cotton, 2016; Taylor, 2010). Early social-emotional skills and the development of secure attachments with caregivers provide a strong foundation for emerging cognitive abilities, and set the stage for long-term positive outcomes (Center for the Developing Child, 2007; Shonkoff & Gardner, 2011). Stress factors, on the other hand, may prolong the occurrence of sensitive periods, essentially stunting brain development (Center for the Developing Child, 2007; Knudsen, 20014; Knudsen et al., 2006). A lack of positive, early experiences may lead to miswiring of brain circuits, or "errors," in brain development and increase the likelihood of emotional and behavioral problems (Ackerman et al., 2004; Bradley & Corwyn, 2002; McLoyd, 1998).

Previous research on toxic stress suggests that it is particularly damaging during early, sensitive periods of brain development because the regions of the brain that are involved in fear, anxiety, and impulsive responses may overproduce neural connections while those regions dedicated to reasoning, planning, and behavioral control may produce fewer neural connections (Shonkoff & Gardner, 2011). For example, toxic stress factors within the first 2 years of life affect the timing of experiences that may prevent or ameliorate the effects of stress on the developing child (Marshall et al., 2008; Nelson et al., 2007; Tierney & Nelson, 2009; Windsor et al., 2007). Table 1 provides information regarding sequential neurodevelopment and the primary goals of each developmental phase. Trauma at different stages can delay or prevent the acquisition of significant developmental goals.

Table 1. Neurodevelopmental goals in early childhood

Age	Critical functions being organized	Developmental goal
0-9 months	Arousal regulation; sleep and fear states	State regulation, primary attachment, flexible stress response, resilience
6 months–2 years	Integration of multiple sensory inputs	Sensory integration, motor control, attunement
1-4 years	Emotional states, social language, interpretation of nonverbal information	Emotion regulation, empathy, tolerance
3-6 years	Abstract cognitive functions, social-emotional integration	Abstract reasoning, creativity, moral and spiritual foundations

Source: Perry (2006)

Trauma and Its Effects on Child Development

Recent research suggests that the first few years of life is a period in which young children are particularly susceptible to trauma and are more vulnerable to the negative effects of these types of events. In fact, long-lasting negative effects of trauma are present in infants as young as three months of age (Bartlett, Smith, & Bringewatt, 2017). However, the effects of trauma on young children's development depend on a number of factors, including the age of the child, the nature of the child, and the existence of other risk factors (e.g., poverty, community violence) and protective factors (e.g., nurturing caregiver, social supports). In general, more severe and chronic trauma leads to more detrimental outcomes for children (Bartlett, Smith, & Bringewatt, 2017). The following section outlines the effects of trauma on child development.

Attachment

For young children who have experienced or are experiencing trauma, difficulty with attachments is very common because the highly stressful events they have experienced affect their ability to form and maintain relationships with others (Chu & Lieberman, 2010). According to Morton and Browne (1998), secure attachment develops when a primary caregiver responds to a baby's cues in a consistent and nurturing way. Attachment is a critical component in physical and psychological development because the presence of a supportive caregiver helps children feel safe enough to explore the world around them (Bowlby, 1988). Current research indicates that secure attachment facilitates healthy brain development and enables children to manage stress and regulate emotions (Perry, 2006). Chronic trauma prevents neural pathways from forming, thus inhibiting the development of coping systems and emotion regulation. Problems with attachment often stem from children's relationships with their primary caregivers (e.g., loss of parent, abuse, neglect, domestic violence), which affect how they form relationships with others now and in the future. For example, many children who have been exposed to prolonged trauma show mistrust, aggression, or withdrawal from others. These children also often have difficulty establishing and maintaining friendships with peers (National Child Traumatic Stress Network, 2018; Perry et al., 2010).

Social-Emotional Development

Social-emotional development is particularly affected by trauma in early childhood with the effects lasting into adulthood. Immediate consequences of trauma on young children's social-emotional skills include difficulties coping with stress, feelings of helplessness/worthlessness, low self-esteem, and feeling responsible for traumatic events (National Child Traumatic Stress Network, 2018). Young children who have been or are currently exposed to trauma often exhibit a range of behaviors that are reactions to the trauma itself (e.g., excessive crying, distress, regression, aggression, withdrawal) (Bartlett, Smith, & Bringewatt, 2017). To early childhood practitioners, these behaviors may seem similar to those of their peers; however, children who are experiencing trauma often do not respond to the typical approaches used to address challenging behaviors (e.g., redirection, removing child from situation). In fact, many typical early childhood strategies that are effective in promoting positive behaviors (e.g., praise, gentle touch, reward) increase a child's stress because they are a reminder of a traumatic event (Bartlett, Smith, & Bringewatt, 2017). Thus, an emphasis on explicitly teaching social-emotional skills and using effective behavior management practices is critical for trauma-exposed children.

Cognitive Development and Learning

Research suggests that young children who experience trauma demonstrate cognitive and language delays that puts them at greater risk for early learning difficulties and later academic challenges (Stahmer et al., 2005). Casanueva and colleagues (2012) found that nearly 25% of all children who experience trauma have language delays. In addition, a significant number of these children demonstrated very low scores on tests of school readiness.

Physical Health and Development

Trauma early in life also can affect children's physical health and development. For example, children may be in a car accident or experience ongoing physical abuse. Research also has found that early childhood trauma can have lasting effects into adulthood that include greater incidences of cancer, heart disease, alcoholism, depression, drug abuse, obesity, and smoking (Shonkoff, Boyce, & McEwen, 2009).

Symptoms of Trauma in Young Children

Signs of trauma will vary depending on the age, gender, and developmental capacities of young children (Graham-Bermann et al., 2008). However, specific symptoms at different ages may indicate that a child is experiencing trauma. In infants and young children, behavioral and developmental indicators are observed (see Table 2). More often than not, these behaviors are coping mechanisms that young children have developed to respond and adapt to the trauma in their lives (Garbarino, 1995).

Table 2. Common learning and developmental problems observed in children with trauma

Developmental difficulty	Indicators
Difficulties with regulation	Aggression; disobedience; withdrawal; inattention; not easily redirected; lack of impulse control; over reactive to others; low frustration tolerance; easily upset
Sensory modulation	Over response to touch, sensitive to lights or sounds
Externalizing behaviors	Guarded, defensive; angry; highly reactive to seemingly minor events; intensive emotional outbursts; lack of responsibility for actions; hypersensitive to "perceived" threat
Impaired cognitive abilities	Loss of recently acquired skill; difficulties problem solving and learning new skills
Developmental delays	Delays in language, social skills, and motor skills; difficulty sustaining play; repetitive play; difficulty processing information; difficulty with focusing on and completing tasks
Peer relationships	Difficulties managing strong feelings and solving social problems; difficulty taking perspective of others/lack of empathy
Difficulties in relationships with adults	Difficulty forming trusting relationships with adults; tendency to form indiscriminate attachments with strangers; suspicious; rejecting; resisting attempts at bond forming; clinginess; lack of empathy
Self-soothing strategies	Anxiety, fear, regressed self-soothing behaviors; rocking; scratching; biting themselves; head banging; chanting, difficult to soothe
Eating, sleeping, toileting	Gorging or hoarding food; disturbed sleep patterns; toileting difficulties
Executive function	Expects failure; does not see hopeful future; difficulty making and carrying out plans

(Bartlett, Smith, & Bringewatt, 2017; Graham-Bermann et al., 2008; National Child Traumatic Stress Network, n.d.; Perry et al., 2010)

Trauma-Informed Early Childhood Classroom Interventions

The recent attention being given to early childhood trauma and its negative effects on long-term learning and development has led many policy makers, practitioners, and researchers to try and understand how to best help children who are experiencing trauma. Given the fact that many young children spend a significant amount of time in out-of-home care within child care centers and preschools, these types of settings are a critical context in which trauma-informed care can be delivered. However, a major limiting factor is that few early childhood programs and systems offer trauma-informed care. That is, few practitioners have the skills needed to recognize and respond to trauma, and to implement trauma-informed interventions within early childhood settings (Bartlett, Smith, & Bringewatt, 2017; Schulman & Menschner, 2018).

Trauma-informed care is an organizational and clinical approach that involves understanding, anticipating, and responding to the behavior and expectations of children who have been exposed to trauma (Clervil & DeCandia, 2013). Within early childhood systems, this type of approach encourages a coordination of services that provides comprehensive training for staff; creates safe and supportive early learning environments; and addresses cultural and linguistic needs. Adopting a trauma-informed philosophy requires a paradigm shift that begins with understanding that trauma is pervasive and needs to be addressed in every system (Georgetown University National Technical Assistance Center of Children's Mental Health, 2018). Typically, trauma-informed interventions support children's recovery and resilience through the use of specific strategies that focus on providing safe environments and promote the development of healthy, secure relationships with caregivers.

To better understand trauma, evidence-based interventions for addressing trauma within early learning settings, and essential components of trauma-informed interventions, a thorough review of the existing literature was conducted. Both research-based and conceptual articles were identified. A comprehensive search of the literature was conducted using the following search engines: Education Full Text, ERIC, and PsychArticles. Searches were conducted for any articles or reports that included the following search terms: "trauma," "trauma-informed care," "interventions," "toxic stress," and "adverse childhood experiences." These search terms were often used in combination with "early childhood" or "preschool" to locate conceptual and research-based literature concerning this age group. In addition, a Google search was conducted with the same terms to identify additional articles and resources from established organizations focused on trauma, toxic stress, adverse childhood experiences, and trauma-informed care.

Currently, very little research has been conducted on specific trauma-informed interventions that can be feasibly implemented within community-based child care programs; however, several promising approaches have been identified. Through the review of the literature, several key components also were identified that should be included in any intervention focused on alleviating the effects of trauma in young children.

Promising Trauma-Informed Early Childhood Interventions

Several promising trauma-informed interventions have been developed for implementation within early childhood programs to meet the needs of young children and families who are experiencing trauma. However, few of the programs outlined below have been rigorously examined.

Circle Preschool Program

grscan.com/programs/the-circle-preschool-program

The Circle Preschool Program (CPP) was developed to improve the brain's neuroplasticity in young children by providing safe early learning environments that promote secure attachments with caregivers and the development of self-regulation. Core components of CPP include: (1) establishing a physically and relationally safe environment; (2) providing opportunities to develop regulation, play, and cognitive skills; and (3) establishing secure attachments with child care professionals. Currently, no empirical studies have been conducted on this model; however, there is anecdotal evidence demonstrating positive changes in children's behaviors (Ryan, Lane, & Powers, 2017). This intervention is not recommended because of its lack of empirical research studying its effectiveness. In addition, it does not address all of the core components needed to effectively address trauma in early childhood.

Kids in Transition to School

www.kidsintransitiontoschool.org

Kids in Transition to School (KITS) is an instructional program that can be implemented within early childhood programs and promotes the social-emotional and pre-academic skills of children living in foster care or who are at high risk for school difficulties. KITS is implemented during the transition from preschool to kindergarten. The approach includes playgroups designed to build young children's social emotional skills and literacy, as well as parent workshops focused on promoting involvement in early literacy and use of positive parenting practices (Smith, Bartlett, & Bringewatt, 2017). Pears, Kim, and Fisher (2016) found that children enrolled in KITS classrooms had lower levels of oppositional and aggressive behaviors and gains in early literacy and self-regulation skills (Pears et al., 2013). Although this intervention shows promise, it does not directly address early childhood trauma and would not meet the needs of the current project.

Attachment, Self-Regulation, and Competence (ARC)

arcframework.org

The Attachment, Regulation and Competency (ARC) Framework is an intervention developed for use with children and adolescents who have experienced complex trauma, along with their caregiving systems. ARC's foundation is built upon four key areas of study: normative childhood development, traumatic stress, attachment, and risk and resilience. ARC is organized around three primary domains of intervention: (1) attachment (e.g., helping caregivers develop secure attachments with children, building an understanding of child behavior), (2) regulation (e.g., helping children develop an awareness and understanding of feelings, body states, behavior; developing an increased capacity to manage stressful situations), and (3) competency (e.g., increasing opportunities for effective decision making) (Blaustein & Kinniburgh, 2010). Most of the preliminary research on ARC has been conducted with older children in residential settings. Findings from these studies have shown a decrease in challenging behaviors as a result of the intervention (Arvidson et al., 2013; Hodgon et al., 2013). Because this intervention does not address all of the needs (e.g., paradigm shift, healing relationships with families) when implementing a trauma-informed system, it would be an additional component that teachers would need to learn without ongoing support through practice-based coaching. Therefore, it is not a feasible approach to adequately addressing trauma in early learning settings.

Head Start Trauma Smart (HSTS)

traumasmart.org

The purpose of Head Start Trauma Smart (HSTS) is to decrease the stress of chronic trauma, encourage the development of age appropriate social and cognitive skills, and create an integrated, trauma-informed culture for young children, parents, and staff. HSTS contains four main components: (1) training for all individuals who come in contact with children within an early learning environment (e.g., administrators, bus drivers, teachers) using the ARC framework that has been adapted for use in early childhood; (2) intensive individual trauma-focused intervention that combines elements of ARC and trauma-focused cognitive behavioral therapy; (3) classroom consultation (e.g., provided by HSTS therapists to classroom teachers); and (4) peer-based mentoring (e.g., teachers and other staff support each other) (Holmes et al., 2015). Preliminary studies suggest that parent and teacher knowledge increased and children's externalizing behaviors decreased as a result of the intervention (Tulane University, 2017; Holmes et al., 2014). Although there is preliminary empirical support for this intervention, it is intricate and intensive, which would make it difficult to implement on a large scale.

Incredible Years

www.incredibleyears.com

The Incredible Years (Webster-Stratton, 1992) is a research-based intervention that is comprised of three developmentally-based curricula for parents, teachers, and children. The program is designed to promote social-emotional competence, and to prevent and reduce aggression and emotional problems in children up to 12 years of age. The Incredible Years Classroom Management Training (TCM) for Teachers emphasizes effective classroom management skills (e.g., attention, praise, encouragement, proactive teaching strategies). Numerous empirical studies have been conducted on all three Incredible Years curricula. In general, findings indicate that teachers' positive behavior toward children increased, as well as their use of strategies designed to promote children's social-emotional skills (Baker-Henningham et al., 2009). Research studies also have demonstrated that the intervention is successful in decreasing children's disruptive behaviors while also increasing children's positive behaviors (Baker-Henningham et al., 2009; Williford & Shelton, 2008). Despite its success in preventing and addressing challenging behaviors, this curriculum is not specifically focused on supporting children and families who are or have been exposed to trauma. Therefore, it is not appropriate for use in early childhood programs that are working to address trauma.

Key Trauma-Informed Early Childhood Program and Classroom Practices

The comprehensive review of the literature provided greater understanding about key components that should be included in any early childhood intervention approach that is designed to alleviate the effects of trauma on the learning and development of young children. Specifically, trauma-informed early childhood programs should include: (1) a comprehensive training for all school personnel; (2) high-quality early care and education; (3) the presence and continuity of a nurturing caregiver; (4) environments that promote safety and trust; (5) an emphasis on teaching social-emotional skills; (6) establishing family partnerships; (7) helping caregivers develop cultural competence; and (8) an emphasis on addressing early childhood practitioner stress.

Comprehensive Training for All Program Personnel

Creating a trauma-informed early childhood program will require a concerted effort by all of those individuals who come into contact with young trauma-exposed children across settings (e.g., program administrator, bus driver, cafeteria staff, teachers, teaching assistants) (Schulman & Menschner, 2018). To accomplish this

task, a comprehensive training should be provided to help all program-related personnel develop an in-depth understanding of trauma, including its prevalence and symptoms found in young children to help shift how providers view the children and families that they serve (Clervil & DeCandia, 2013; Guarino et al., 2009).

An additional component of the comprehensive training should focus on providing program personnel with strategies and practices that can be used to address children's symptoms and behaviors within the classroom. In particular, program staff should receive information about how to maintain a proactive focus that is designed to prevent behaviors and promote healing within the context of nurturing, secure relationships. It is essential that early childhood practitioners gain a unique understanding that children exposed to trauma require specific, tailored interventions that are similar to, but distinct from, other early childhood behavior management and classroom practices (Clervil & DeCandia, 2013; Guarino et al., 2009).

A strengths-based approach to understanding childhood trauma is an essential element of any training that early childhood program staff receive. With this way of thinking, children are viewed from a whole child perspective in which practitioners learn to understand a particular problem or behavior that may appear intentional; however, these behaviors often have been developed in response to the trauma in their lives and are related to limited social skills and emotional competence. For example, a child who appears manipulative is most likely feeling a lack of control. Approaching individual children and families from this vantage point enables practitioners and other program staff to take a non-judgmental approach to developing relationships with families that will be critical in helping children heal from the effects of trauma (Clervil & DeCandia, 2013; Guarino et al., 2009; Cummings et al., 2017).

High-Quality Early Care and Education

High-quality early childhood education provides the foundation for trauma-informed care. Early learning programs that meet high quality standards are a critical component in helping young children and their families who are experiencing trauma. However, it also is essential that additional features are included in early childhood programs to adequately respond to the unique needs of these children and their families.

First, early learning programs and organizations should incorporate strategies for responding to young children's trauma into professional development activities. As previously noted, there are few evidenced-based approaches currently available to assist early childhood professionals in addressing early childhood trauma. However, it is essential that early childhood professionals acquire the knowledge, skills, and practices to successfully implement trauma-informed care within early learning programs. As such, local organizations should consider changing professional development competency standards and training to increase capacity to address early childhood trauma.

Next, high-quality early learning environments must increase their access to early childhood mental health (ECMH) consultants who have training and knowledge related to trauma-informed care. Support from ECMH consultants has been found to decrease teacher stress and turnover, prevent preschool suspension/expulsion, and reduce challenging behaviors exhibited by young children experiencing trauma (NICHD, 2000; Gilliam, 2007; Perry et al., 2010; Williford & Shelton, 2008). As such, it is essential that high-quality early learning environments promote collaboration between practitioners and ECMH consultants.

In addition, early childhood organizations should establish policies that severely limit or prohibit the suspension and expulsion of young children while also requiring the use of interventions for children who have experienced trauma and have social-emotional and/or behavioral difficulties. This is particularly important because young children who have experienced trauma are at particular risk for expulsion because they often exhibit challenging behaviors as a result of their traumatic experiences (Bartlett, Smith, & Bringewatt, 2017). Suspension/expulsion policies should ensure that young children who have been exposed to trauma get the support they need to develop critical social-emotional skills, thus preventing the use of exclusionary practices.

Finally, trauma-informed early childhood programs should establish screening policies that focus on the social-emotional and early learning needs of young children who have been exposed to trauma. These types of policies ensure that children who need additional support are identified and the appropriate interventions are implemented to help these children develop critical developmental skills needed for success in school. Specifically, all young children in early childhood programs should be screened for social-emotional, language, and school readiness skills (Bartlett, Smith, & Bringewatt, 2017).

Presence and Continuity of a Nurturing Caregiver

Prior research indicates that young children who have experienced ongoing trauma and adversity can overcome significant challenges when they have at least one stable and nurturing caregiver in their lives (National Scientific Council on the Developing Child, 2015; Shonkoff, Boyce, & McEwen, 2009). For instance, adults who take on this role can (1) validate children's emotions; (2) help children identify emotions in themselves and others; (3) protect children from re-traumatization by having a unique understanding of triggers for individual children; and (4) promote children's social-emotional skills (Lieberman, 2004). In general, it is recommended that adult-child relationships should include three critical qualities: safety, stability, and nurturance. For example, safe relationships ensure that children are free from fear as well as physical or psychological harm.

Because nearly 60% of young children under 5 years of age spend at least 33 hours per week in out-of-home care, early childhood practitioners play a key role in helping children heal and move on from traumatic experiences (Dwyer et al., 2010). Specific strategies, such as smiling and interacting warmly as well as setting appropriate boundaries, help caregivers develop positive, nurturing relationships with young children (Hunter & Hemmeter, 2009; Sciaraffa, Zeanah, & Zeanah, 2018). Through these relationships, children are offered a context for developing attachments with significant adults in their lives that help them heal from the trauma they have experienced.

Environments that Promote Safety and Trust

Another key component of trauma-informed classroom interventions is to ensure that learning environments promote safety and trust for children and families who are experiencing trauma. These types of environments are critical in helping young children heal from traumatic experiences because they promote a feeling of control and predictability. Therefore, early childhood programs should implement consistent routines and expectations for activities and behavior within the classroom. For example, trauma-informed classrooms promote safety by planning for transitions, change, and heightened activity, as well as focusing on helping children develop independence (Downey, 2007).

Another factor to consider when designing trauma-informed classrooms is to limit experiences that might re-trigger a child's trauma (e.g., smells, sounds, sudden movements). Common triggers for young, traumatized children include:

- Unpredictability or sudden change
- Transition from one setting/activity to another
- Loss of control
- Feelings of vulnerability or rejection
- Confrontation, authority, or limit setting
- Loneliness
- Sensory overload

Having a unique understanding of the child and their history helps caregivers understand (a) the function of a particular behavior; (b) the developmental capacity of the child to understand and manage emotions; (c) the meaning of a particular context for the child; and (d) their own role as an adult in containing the child's feelings. Environments that promote safety and trust also provide children with a context for talking about their experiences and feelings, while also providing a safe space for families to learn skills that can be used to create safe and trusting home environments (Bartlett, Smith, & Bringewatt, 2017).

Environments that Promote Social-Emotional Skills

Social-emotional health and skill development is critical for young children who are experiencing trauma because these skills facilitate the development of secure attachments with others, help children regulate emotions, and promote the exploration of learning environments. These skills are essential for future learning and development and contribute to later school success (CECMHC, 2012). The first three years of life are particularly critical in helping young children develop key social-emotional and coping skills, which is essential for promoting recovery and healing from trauma.

Early childhood practitioners support the development of self-regulation and social-emotional skills by helping children become more self-aware about their emotions, mindful of their feelings, and by enhancing their abilities to self-soothe, develop verbal communication, and organize their feeling states (Cole & Rustuccia, 2011). Additional strategies that can be used by caregivers to facilitate the development of social-emotional skills include: (1) recognizing distress and responding in a timely and sensitive manner (e.g., holding, rocking, reassuring, quick hug); (2) providing a predictable, dependable schedule of routines (e.g., planned transitions, helping children know what to expect); (3) modeling emotion regulation during stressful situations (e.g., recognize own distress, taking a moment or two before responding); (4) taking the child's emotions seriously (e.g., listening patiently, avoiding criticism, judgement, or minimizing the child's feelings); and (5) helping children learn how to resolve conflicts with words (Sciaraffa, Zeanah, & Zeanah, 2018). Specific teacher behaviors that undermine the development of social-emotional skills include:

- Issuing empty threats
- Threatening to call parents
- Suspending and expelling
- Sending children to other classrooms
- Making implied comparisons ("I like the way Manny is sitting. I don't like how Brock is sitting.")
- Using value-based praise
- Constantly correcting behavior without praise or encouragement
- Belittling children ("Do you need to go to the toddler class? You're acting like a baby. My toddler acts better than you.")
- Punishing children (taking away recess, making children walk laps)

Therefore, another critical component of environments that promote social-emotional skills is the use of effective behavior management practices that place an emphasis on teaching and guidance rather than punitive punishment.

Establishing Family Partnerships

An essential component of trauma-informed early childhood programs is establishing family partnerships through the development of healing relationships that are consistent, predictable, and supportive, and are established within a culture of open communication, tolerance, respect, community, and non-judgement (Guarino et al., 2009). These characteristics provide the context for families to focus on healing themselves and their relationships with their young children. Early childhood programs and organizations also can offer low-cost or free programs at times and locations that are convenient for the family to promote healing and the development of parent-child attachments. In addition, trauma-informed early childhood programs ensure that parents and guardians have access to programs that teach positive child-rearing and behavior management skills. Core components of parent education/family engagement programs include: (1) providing opportunities for caregivers to practice new parenting skills and receive feedback; (2) teaching parents positive behavior

management strategies; and (3) helping parents develop positive and nurturing relationships with their children (CDC, 2014; Sciaffara, Zeanah, & Zeanah, 2018). Examples of effective parent education programs include:

Let's Connect (letsconnect.org). Let's Connect (LC) is designed to promote resilience and well-being among caregivers and children who have or are currently experiencing stressful events in their lives (e.g., trauma). This intervention includes teacher training; modeling positive interactions with children and their caregivers; coaching; and ongoing consultation with teachers by a therapist. LC has been successfully used in Head Start programs and schools. Pilot studies have demonstrated that LC can be feasibly implemented by teachers and is viewed favorably by caregivers. Results also indicated that teachers' positive communication and emotion support skills with families increased as a result of the intervention (Shipman, Fitzgerald, & Fauchier, 2013).

Parent-Child Interaction Therapy (PCIT; pcit.org). PCIT is a parent education program that is designed to improve the quality of parent-child relationships and change how parents and children interact with one another. For example, parents and other primary caregivers learn specific skills needed to build nurturing and secure relationships with their children, as well as manage behaviors in a positive manner. Coaches work directly with parent-child dyads to help them learn these new skills.

Triple P (Positive Parenting Program; triplep-america.com). Triple P is a system of parenting and family support that offers five levels of intervention, including media strategies, consultation on developmental issues, as well as more intensive approaches to address difficulties with parenting and child behavior.

Child First (childfirst.org). Child First focuses on preventing or ameliorating the damage of trauma, as well as enhancing the child's development. The program includes three major strategies that are designed to enhance the growth of the relationship between the caregiver and child: (1) build executive capacity, self-regulation, and mental health of parents or caregivers so they able to nurture children's development and provide a safe, growth-enhancing environment; (2) connect children and other family members with community services that stimulate growth and learning; and (3) provide parent/caregiver guidance and developmental and parenting strategies that enrich the learning environment and enhance development. This comprehensive approach also includes Mental Health Clinicians who work with early learning programs to provide consultation to teachers and other practitioners. For instance, mental health clinicians conduct observations, discuss past and current behavior with the teacher, and help the teacher understand the meaning of the child's behavior. They then collaboratively devise strategies that can meet the child's individual needs and coordinate efforts between early care and education and the home. Findings from initial studies conducted on the Child First model indicate a decrease in children's externalizing behaviors and language difficulties, as well as an increase in maternal mental health (Crusto et al., 2008; Lowell et al., 2011).

One additional consideration when establishing family partnerships is how to involve other caregivers for children, including grandparents and extended family. Engaging other family members increases consistency in the use of practices and ensures continuity of care. Programs also should consider how to address parental stress and mental health which are key in reducing persistent trauma in a child's life. A key strategy for accomplishing this is to help parents identify and access social supports that increase parental resiliency and are associated with greater emotional well-being. Types of social supports include: (1) emotional support (e.g., affirming parenting skills, being empathetic, nonjudgmental), (2) informational support (e.g., providing parenting guidance, recommending a pediatrician), (3) instrumental support (e.g., providing transportation to the program, links to jobs), and (4) spiritual support (e.g., providing hope and encouragement) (Champion of Children, 2014). Helping parents gain access to Medicaid, SNAP benefits, job coaching, and other community supports can help alleviate some of the stress associated with chronic poverty. Early childhood programs also can help parents access critical services to address depression, anxiety, and other mental health issues that are linked to ongoing trauma (CDC, 2014).

Ensuring Cultural Competence

An important component of any trauma-informed intervention approach is to ensure that all staff receive cultural competence training to understand the environments in which they work. That is, that staff gain an understanding that trauma has different meanings across cultures and that healing takes place within the context of cultural beliefs (Clervil & DeCandia, 2013). Culturally aware practitioners are able to provide services to children and families with this understanding. Establishing a program that is culturally aware creates a respectful environment in which children and families who are experiencing trauma begin to heal in a meaningful way within the context of their communities (Clervil & DeCandia, 2013). Inherent in this is to help practitioners develop an understanding of implicit bias and how it affects their interactions and relationships with children and families.

Addressing Early Childhood Practitioner Stress and Trauma

Early childhood environments are a key context in which trauma-informed care can be provided to support children and families. Therefore, it is essential that mechanisms are put into place to ensure that early childhood providers do not develop their own symptoms of stress, known as secondary trauma. Providers who work with young children who have been exposed to adverse experiences can become overwhelmed, and mentally and physically exhausted. Risk factors and causes of secondary stress include: (1) personal exposure to traumatic events or individuals who are coping with their own reactions to trauma; (2) direct contact with children's traumatic stories; and (3) helping others and neglecting themselves (National Child Traumatic Stress Network, 2018). Signs of secondary trauma include:

- *Emotional*: feeling numb or detached; feeling overwhelmed or hopeless
- *Physical*: having low energy or feeling fatigued
- *Behavioral*: changing routines or engaging in self-destructive coping mechanisms
- *Professional*: experiencing low performance on job tasks and responsibilities
- *Cognitive*: experiencing confusion, diminished concentration, and difficulty with decision making
- *Spiritual*: questioning the meaning of life or lacking self-satisfaction
- *Interpersonal*: physically withdrawn or becoming emotionally unavailable to co-workers or family (National Child Traumatic Stress Network, 2018).

Helping staff develop awareness about these signs, the emotions that arise from secondary trauma, and how they can affect their work is a critical component in developing a trauma-informed program. In addition, programs also should provide opportunities for staff to engage in self-care and mindfulness to prevent burnout and reliance on inappropriate teaching practices (Bartlett, Smith, & Bringewatt, 2017). Programs also can help cultivate positive relationships and connections between staff members. Building a staff community is critical because relationships with others provide a context for acquiring the support needed to work in environments that serve young, trauma-exposed children. One strategy is to begin every staff meeting with a mindfulness or breathing exercise, or allowing teachers to take a short walk during the day (Dorado & Zakrzewski, 2013). Ensuring that early childhood practitioners have the knowledge and skills to effectively respond to trauma also is essential for addressing early childhood practitioner stress.

Focus Groups

To gain a better understanding of the issues facing early childhood professionals in community-based programs in the greater Charlotte community, focus groups were conducted with individuals from a variety of sectors. Focus group participants included (a) members of the local interagency coordinating council (LICC); (b) child care program directors; (c) Early Head Start policy council (parents); and (d) child care teachers. Focus group meetings were scheduled on several dates to accommodate the busy schedules of participants. The facilitator of the focus groups asked a series of open-ended questions that were designed to gain a greater awareness about the needs within the community, barriers to addressing trauma in early childhood settings, and key factors that should be addressed within early learning programs.

LICC

Members of the LICC included professionals from Charlotte-Mecklenburg Schools, CCRI, Charlotte Speech and Hearing, and other local organizations. The LICC focus group took place on November 14, 2018 and lasted approximately 1 hour.

1. *When you hear the phrase "early childhood trauma," what comes to mind?*

For this question, members of this group offered single words or phrases that came to mind when asked the question. These words/phrases included: broken families, exposure to violence in the home, teachers who are experiencing trauma (secondary and actual), abuse, high ACE score, poverty, toxic stress, medical (sick child or parent/caregiver), death of a family member, change in family structure, natural disasters, immigration (fear that goes along with this), mental health difficulties, attachment problems, child behavior, school shootings/violence, and social media.

2. *What do you think trauma looks like in young children?*

For this question, participants also offered single words or phrases to describe what trauma looks like in young children. They included: tantrums, behavior, fighting, biting, withdrawal, not speaking, attachment, overly friendly, sadness, developmental delays, sleep disturbances, poor attention, eating difficulties, sensory processing problems, and self-harm.

3. *What are the biggest issues related to trauma for young children and their families?*

The LICC focus group identified the following issues related to trauma: difficulty accessing resources and services; helping caregivers or families recognize it as trauma instead of thinking that it is something else; helping families understand that trauma can happen to very young children (infants and toddlers); supporting early childhood caregivers who have experienced trauma and who have not addressed it (whole health of the community); cost of health care for families (many can't afford it); not enough mental health services for 0-3; families and caregivers who are unwilling or unable to access services; lack of understanding about mental health disorders in adults and young children; and the cycle of trauma (helping families understand how to change that).

4. *What are some resources that you know of that might be helpful for young children and their families who are experiencing trauma?*

The following resources were identified by the LICC group that might be helpful for young children and their families who are experiencing trauma: Child Development Services Agency (CDSA) the Department of Social Services (DSS); child's primary care physician (during well-child visits); training of related service providers (might not know the signs of trauma); Cardinal Innovations; 211; Child Development Community Policing (CDCP; licensed clinical social workers who go into the home when there is a violent event – also refer them

out to other mental health providers – dyad with CMPD – brief, intermittent services that occur over 5-6 visits); Thompson Child and Family Focus; Incredible Years; Council for Children's Rights; Crisis Prevention Center; Victim Compensation (fund for person who has experienced trauma – help with housing or medical bills); and Department of Public Instruction (DPI) (for trauma that happens in school).

5. *A key component of trauma-informed care is for stakeholders from various sectors to work together for a common goal of addressing early childhood trauma. What are the barriers to cross-sector work related to trauma?*

The following information was provided from the LICC group about specific barriers that exist and prevent cross-sector work related to trauma. One big issue was funding. Another barrier is that everyone operates in their own silos. There is a tendency for professionals to network within their own circles. Everyone is compartmentalizing, which leads to disjointed services. There is no cross-collaboration between agencies. If there is not a requirement to work together, different sectors will not work together. Part of the problem may be that there are barriers to communication (e.g., lack of knowledge, time) or lack of understanding about what other agencies do. Members also indicated that there is not an effective referral and follow-up process for families who are experiencing trauma. For example, when families graduate out of early childhood services, parents aren't sure what services are next or how to find them.

6. *What are the key factors that need to be addressed within early childhood programs related to trauma?*

There was quite a bit of discussion about the key factors that need to be addressed within early childhood programs related to trauma. The first issue that came up was related to training teachers, owners, directors, and administrators about how to recognize trauma in parents and young children so that they can have greater understanding and patience. The participants also indicated that child care environments need to have more supportive materials for children who have experienced trauma. Another key factor to be addressed is to provide information for teachers about establishing partnerships with families (e.g., Head Start home visiting program) ("When there are family partnerships, they are more likely to share and open up to caregivers"). An additional barrier was the need to pay teachers more. The focus group participants also suggested that it is time to engage caregivers and get beyond just touching the surface (e.g., "Teachers only know what they know"). The community needs to move beyond just giving brochures and numbers out to teachers, directors, etc. to more active engagement. Another significant barrier is promoting buy-in from providers. In general, there is a resistance from teachers to develop a greater understanding about trauma (e.g., "Kids are just bad").

7. *What are some key areas of professional development needed for professionals working in the field?*

The LICC focus group identified the following as key content areas for professional development: developing effective communication strategies for working with families; need to know what trauma looks like at different ages (people have a very narrow understanding of trauma); what to do in the classroom; how to support families and respond with empathy; how to establish partnerships with families; developing a better understanding of child development; and understanding what constitutes trauma.

8. *What are the barriers to implementing a trauma-based intervention within early childhood settings?*

Several barriers were identified that prevent effective implementation of trauma-based intervention strategies within early childhood programs: lack of training across the board (e.g., across sectors, all staff); lack of standardized process across sectors for responding to and addressing trauma; funding; time; buy-in; more than just a one-day training (need more ongoing support); and culture change within early childhood programs (need for a paradigm shift).

Child Care Directors Focus Group

The focus group with the child care directors was held on November 14, 2018 and lasted for 2 hours. Eight directors participated in this discussion. This group was very talkative and related many personal experiences they have had addressing early childhood trauma within their programs.

1. *When you hear the phrase "early childhood trauma," what comes to mind?*

One director suggested that trauma can be both physical and emotional. Others offered additional insights. For example, another director mentioned ACES and how directors support and talk to the whole staff. Group members also indicated that there can be hidden issues (parents hide or don't realize the impact of specific events). The participants suggested the need for being supportive in general because it affects everyone (parents, children, directors, and teachers). All of the directors emphasized how little support is available. They do not feel equipped to deal with it. There is a great need to have access to therapists on a weekly basis. It's also important to understand that trauma looks different from someone else's perspective. It's important to have a broad lens because some individuals may under- or over-react to traumatic events based on their own characteristics. The directors also suggested that there is a general lack of compassion within the community and how trauma affects children and families. It's also important to address the large percentage of caregivers who have experienced trauma and not dealt with it.

2. *What do you think trauma looks like in young children?*

The directors offered the following information about what trauma looks like in young children: some children don't speak; fear of strangers; separation issues; behavior changes; ADHD-like symptoms (i.e., self-regulation); sensory issues; and children who withdraw often get overlooked. They also indicated that it is important to understand that there are patterns with the parents as well; it is never just the children (e.g., "what baggage does the parent have?"). The participants suggested that there is a lot we don't know about what triggers young children or how to support children who are in therapy.

3. *What are the biggest issues related to trauma for young children and their families?*

The child care directors outlined the following issues related to trauma in young children and their families: difficulty finding services; creating relationships with families to start a dialogue (e.g., how to talk with parents when their children are acting out); and centers and programs needing help knowing who to call when a child/family is experiencing trauma (need for resources). The participants also indicated that they need a "one stop place" for services and resources. It's very difficult to find and access resources for programs. One director also suggested the need for helping parents develop self-advocacy skills. Several additional issues were identified that were related to teachers. For example, the directors expressed the need for teacher support, especially for those experiencing secondary trauma. They also suggested that early childhood teachers are not paid enough. Finally, they indicated that there is a great need for on-going training for teachers. It can't be a one-time workshop. Teachers need support.

4. *What are some resources that you know of that might be helpful for young children and their families who are experiencing trauma?*

The participants of the child care directors focus group identified the following resources that might be helpful for young children and their families who are experiencing trauma: Thompson; Milestone; Charlotte Speech and Hearing (to rule out other issues); social-emotional screening tools (DECA); Smart Start and CCRI training; KinderMourn; CDSA; divorce support groups; cultural competence training; and the importance of providing training before trauma occurs. The directors also suggested that many programs can't afford the resources that are available because many of these places charge for-profit programs before they can access the resources. One director also suggested that there is a need to share research to promote teacher buy-in. Research provides a context for understanding the issue rather than seeing it as another thing that they have to do.

5. *A key component of trauma-informed care is for stakeholders from various sectors to work together for a common goal of addressing early childhood trauma. What are the barriers to cross-sector work related to trauma?*

The directors suggested that a key barrier to cross-sector work is the inability to communicate with one another. Removing barriers to collaboration is important. They also suggested that it is difficult for directors to connect with pediatricians and family doctors. They also suggested that access to services was a huge issue for families experiencing trauma. For example, parents don't know how to find therapists. There also is a lack of timeliness with regards to making appointments to see professionals or being able to see professionals within their operating hours (e.g. many parents work, so 9-5 hours don't work for them). Families also are having a hard time weaving their way through the system because the sectors are so disjointed. There needs to be better coordination of services across sectors.

6. *What are some key areas of professional development needed for providers working in the field?*

Focus group participants talked a lot about the need for ongoing professional development. They also identified specific areas of content that are needed for early childhood professionals to effectively address trauma within their classrooms: what trauma looks like; the impact of trauma on infants and toddlers (a training offered by CCRI); how to apply what is learned; need for coaching; and start with a general awareness training. They also highlighted several other areas of need. For example, teachers need additional support so that they don't feel like failures. Many times they don't know what to do. They suggested possibly having a hotline or support network where they could go when they are feeling stuck or overwhelmed. An additional suggestion was mindfulness training for teachers. They also emphasized the need for all program personnel to be trained. Another suggestion was to collect data on behavior, social emotional development, etc. so that teachers could see that progress is being made.

7. *What are the barriers to implementing a trauma-based intervention within early childhood settings?*

One director emphasized that trauma is an epidemic problem that needs to be addressed; however, several key barriers exist. For example, the directors suggested that time, money, awareness, and buy-in from program staff were all key barriers. They also indicated that there are a significant number of teachers with unacknowledged trauma, and they don't have the emotional ability to support children because of this. The directors also suggested that it is important to get into the community to work with parents and help them get a stable job, work through their own trauma, etc. Another significant barrier is changing the mindset of teachers, directors, and other program staff about trauma and how to address it. There also is a general need to encourage centers to ask for help when they need it (especially the chain centers).

Parent Focus Group

Members of the parent focus group included members of the Early Head Start – Child Care Partnership Policy Council. The parent focus group took place on November 20, 2018 and lasted approximately 1 hour. Nine parents were in attendance and provided input.

1. *What do you think of when you hear the phrase "early childhood trauma?"*

Similar to the LICC group, parent participants provided single words or phrases to describe early childhood trauma. They included: traumatic experiences from birth to age 8; direct or indirect (child around or not around); exposure; parents fighting; families splitting up; and impacts the adults if it happened to them as a child (e.g., PTSD).

2. *What do you think of when you hear the word "resilience?"*

The parents provided several responses regarding resilience and what it means to them. For example, they said that it means to bounce back; recovery; pushing on even if you don't bounce back; learn coping skills until you're at least 85% functioning; to overcome (pushed forward to be a better person); and coping.

3. *What services or supports have been beneficial for your child and family from mental health consultants? What about from early childhood programs?*

The parents provided a considerable amount of information regarding mental health services. For instance they said that mental health services have helped them to learn how to resolve conflicts without getting physical. One parent mentioned cognitive behavior therapy (CBT). A male participant indicated that there is a stigma within the Black community about accessing mental health services (e.g., "You just get over it.") Another male participant added that it is harder for men as well ("I had to learn to be able to talk about what was wrong"). All of the parents indicated that there needs to be some type of bridge for parents in low income communities. For example, they suggested having a parent who has overcome trauma be a bridge within lower income neighborhoods to reduce the stigma and be a role model. One parent talked about how long it takes for parents and children to access mental health services. Many families are waiting months to access services. All of the parents agreed with this comment. There also was consensus about other access barriers. For example, many parents don't know how to initiate help or aren't sure what is available within the community. They also said that access to health insurance was a barrier and that there is no time to get mental health services because the hours are inconvenient for working families.

4. *What do you think is the best way for providers to establish meaningful partnerships with families?*

Members of the parent focus group offered the following information about how professionals can work to establish meaningful relationships with families. First, they said that open communication is essential. They also offered that meeting parents where they are is a really important strategy. Many of the parents suggested that centers should be clear about what they offer so that families are better able to access services. Other key elements included professionals respecting confidentiality and reserving judgement about families so that more open, trusting relationships can be built. The parents also suggested that it's important for professionals to not speak in jargon so that families know exactly what is available to them and can make sense of what professionals are saying. The parent participants provided important insights into reaching resistant parents as well. They indicated that it's really important to communicate in way that supports rather than blames. Having peer services may be a way to reach those parents who are hesitant about accessing services. Another potential strategy is to have parents who have lived through trauma speak to parents about the importance of getting support for themselves and their children.

5. *What supports and services do you think non-EHS/HS programs should provide for children and families that might help them deal with trauma?*

Several of the parents indicated that speech therapy services have been especially beneficial for their children. One parent offered that "knowing there is help in EHS is very valuable even if we haven't used it." Parent participants also suggested that it's important to offer resources for the whole family and not just the child.

6. *What additional resources and supports do you think would be helpful for families that you were not offered?*

Much of the discussion for this question focused on the barriers that many parents living in poverty encounter. For example, they said that resources and services for 3-year-olds are very limited. It's very hard for families who have been in EHS to leave and not have the same level of support that was provided for themselves and their children. They also indicated that not having subsidies puts children at risk because it is very difficult to find and pay for high-quality child care. The cost of child care makes it very hard for them to get ahead. Oftentimes, parents have to make hard choices about paying for their own education versus paying for rent or child care. They suggested that when their income increases because of a better paying job, they lose their safety net, which is difficult. The current system is not conducive to upward mobility.

Child Care Teachers Focus Group

The child care teachers focus group took place on November 28, 2018 and lasted approximately 1½ hours. Thirteen teachers were present and provided input related the questions that were asked.

1. *When you hear the phrase "early childhood trauma," what comes to mind?*

Similar to the other groups, many of the teachers provided single words or phrases that came to mind when they heard "early childhood trauma." For instance, they said, negative, abuse, before school age, neglect, foster care, homeless, losing a parent, food instability, poverty, substance abuse, incarceration, and lack of education.

2. *What do you think resilience looks like?*

For this question, teachers again provided phrases to describe resilience. They stated: bouncing back; people handling things differently; people struggling, but others reaching out to help; and a new beginning.

3. *What do you think trauma looks like in young children?*

The teachers offered quite a bit about what trauma looks like in young children. Much of it was related to behaviors that they are seeing in the classroom. For example, they said: crying; screaming; temper tantrums; aggressive; silent; scars and scratches; sensory issues (e.g., covering ears when hearing music); clinginess ("because of no stability"); inability to form attachments; negative self-image (e.g., acting out when being the last one chosen); overeating; and developmentally inappropriate self-reliance (e.g., two-month-old holding own bottle).

4. *What are the biggest issues related to trauma for young children and their families?*

Focus group participants were quite talkative and spoke a lot about individual children and families in their classrooms to provide examples of trauma. From this discussion, it was noted that many young trauma-exposed children do not have strong, safe environments. There is quite a bit of housing instability and lack of consistent caregiving from parents or other family members. They also indicated that many older siblings are assuming care over younger siblings. They also voiced concern about the number of children who are in and out of foster care, which leads to the separating of siblings from one another.

5. *What are some resources that you know of that might be helpful for young children and their families who are experiencing trauma?*

There was quite a bit of discussion about resources needed for young children and their families who are experiencing trauma. For instance, they said that affordable housing was particularly needed within the community. Other resources included continuing education, parenting workshops, job placement, counseling for all family members, stress management, finance training, and providing mentors or social workers. Similar to the other focus groups, there appears to be a great need for consolidating resources or developing strategies to create greater awareness about what is available. The teacher participants indicated that many parents who are experiencing trauma need help navigating the system and accessing available resources. There appears to be a general lack of awareness of parents about what is available and how to go about getting the support needed to address the trauma within their lives. The teachers suggested that parents need someone to walk them through the steps of accessing resources within the community.

6. *What are the barriers to establishing partnerships with families?*

The focus group teachers offered quite a bit of information about the barriers that prevent child care providers from establishing partnerships with families. They suggested that parents need to feel trust and respect before engaging in relationships with teachers. A fear of judgement on the part of parents often leads to this lack of trust. The teachers also indicated that trust is so important because many parents fear that they will lose their children if practitioners know what is going on in their lives. One teacher stated that how teachers communicate with families is incredibly important. Many parents turn away from relationships because teachers sometimes don't use the correct tone or choose the right words when engaging with families. They also suggested that, for many of the families, trauma has become normalized in their lives or they don't even realizing that they are experiencing trauma, which prevents them from accessing resources and supports. One teacher also indicated that some families arrive and depart when the teacher is not there (floater present) to avoid interactions with teachers. Many of the other teachers agreed with this, and stated that parents who are experiencing trauma often ignore emails.

7. *What are some key areas of professional development needed for providers working in the field?*

There was a fair amount of discussion regarding this question. The teachers offered valuable information about what they need in terms of professional development to support children and families who are experiencing trauma. There was a lot of talk about potential workshops that could be helpful. For example, they suggested having additional professional development opportunities related to working with difficult parents; how to detect signs and red flags of trauma; what is typical behavior versus behavior associated with trauma; general overview of trauma; how to communicate with families in non-judgmental ways; how to deal with their own trauma; and understanding trauma in children with disabilities or those children who have disabilities because of the trauma in their lives. There was general consensus about the need for ongoing support beyond what directors can provide. They indicated that many directors are not available to provide the necessary support because they are busy with other things. All of the teachers indicated that they often feel overwhelmed because of the number of children in their classrooms who are exposed to trauma. Ongoing support from beyond the center was highlighted as a pretty significant need.

8. *What can programs do to support your mental health?*

There was agreement that teachers need access to counseling to deal with their own trauma. One teacher indicated that teachers often have difficulty relating to parents and interacting with children effectively because of their unresolved traumatic experiences. Another teacher said that she was taking on the trauma of her children, and created her own strategies to manage her mental health because she could not afford counseling. They also suggested that they just need more time off through retreats and additional vacation time. All of the teachers agreed that current state rules do not provide enough vacation and sick time for

child care providers. They also suggested providing more opportunities to get support from one another through group chats and discussions. Better pay was another factor related to their mental health. There was consensus that they are not paid enough for the work that they do. Finally, they suggested that directors need to do a better job in supporting and protecting their teachers.

Findings from Focus Groups

Each of the focus groups provided invaluable information regarding the current needs within the community. In addition, each of the groups provided varying perspectives which allowed for more accurate, nuanced information about the specific concerns of different stakeholders. Overall, the following findings emerged from the information gathered during the focus groups.

First, all of the groups indicated the need for *a clear paradigm shift* within the field and community regarding early childhood trauma. For example, there appears to be a pervasive lack of understanding about what constitutes trauma, how it manifests itself, and how to respond to it within early childhood programs. They indicated that providing trainings focused on developing a greater understanding about trauma and the research regarding its effects on child development would promote buy-in from direct service providers. The focus group members highlighted the resistance from early childhood professionals to move beyond seeing "kids as just bad." Providing a general awareness training was identified as a potential solution to this barrier.

An additional finding was related to *establishing family partnerships*. Many of the participants suggested that more mutual, trusting relationships with families would provide the context for helping parents and other direct caregivers recognize their own trauma and how to access resources for themselves and their children. Many participants also highlighted the need for greater empathy in how early childhood practitioners interact and establish relationships with young children and their families who are experiencing trauma.

Addressing secondary trauma also was a key finding from the focus groups. Many of the participants indicated that a large number of early childhood practitioners have their own trauma which they have not dealt with. They suggested that there is a need for more programs designed to promote self-care such as mindfulness training. The directors, in particular, indicated that they do not have the resources and support to effectively address this issue.

Another finding was that early childhood programs require *greater access to early childhood mental health (ECMH) services*. Focus group participants indicated that there is a great need for weekly access to this type of support which would provide them with additional strategies for addressing challenging behaviors within the classroom and resources to help family members navigate the mental health system.

Promoting a systems level approach to trauma was an additional finding of the focus groups. For example, program directors indicated that there is a need for a one stop place where early childhood professionals and parents can go for resources and supports. Members of the LICC group indicated that many of the sectors that provide services to young children and their families compartmentalize which leads to lack of communication and disjointed services. In addition, the program directors and parents suggested that families are having a hard time accessing necessary services due to a difficult to navigate system and inconvenient operating hours.

Finally, all of the groups emphasized the need for *intensive, ongoing professional development*. There was consensus that a one-time training will not be enough to meet the extensive needs within the community. In particular, they suggested the need for training that focuses on child development, what trauma looks like at different ages, and how to apply what is learned. They also emphasized the need for ongoing support for teachers within classrooms through the use of practice-based coaching as they implement new strategies and skills.

Interviews with Trauma Experts

Interviews with trauma experts also were conducted to field to gain insight into key strategies, practices, and components that should be included within a trauma-informed intervention approach designed for use in community-based child care programs. Experts included: (a) Bruce Perry, Senior Fellow of the Child Trauma Academy (Houston, TX); (b) Neal Horen, Director of the Early Childhood Division at the Center for Child and Human Development, and the Director of the HOYA clinic in the Department of Psychiatry (Georgetown University); (c) Cathy Ayoub, Associate Professor, Harvard Medical School and Faculty, Brazelton Touchpoints Center; and (d) Ariana Shahinfar, Department of Psychological Science at the University of North Carolina-Charlotte.

Dr. Horen was interviewed on September 21, 2018. Dr. Perry was interviewed on October 25, 2018. Dr. Aboud was interviewed on November 5, 2018. Dr. Shahinfar was interviewed on December 14, 2018.

Interview Questions

1. *What are the key issues related to trauma in young children?*

Neal Horen: The impact of trauma can be buffered. It's important to understand children's experiences with attachment and relationships prior to the trauma. What was happening? What was their social-emotional development? How have they come to experience the world? A child's response to trauma also depends on the type of trauma. This will influence safety, trust, and attachment. Some children are more resilient, particularly those with high intelligence, language, and social skills. Also, children with at least one positive adult relationship are more resilient (e.g., who does the child have in his/her life?). Three things are absolutely critical when trying to understand early childhood trauma: (1) What is the trauma? (2) What are the buffers available? and (3) How is the trauma being addressed? It also is essential that all sectors need to understand trauma.

Bruce Perry: With early childhood, any intervention that is implemented has to be iterative and ongoing for lasting change to occur.

Cathy Aboud: All trauma must be viewed within a developmental frame of reference — the intersection of emotion and cognition. In what ways do children embed trauma behaviors within their brain structure as they grow? Trauma affects their ability to make positive attachments and form beginning identities. Chronic trauma really changes the way young children think and act. They develop traumatic coping strategies depending on where they are developmentally and how they are responding to trauma. They can bring their developmental strengths to dealing with trauma. We know that it's a combination of nature-nurture. Children adapt to the best of their ability at any given time based on their inherent traits and individual experiences. A young child who is experiencing trauma is responding in the best way they can by developing adaptive behaviors. There is a need to understand the interface between child development and trauma adaptive behaviors. Key issues to be addressed: promoting resilience in those very young children by providing them with safe and nurturing environments. This can't fix it, but it can be used as a strength. We also need to help children understand their vulnerabilities so they don't continue to live in the traumatic path. However, safe environments are imperative for children who are experiencing trauma. Early care settings where children spend their time are key contexts in which to do this. We have to remember that trauma creates relational disorders – healing relationships with caregivers gives us an avenue to work with them to create resilience.

Ariana Shahinfar: One of the key issues is the disconnection within the Charlotte community. Two of the toughest groups to access are the business community and parents. The business community does not see its own role in reducing trauma. They don't see that what they are doing and how they treat families affects them economically. Parents are dealing with so many issues themselves that they can't even focus on their kids (e.g., wondering where their next meal is coming from, domestic violence). This leads to parents not dealing with trauma very well. Employers can be supportive of families who are experiencing trauma by focusing on mental health support and eliminating economic barriers (e.g., losing income to take off work, increasing pay) so that parents can focus on healing. Besides the parents, teachers are the most important people in children's lives. They also need to help the parents. We need to help them recognize that, but we don't often treat the teachers with the respect they deserve.

2. *What are the key components of trauma-informed care?*

Neal Horen: Before a trauma-informed intervention can be put into place, several building blocks must be the focus within early childhood classrooms: (1) building attachment with caregivers; (2) helping children develop ways to manage stress; and (3) teaching self-regulation, executive function, social skills, and self-efficacy. All of those things need to be in place before implementing a trauma-informed intervention. Early childhood caregivers also need to have an in-depth understanding of early childhood development (e.g. what is typical). It is essential that early childhood organizations and programs think beyond typical early childhood approaches that work with other children because they will not work with young children who have experienced or are experiencing trauma. Child care providers must actually understand early childhood development and the building blocks that crumble when children experience trauma.

Bruce Perry: First and foremost, a culture shift needs to occur to create systems level change. Providing early childhood educators with a knowledge base is the easiest and last thing they need. It is essential that we listen to the current concerns of early childhood providers about their work. Sometimes they feel threatened by children and families, or they don't feel supported or competent enough to deal with challenging behaviors. We must listen to the issues and concerns of the staff – just listening to the staff makes them feel more regulated. We need to show empathetic concern and get a general understanding of the climate and teachers. Then, we can focus on teaching educators about dysregulation and how this makes it hard for children to learn, etc. (e.g., when you are hungry/tired/overwhelmed, you can't process information). Second, we must help adults understand that children don't all develop at the same sequence. We need to help teachers understand that they need to get to know the children and meet them where they are. The biggest challenges of teaching is understanding where children are developmentally and the current expectations for activities, learning environment, etc. Are they incongruent? Teachers then need to understand that they will have to change their expectations based on the needs of the children in the class (e.g., changing instructional strategies, approaches). If you teach educators these things – know the stage of the development, watch the child's state during activities – this will create a tremendous amount of change within programs. However, the working tool for all of this is the relationship with the child.

Cathy Aboud: Early childhood professionals need basic information about how to actually understand and identify the behaviors and think about management solutions within the classroom. It's about the larger environment – teachers need tools. Trauma-informed care doesn't give teachers what they need to learn about children's development or behavior management. They need a firm understanding of developmental theory, such as Maslow's hierarchy of needs. For example, they need to understand that if children don't feel safe, they will not be able to do anything else. They also need behavior management tools – understanding the function of the behavior, where the child is within development, what triggers individual children, as well as anticipating changes in behaviors.

Ariana Shahinfar: We need to have an educated community – the entire community (e.g., health care providers, teachers, parents, business leaders, pediatricians). We need to help them understand the importance of social-emotional health and development so that we can focus on this as a community issue.

3. *What does this look like within an early childhood program?*

Neal Horen: The Pyramid Model is great, but it's all about understanding the function of challenging behavior. For young children experiencing trauma, we need to move beyond that. Early childhood providers need to understand that something happened to this child, and we need to deal with the building blocks. There needs to be a much deeper understanding of the building blocks (e.g., attachment, understanding of typical early childhood development) so that providers can understand how off track children who experience trauma can get. We cannot build problem solving skills without building self-regulation first.

Bruce Perry: It's all about the relationship with the child. The state of the children is largely dependent on the state of the teacher – if the teacher is angry, children will be angry; if the teacher is dysregulated, the children will be dysregulated.

Cathy Aboud: Trauma-informed care information can be used to set up safe spaces as well as focus on equity and inclusion – those things contribute to creating any strengths-based environment. Teachers also need additional information regarding flexibility in understanding behaviors. We need to help teachers gain skills to work with children, acknowledge families and bring them in as partners rather than adversaries. We also need to help professionals really acknowledge the need for self-care. For example, if too many challenging kids are in one classroom, that needs to change because it will overwhelm even the best teachers. Some structural things are important too: routines, planning for transitions, go to the same playgrounds, not offering a lot of changes, the need for consistency in routines, forward thinking about what it means for the child, creating safe spaces, creating an organized environment. We also need to have a model for teachers because they will self-isolate – it takes a village to address trauma.

Ariana Shahinfar: There are wonderful trainings out there, but it's not the whole picture. So much of responding to trauma is learning how to be responsive to each child. Teachers need to understand that each child is different. Therefore, different children are going to respond to trauma in different ways. We need to help teachers look at a child's behavior as a symptom rather than a problem. This will help providers figure out what the trauma is and how to respond.

4. *What components are critical in a trauma-informed care early childhood intervention program?*

Neal Horen: It's important to understand that addressing trauma with infants and toddlers will look different than how it is addressed in preschool. Other important questions to address: what are the adults in the child's world doing? How are they helping these children with the skills that they need help with? Early childhood providers are going to require significant support to effectively address trauma within their programs. In addition to trainings, early childhood professionals will need to have access to practice-based coaching and ongoing support, as well as Early Childhood Mental Health consultation. In addition to the building blocks, professionals will need to understand their own triggers to child behavior, as well as implicit bias and addressing equity.

Ariana Shahinfar: Getting the parents on board is the most important thing. We need to help them understand their own trauma. We need to help them heal from their own trauma so that they can focus on their children. We must treat the whole family.

5. *What is needed for a trauma-informed intervention to be implemented successfully within early childhood programs?*

Neal Horen: Ongoing support for the staff and director will be needed as well as a deep understanding of what happened to the child, what protective factors exist, and what building block skills need to be taught.

Bruce Perry: The biggest thing that needs to happen is a culture shift. We need to change how we manage behaviors from punitive to teaching/guidance. We also need to focus on systems level change. There will be no lasting change in practices if we don't change the actual system (e.g., policies, practices).

Cathy Aboud: It's more than one day of training. It's a process. There needs to be community engagement. It takes the community to get together to build services with a series of professional development offerings. This is where the paradigm shift occurs. This is then followed up with reflective consultation calls for about 4-6 months where coaches work with providers on implementing those skills. Every child care center should have a mental health consultant on site if not every day, but weekly. There needs to be leadership buy in and a mindset shift. Face-to-face trainings are incredibly important, but not enough. It is actually dangerous to do a one-off training.

Ariana Shahinfar: Getting the families involved and educated. We need to start with the child care providers to help them identify where the issues are so that they can respond.

6. *What about addressing secondary trauma?*

Neal Horen: Early childhood programs and organizations need to know how to help providers. For example, once a month programs could conduct sessions on mindfulness, use of music, physical activity so that early childhood providers are more prepared to deal with stuff that is really wearing and exhausting. It's important to remember that these child care providers are the safe havens where children come, learn skills, etc. Staff wellness is a huge component of secondary trauma – early childhood professionals shouldn't just be able to take it. They need to be able to admit that it is hard work, or else they will take on the trauma.

Cathy Aboud: A mental health consultation model should be built into everything that they do – Family Connections from Brazelton is a great resource. It is built around the notion that you need be able to engage in perspective taking so that you can move to empathy and caring while also understand your own capacity. They also offer a self-care module that takes about a day to finish – what do you do when you are stressed? How do you know that you are stressed? What does it mean to work with trauma-exposed children? We need to help people maintain sensitivity, but also understand when they are experiencing vicarious trauma. Programs can provide yoga, meditation, connecting with friends. At the organizational level, we need to promote the notion that organizations must provide the infrastructure for allowing staff to engage in self-care. The organizational climate is critically important – is the director supporting them? Providing the infrastructure?

Ariana Shahinfar: We need to equip them with tools to take care of themselves. We need to move beyond referrals to counselors and focus on broader efforts to help teachers (e.g., learn how to meditate, how to reduce stress).

7. *What about supporting child care providers who are experiencing or who have experienced trauma themselves?*

Neal Horen: A big question to consider is what is the Early Childhood Mental Health consultant doing for the staff? What resources are available within the community to support child care providers? Part of being a trauma-informed program is understanding that there is a mindset that all individuals who are a part of that community are committed to addressing trauma at the program-, staff-, child-, and family-level. There must be a commitment to some sort of self-care for staff, families, and children.

Bruce Perry: As teachers become more dysregulated, their behavioral strategies get more primitive. We need to think about how we engage providers in implementing new practices. We need to provide lots of doses with increasing challenge. It is going to take time and repetition to help early childhood educators leave their comfort zone. This becomes a process rather than a thing to teach. We also need to make sure that teachers

have a firm grasp of these concepts: child development, regulatory states, how to meet children where they are, and behavior management. Teachers need more in-class support to help them manage daily interactions. However, the help within the classrooms must be provided by those who understand trauma and how to respond to trauma. This provides a context for co-regulating teachers – when one teacher feels overwhelmed, the other teacher can take over.

Cathy Aboud: Their trauma must be acknowledged and we have to offer them mental health supports. Sometimes they may need help recognizing their own trauma.

Ariana Shahinfar: We must get the community involved so that we can support each other. We need to continue to increase connection with others to promote resilience. For example, we could create a buddy system that connects people to support each other.

8. *How do trauma-informed programs support families?*

Neal Horen: Good programs recognize that they are a community and that they want everyone to be okay. They ask themselves: what do they do for everyone? Building the relationship with the family is essential. Programs that have strong relationships with families do not suspend or expel children as a matter of practice. There is lots of back and forth about trying things at home and school.

Bruce Perry: Schools have a great opportunity to become an anchor for families by providing resources and supports. Schools and programs can offer themselves as a support for the community in a lot of different ways. For example, one way is to provide after school programming for parents – kids play in the gym while parents have a discussion about a variety of topics. Schools can get local pediatricians or mental health professionals within the community to come give a lecture. We can provide continuing education to engage parents in a positive way; however, this will take some creativity to engage the community.

Cathy Aboud: This is a critical component – these are the people who have the most influence over their children. We must partner with families through a relationship-based approach. The Brazelton Institute offers a set of strategies from the Touchpoints approach for engaging families. It provides assumptions and principles to use when working with parents. It also offers attitudes and beliefs that help equalize the power differential. The parents' role as a parent is used to build the relationship – using their child's behavior as a means for communicating when all else fails as well as respecting their knowledge and expertise about their children. It's not just about teaching; it's about learning from the parents as well. We need to respect the parent as the parent because it changes the dynamic of the interaction and works the best with very difficult parents. There also needs to be a paradigm shift around how educators work with families which allows teachers to be better teachers. When children are experiencing trauma, the first thing is to talk to the family to find out what is going on through a respectful, trusting relationship.

Ariana Shahinfar: We could think about making it a policy to work with the family too – not just the child. We need to provide parent training and support or provide sessions that give them the opportunity to connect with and support one another. They can share ideas and advice. We need to move beyond the top down model that we tend to use, and think about having parents who have experienced trauma serve as support to get other parents involved and deal with their trauma.

9. *Any last comments?*

Neal Horen: Big picture – What are programs and organizations trying to accomplish? What is it that they want to do? Do they want more informed providers or do they want to truly meet the needs of all individuals? Programs and organizations need to figure out their goals and outcomes first, and then work from there.

Bruce Perry: Implementing a trauma-informed approach cannot just be a conference or training. Teachers and other early childhood professionals will need ongoing practice and support to shift how they provide services to young trauma-exposed children. There needs to be a relational quality of how content is taught. The hardest part of all of this is implementation – how to communicate all of this and achieve buy-in from the educators. There needs to be a general understanding that we are dealing with a transgenerational problem. Because of this, we will need to engage in both short- and long-term problem solving. To truly address trauma, it's going to take a paradigm shift and it will take generations. We can make some concrete changes while also thinking about the long-term strategy. One of the biggest challenges is that some educators and community members are not going to be willing to listen. We will need to establish respectful relationships with communities and programs. We need to make time for change to occur.

Ariana Shahinfar: So much in Charlotte has focused on economic disparity. There's this tendency to think that we can't do anything about trauma. There are times when it might be useful to share more economic resources with each other. We must get the business community involved (e.g., how to increase monthly income for families living in poverty to reduce that stress, help them get their basic needs met).

Findings from Interviews

The interviews with trauma experts offer some important findings that can be used to guide future work. First, all three experts indicated that before any substantive trauma work can begin within a community or educational organization, there needs to be an effort to *create a paradigm shift* in how practitioners understand child behavior and how they view children and families who are experiencing trauma. This will require helping educators gain a greater understanding of typical child development and how trauma inhibits learning and development. An additional component of the paradigm shift will be in helping teachers and other early childhood professionals develop empathy toward young children and their families who are experiencing trauma. This is a key aspect in helping the field shift the mindset about how to best address early childhood trauma. They also suggested that part of this paradigm shift is to learn about the needs of teachers and administrators within specific schools and centers before beginning any sort of trauma work. This type of activity provides a context for promoting practitioner buy-in because they feel that they have been heard. When buy-in occurs, there is a greater likelihood for the paradigm shift to take place both within early childhood centers and across the larger community.

All three of the experts indicated that it is absolutely critical to *promote child and family resilience* within early childhood programs through the establishment of safe, trusting environments where at least one nurturing, consistent caregiver is present. Much of the information provided suggests that healing for children and families takes places within the context of relationships. There needs to be a focus on building attachments between young children and their caregivers. They also emphasized that trusting, open relationships with families are critical for counterbalancing the effects of trauma on both children and parents. Much of the healing that needs to take place occurs within relationships. Each of the experts emphasized the need for safety, trust, and attachment within early learning environments.

During the interviews, the experts emphasized the need for *greater access to mental health services* within early childhood programs. These types of services are critical for a number of reasons. First, ECMH providers offer support and resources to early childhood providers as they encounter challenges related to caring for young trauma-exposed children. ECMH therapists help practitioners better understand trauma, including the signs and symptoms. In addition, they can provide critical support in managing challenging behaviors that often occur as a result of the trauma that children experience. Finally, ECMH providers also can support teachers and administrators in helping parents access resources within the community. ECMH therapists are an invaluable resource for early childhood programs because their presence and support can alleviate some of the stress and demands that go along with serving young children and their families who are experiencing trauma.

Another key finding from the expert interviews was the need to address *secondary trauma*. They indicated that programs need to be equipped to support early childhood practitioners who have experienced their own trauma or who are taking on the trauma of the children that they serve. Creating a paradigm shift within the program is one of the biggest ways to create an early childhood community that is focused on promoting the mental health of all stakeholders (i.e., children, families, practitioners). When this paradigm shift occurs, programs become better equipped to meet the challenges that occur when working with trauma-exposed children. An important strategy for providers is to create ways to incorporate self-care within the context of program activities. For example, centers can provide mindfulness activities, physical activities, or offer breaks for teachers to get outside and take a walk. Teachers and administrators need to be able to recognize signs of stress and trauma within themselves so that they can access the support needed to deal with the demands of the job. Another critical component is ensuring that early childhood practitioners have the knowledge and skills needed to work with this population of children.

Ensuring that *intensive, ongoing professional development* occurs was another finding from the interviews. All three of the experts indicated that it is not enough to just have trainings on trauma. Early childhood providers need ongoing support through practice-based coaching or consultation. Each of the experts indicated that implementing practices to address early childhood trauma is a process that will require time. The professional development activities should be focused on helping educators develop an in-depth understanding of (a) child development and how trauma affects the developmental outcomes of young trauma-exposed children; (b) trauma, including what it is, its symptoms, and coping strategies that children develop in response to the trauma; (c) effective behavior management practices that are focused on teaching and guidance versus punishment; (d) how to teach social-emotional skills, particularly related to self-regulation and resolving conflicts; (e) establishing safe, trusting learning environments; and (f) how to engage in meaningful partnerships with families that are built on trust and empathy. The experts also noted that the strategies used to establish trauma-informed learning environments will differ based on the population served. For example, these practices will look different for infants/toddlers versus preschool. Once teachers take part in initial trainings focused on these topics, they will need ongoing support through the use of practice-based coaching to effectively implement them in the classroom. One expert noted that the intervention process will have to be iterative for any lasting change to occur.

Summary of Overall Findings

The findings from the literature review, focus groups, and interviews with experts provided several key areas of focus that need to be incorporated within any trauma-informed early childhood system. First, there is a clear need for promoting buy-in from, not just direct service providers, but from the entire early childhood community. *Providing a context for shifting the mindset* about (a) what trauma is; (b) the experiences of children and families with trauma; and (c) how to respond within early childhood programs is a critical approach to not only set up a trauma-informed system, but also to promote buy-in. Generating a paradigm shift creates the context for creating a system that is focused on promoting the mental health of all stakeholders (i.e., children, families, practitioners). The findings from the interviews and focus groups indicated that a key goal of this mindset shift will be to promote greater empathy towards and less judgement about parents' and the coping mechanisms they have developed in response to their own trauma. Greater empathy for parents lays the groundwork for the necessary partnerships that need to be developed between home and school. Part of the mindset shift is to help practitioners understand that healing relationships also must be established with families. A byproduct of this paradigm shift is to help parents understand that they also are experiencing trauma. Focus group participants, as well as the experts, indicated that many parents don't even know that they have trauma in their lives. Therefore, a key part of the work ahead will be to generate greater parental awareness about trauma, including what it looks like in everyday life. This recognition will create the context for helping parents access services and begin the journey towards healing and resiliency. A trauma-focused mindset within an organization or program is a critical component needed to sustain practices over time.

Second, it is clear that there needs to be *a greater emphasis on tailoring services for different populations of children and families*. That is, trauma-based strategies will need to be geared towards the developmental needs and goals associated with different age groups. Therefore, trauma-informed practices will look different for infants and toddlers versus preschoolers.

Another key finding is that trauma-informed programs must emphasize the importance of *establishing nurturing and trusting relationships between professionals, children and families*. For example, early childhood practitioners need the skills and knowledge to develop secure attachments with children, families, and colleagues. These relationships serve as the foundation for families and children as they build resilience and heal from the effects of trauma. In addition, trusting relationships between professionals are a critical context for providing support to one another as they engage in the hard work of serving young trauma-exposed children and their families. This need for peer-to-peer support was one of the key findings from the teacher focus group. In addition, the teachers indicated that relationships between directors and their staff are critical, not only for practices to be implemented as intended, but also for the mental health of the teachers. Many of the teacher focus group participants suggested that they take on the trauma of the children and families they serve, and also have experienced their own trauma. They need directors who provide the necessary resources and supports so that teacher mental health is a priority. Dysregulated teachers often rely on ineffective teaching and behavior management practices. Nurturing and trusting relationships between teachers and directors is critical to address this need.

Finally, an essential component of any trauma-informed early childhood organization is *promoting systems-level change*. Ongoing, intensive professional development - that includes both didactic trainings and practice-based coaching - will be needed to support the sustainability of practices over time. Each of the focus groups and experts indicated that ongoing support is critical for success. In addition to CCRI, early childhood organizations will want to develop the infrastructure to ensure that the approach is lasting. For example, policies, practices, and resources must be identified to support the longevity of the services provided. Although creating a cross-sector trauma-informed system (e.g., families, early childhood mental health, early childhood, health department, foster care, and the medical community) is beyond the scope of this work, an important consideration for the future is how to engage in a unified effort to recognize and address the impact of trauma in the larger community. This is particularly important since children and families who are experiencing trauma operate in multiple systems simultaneously. As such, community programs, agencies, and stakeholders must work together to promote awareness about the effects of trauma on children and families, and provide the necessary training and professional development to infuse an emphasis on addressing trauma and promoting mental health within the culture, practices, and policies of each relevant agency (Bartlett, Smith & Bringewatt, 2017). A key component of this larger work will be that agencies and programs within the community engage in active collaboration to create a seamless system of trauma-informed care.

For the current project, two key tasks are critical to lay the groundwork for the work ahead. First, there should be a focus on creating a trauma-informed early care and education system that places an emphasis on providing services, supports, and practices that promote the mental health, healing, and resiliency of children, families, and practitioners. Another key task will be to establish partnerships with other sectors in Charlotte to begin the conversation about how to create a community-wide trauma-informed system.

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Appendix A

Annotated Bibliography: Trauma-Informed Early Childhood Programs

Arvidson, J., Kinniburgh, K., Howard, K., Spinazzola, J., Strothers, H., Evans, M., … & Blaustein, M. E. (2011). Treatment of complex trauma in young children: Developmental and cultural considerations in application of the ARC intervention model. ***Journal of Child & Adolescent Trauma, 4*****(1), 34-51.**

This article introduces the ARC model and describes its application with young children of diverse ethnocultural backgrounds involved in the child protection system due to maltreatment. This article presents preliminary evidence of the effectiveness of the ARC model derived from program evaluation conducted at a community-based clinic.

Baker-Henningham, H., Scott, S., Jones, K., & Walker, S. (2012). Reducing child conduct problems and promoting social skills in a middle-income country: Cluster randomized controlled trial. ***British Journal of Psychiatry, 201*****(2), 101-108.**

This study focused on the use of the Incredible Years curriculum. Although the results are positive for reducing challenging behaviors and increasing social skills in young children, this model is not specifically focused on addressing early childhood trauma.

Bartlett, J. D., Smith, S., & Bringewatt, E. (2017). ***Helping young children who have experienced trauma: Policies and strategies for early care and education.*** **Washington, DC: Child Trends.**

This comprehensive report provides an overview of early childhood trauma, its impacts on development, and promising strategies that can be used to address trauma in young children. The authors note that several key components are needed within early childhood settings: (1) presence and continuity of nurturing caregiver; (2) environments that promote safety and trust; (3) environments that promote the development of social-emotional skills; and (4) environments that focus on developing pre-academic skills.

Center for the Developing Child (2007). ***A science-based framework for early childhood policy: Using evidence to improve outcomes in learning, behavior, and health for vulnerable children.*** **Cambridge, MA: Harvard University.**

This report provides a broad overview of early childhood trauma, including the science of early brain development and how trauma impacts this. Effectiveness factors also are provided to assist programs in developing policy and practices needed to address early childhood trauma. These factors include: (1) strengthening the family environment; (2) implementing practices within early learning settings; and (3) creating a cross-sector approach to trauma-informed care.

Child Welfare Information Gateway (2012). ***Trauma-focused cognitive behavioral therapy for children affected by sexual abuse or trauma.*** **Washington, DC: Author.**

Trauma-focused cognitive behavioral therapy (TF-CBT) is an evidence-based treatment approach for helping children and families heal from the effects of trauma. This online resource provides information regarding this approach, including key elements and its effectiveness in addressing trauma. TF-CBT is typically carried out by trained therapists within a clinic-based setting and includes cognitive therapy, behavioral therapy, and family therapy. Research suggests that TF-CBT is effective in reducing child behaviors associated with trauma and improving parenting skills.

Clervil, R., & DeCandia, C. J. (2013). *Integrating and sustaining trauma-informed care across diverse service systems*. Washington, DC: American Institutes for Research.

The goal of this online resource is to provide an overview of childhood trauma and how it is addressed across various systems. The authors also provide a discussion about the impact of trauma on children's development and the key components of trauma-informed care. Within this report, common challenges also are provided. The authors point out the importance of generating a paradigm shift within systems before implementing any strategies or interventions focused on addressing childhood trauma.

Cohen, J. A., Mannarino, A. P., & Murray, L. K. (2011). Trauma-focused CBT for youth who experience ongoing traumas. *Child Abuse & Neglect, 35,* 637-646.

The purpose of this article is to study the effectiveness of TF-CBT using case examples. The authors outline the key components and strategies used with the intervention, including (1) enhancing safety; (2) effectively engaging parents; and (3) helping children process trauma. TF-CBT is an intensive therapy designed for use with highly-trained clinicians. It has not been adapted for use in early childhood settings. In this study, case examples illustrated how TF-CBT can be implemented in a variety of clinic-based settings.

Cummings, K. P., Addante, S., Swindell, J., & Meadan, H. (2017). Creating supportive environments for children who have had exposure to traumatic events. *Journal of Child and Family Studies, 26,* 2728-2741.

The focus of this study was to conduct qualitative interviews with community-based service providers to determine (1) what teachers should know about children who experience trauma; (2) the emotional and behavioral patterns of children who have experienced traumatic events; and (3) how to support the social and emotional well-being of children in a classroom setting. Results indicated that many teachers don't readily connect children's behaviors to the trauma they have experienced. In addition, the teachers suggested that specific strategies were needed to address the social-emotional health of trauma-exposed children.

Dwyer, J., O'Keefe, J., Scott, P., & Wilson, L. (2012). *Literature review: A trauma-sensitive approach for children aged 0-8 years.* Melbourne, AU: Department of Education and Early Childhood Development.

This conceptual online resource provides an extensive overview of trauma, how it affects the developing brain, and developing a whole-school approach to addressing early childhood trauma. Components of the approach include (1) creating a highly-trained and effective workforce; (2) developing relationships with children and families; (3) supporting the development of children's social-emotional skills; and (4) addressing teacher stress and trauma.

Franke, H. A. (2014). Toxic stress: Effects, prevention, and treatment. *Children, 1,* 390-402.

This article provides a review of toxic stress, including factors of vulnerability and resilience. It also includes an overview of an integrative approach to prevention and treatment of toxic stress at the individual, community, and national levels.

Hodgdon, H. B., Kinniburgh, K., Gabowitz, D., Blaustein, M. E., & Spinazzola, J. (2013). Development and implementation of trauma-informed programming in youth residential treatment centers using the ARC framework. *Journal of Family Violence, 28*(7), 679-692.

This project describes application of an evidenced-based, trauma-informed treatment framework, Attachment, Regulation and Competency (ARC), with complexly traumatized youth in residential treatment. Pilot data demonstrated a significant relation between use of ARC and reductions in PTSD symptoms, externalizing and internalizing behaviors, and the frequency of restraints used across programs.

Holmes, C., Levy, M., Smith, A., Pinne, S., & Neese, P. (2015). A model for creating a supportive trauma-informed culture for children in preschool settings. ***Journal of Child and Family Studies, 24,*** **1650-1659.**

This paper describes the Head Start Trauma Smart model (HSTS), a cross-systems approach to addressing trauma in early childhood settings, particularly Head Start classrooms. The model includes several core components: (1) training of all staff, parents, and community members on the 3 domains and 10 building blocks of Attachment, Self-Regulation, and Competency model (a complex trauma-focused intervention); (2) intensive individual trauma-focused intervention for children and families; (3) classroom consultation; and (4) peer-based mentoring. Results demonstrated changes in teacher, child, and parent behavior. Although the results are encouraging, more studies are needed to examine its effectiveness. In addition, the model is quite intensive and would require significant resources to implement on a large scale.

Knudsen, E. I. (2004). Sensitive periods in the development of the brain and behavior. ***Journal of Cognitive Neuroscience, 16(8),*** **1412-1425.**

This article provides an overview of early brain development and the importance of sensitive periods on later functioning. The author provides details about what is happening in the brain during these early sensitive periods and supportive factors associated with better outcomes.

Ko, S. J., Kassam-Adams, N., Wilson, C., Ford, J. D., Berkowitz, S. J., & Wong, M. (2008). Creating trauma-informed systems: Child welfare, education, first responders, health care, and juvenile justice. ***Professional Psychology: Research and Practice, 39*****(4), 396-404.**

This article outlines what is needed to create trauma-informed systems in a variety of sectors. For example, service providers need to develop a unique understanding of trauma and how to incorporate this perspective into daily practice. Specific recommendations for education include providing increased training for teachers and staff, as well as increasing resources within school communities to effectively address trauma.

Konanur, S., Muller, R. T., Cinamon, J. S., Thornback, K., & Zorzella, K. P. M. (2015). Effectiveness of trauma-focused cognitive behavioral therapy in a community-based program. ***Child Abuse & Neglect, 50,*** **159-170.**

In this article, the authors conducted a randomized study to examine the effectiveness of TF-CBT within a large city. Results of the study indicated that TF-CBT can be effectively implemented in community-based settings (e.g., child welfare services) to reduce children's symptoms of post-traumatic stress disorder.

Lieberman, A. F. (2004). Traumatic stress and the quality of attachment: Reality and internalization in disorders in infant mental health. ***Infant Mental Health Journal, 25(4),*** **336-351.**

This article describes the interface between the fields of attachment and child trauma, their respective contributions to an understanding of infant mental health disturbances, and the clinical applications of an integration between attachment theory and trauma-informed treatment and research.

Lowell, D.I., Carter, A.S., Godoy, L., Paulicin, B., Briggs-Gowan, M.J. (2011). A randomized controlled trial of Child First: A Comprehensive, home-based intervention translating research into early childhood practice. ***Child Development, 82(1),*** **193-208.**

This article describes a randomized, controlled trial designed to document the effectiveness of Child FIRST (Child and Family Interagency, Resource, Support, and Training), a home-based, psychotherapeutic, parent–child intervention embedded in a system of care. Child FIRST is effective with multi-risk families raising young children across multiple child and parent outcomes.

Pears, K. C., Fisher, A. P., Kim, H. K., Bruce, J., Healey, V. C., & Yoerger, K. (2013). Immediate effects of a school readiness intervention for children in foster care. *Early Education and Development, 24,* 771-791.

This study evaluates the effectiveness of the Kids in Transition model focused on addressing childhood trauma. Results indicated that children who had received ***KITS*** had significantly lower levels of oppositional and aggressive behaviors in the classroom, as compared to the control group. Although this model has demonstrated effectiveness, it is a clinic-based model that has not been adapted for use in early childhood settings.

Pears, K. C., Kim, H. K., & Fisher, P. A. (2016). Decreasing risk factors for later alcohol use and antisocial behaviors in children in foster care by increasing early promotive factors. *Child and Youth Services Review, 65,* 156-165.

This study examines both the direct and indirect (through increases in self-competence) effects of a Kids In Transition to School (KITS) program, intervention designed to promote school readiness in children in foster care on third grade indicators of risk for becoming involved in alcohol use and delinquency. Results indicate that being in the KITS intervention prior to kindergarten entry was associated with having less positive attitudes towards alcohol use and antisocial behavior in third grade, 4 years after children participated in the intervention. Although this model has demonstrated effectiveness, it is a clinic-based model that has not been adapted for use in early childhood settings.

Perry, B. (2009). Examining child maltreatment through a neurodevelopmental lens: Clinical applications of the neurosequential model of therapeutics. *Journal of Loss and Trauma, 14,* 240-255.

This article provides the theoretical rationale and overview of a neurodevelopmentally-informed approach to therapeutic work with maltreated and traumatized children and youth. The Neurosequential Model of Therapeutics (NMT) allows identification of the key systems and areas in the brain which have been impacted by adverse developmental experiences and helps target the selection and sequence of therapeutic, enrichment, and educational activities. In the preliminary applications of this approach in a variety of clinical settings, the outcomes have been positive.

Perry, B. (2006). The neurosequential model of therapeutics: Applying principles of neurodevelopment. In. N. Webb (Ed.). *Working with Traumatized Youth in Child Welfare* (pp. 27-52). NY: Guilford Press.

This chapter provides an overview of therapeutic work with children who have experienced trauma. A neurodevelopmental perspective provides an awareness of human brain development and functioning, as well as insights into abnormal functioning following adverse experiences.

Perry, D., Allen, M. D., Brennan, E. M., & Bradley, J. R. (2010). The evidence base for mental health consultation in early childhood settings: A research synthesis addressing children's behavioral outcomes. *Early Education and Development, 6,* 795-824.

This article provides a systematic review of the literature and identified 14 rigorous studies that reported on child-level outcomes. Across these studies, there was variation in the approaches to consultation, qualifications of the consultants, and intensity of the services provided. Overall, early childhood mental health consultation services were consistently associated with reductions in teacher-reported externalizing behaviors. Findings related to reductions in internalizing behaviors were mixed. Teacher ratings of prosocial behaviors were improved in the majority of the studies that reported on this domain.

Ryan, K., Lane, S. J., & Powers, D. (2017). A multidisciplinary model for treating complex trauma in early childhood. ***International Journal of Play Therapy, 26(2),*** **111-123.**

This article examines the effectiveness of the Circle Preschool Program model for addressing early childhood trauma. Specific components of the model include: (1) implementing repetitive, rhythmic interventions to stimulate healthy neural growth; (2) teaching self-regulation and learning through play therapy; (3) establishing a safe physical and emotional environment; and (4) including significant caregivers in the therapy process. A case example was provided to explore the effectiveness of the model. Results indicated that progress was slow for this child with frequent regressions; however, he was able to make progress and achieve success in early elementary school.

Salloum, A., Robst, J., Scheerings, M. S., Cohen, J. A., Wang, W., Murphy, T. K., Tolin, D. F., & Storch, E. A. (2014). Step one within stepped care trauma-focused cognitive behavioral therapy for young children: A pilot study. ***Child Psychiatry and Human Development, 45,*** **65-77.**

The goal of this study was to examine the preliminary efficacy, parent acceptability, and economic cost of delivering Step One within Stepped Care TF-CBT with young children ages 3-6 years. Parent satisfaction was high and most children showed marked improvement after taking part in the intervention. TF-CBT is a clinic-based intervention that has not been adapted for use in early childhood programs.

Schwarz, E. & Perry, B. D. (1994). The post-traumatic response in children and adolescents. ***Psychiatric Clinics of North America, 17*** **(2), 311-326.**

This article provides insights into how specific traumatic experiences can influence child and adolescent behavior. Further, the authors describe the effects of these experiences on brain development and functioning.

Schulman, M., & Menschner, C. (2018). ***Laying the groundwork for trauma-informed care.*** **Center for Health Care Strategies.**

This online resource provides the critical elements needed to effectively implement a trauma-informed intervention approach. Foundational steps include: (1) building awareness and generating buy-in; (2) supporting a culture of staff wellness; (3) preparing the workforce to effectively meet the needs of children and families who are experiencing trauma; and (4) creating a safe physical, social, and emotional environment.

Sheidow, A. J., Henry, D. B., Tolan, P. H., & Strachan, M. K. (2014). The role of stress exposure and family functioning in internalizing outcomes of urban families. ***Journal of Child and Family Studies, 23,*** **1351-1365.**

The goal of this study was to determine whether family functioning buffers the effects of stress exposure on the development of children. The findings suggested that a multi-informant approach to identification of internalizing behaviors is needed to support children and families who are experiencing trauma.

Sciaraffa, M. A., Zeanah, P. D., & Zeanah, C. H. (2018). Understanding and promoting resilience in the context of adverse childhood experiences. ***Early Childhood Education Journal, 46,*** **343-353.**

The focus of this article is on providing an overview of trauma, including its impact on the developing brain, factors associated with resilience, and how early childhood educators can promote resilience within classrooms. Specific strategies include (1) assisting children in the development of individual capabilities (e.g., self-regulation, expression of emotions); (2) developing attachments between teachers and children; (3) creating a supportive community; and (4) developing a unique understanding of trauma and its effects on child development.

Self-Brown, S., Tiwari, A., Lai, B., Roby, S., & Kinnish, K. (2016). Impact of caregiver factors on youth service utilization of trauma-focused cognitive behavioral therapy in a community setting. ***Journal of Child and Family Studies, 25,*** **1871-1879.**

TF-CBT is an evidence-based treatment option for children who have experienced trauma. The goal of this mixed-methods study was to examine caregiver (e.g., family members) that impact youth enrollment and completion of community-delivered TF-CBT. Results suggested that parents who had experienced trauma and who had been engaged in personal therapy were more likely to have their children complete therapy as well.

Shonkoff, J. P., & Gardner, A. S. (2017). The lifelong effects of early childhood adversity and toxic stress. ***Pediatrics,*** **129, 1098-4275.**

This article provides a complex overview of early brain development and how toxic stress can interrupt the neural pathways that are formed in early childhood. The authors also provide an ecobehavioral framework that outlines the importance of developing new thinking about how pediatric practice responds to early childhood trauma.

Substance Abuse and Mental Health Services Administration (2014). ***SAMHSA's concept of trauma and guidance for a trauma-informed approach.*** **Washington, DC: U.S. Department of Health and Human Services.**

This resource outlines SAMHSA's purpose and approach needed to develop a framework for implementing a trauma-informed model of care. The authors provide key assumptions and principles, such as the need for safety, transparency, peer support, and empowerment. Within the report, the authors also suggest that there is an overall need to address cultural issues when implementing trauma-informed care. Ten implementation domains also are provided: governance and leadership; policy; physical environment; cross-sector collaboration; screening and assessment; training and workforce development; progress monitoring and quality assurance; financing; and evaluation. The authors pointed out the importance of addressing trauma at the community level since it does not occur in isolation. Many systems are involved in addressing the needs of trauma-exposed children and their families.

Tierney, A. L., & Nelson, C. A. (2009). Brain development and the role of experience in the early years. ***Zero to Three, 30*****(2), 9-13.**

In this article, the authors provide an overview of early brain development, including how brain functions are built and how experience mediates this process. Findings from research articles are provided that underscore the importance of experiences during the first few years of life on later outcomes.

Wadsworth, M. E., & DeCarlo Santiago, C. (2008). Risk and resiliency processes in ethnically diverse families in poverty. ***Journal of Family Psychology, 22*****(3), 399-410.**

This study examined the relationships among family-level poverty-related stress, individual-level coping, and a wide range of psychological symptoms. Findings indicated that family-based coping-focused interventions have the potential to promote resiliency and break the cycle of family economic stress.

Walkley, M., & Cox, T. L. (2013). Building trauma-informed schools and communities. ***Trends and Resources,*** **123-126.**

This article provides an overview of toxic stress, including its impact on development, and effective interventions. According to the author, early prevention and intervention are critical for programs to consider when working to address trauma in young children. Specific challenges with implementation include buy-in, lack of staff preparedness, and commitment to adopting a trauma-informed approach.