Trauma Therapy for Very Young Children Living in Poverty: A Randomized Controlled Trial

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TRAUMA THERAPY FOR VERY YOUNG CHILDREN LIVING IN POVERTY: A RANDOMIZED CONTROLLED TRIAL

by

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ABSTRACT
TRAUMA THERAPY FOR VERY YOUNG CHILDREN LIVING IN POVERTY:
A RANDOMIZED CONTROLLED TRIAL

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This study used a randomized control design with immediate treatment and wait list control conditions to evaluate the efficacy of the *New Hope* program, a home-based, parent-and-child therapy program that has been developed for very young children living in poverty who experienced one or more potentially traumatizing events. Within a three-phase model of treatment, the *New Hope* program is designed to establish safety, build the caregiver child relationship, create a nurturing environment, teach coping skills, address trauma-related thoughts and feelings, and develop prosocial skills. Training in this program included discussions regarding the cultural implications of providing therapy services in the context of urban poverty.

Sixty-four children under the age of six were referred to a community agency for behavior problems and emotional difficulties. All children had experienced at least one potentially traumatic event, and all families received some kind of government assistance indicating that the family's income was below the federal definition for poverty. Participants were randomly assigned to immediate treatment or wait list control groups. Analyses of covariance (ANCOVAs) revealed significant between-group differences on all post-test measures with pre-test scores as covariates. After the waitlist group completed treatment, repeated measures analyses of variance (ANOVAs) showed significant improvement for both groups on all measures at 4-6 week follow-up. Outcomes included reductions in challenging behaviors and emotional symptoms of trauma, improved caregiver-child relationships, and increased caregiver use of treatment strategies. Participating caregivers also reported a high level of general satisfaction with the treatment program and provided qualitative feedback in response to a follow-up interview. This study offers support for early intervention using a home-based parent-and-child therapy program for very young children exposed to potentially traumatic events.

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CHAPTER 1: INTRODUCTION

Many children are adversely affected by traumatic experiences. In 2011, the United States Department of Health and Services reported that 676,569 children experienced substantiated abuse or neglect in the United States (U.S. Department of Health and Human Services, 2012). It has been estimated that about 60% of children are victims of physical abuse, 5% of children are victims of sexual abuse; and 40% of children have witnessed domestic or community violence (Child Victim Web, 2013; Finkelhor, Ormond, & Turner, 2009). Unfortunately, even very young children are not protected from experiencing traumatic events. Rather, children under the age of five years old are disproportionately affected by traumatic incidents, including physical and sexual abuse, neglect, witnessing violence, and severe injuries (Lieberman, Chu, Van Horn, & Harris, 2011). One report estimated that 26% of children in a healthy birth cohort would witness or experience a potentially traumatic event before the age of four years old (Briggs-Gowan, Ford, Fraleigh, McCarthy, & Carter, 2010). Another study suggested that about one third of all children who have experienced maltreatment are younger than four years old (Child Victim Web, 2013). These early stressful experiences can alter the brain's architecture and physiologic stress response systems of a developing child, resulting in a toxic stress response. Toxic stress in early childhood can have significant, harmful long-term psychological and physical health consequences (Shonkoff et al., 2012). Therefore, early intervention that addresses the impact of toxic stress is essential for the well-being of our children and community.

Statement of the Problem

The field of infant and early childhood mental health is developing, but there still is a relative lack of empirical research regarding treatment for very young children (birth to five years of age) who have experienced trauma (Chu & Lieberman, 2010). The need for effective trauma-informed therapy is even more salient for children living in poverty, who are disproportionately more likely to experience potentially traumatizing events (Lieberman, Chu, Van Horn, & Harris, 2011). At this time, however, there is still a need for the development and implementation of a comprehensive intervention for toxic stress in early childhood that is also effective in the context of poverty (Garner et al., 2011; Shonkoff et al., 2012).

Some empirically-validated trauma therapy programs have been modified for use with children as young as three years old, such as Trauma-Focused Cognitive Behavioral Therapy (TF-CBT; Cohen, Mannarino, & Deblinger, 2006), or the Attachment, Self-Regulation, and Competency program (ARC; Arvidson et al., 2011). An even smaller number of trauma-informed therapy programs are designed specifically for children under five years old, such as Child-Parent Psychotherapy (CPP; Lieberman & Van Horn, 2008) and Attachment and Biobehavioral Catch-up (ABC; Bernard, Dozier, Bick, Lewis-Morrarty, Lindhiem, & Carlson, 2012). While some of these trauma therapy programs have conducted effectiveness research with low-income populations, these treatment programs rarely provide additional details regarding how to use a culturally-informed approach with families living in poverty. For example, research has found that effective therapy with families living in poverty often involves using a collaborative approach in setting goals for treatment and allows for flexibility within the therapy process. While

some of the empirically-validated treatment programs are intended to be tailored depending on the needs of the family, goals are typically determined by the nature of the program. The completion of some long term programs (such as CPP and ARC, both of which recommend about 50 treatment sessions) may not be feasible for families with multiple life stressors. Furthermore, the design of some treatment programs require a more strict adherence to a treatment manual, which may not allow for the kind of flexibility necessary when working in the context of families living in poverty. For example, the use of TF-CBT is reportedly counterindicated in situations where a caregiver also has untreated trauma, mental health concerns, or high levels of distress, or in families where there is household instability, serious ongoing conflict in the home, or basic needs are not being met (Chadwick Center for Children and Families, 2008; Cohen, Mannarino, & Deblinger, 2003; Lang, Ford & Fitzgerald, 2010). Exclusion criteria such as these may unintentionally preclude children and families experiencing ongoing stress who are most at need for therapeutic intervention.

Additionally, children living in poverty are less likely to have access to appropriate mental health services due to barriers such as lack of transportation or childcare, difficulty keeping regular appointments, variable schedules for work or school commitments, caregiver physical or mental health problems, child illness, mistrust of mental health services, high costs of mental health care, or inadequate insurance coverage for appropriate mental health services (Cortes, 2004; Fox, Mattek & Gresl, 2013; Rowan, McAlpine, & Blewett, 2013; Worth & Blow, 2010). The practical challenges associated with accessing therapy services can be addressed by using an in-home treatment model.

However, most evidence-based trauma therapy programs are conducted in an outpatient setting, rather than in the client's home environment.

Purpose of the Study

Given the limited treatment literature addressing a diverse population of young children living in poverty who have experienced trauma, the next logical step would be to determine if a treatment program intentionally designed for these children is efficacious. Therefore, this research study sought to determine the efficacy of a new home-based, parent and child therapy (PCT) program that has been developed for very young children living in poverty who have experienced one or more potentially traumatizing events. This program is entitled *New Hope: Trauma-Informed Strategies for In-Home Professionals Serving Young Children and Families Living in Poverty.*

The *New Hope* program was designed as a companion treatment program to the existing evidence-based *Early Pathways* program (Harris, Fox, & Love, 2015). *Early Pathways* has been used to assess and treat significant behavior problems in very young children from families in poverty in the home environment (Fox & Gresl, 2014). *Early Pathways* may also positively impact children who have experienced potentially traumatizing events, but alone is probably not sufficient to address the emotional impact of trauma. Therefore, *New Hope* was created with a goal of better meeting the mental health needs of young children who have also experienced early childhood trauma. The proposed research study would evaluate the efficacy of the *New Hope* program using the recommended randomized controlled study methodology.

New Hope is unique from existing trauma therapy programs. First, *New Hope* is based in trauma research and also integrates treatment strategies from both cognitive-

behavioral and attachment theories. Cognitive-behavioral therapy programs often include a focus on symptom reduction and emphasize positive parenting strategies for caregivers, while attachment-based programs tend to focus on the quality of the parent-child relationship. An integrated approach capitalizes on the strengths of each theoretical perspective, allowing for a more holistic treatment program. Importantly, *New Hope* incorporates recommendations from recent research in the treatment of toxic stress in early childhood, following the ecobiodevelopmental (EBD) framework (Shonkoff et al., 2012). For example, this research suggests treatment of early toxic stress should include a safe and stimulating home environment. While few existing evidence-based programs include a specific focus on the home environment, the *New Hope* program includes multiple strategies for assisting caregivers in creating a safe and stimulating environment. Finally, the *New Hope* training seeks to reduce psychosocial barriers to accessing services by cultivating awareness of the cultural experience of families living in poverty as well as working to understand and/or address the specific needs and challenges of this population. In particular, *New Hope* therapists were trained to consider the shared history of chronic stress or traumatic events that impact both caregivers and their children. Moreover, because all treatment sessions occur in the client's home, the therapist is able to work within the context of each client's individual living situation.

Significance of Study

Traumatic experiences in early childhood can negatively influence lifelong health and development, and early intervention may have the greatest ability to create a positive outcome for young children living in poverty with toxic stress. Scientific research has begun to illuminate the biological, psychological, and social factors that contribute to

toxic stress responses as well as resilience in developing children. However, research regarding practical application of these scientific findings is limited, and the *New Hope* program was developed to address this gap from research to practice. The goals of this study were to add to our understanding of the natural sources of resilience in all young children, to replicate resilience-promoting factors in a therapeutic intervention for young children living in poverty who have been affected by traumatic experiences, and to test the efficacy of this intervention. Findings from the present study can be shared with other mental health professionals through presentations and publications in order to reach more children and families. Most importantly, receiving this treatment program had a positive impact on the children who took part in this study.

Research Questions

The following research questions were proposed for this study:

1. Do children who participate in the *New Hope* program decrease challenging behaviors from pre to post-test as measured by the Early Child Behavior Screen – Challenging Behavior Scale (ECBS-CBS) compared to a wait-list control group?
2. Do children who participate in the *New Hope* program improve emotional well-being from pre- to post-test as measured by the Pediatric Emotional Distress Scale's Anxious/Withdrawn (PEDS-AW) subscale and Fearful subscale (PEDS-F) compared to a wait-list control group?
3. Do caregivers who participate in the *New Hope* program improve their treatment participation and relationship with their children from pre- to post-test as measured by the weekly treatment report (TR) total score and the Parent-Child Relationship Scale (PCRS), compared to a wait-list control group?

4. Are treatment gains based on the ECBS-CBS, PEDS-AW, PEDS-F, TR, and PCRS maintained at 4-6 week follow-up?
5. Do caregivers report satisfaction after their participation in the *New Hope* program, as measured by the Family Satisfaction Survey (FSS) and do they offer constructive comments about their experience in the *New Hope* program based on a series of open-ended, post-treatment questions?

CHAPTER II: REVIEW OF THE LITERATURE

This literature review will first present terms and definitions from the body of research and theoretical literature surrounding trauma in early childhood. The impact of trauma on young children and throughout the lifespan will also be presented, through the perspective of the ecobiodevelopmental (EBD) framework (Shonkoff et al., 2012). Next, this review will include cultural considerations for families living in poverty, with recommendations and implications for trauma therapy. This review will also evaluate the research and outcomes of various trauma therapy programs for very young children based on factors identified in the research literature as being important in building resilience in traumatized children, as well as the extent to which these programs are culturally appropriate for families from low-income communities. This review will conclude with discussions of ethical issues, gaps in the literature, and pressing research questions.

Terms and Definitions

The field of trauma research and intervention involves many interrelated terms and concepts. These terms can be organized into descriptions of a child's experiences (sources of adversity), and the brain's responses to adversity (stress responses). The impact of different stress responses on a child's health and functioning is variable, and is influenced by several contributing factors. (Refer to Appendix A for a diagram illustrating the relationships between adversity, types of stress responses, and resilience).

Sources of Adversity

A number of different terms refer to stressful experiences in childhood. These terms include adversity, stressor, adverse childhood experiences, or potentially traumatizing events. The term *potentially traumatizing event* (PTE) is often used to

indicate that individual responses to many pervasive or severe stressors can vary substantially (Myrick & Green, 2013). The large scale longitudinal study known as the Adverse Childhood Experiences (ACE) Study identified the relationships between lifelong health outcomes and the following adverse childhood experiences (or ACEs): child maltreatment (physical abuse, sexual abuse, emotional/psychological abuse, and physical neglect), household dysfunction (witnessing intimate partner violence, caregiver mental illness, substance abuse in the family), separation or loss of a parent to death or abandonment (including abandonment by parental divorce), and incarceration of a family member (Felitti et al., 1998). Other life threatening situations are also potentially traumatizing events, including natural disasters, injuries, accidents, and serious medical concerns or chronic illness. Some adverse experiences may be ongoing sources of stress, such as chronic poverty, community or neighborhood violence, or living in a war zone (Sparrow, 2007).

Types of child abuse or maltreatment. The federal definition of *child abuse*, according to the Child Abuse Prevention and Treatment Act (CAPTA) refers to: "Any recent act or failure to act on the part of a parent or caretaker, which results in death, serious physical or emotional harm, sexual abuse, or exploitation, or an act or failure to act which presents an imminent risk of serious harm" (Child Welfare Information Gateway [CWIG], 2011). Four types of child abuse include: physical abuse, sexual abuse, emotional/psychological abuse, and neglect.

Physical abuse usually refers to: "any nonaccidental physical injury to the child," such as "striking, kicking, burning, or biting the child, or any action that results in a physical impairment of the child" (CWIG, 2011, p. 2).

Sexual abuse refers generally to: "The employment, use, persuasion, inducement, enticement, or coercion of any child to engage in, or assist any other person to engage in, any sexually explicit conduct or simulation of such conduct," or "The rape, and in cases of caretaker or interfamilial relationships, statutory rape, molestation, prostitution, or other form of sexual exploitation of children, or incest with children" (CWIG, 2011, p. 2).

Emotional or psychological abuse definitions usually refer to "injury to the psychological capacity or emotional stability of the child as evidenced by an observable or substantial change in behavior, emotional response, or cognition" as evidenced by "anxiety, depression, withdrawal, or aggressive behavior" (CWIG, 2011, p. 4). Caregiver behaviors, such as belittling, rejecting or terrorizing, can negatively interfere with child development, especially when the interaction becomes a typical pattern (Gottlieb, 2012). Emotional neglect may also be the result of severe parental mental health concerns, such as depression or ongoing substance abuse.

Neglect typically involves "the failure of a parent or other person with responsibility for the child to provide needed food, clothing, shelter, medical care, or supervision to the degree that the child's health, safety, and well-being are threatened with harm" (CWIG, 2011, p. 3). In many state laws, financial inability to provide for a child is not included in the definition of neglect (CWIG, 2011).

Community violence. The concept of c*ommunity violence* has not been uniformly operationalized in the research literature (Trickett, Duran & Horn, 2003). Community violence has been defined as "deliberate acts intended to cause physical harm against a person or persons in the community" (Cooley-Strickland et al., 2009, p. 128;

Cooley-Quille et al., 1995). In a review of 23 empirical research studies, the focus of community violence was on the experience or response of the child, caregiver or family, by witnessing, hearing, or directly experiencing acts of violence (Trickett, Duran & Horn, 2003; Jones Thomas, et al., 2012).

Intimate partner violence. The Center for Disease Control and Prevention defines *intimate partner violence* (IPV; also referred to in literature as *domestic violence*) as "physical, sexual, or psychological harm by a current or former partner or spouse" (Saltzman, Fanslow, McMahon & Shelley, 2002).

Responses to Adversity in Early Childhood

Resilience

Resilience (also spelled resiliency) has been defined variously throughout the literature. The International Resilience Project group provided this definition: "Resilience is the human capacity and ability to face, overcome, be strengthened by, and even be transformed by experiences of adversity" (Cesarone, 1999, p. 2). The study of resilience reflects the observation that individual responses to adversity differ substantially (Rutter, 2006; Rutter, 2007). For example, several research studies have suggested that nearly half of individuals who experienced child abuse exhibit positive functioning (Banyard & Williams, 2007; Collishaw et al., 2007; DuMont, Widom, & Czaja; 2007; Jaffee, Caspi, Moffitt, Polo-Tomas, & Taylor, 2007). A developmental perspective of resilience or positive adjustment in children may be assessed by three primary domains of functioning or impairment: physical health, cognitive and academic performance, and social/emotional/behavioral adjustment (Owen and Shaw, 2003).

More generally, resilience involves two factors: (1) exposure to a significant threat, and (2) adequate development despite such exposure (Masten and Coatsworth, 1998). In this regard, the concept of resilience is only applicable where an individual has experienced adversity. In fact, the absence of adversity does not promote resilience, but may hinder the development of coping strategies and resistance to adversity (Rutter, 2007). In moderation, the presence of adversity throughout the lifespan can be protective. Seery, Holman, & Silver (2010) identified an inverted U-shaped (or quadratic) relationship between cumulative lifetime quantity of adverse events and positive health outcomes in a national sample of 2,398 adults in the United States. In this study, participants identified the presence of stressful experiences from a list of 37 events in seven different domains: own illness or injury, loved one's illness or injury, violence, bereavement, social/environmental stress, relationship stress, and disaster. Participants who endorsed either one adverse event or two to four adverse events were more likely to report lower global distress, lower self-rated functional impairment, fewer posttraumatic stress symptoms, and higher life satisfaction, compared to participants who reported either zero or more than four adverse events (Seery et al., 2010). The type and nature of adversity, in addition to quantity, also plays a significant role in outcome. More specifically, adverse events or circumstances producing stress that is mild-to-moderate, time-limited, and fairly predictable can build resilience and growth in the long term (Wilson, 2014).

Rutter (2007) points out that resilience is not an observed trait that one either possesses or does not possess, and individuals may demonstrate resilience in certain circumstances but not the others. There can also be changes in resilience throughout the

lifespan (DuMont, et al., 2007). Moreover, an individuals experiences following the initial risk exposure may contribute to the ability to overcome adversity. Therefore, a lifespan perspective is necessary in the study of resilience (Rutter, 2007). As an example, one might consider the life and experiences of Maya Angelou. Her memoir, *I Know Why The Caged Bird Sings,* relays the story of her childhood as a victim of sexual assault and other adverse experiences, and her response to trauma: a virtual mutism that lasted several years (Angelou, 1970). While clearly traumatized as a young child, the lifetime achievements of the gifted author, poet, speaker, and award winner, clearly demonstrate resilience. Nevertheless, in the more immediate aftermath of childhood adversity, where a lifespan perspective is not yet possible, the question remains: what creates resilience?

A child's response to adversity is significantly influenced by factors that can be either be protective factors that promote resilience or risks for developing serious trauma reactions. Many research studies have studied specific variables associated with resilience. Relationship factors, identified as infant attachment, parent-child relationship quality, and social connectedness have consistently been found to be a source of resilience (Banyard & Williams, 2007; Collishaw et al., 2007; DuMont et al., 2007; Owens & Shaw, 2003).

Nesheiwat & Brandwein (2011) list several protective factors found to be associated with resilience in past research, including: perceived parental support and family involvement (Connell, Spencer, & Aber, 1994), quality of the home environment (Dubow & Luster, 1990), positive parenting skills (Horning & Gordon Rouse, 2002), and the caregiver-child relationship (Wyman, Cowen, Work, & Parker, 2001). Additionally, DuMont, Widom, and Czaja (2007) found that the interaction of neighborhood advantage

(referring to household income, home ownership status, and education attainment) with household stability also contribute to resilience in children.

Several variables have not been found to be associated with resilience. In particular, while intelligence has been found to be negatively correlated to psychopathology in general, cognitive functioning was not associated with positive adjustment in children in several studies (Cicchetti, Rogosch, Lynch, & Holt, 1993; Egeland, Kalkoske, Gottesman, & Erickson, 1990; Collishaw et al., 2007; Jaffee, Caspi, Moffitt, Polo-Tomas, & Taylor, 2007). Additionally, gender was not associated with resilience in multiple studies (Collishaw et al., 2007; Jaffee, et al., 2007). Finally, there have been inconsistent findings with regards to infant temperament, with some researchers linking temperamental factors to resilience (Owen & Shaw, 2003); however, more recent research has found that infant temperament does not predict resilience (Jaffee, et al., 2007; Owen & Shaw, 2003). These studies suggest that external protective factors are more consistently correlated with resilience than internal factors.

In addition to identifying external variables that act as risk and protective factors, it is important to study behaviors that promote resilience in developing children. The International Resilience Project (IRP) was a multinational study that sought to identify specific behaviors of caregivers and children that help build resilience in children (Cesarone, 1999). The researchers analyzed qualitative data from 589 children and their families in 14 different countries. They found that parents played a significant role in developing resilience in children.

> "How parents and other care givers respond to situations, and how they help a child to respond, separates those adults who promote resilience in their children

> from those who destroy resilience or send confusing messages that both promote and inhibit resilience" (Grotberg, 1995, pp. 11-12).

The IRP researchers identified three sources of resilience in children that can be fostered by caregivers' words and behaviors, which they refer to as: I HAVE, I AM, and I CAN resilience-promoting factors. The I HAVE factors comprise a child's external supports and resources, such as trusting relationships, structure and rules at home, positive role models, encouragement to be autonomous, and access to health, education, welfare, and security services. The I AM factors refer to a child's internal, personal strengths, such as being lovable, empathic, proud, autonomous and responsible, and filled with hope, faith, and trust. The I CAN factors include a child's social and interpersonal skills, such as the ability to communicate, to problem solve, to manage emotions, to gauge the temperament of oneself and others, and to seek trusting relationships (Grotberg, 1995).

The parenting behaviors that promote resilience factors align with the developmental tasks of Erik Erikson's (1959) psychosocial development theory. For example, the developmental task of a newborn is to gain trust. A parent fosters trust in a baby by using soothing touch, words of affection and affirmation, and providing for the basic needs of the child (Grotberg, 1995). The developmental task of a toddler (roughly ages 1-3) is to learn autonomy, which a parent nurtures by providing structure, enforcing rules, encouraging safe exploration, modeling confidence, and praising accomplishments. As young children (ages 3-7) enter developmental phases of initiative and industry, parents build resilience by encouraging children to demonstrate empathy, and to use communication and problem solving skills. They also help children regulate their emotions by setting limits and teaching them how to calm down, and by exposing and

preparing the child for new experiences, even those that are adverse, such as doctor's visits or beginning school (Grotberg, 1995). In fact, a caregiver's response to adversity can also promote resilience in the child by modeling calming strategies and a hopeful perspective (Sparrow, 2007).

Additionally, Sparrow (2007) also describes several parenting practices as the "early ingredients of resiliency," such as being sensitive and responsive to a child's cues, knowing when to engage and to disengage, leading and following the child's lead, and challenging and comforting the child at appropriate times" (p. 399). These parenting skills depend significantly on the emotional availability of the caregiver.

Stress Responses

Stress refers to the brain's response to adversity. Stress theorists define *stress* as the result of a high level of life demands and insufficient or compromised coping resources available to meet life demands (Amirkhan et al., 2015; Cohen et al., 1995; Lazarus & Folkman, 1984). Amirkhan et al. (2015) summarize the psychological stress theory of Lazarus and Folkman by stating, "Stress is an appraisal that one's coping resources are inadequate in relation to the level of demands, a perception that prompts emotional, physiological, and behavioral changes that ultimately endanger well-being" (p. 1). A biological view of stress involves a similar set of ideas, wherein the demands of the environment overwhelm the body's adaptive coping resources and lead to pathology (McEwen, 1998). Whether identifying stress from a psychological or biological perspective, the intersection of life demands and insufficient resources can produce physiological and psychological changes that can place people at greater risk for pathology (Amirkhan et al., 2015).

There are three general classifications of stress responses to adversity: positive, tolerable, and toxic stress (Shonkoff et al., 2012). *Positive stress* is the result of brief, transient stressors that occur in the presence of a supportive and nurturing caregiver (Shonkoff et al., 2012). Examples include experiences such as mild goal frustration (e.g., being unable to reach a desired toy), getting an immunization, first day in a new school or childcare setting, or an encounter with a new person or animal (Herman-Smith, 2011; NSCDC, 2014). The presence of a supportive caregiver allows the child learn to cope and regulate emotions (i.e., return to homeostatic baseline) in response to stress (Shonkoff, et al., 2012). Exposure to positive stress in childhood builds resilience and promotes growth in the normal development of infants and young children, and creates the foundation for healthy stress responses system (Gottlieb, 2012; NSCDC, 2014).

Tolerable stress occurs when there is a greater level of threat or adversity, the stressor takes longer to resolve and may be unpredictable, and may interrupt normal routines (Herman-Smith, 2011). Examples may include a death in the family, serious illness or accidental injury, divorce or separation, natural disaster, or acts of terrorism (Herman-Smith, 2011; Shonkoff et al., 2012). A strong attachment and supportive caregiver-child relationship is the primary protective factor that allows the child to cope and maintain a sense of control. Therefore, in a stable caregiving relationship, the child's stress response system is able return to homeostatic balance without significant harm to the child's health and development (Shonkoff, et al., 2012). Even the physical proximity of the caregiver to the child helps to buffer the negative effects of stress (Sparrow, 2007). However, in some situations, the emotional availability of the caregiver is challenged due to the nature of the stressor. For example, when caregivers are victims of intimate partner

violence, the stressor affects both the child and caregiver (Herman-Smith, 2011). Nevertheless, within the normal range of a "good enough" parenting relationship and early environment, even tolerable stress can be part of the pathway to successful and positive developmental outcomes (Scarr, 1992).

Toxic stress refers to repeated or prolonged activation of the body's stress response system due to severe, chronic or prolonged adversity, in the absence of a protective caregiving relationship (Gottlieb, 2012; NSCDC, 2014; Shonkoff et al., 2012). While some moderate experiences of adversity throughout the lifespan contribute to resilience, early circumstances producing stress that is severe, chronic, or unpredictable lead to greater risk of a traumatic stress reaction (Wilson, 2014). The concept of toxic stress comes from the field of pediatric medical science, while in the field of psychology the same idea has been referred to as *complex trauma, developmental trauma,* or *type II trauma.* These terms all refer to the physiological and psychological impact of exposure to multiple traumatic incidents (which is referred to as *polyvictimization*) or prolonged or repeated exposure over an extended period of a child's life. This may occur in cases of child abuse and neglect, in situations where the emotional availability of the caregiver is compromised, such as parental depression or ongoing substance abuse, or in chronic conditions such as poverty, food insecurity, or living in a war zone (Garner 2012; Shonkoff et al., 2012; Sparrow, 2007).

Additionally, research has found that in cases of complex trauma, the incidents often occur in the home and the perpetrator of abuse is a caregiver or other trusted person (Cohen, Mannarino, & Deblinger, 2006; Ford & Courtois, 2009; Gottlieb, 2012). Complex trauma may involve a diagnosis of posttraumatic stress disorder (PTSD) or

related symptoms, but there is not a universal set of diagnostic criteria for complex traumatic stress (Lawson & Quinn, 2013). Research has found that the complexity of symptoms is directly related to the number of traumatic stressors that the child experiences (Finkelhor, Ormrod, & Turner, 2007). Complex trauma has been found to affect child development across multiple domains, including: attachment, biology, affect regulation, dissociation, behavioral control, cognition, and self-concept (Cook et al., 2005).

In some situations, even a single event or series of adverse events may be severe enough to produce a traumatic stress reaction. A *traumatic stress reaction* is "characterized by intense physiological arousal, a variety of negative affective states (e.g., dread, horror), and strong perceptions of vulnerability, loss of control, and derealization" (Gray & Slagle, 2006; p. 2). *Posttraumatic stress disorder* (PTSD) is a specific psychological disorder that is diagnosed at least 6 months after exposure to a traumatic event. The Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition (DSM-5) criteria for PTSD involves exposure to actual or threatened death, serious injury, or sexual violence to oneself or others (American Psychiatric Association [APA], 2013). For children under six years of age, exposure to a traumatic event involves: (1) directly experiencing the traumatic event; (2) witnessing, in person, as it occurred to others; or (3) learning that the event occurred to a caregiver (APA).

Posttraumatic Stress Disorder refers to a "progressive sensitization of biological systems that leaves the individual hyperresponsive to a variety of stimuli" (Yehuda & McFarlane, 1995). According to DSM-5 (APA), symptoms of posttraumatic stress disorder (PTSD) in children six years old and younger may include: *intrusion* symptoms

(e.g., reenacting the traumatic event during play, recurrent distressing dreams), *avoidance* and *negative alterations in cognition* symptoms (e.g., efforts to avoid activities, places or people that are reminders of the traumatic event, increased negative emotional state, diminished interest in play, or socially withdrawn behavior), and *arousal* symptoms (e.g., hypervigilance, angry outbursts, sleep disturbance). These criteria reflect the results of multiple clinical research studies conducted with very young children (Meiser-Stedman, Smith, Yule, & Dagleish, 2008; Sheeringa, 2011; Sheeringa & Zeanah, 2008; Sheeringa, Zeanah, Myers, & Putnam, 2003).

Given that DSM-IV-TR diagnostic criteria for PTSD were not developmentally informed (APA, 2013), prevalence rates for PTSD in young children are not yet available. With DSM-IV-TR criteria, it was estimated that 13-20% of young children exposed to trauma received diagnoses of PTSD, compared to 32-59% of adults exposed to trauma (Sheeringa, Zeanah, & Cohen, 2010). However, clinical studies that informed DSM-5 criteria for PTSD demonstrated that among young children (under 6 years old) exposed to trauma, 73.4% of were found to be "functionally impaired" by symptoms of PTSD two years after their initial assessment, even if they did not meet full criteria for the disorder (Sheeringa, et al., 2010, p. 5). Moreover, when using the developmentally informed diagnostic criteria, prevalence rates of young children with PTSD increased to "levels similar to those seen in adults exposed to trauma" (Levin, Kleinman, & Adler, 2014).

Ecobiodevelopmental Model

The ecobiodevelopmental (EBD) framework supported by the American Academy of Pediatrics (AAP) integrates the scientific knowledge bases of the life course

sciences, epigenetics, and developmental neuroscience, to explain how early childhood experiences and environmental factors interact with biological predispositions and adaptations to influence lifelong health and development. The EBD framework helps to clarify the relationships between significant childhood adversity and poor physical and mental health outcomes throughout the lifespan (Shonkoff et al., 2012). In particular, toxic stress in early childhood recruits epigenetic mechanisms which alter the brain's architecture and physiologic stress response systems (NSCDC, 2014). This research also begins to explain the significant racial and socioeconomic disparities in children's health and healthcare (Shonkoff et al., 2012).

Research from Psychology and Life Course Studies

Life course studies. The life course sciences have demonstrated that exposure to adversity in early childhood can impair development in learning, behavior, physical, social and emotional health (D'Andrea, et al., 2012; Shonkoff et al., 2012). The large-scale Adverse Childhood Experiences (ACE) study found significant positive correlations between the number of ACEs and health outcomes, including chronic disease, depression, anxiety, and early mortality (Felitti et al., 1998). Early childhood adversity is also related to greater financial and work stress in adulthood (Anda, Fleischer & Felitti, 2004). These adverse experiences are not only risk factors for using health-threatening behaviors as coping strategies (e.g., substance use, risky sexual behaviors), but also affect physiological responses that contribute to chronic, stress-related diseases in adulthood (Shonkoff et al., 2012).

Toxic stress in early childhood also affects adults when they become caregivers and thereby contributes toward an intergenerational cycle of childhood adversity. For

example, one qualitative study found that trauma in mothers' early childhood affected their adult earning potential, mental health, attitudes toward raising children, and ability to care for their children (Chilton & Rabinowich, 2012).

Social-emotional development. Several research studies have demonstrated the significant negative impact of early childhood adversity on social-emotional development. In a study of emerging social behavior during play, infants who had been abused showed less independent play at 12 months old and less child-initiated play at 2 years old than children who were not abused (Valentino, Cicchetti, Toth, & Rogosch, 2011). Preschool-aged children who have been exposed to trauma are more likely to have behavior problems, aggression toward peers, social skills deficits, poor frustration tolerance, and more ambivalent relationships with caregivers (Lieberman, Chu, Van Horn & Harris, 2011). Traumatized children may have general emotional difficulties, displaying problems such as separation difficulty, aggression, or regressive behaviors (Markese, 2011). Moreover, children with a diagnosis of PTSD are also more likely to have a co-morbid diagnosis of another mood, anxiety, or disruptive behavior disorder (D'Andrea, et al., 2012).

The research literature base has consistently found that infants and preschool children exposed to intimate partner violence are more likely to have fewer verbal and nonverbal interactions with their caregivers, and less likely to initiate verbal requests, less likely to look at caregivers during conversation, less likely to follow through with caregivers requests, and more likely to maintain physical distance from caregivers. These children are also more likely to exhibit symptoms such as hyperarousal, fearfulness, increased aggression toward peers, withdrawn or avoidant behavior, developmental

regression (including toileting regression), separation anxiety, sleep disturbances, eating problems, anxiety, depression, posttraumatic stress (Herman-Smith, 2013).

Trauma in early childhood can have a profound impact on mental health throughout the lifespan. For example, epidemiological studies of older adults have shown that traumatic events which occurred earlier and more frequently were associated with more severe PTSD symptoms in later adulthood, even in nonclinical samples (Ogle, Rubin, & Berntsen, & Siegler, 2013; Ogle, Rubin & Siegler, 2013).

Cognitive development. Toxic stress and adversity in early childhood interferes with cognitive development and learning ability. In a study of language ability, children who had been maltreated before the age of 2 years old were more likely to have language delays at age 5 years old than children who were not maltreated (Eigsti and Cicchetti, 2004). Various neuropsychological studies have linked deficits in memory, attention, learning, and executive function to differences in specific brain regions in children with diagnoses of PTSD related to experiences of maltreatment (Carrion, Wong, & Kletter, 2013).

Research from Epigenetics

The fascinating field of *epigenetics* refers to the investigation of molecular biological mechanisms that determine when, where, and whether individual genes are expressed (Garner, 2012, p. 1). The term epigenetics means literally, “above the genome,” because epigenetic marks are put in place above the level of genes to determine the individual functions of different cells with the same DNA (Sweatt, 2009).

Two molecular mechanisms, DNA methylation and histone acetylation, play a significant role in regulating gene expression in response to experiences and

environmental signals without actually altering the DNA sequence (Shonkoff et al., 2012; Sweatt, 2009). DNA methylation is a chemical process that "locks genes in the 'off' position" (Phillips, 2008, p. 116). Histones act as "the spool around which DNA can wind" (Simmons, 2008) and also function to determine if a gene is "readable by the cell" (NSCDC, 2010). Histone acetylation plays a role in memory formation, by allowing for DNA transcription (Miller, Campbell, & Sweatt, 2008). DNA methylation and histone acetylation, have been found to work together to regulate long term memory consolidation and synaptic plasticity (Miller, et al., 2008). These processes help explain how the social and physical environment of early childhood can produce physiological adaptations and disturbances; that is, how early ecology affects biology (Shonkoff et al., 2012, p. 234).

Early experiences can cause epigenetic modifications that are either temporary or long lasting (National Scientific Council on the Developing Child [NSCDC], 2010). Positive experiences in early childhood that stimulate neural pathways involved in learning and memory can build a foundation for future learning (NSCDC, 2010). For example, early enrichment experiences (i.e., creating a stimulating environment with various toys and opportunities for exercise) improve memory capacity in young animals (Sweatt, 2009). However, certain stressful experiences can change the way the brain is capable of responding to adversity in the future. Such epigenetic changes have been associated with poor prenatal and early nutrition, exposure to drugs or other toxins, and interaction with the environment (NSCDC, 2010).

The findings from epigenetic research are particularly important when considering the effects of toxic stress and early childhood adversity on physiologic stress

responses and multiple areas of child development. Early exposure to high levels of stress can impact the expression of genetic characteristics, and epigenetic changes can be either short term or long term (Thompson, 2014). It should be noted that exposure to chronic stress can occur while the child is still in utero. For example, both human and animal studies have found that prenatal exposure to maternal stress and early postnatal exposure to adversity influence the stress reactivity in the offspring (Shonkoff et al., 2012). In one study of children and adolescents whose mothers experienced intimate partner violence while pregnant, the glucocorticoid receptor gene was activated in the children, impacting the child's future biological response to stress (Thompson, 2014). Maternal stress during pregnancy has also been linked to long-term emotional and cognitive difficulties in their children (Radtke et al., 2011). Maternal depression during pregnancy has been linked to heightened cortisol levels in 3-month-old children during moderately stressful situations (Oberlander et al., 2008).

Moreover, the quality and type of early caregiving relationships has genetic consequences. In studies of maternal nurturing behaviors in rats, decreased levels of nurturing behaviors was associated with exaggerated stress responses in the adult offspring. Additionally, the nurturing behaviors of the mother were passed on to the next generation of offspring (Bagot & Meaney, 2010; Meaney, 2010; NSCDC, 2010; Shonkoff et al, 2012; Szyf, McGowan, & Meaney, 2008). In children raised in orphanages, epigenetic changes have been found to impact genes associated with brain development, brain functioning, stress reactivity, and immune function (Naumova et al., 2012; Thompson, 2014). The primary implication from epigenetic research is that the quality of the early physical and emotional environment is encoded in the young child on

a genetic level. The research from developmental neuroscience further helps to explain the biological processes the can lead to long term outcomes in health and development.

Research from Developmental Neuroscience

The architecture of the brain is shaped by early experiences, as the developing brain learns to adapt to the physical and emotional environment into which the child is born (Garner, 2012, Thompson, 2014). Research from the field of neuroscience demonstrates how some physiological adaptations in the brain can impact the health and development of the child by influencing which neural synapses and circuits are strengthened through repeated use, and which are weakened and pruned (Garner, 2012). Specific adaptive changes occur in the brain to prepare an infant for unsafe or unsupportive environments: the developing metabolism may slow down, or the perceptual processes may become more alert to threats or danger (Thompson, 2014). Young children living under the chronic scarcity of resources and prevalence of violence in the case of chronic poverty undergo neurobiological changes that predispose them to be more vigilant, and to have greater difficulty regulating emotions, concentrating on tasks, and forming healthy relationships (Thompson, 2014).

Early childhood adversity can affect later stress reactivity. One explanation for this examines the alterations in developing neural circuits controlling neuroendocrine responses (Shonkoff et al., 2012). The neuroendocrine system integrates the body's nervous system and the endocrine (or hormone) system (Thompson, 2014). Two complex systems work together in response to stress. The sympathetic-adrenomedullary system (SAM) is part of the sympathetic nervous system which releases epinephrine, or adrenaline, from the adrenal gland in order to quickly mobilize the body's fight-or-flight

response (Gunnar & Quevado, 2007). The hypothalamic-pituitary-adrenocortical axis (HPA axis) refers to the "complex chain of physiological events that characterizes one of the stress response systems" (Gunnar & Quevado, 2007, p.147). The HPA system responds to stress by producing glucocorticoids (most notably, cortisol), which takes some time to activate (up to 25 minutes). The impact of cortisol on the developing brain occurs primarily through changes in genetic expression (Gunnar & Quevado, 2007). The role of the HPA is to support acute fight-or-flight responses and to suppress the impact of these stress responses. In the short term, these systems work together to support adaptive functioning (Gunnar & Quevado, 2007).

When exposed to significant stress, the body responds by activating these neural systems (the HPA axis and the SAM system) that produce stress hormones, (corticotropin-releasing hormone [CRH], cortisol, norepinephrine, and adrenaline). The increased functioning of the HPA axis changes the neurological pathways that regulate stress responses (Thompson, 2014). The chronic production of increased cortisol and other glucocorticoids leads to physiological effects, such as suppression of immune functioning and enhanced cardiovascular tone, as well as psychological affects, including hypervigilance and self-defense, and increased emotional arousal (Gunnar & Quevado; Thompson, 2014).

Maternal stress while pregnant has been found to have significant impact on the neurobiology of the prenatal child. One study identified differences in brain structures in girls at age seven associated with mothers' high levels of stress while pregnant (Buss et al., 2010). Specifically, exposure to maternal cortisol in utero was linked to increased volume of the right amygdala, a brain structure involved in threat detection and response.

Chronic stress in early childhood affects several biological systems, such as the autonomic nervous system, with increased blood pressure, or the immune system, with reduced ability to respond to infections and increased inflammatory responses (Thompson, 2014). Additionally, the brain-gut axis (which involves the neural, immune, and endocrine pathways that connect the brain to the gut) can be affected by multiple kinds of stressors. For example, in one study with young rats, the stress of regular separation from their mothers during the first two weeks of life resulted in an altered brain-gut axis (O'Mahony, et al., 2009). This research may help to explain the connection between stress and disorders such as irritable-bowel syndrome (IBS) or depression.

These stress responses are necessary for adaptation and survival. An appropriate stress response reflects an elevation in cortisol after exposure to a stressor, and then the cortisol level should return to baseline (NSCDC, 2010). However, chronic or prolonged exposure to high levels of stress hormones can lead to what is referred to as "allostatic load" (McEwen & Stellar, 1993); that is, the physiologic and physiological costs on the body and brain required to regulate the body after exposure to stress (Shonkoff et al., 2012). As a result, the developing child does not develop a "tolerance" to stress exposure, but rather, prolonged or repeated exposure to stress hormones, such as cortisol and adrenaline, has a sensitizing effect, and the developing brain becomes more susceptible to future stress (Garner, 2012).

A secure attachment to a supportive caregiver has positive impact on modulating stress responses in infants and young children (Gunnar & Quevado, 2007). Toddlers in secure relationships with caregivers show less elevated levels of cortisol in response to acutely stressful events (e.g., getting an immunization) when in the presence of their

caregiver. Conversely, children with insecure attachments show elevated levels of cortisol in response to distressing events. Children in disorganized attachment relationships show the greatest disturbances in HPA axis activity, with an inability to regulate and organize their emotional and physiological stress responses. These children, whose attachment relationships are characterized by early experiences of both frightening and frightened behavior in caregivers, are at greatest risk for future behavioral and emotional problems (Gunnar & Quevado, 2007). Additionally, stressful events in the family (such as fighting, punishment, shaming) are associated with heightened levels of cortisol in children. Elevated levels of cortisol in preschool aged children, resulting from disruptions in the caregiver-child relationship, are thought to contribute to later behavioral problems in school-aged children (Gunnar & Quevado, 2007).

Children whose early childhood adversity is characterized by a profound lack of caregiver support or emotional unavailability, as opposed to constant threat, may instead respond to early stress with a hyporeactive response (Thompson, 2014). In cases like these, the early adaptations lead to setting the stress activation response too low (NSCDC, 2010). Children who underreact to stress show a lower cortisol level in response to acute stress, and also tend to show an irregularly flat basal level of cortisol throughout the day. These chronically low levels of cortisol reduce the body's ability to maintain appropriate blood pressure and activate the cardiovascular system in response to stress. The stress system appears to respond by shutting down (Thompson, 2014). There may be physiological consequences of a hyporesponsive stress response that differ from the consequences of an overactive stress response. Consider for example, research that

has linked migraine headaches to a lack of activation of the sympathetic nervous system or sympathetic nervous system dysfunction (Brimeyer, 2015; Peroutka, 2004).

These biological changes help to explain emotional and behavioral difficulties that are frequently observed in children exposed to significant stress. Young children respond to toxic stress with complex developmental symptoms that may not fit easily into a diagnostic category, but often these developmental disorders later develop into more specific pathologies, such as anxiety disorders or depression (Gunnar & Quevado, 2007). Children whose biology tends toward increased emotional reactivity may be naturally more likely to have difficulty with regulating emotions, using effective coping strategies, or engaging in healthy relationships with others. Moreover, the mental resources allocated to "survival" detract from other important development tasks, such as learning, problem-solving, and prosocial behavior (Thompson, 2014). However, scientific research repeatedly confirms that a secure attachment with a supportive and stable caregiver regulates the impact of stress on the child's body and brain.

Cultural Considerations for Families Living in Poverty

Prevalence of Poverty

Poverty affects a substantial number of families living in the United States. The U.S. Census Bureau defines poverty based on income thresholds determined by the Office of Management and Budget's (OMB) Statistical Policy Directive 14, (U.S. Office of Management and Budget, 1978). These household income thresholds are updated yearly based on inflation. If a family's household income is below the threshold for the family's size and composition, each member of the family is considered to be in poverty (U.S. Census Bureau, 2013). According to data from the U.S. Census Bureau, 31.6

percent of the U.S. population was in poverty for at least two months between January of 2009 and December of 2011, and 3.5 percent of the population was in poverty for the entire duration of these three years (Edwards, 2014). Fifteen percent of poverty episodes lasted more than two years. Those most likely to experience chronic poverty were Black, Hispanic, and/or female householder families, and children had higher rates of both episodic and chronic poverty than adults (Edwards, 2014).

Impact of Childhood Poverty

Research literature suggests a cyclical relationship between poverty and trauma. Adults living in poverty are more likely to have significant mental health problems (Stafford & Marmot; 2003), and poverty can be a "significant factor in the onset of mental health problems" (Grimes & McElwain, 2008, p. 221; Waldegrave, 2005). Moreover, for adults who experience both mental health problems and poverty, socioeconomic status is more likely to continue to decline with time (Butterworth, Rogers, & Windsor, 2009; Knott, 2011).

Individuals who experienced child maltreatment are also more likely as adults to live in poverty and experience unemployment (Zielinski, 2009). Furthermore, living in poverty is a risk factor for both victimization and perpetration of violence, and low-income families have less agency in choosing safe neighborhoods to live in (Simons, Wurtele, & Heil, 2002; Klest, 2012). Both living in poverty and having a personal history of childhood trauma place individuals at risk for being revictimized later in life, and those living in poverty with a history of trauma are especially vulnerable to victimization (Klest, 2012).

The impact of poverty on young children has been consistently linked to negative outcomes in three domains of development: physical health, intellectual and educational attainment, and social, emotional and behavioral functioning (Owens & Shaw, 2003). Food insecurity in families with young children has been found to be associated with poor child development, increased child hospitalizations, and suboptimal child health (Chilton & Rabinowich, 2012). Poverty in early childhood has been associated with higher levels of antisocial behavior at five years old, and working memory deficits at 17 years old (Evans & Shamberg, 2009; Lieberman & Chu, 2010; Odgers et al., 2009). The Children's Defense Fund (1998) reported that children living in poverty are more likely to experience lead poisoning, iron deficiency, and frequent moves between homes. These variables are said to contribute to outcomes such as lower tests scores in math and reading, lower birth weight, and increased likelihood of physical disabilities (Lott & Bullock, 2001).

Poverty itself is a source of "extraordinary everyday stress" associated with chronic stress responses in children (Sparrow, 2007, p. 399). In fact, children living in poverty are more likely to be exposed to sources of traumatic stress, such as witnessing domestic or community violence (Lieberman, Chu, Van Horn, & Harris, 2011; Gill & Page, 2006). The cumulative effect of exposure to multiple social and environmental risks leads to increased physiological stress in children living in poverty (Evans, 2004). As a result, children from families in poverty are more likely to experience mental health problems, such as depression, anxiety, or antisocial behaviors (Samaan, 2000).

Cultural Experience of Poverty

Much of the research surrounding poverty and therapy for low-income clients refers to the experiences of adults. However, because the nature of therapy with very young children requires engagement with parents, it is important to understand the cultural context of the parents. In addition to economic poverty, it is important to consider the cultural influence of poverty on caregivers of young children. The definition of *poor* used by Karon and VandenBos (1997) highlights the sociocultural nature of poverty:

> We mean people who have been poor all their lives, whose parents were poor, and who have a high probability of remaining poor. It is thus a social as well as an economic condition. This definition of "poor" does not have sharp boundaries, but includes the unemployed, partially unemployed, and the lower income members of the working class. (p. 169, as cited in Smith, 2005, pp. 687-688)

In this regard, the term *poor,* as defined here, is a word that better identifies clients within the sociocultural context of poverty. Additionally, it should be noted that the discourse surrounding a culture of poverty is much more complex, given the intersection of class with other cultural factors, such as race, ethnicity, gender, or sexual orientation (Smith, 2005). The intersection of race/ethnicity and poverty is especially relevant, as people of color comprised 88.4% of people living in poverty in the United States between 2007 and 2011 (U.S. Census Bureau, 2013). Importantly, racial and ethnic identity has been found to have a protective effect against the development of anxiety, depression, and antisocial behaviors for African American, Native American, and Hispanic children in the United States (Samaan, 2000). While an in depth study of the relationships between

race/ethnicity and social class is incredibly valuable, this literature review does not discuss these cultural topics in depth.

High-poverty communities are defined as neighborhoods where at least 30% of the population lives below the poverty line (Lott & Bullock, 2001; Wilson, Quane, & Rankin, 1998). Social isolation is one of the primary characteristics of high-poverty communities, and individuals and families living in poverty are less likely to have access to high quality jobs, schools, and child care facilities (Lott & Bullock, 2001; McLoyd, 1998). Individuals living in poverty are more likely to experience stressors such as crowded housing, unclean or unsafe living spaces, and lack of privacy, and poor families are more likely to need to move frequently due to lack of safety, damage to the home, raised rent, or eviction (Lott & Bullock, 2001).

Caregivers of children experience specific stressors related to parenting in low-income communities, and those living in poverty are disproportionately single mothers (Edwards, 2014). These mothers are faced with the challenges of trying to care for their children and at the same time to "maintain battered housing, do housework without basic appliances, [and] grocery shop without a car" (Dodson, 1998, p. 214, as cited in Lott & Bullock, 2001, p. 198). Mothers who rely on supplemental income, such as welfare, social security income (SSI), and food stamps, still struggle to meet their daily living expenses. One report found that on average these assistance programs only account for about three-fifths of single mothers' expenses, and even women who had jobs continued to have difficulty meeting their expenses (Edin & Lein, 1997). Other qualitative researchers have identified that one of the greatest emotional stressors for mothers is not being able to give their children the things they want (Schein, 1995). When mothers

struggle to provide for their family's basic needs, they cannot give their children the things they want, such as toys, books, gifts, or opportunities, such as going on a class field trip.

Culturally Appropriate Therapy for Families in Poverty

Therapists have an ethical responsibility to serve the diverse needs of their clients (Baggerly, 2006). However, for many decades, therapists have expressed reluctance to work with poor clients, for a variety of reasons (Smith, 2005). Historically, therapists have held biases about low-income clients that have led to discriminatory decisions in providing treatment (or not providing treatment). For example, psychotherapists in the 1970's often believed that poor clients were more likely to seek "immediate relief through magical advice" rather than engaging in psychotherapy (Jacobs, Charles, Jacobs, Weinstein, & Mann, 1972, p. 667, as cited in Smith, 2005, p. 688). However, researchers at that time (Lorion, 1974; Jones, 1974) found that middle- and upper-class clients were as likely as lower-class clients to have misconceptions about the therapy process, and lower-class clients were as likely as middle- and upper-class clients to seek insight-oriented therapy (Smith, 2005). Similarly, Koroloff & Elliot (1994) found that many therapists believed low-income clients do not commit to treatment because clients are uninterested or they lack sufficient motivation to improve their well-being.

Smith (2005) posited four modern "classist attitudinal barriers" (p. 691) to providing therapy to clients living in poverty. First, that because poor clients have such significant daily needs that they would not benefit from psychological services. Second, that the problems poor people face diminish the significance of the psychological interventions. Third, that "working in a poor community takes away the comfort of not

knowing how poor people live" (p. 692). Fourth, that poor and working class communities are not familiar with traditional psychological services and therefore unlikely to use them. However, there is certainly a reality to the tangible barriers and multiple problems that poor families face, and therapists should therefore be prepared to discuss those issues, provide additional case management, or to collaborate with other community providers who can address basic needs. In reality, while the multiple needs of low-income clients can be barriers to attending therapy consistently (Grimes & McElwain, 2008), this should not be viewed by the therapist as an indicator of client motivation. The delicate balance then is being prepared to address cultural and practical issues associated with poverty, while still approaching the helping relationship with hope. Therapists who choose to work with poor clients must cultivate positive attributions about their clients' desires for positive change along with the belief that improvement is possible.

Other researchers have listed additional actions therapists must take in order to better serve poor clients. It is ethically necessary for therapists to acknowledge the pervasive role of poverty in clients' lives and to address poverty as a factor influencing the family's problems (Grimes & McElwain, 2008; Waldegrave, 2005). Therapists from middle- and upper-class backgrounds need to maintain awareness of their own values and biases, and should collaborate with clients in creating goals for treatment. The authors of Community Family Therapy (CFT) recommend that therapists create "context-appropriate goals" that aim to improve the client's environmental situation (Grimes & McElwain, 2008, p. 225; Rojano, 2004). Therapists should also collaborate with other professionals or community resources that can address practical needs that fall outside of

the helping relationship, such as housing or unemployment (Eamon & Venkataraman, 2003; Grimes & McElwain, 2008).

One of the challenges in providing therapeutic interventions to families living in poverty is the increased rate of attrition (Armbruster & Fallon, 1994; Kazdin & Mazurick, 1994). However, it should also be noted that client expectations and the therapeutic alliance are stronger predictors of attrition than demographic variables such as socioeconomic status (Wierzbicki & Pekarik, 1993). Therefore, the therapist must work actively, through supervision and self-introspection, to cultivate unbiased views within the therapeutic relationship to avoid developing a classist attitudinal barrier surrounding the issue of attrition. Moreover, the therapist can work to approach the therapeutic relationship with culturally competent strategies. For example, a hierarchical therapist-client relationship is not likely to be effective when working with poor clients. Low-income clients have reported the value of "empathetic listening, finding things in common with the therapist, and being spoken to in a concerned, genuine, and non-derogatory way" (Grimes & McElwain, 2008; p. 222; Ware, Tugenberg, & Dickey, 2004). This may involve a delicate balance of a clarifying when appropriate in order to address the needs of clients who have attained less education, without "oversimplifying" or making offensive generalizations about the client's academic ability (Ware et al., 2004).

Additional recommendations for reducing attrition rates when working with families living in poverty include: beginning therapy shortly after initial contact, clarifying the therapeutic process at the intake session, establishing a collaborative relationship, focusing on immediate and practical concerns, and addressing barriers to

receiving services (Grimes & McElwain, 2008; McKay et al. 1998). Providing services in a community-based setting is likely to be an effective means of reaching underserved populations (Shonkoff, et al., 2012). To further improve access to therapy for families in poverty, therapists can use an in-home treatment model. Providing services in the home environment may reduce barriers to accessing treatment for low-income families, provide valuable clinical information that would not be available in traditional outpatient settings, and promote the use of culturally-competent treatment approaches (Cortes, 2004; Fox, Mattek & Gresl, 2013; Tate, Lopez, Fox, Love, & McKinney, 2014; Worth & Blow, 2010). An in-home approach to therapy has also been found to be effective in reducing young children's behavior problems from families living in poverty (Fox & Holtz, 2009; Fox, Mattek, & Gresl, 2013).

Treatment of Trauma in Young Children

Trauma Theory

Much of the past research and theory surrounding the treatment of trauma has been conducted with adults who experienced trauma as children. A theme in trauma therapy research involves the pacing of therapeutic interventions. For example, Briere and Scott (2012) have written about the concept of the *therapeutic window*, which is defined as the "psychological midpoint between inadequate and overwhelming activation of trauma-related emotions and cognitions during treatment: It is a hypothetical 'place' where therapeutic interventions are thought to be most helpful" (Briere & Scott, 2012, p. 140).

Moreover, a phase-based theory of trauma healing and recovery has been consistently identified throughout the trauma literature and across theoretical orientations

(Cohen, Mannarino, Kliethemes, & Murray, 2012; Ford, Courtois, Steele, Van der Hart, & Nijenhuis, 2005; Herman, 1997). These phases involve first, establishing safety; second, remembering and processing the traumatic memories, and third, reconnecting to important people and meaningful activities (Herman, 1997).

The developing brain and body of a child affected by early adversity can heal, and recent research has begun to identify key elements benefitting children. The Complex Trauma Workgroup of the National Child Traumatic Stress Network (NCTSN; Cook et al., 2007, pp. 7-8) recommend the following six components in interventions for children with complex trauma: (1) Safety (i.e., creating environments where the child feels safe and cared for; (2) Self-regulation (i.e., helping the child calm down when exposed to trauma triggers and stressors; (3) Self-reflective information processing (i.e., integrating healthy beliefs about self, trauma, and important relationships; (4) Traumatic experiences integration (i.e., using coping skills to feel safe and grounded in the present, even during memories of past trauma); (5) Relational engagement (i.e., forming healthy attachments and appropriate boundaries, relying on caregivers and other supportive adults, and developing social skills with peers; and (6) Positive affect enhancement (i.e., enhancing a child's positive self-concept through relationship, play, nurturing activities, prosocial behaviors, and mastery of safe challenges).

Key Elements in Therapy with Very Young Children

Several recommendations for interventions follow when using the ecobiodevelopmental framework to understand the long term impact of early childhood trauma and the factors that improve child health outcomes. Most consistently, a warm, nurturing, and stable child-caregiver relationship is found to be a protective factor in

buffering and *even reversing* the psychological and neurobiological impact of stress (Thompson, 2014). Therefore, therapeutic interventions for children exposed to adversity should focus on strengthening the relationship between the child and caregiver (Garner et al., 2012; Herman-Smith, 2013; Shonkoff et al., 2012). Interventions targeting the relationship between the child and may include not only biological parents, but also foster parents, grandparents, and other caregivers (Thompson, 2014).

Another important element in effective therapeutic interventions is helping families build safe and supportive environments (Garner et al., 2012; Herman-Smith, 2013; Shonkoff et al., 2012). In *Trauma and Recovery* (1997), Judith Herman recommends helping trauma survivors create safety by "focusing on control of the body, and moving outward toward control of the environment" (p. 160). Young children, however, have a limited scope of real or perceived control in their lives, and they are dependent on their caregivers to create physical safety in their environments. Additionally, a socially stimulating early environment can improve later health outcomes. Garner (2012) stated "enriching the early childhood environment can improve important outcomes like educational achievement, marriage, economic prosperity, and health decades later" (p. 1). One longitudinal research study highlighted the importance of early psychosocial stimulation on a child's long term development. The researchers studied the impact of a therapeutic intervention focused on providing psychosocial stimulation in impoverished, growth-retarded children ages 9-24 months old (Walker, Chang, Vera-Hernández, & Grantham-McGregor, 2011). The psychosocial stimulation group received weekly home visits over a two-year period, and the intervention involved enhancing the caregiver-child relationship though weekly caregiver-child play sessions, promoting

verbal communication with the child, increasing positive reinforcement and praise and discouraging physical punishment. Compared to a group that received weekly nutritional supplementation during the same two-year period, the psychosocial intervention group was associated with decreased aggression and violence, higher IQs, and greater educational achievement at 22 years old. There were no significant long term benefits associated with nutritional supplementation.

Moreover, effective therapy for young children should include providing training in positive parenting strategies (Garner et al., 2012; Herman-Smith, 2013; Shonkoff et al., 2012). When working to change caregiver behaviors for the benefit of their children, it is important that therapists remember the neurological adaptations and limited brain plasticity of caregivers who have also endured a lifetime chronic stress, due to circumstances like chronic poverty or personal histories of trauma (Thompson, 2014). Thompson states, "Adults who have lived with chronic stress for a long time are likely to have adapted to a life of challenge and adversity in ways that are not well-suited to sensitive, responsive parenting" (2014, pp. 53-54). Therefore, a collaborative and empathic approach is necessary for establishing rapport and assisting caregivers in developing effective positive parenting strategies.

Finally, therapy with very young children should involve strengthening caregiver support systems and addressing caregiver mental health needs, especially in cases of maternal depression or intimate partner violence (Garner et al., 2012; Herman-Smith, 2013). Fortunately, addressing the therapeutic needs of the child in the context of the caregiver-child relationship has also been found to improve caregiver mental health. For example, therapy for maternal depression has greatest impact when the focus is

specifically on the parent-child dyad, as opposed to individual therapy for the mother alone (Shonkoff, et al., 2012). Nevertheless, therapy for young children should work to address caregivers' emotional functioning in cases where the emotional availability of the caregiver is compromised due to the ongoing or chronic stress that impacts the whole family.

Existing Therapy Models for Treating Trauma in Young Children

Several therapy programs have been found to be effective in managing symptoms of trauma in children as young as four or five years old, but significantly fewer for children under the age of three years old. These treatment approaches are empirically supported, but vary in theoretical orientation, focus, and outcome measurements. The two primary theoretical approaches in trauma therapy for very young children are cognitive-behavioral and attachment-based models of treatment. Some programs also integrate multiple theories such as developmental theory and family systems theory. This section will evaluate the merits of each approach and the extent to which existing therapy programs have been or can be culturally adapted for families from central city and low-income communities.

Inclusion Criteria for Programs in This Review

At the time of this literature review, nine evidence-based programs met criteria for being included in this review. Treatment programs were selected for review based on the following inclusion criteria:

1) The programs were listed on the National Child Traumatic Stress Network (NCTSN) list of evidence-based therapy programs for traumatized children, with at least one publication.

2) The target population included children under the age of five years old, and published research was conducted with children under 5 years of age.

3) The evidence-based program was a therapy program (i.e., designed to be implemented by mental health professionals). Programs designed to be implemented only at an organizational or community level were not included in this critical review.

Basis for Critique

These programs will be critiqued on the basis of the following indicators: program, population, research, and accessibility.

Program. The nature of the program will be reviewed, including both the type of trauma-related clinical issues that the program is designed to address. A summary will evaluate the extent to which each program meets the specific needs of very young children exposed to trauma based on the literature surrounding trauma and resilience. Based on previous research, the following components are likely to be most helpful in interventions for young traumatized children: 1) strengthening the caregiver-child relationship; 2) ensuring a safe and stimulating environment; 3) encouraging the use of positive parenting strategies for managing child behaviors; 4) building emotional regulation and coping skills in the child; 5) fostering healthy beliefs about self, relationships, and traumatic experience; and 6) strengthening caregiver support systems and addressing caregiver mental health as necessary.

Population. This section will report whether the program has been implemented and/or previous research has been conducted with participants under the age of five years old, with participants who live in poverty. This section will also report whether the program addresses the cultural needs of families in poverty, including the following: a)

using a collaborative approach in setting therapeutic goals; and b) collaboration with other community resources to address barriers to treatment or other basic needs.

Research. This section will review the quality and quantity of the research base, including research designs, data analysis, and when available, relevant measurement issues.

Accessibility. This section will include considerations for the accessibility of the program for professionals, including access to training, costs, and other relevant details.

Cognitive-Behavioral Interventions

Trauma-Focused Cognitive Behavioral Therapy

Program. One of the most well known trauma therapy programs is Trauma-Focused Cognitive Behavioral Therapy (TF-CBT). TF-CBT is a manualized treatment program that has been found to be effective in managing symptoms of trauma, PTSD, or complex trauma responses (Cohen, Mannarino, & Deblinger, 2006; Cohen, Mannarino, Kliethermes, & Murray, 2012).

TF-CBT is based on cognitive behavioral theory, and uses relaxation training, behavior management, desensitization to trauma reminders, trauma narrative, and psychoeducation to assist children in managing symptoms of trauma or post traumatic stress disorder (PTSD). The acronym PRACTICE identifies the main treatment components: Psychoeducation; Parenting skills; Relaxation skills; Affective modulation skills; Cognitive coping skills; Trauma narration and processing; In vivo mastery of trauma reminders; Conjoint child-parent sessions; and Enhancing safety (Cohen, Mannarino & Murray, 2011). Treatment may also include sessions focused on traumatic grief, when applicable (Cohen et al., 2006). Parent treatments involve coaching parents in

talking with the child about the trauma, building positive parenting skills, teaching relaxation skills (such as controlled breathing), and teaching cognitive strategies for identifying cognitive distortions and replacement beliefs (TF-CBT Web, 2005).

The program consists of 12-25 sessions, which typically last 60-90 minutes. These sessions are split equally between the child and the caregiver. The authors and developers of TF-CBT argue that close adherence to the manualized approach is necessary for effectiveness (Cohen et al., 2006). However, one study examined whether parts of the manualized treatment could be modified, such as treatment length, and use of a trauma narrative (Deblinger, et al., 2011). These researchers found that treatment was effective at decreasing trauma symptoms even with modifications. Another efficacy study found that TF-CBT could be modified to be effective with children with complex trauma (Cohen, Mannarino, Kliethermes, & Murray, 2012).

Population. While TF-CBT was not originally designed for use with very young children, it has been found to be effective in decreasing symptoms in children as young as three years old (Cohen, et al., 2006). TF-CBT has been reported to be "sensitive to diverse populations" (Lawson & Quinn, 2013, p. 507), but specific modifications based on cultural considerations are not clearly articulated. Attrition rates were reported to be higher in samples where participants were mostly minority and single parents, and the authors recommended further research with diverse populations (Sheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011).

Additionally, there are several conditions under which a caregiver or family may not be appropriate for TF-CBT, including: caregiver has either significant substance abuse or mental health concerns; caregiver does not believe in the efficacy of the

treatment; caregiver has untreated trauma or high levels of distress; household instability; serious ongoing conflict in the home; basic needs are not being met (Chadwick Center for Children and Families, 2008; Cohen, Mannarino, & Deblinger, 2003; Lang, Ford & Fitzgerald, 2010). Moreover, there are conditions under which a child is not appropriate for TF-CBT, including: child has developmental delays; child age or developmental age not appropriate for cognitive work; child is suicidal or engages in self harm; child experiences psychotic symptoms or has substance abuse problems (Chadwick Center for Children and Families, 2008; Cohen, Mannarino, & Deblinger, 2003).

Research. TF-CBT is rated as Level 1, or well-supported by research evidence by the California Evidence-Based Clearinghouse for Child Welfare (CEBC, 2014, March). One study conducted with children ages 3-6 years old, used a randomized controlled trial to evaluated the efficacy of TF-CBT with a wait list control group (Sheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011). The primary outcome measure was the Preschool Age Psychiatric Assessment (PAPA; Egger et al., 2006). The PAPA is an interviewer-based diagnostic tool with multiple DSM-IV-TR syndrome scales that were reported to have test-retest correlations ranging from 0.56 to 0.89 (Egger et al., 2006). The researchers used a random effects regression model and found a significant decrease in total number of PTSD symptoms in the intervention group with a large effect size. There were no between group differences in symptoms of major depressive disorder, ADHD, Oppositional Defiant Disorder, or Separation Anxiety Disorder. However, when comparing pretest to posttest changes in both intervention and wait list groups (after receiving treatment) there were large effect sizes for symptoms of PTSD, depression,

separation anxiety, and oppositional defiant disorder, based on the PAPA (Sheeringa et al., 2011).

Accessibility. Training involves a 10-hour web course, a two day didactic training from an approved trainer, and 6 months of consultation calls. It costs about $10,000 for 10 clinicians to be trained, plus consultation fees (NCTSN, 2012e).

Limitations. TF-CBT was designed for use with older children, and while it has been modified for use with younger children, it is not intended for children under 3 years old. Moreover, as research indicates that TF-CBT may not be recommended for children with developmental delays or limited verbal or cognitive abilities, its effectiveness with many young children may be limited. Also, as TF-CBT may not be appropriate if caregivers have also experienced traumatic experiences, it may not be as effective with families experiencing trauma due to chronic poverty. Finally, TF-CBT has not clearly identified specific modifications for use with families living in poverty.

Parent-Child Interaction Therapy

Program. Parent Child Interaction Therapy (PCIT) is a highly manualized evidence-based program designed to improve behavior problems and increase compliance in children ages 2-7 years old with oppositional, defiant, or externalizing behavior problems (PCIT, 2004). PCIT involves a two-phase approach that focuses first on relationship enhancement, and second on child behavior management. During the first phase of treatment, the parent is taught skills for child-directed interactions, including nondirective play, praise and positive reinforcement, reducing the use of questions and criticism, and ignoring minor misbehaviors. The second phase of treatment is focused on skills for parent-directed interactions, including setting up house rules, using a time-out

strategy, and managing behavior problems in public (Fischer, 2015). PCIT is mastery-based, meaning that therapy is not completed until parents demonstrate sufficient mastery of the treatment topics. Therefore, the program may take up to 20 or more treatment sessions (Fischer, 2015). According to one research study (Chaffin et al., 2004) a component was added to address caregiver mental health needs, but researchers found the enhancement did not add to PCIT's effectiveness in reducing future physical abuse.

Population. PCIT is definitely appropriate for use with young children, and the traumatized population that applies most appropriately to is children who have been physically abused. There has been little other research addressing its effectiveness in improving emotional symptoms or other trauma-related symptoms (e.g., nightmares), or with children exposed to other traumatic events (e.g., sexual abuse, loss of a caregiver).

PCIT has been implemented and conducted research with families living in poverty. However, due to the highly specific, manualized nature of PCIT, there does not appear to be room for collaboration on treatment goals. The implementation of PCIT with a child-welfare population shows promise for collaboration with community agencies.

Research. The research base for PCIT is solid for reducing externalizing behaviors in children and reducing physical abuse in parents. PCIT has established efficacy in reducing externalizing behavior problems in young children (e.g., Eyberg, Nelson, & Boggs, 2008). According to the California Evidence Based Clearinghouse for Child Welfare, PCIT is rated as Level 1, or well-supported by research evidence in the areas of disruptive behavior treatment and parent training programs (CEBC, 2013a).

With regards to the effectiveness of PCIT in traumatized children, there have been several published case studies indicating positive outcomes in children with chronic

illness (Bagner, Fernandez & Eyberg, 2004), in families at risk for physical abuse (Borrego, Urquiza & Rasmussen, 1999), and in maltreated children in foster care (Fricker-Elhai, Ruggiero & Smith, 2005; Timmer, et al., 2006). There have been two published randomized controlled trials evaluating the role of PCIT in reducing recidivism in physically abusive parents. The modification made to standard PCIT for this population was the addition a brief motivational intervention, since parents in the child welfare system often are nonvoluntary therapy participants (Chaffin et al, 2011). The motivational component included 6 sessions and was based in motivational interviewing principles described by Miller and Rollnick (1991) (Chaffin et al., 2011).

The first study was conducted with a sample of physically abusive parents with children ages 4-12 years old (Chaffin, et al., 2004). Participants (N=110) were randomly assigned to one of three intervention conditions: (a) PCIT, (b) PCIT plus individualized enhanced services, or (c) a standard community-based parenting group. The individualized enhanced services consisted of "attention to services targeting parental depression, current substance abuse, and family, marital, or domestic violence problems," (p. 504), such as cognitive therapy for depression (Chaffin et al, 2004). The enhancement group also received home-visits by clinicians to assist in implementing PCIT interventions. The primary outcome for this study was incidence of physical abuse after the completion of the program. The results indicated that parents assigned to PCIT were less likely to re-report physical abuse (19%), compared with parents assigned to the standard community group (49%). There were no additional improvements based on the individualized enhanced services (Chaffin et al., 2004).

The purpose of second study was to determine if the effects from the first CT lab study could be replicated in the field (Chaffin et al., 2011). The participants (N=192) were primarily female (75%), non-Hispanic Caucasian (60%), and in households that fell below the federal poverty threshold (75%). The researchers used a design that would allow them to make multiple comparisons between PCIT with and without the motivational component, with parenting services as usual. Participants were therefore randomly assigned into four intervention groups: 1) PCIT plus the self-motivational (SM) orientation component (used in the previous lab trial); 2) PCIT plus "orientation services as usual" (a 6-session informational orientation program typically used in the fields to educate parents about child welfare, the agency, child maltreatment, and the relationship between a parent's own childhood experiences and current parenting practices); 3) Parenting services as usual (a 12-week didactic parenting group program) plus the SM orientation component; and 4) Parenting services as usual plus orientation services as usual. The results of this field trial indicate that PCIT plus SM was significantly more effective in reducing recidivism than all other treatment conditions. The authors concluded that PCIT along with a motivational component is effective in reducing recidivism in physically abusive parents, in both the field as well as in the laboratory setting.

Accessibility. Training in PCIT involves a 40-hour didactic training with fidelity checks through a supervisor and consultation phase of training. Training can be provided through a variety of training facilities listed on the PCIT website, and costs for training vary (NCTSN, 2008). Training is intensive and highly-specific, but it is reasonably accessible to mental health practitioners.

Limitations. PCIT has a limited applicability to trauma-related referral concerns other than prevention of physical abuse. The emphasis of the research studies is in reducing recidivism in adult caregivers, but does not address the improvement of other trauma-related symptoms in children. The California Evidence Based Clearinghouse rates PCIT as having "Medium" relevance for use within the child welfare system (CEBC, 2013a). Additionally, the lack of flexibility in creating goals and implementing the program may be less appropriate with families living in poverty.

Combined Parent-Child Cognitive-Behavioral Therapy

Program. Combined Parent Child Cognitive Behavioral-Therapy (CPC-CBT) uses a group therapy format designed specifically for families who were determined to be at risk for physical abuse (Runyon, Deblinger, & Schroeder, 2009). The group format includes 16 two-hour weekly sessions, divided into independent parent and child sessions (1 hour and 45 minutes), and joint sessions (15 minutes).

The goals of CPC-CBT are to: decrease the recurrence of physical abuse, assist parents in developing appropriate expectations and attributions, assisting parents in managing their own anger and using positive child management skills, increase positive parent-child interactions, and improve children's emotional adjustment (Runyun, et al., 2009, p. 107). CPC-CBT builds on the research findings of both parent skills-training programs, such as Parent-Child Interaction Therapy (PCIT; Chaffin et al., 2004) and Abuse-Focused CBT (Kolko, 1996). The CPC-CBT program adds elements such as gradual exposure, as well as abuse clarification to improve parent-child communication and "to directly address PTSD symptoms, shame, and dysfunctional beliefs about the abuse in children" (Runyun, et al., 2009, p. 103).

Population. CPC-CBT appears to be most appropriate for use with families whose children who have experienced physical abuse or who are at risk for physical abuse. A pilot study demonstrated effectiveness with children as young as four years old (NCTSN, 2008; Runyun, et al. 2009), however subsequent research has been conducted primarily with school-aged children (7 to 13 years old) and their parents (Runyun, Deblinger & Steer, 2010). CPC-CBT has been conducted with families from diverse socioeconomic, religious, and ethnic backgrounds (NCTSN, 2009).

Research. The pilot study was conducted with 12 parents and their 21 children, ranging from 4 to 14 years old (Runyun, Deblinger & Schroeder., 2009). It is unclear from the study how many children were under the age of 5 years old. The authors report 48% of the families had been referred for child protective services due to substantiated physical abuse against their children, and the other families were classified to be "at risk" for using physical abuse. The primary outcomes for parents in this research study were: reduced use of physical punishment form pre- to posttest, based on the Parent-Child Conflict Tactics Scale (CTSPC; Straus, Hamby, Finklhor, Moore, & Runyan, 1998); decreased parental anger toward children based on the Parental Anger Inventory (PAI; MacMillan, Olson, & Hanson, 1988); and improved consistency in parenting, based on the Alabama Parenting Questionnaire–Self Report (APQ). The outcome measures for children under five years old included: reduced behavioral problems, based on the Achenbach Child Behavior Checklist (CBCL 1.5 - 5; Achenbach & Rescorla, 2000).

The CTSPC is reported to have low to moderate reliability, with alpha coefficients for the individual subscales ranging from .02 to .70 (Straus et al., 1998). The PAI is a parent report measure designed to assess parents' anger in response to their

child's challenging behaviors (Sedlar & Hanson, 2001). The PAI was reported to have strong internal consistency with "high item-total, split-half, and test-rest correlations" as well as moderate correlations with "other measures of child problems" (Hecht, Hanson, & Chandler, 1996, p. 8). Test-retest correlations for two dimension of the scale were reported to range from .78 to .86. (Sedlar & Hanson, 2001). The APQ is a parent report measure of five factors: parental involvement, positive parenting, poor monitoring/supervision, inconsistent discipline, and corporal punishment (Essau, Sasagawa, & Frick, 2006). Essau et al. reported the confirmatory factor analysis indicated a good fit of the five factor model. Finally, the CBCL for young children (ages 1.5-5) is a 99-item parent-report measure of the frequency of a child's symptoms and behaviors that are scored on seven syndrome scales: Emotionally Reactive, Anxious/Depressed, Somatic Complaints, Withdrawn, Attention Problems, Aggressive Behavior, and Sleep Problems. Test-retest reliability for the CBCL 1.5-5 was reported to range from .68 to .92, and cross-informant reliability was .61 (Achenbach & Rescorla, 2000). Confirmatory factor analyses supported the seven syndrome model (Ivanova et al., 2010).

Accessibility. The introductory training for CBC-CBT involves a two- or three-day didactic seminar with case examples, role plays, and demonstrations. Advanced training is also available. The costs for training are $2000-3000 per day, plus travel costs, and consultation fees for follow-up phone calls (NCTSN, 2009).

Limitations. This program appears most appropriate for use with school aged children and their families, as the majority of research participants have been over the age of 5. Moreover, the research base is still somewhat limited. The pilot study used a smaller

sample size (N=12 families, 21 children), and have not yet used a randomized controlled trial methodology with a comparison group.

Honoring Children

Program. Three programs for American Indian/Alaskan Native (AI/AN) children focus on different cultural aspects of mental health for these specific populations. Honoring Children, Making Relatives (HC-MR) is a cultural adaptation of PCIT (children ages 3-7). Honoring Children, Mending the Circle (HC-MC) is a cultural adaptation of TF-CBT (children under age 18). Honoring Children, Respectful Ways (HC-RW) is a culturally informed program to treat sexual behavior problems in children ages 3-12. HC-RW was described as "congruent with an evidenced-based group treatment program for children with sexual behavior problems" (Bigfoot & Braden, 2007, p. 21). This treatment program for children with sexual behaviors problems is a 12-session, psycho-educational, cognitive-behavioral group (Chaffin et al., 2006).

The cultural adaptations of each of these programs involves incorporating, traditional ceremonies, interconnectedness of healing and spirituality, and indigenous values and beliefs, such as respect for self, others, elders, and all living things (Bigfoot & Braden, 2007). Bigfoot and Schmitt (2010) report the follow core constructs that incorporate the AI/AN worldview: a) all things are interconnected, (b) all things have a spiritual nature, and (c) existence is dynamic (p. 850). HC-MC also incorporates traditional concepts regarding the extended family, and symbolism surrounding the idea of Circle (Bigfoot & Schmidt, 2010).

Population. The Honoring Children programs are used with children as young as three years old. The primary strength of the Honoring Children programs the cultural

emphasis for indigenous people groups. American Indian and Alaskan Native peoples have higher rates of poverty compared to the U.S. general population, with the highest rates of poverty in the country being single-parent headed American Indian and Alaskan Native families (Bigfoot & Schmitt, 2010). Therefore, a program addressing the unique needs of this population is valuable. Bigfoot and Schmidt also report making treatment goals in collaboration with caregivers.

Research. There have been few articles published regarding the Honoring Children programs, with no program evaluation research for any of these cultural modifications. A published overview of the TF-CBT cultural modifications includes a brief case illustration, (Bigfoot & Schmitt, 2010), but there have been no other published case studies. These programs appear to be useful and culturally appropriate for professionals who work specifically with American Indian clients; however, the research support relies on previous effectiveness research in PCIT, TF-CBT, and treatment for sexual behavior problems. These programs would be strengthened by continued research with the population being served by the cultural modifications.

Accessibility. Training for these programs is done on site at Indian Country Child Trauma Center (ICCTC) at the University of Oklahoma Health Sciences Center (Indian Country Child Trauma Center [ICCTC], 2015). Prior training and experience in PCIT is required to receive training in the HC-MR cultural modifications. Similarly, being trained in HC-MC requires "background in CBT" (NCTSN, 2008), though training for TF-CBT is also available on site. The training fees were not listed on the ICCTC website but the cost of being trained in HC-MR was listed at $3000 per person, per training on the NCTSN information sheet (2008). The primary weaknesses of these treatment programs

is the lack of accessibility to professionals, due to the cost and location of training, and the need for more published literature on these program.

Limitations. The limitations for TF-CBT and PCIT also apply to the Honoring Children programs. Moreover, the Honoring Children programs would benefit from conducting additional effectiveness research with the specific populations served by each of these programs, rather than relying on the efficacy research of the other evidence-based programs (e.g., TF-CBT).

Safety, Mentoring, Advocacy, Recovery, and Treatment (SMART)

Program. The Safety, Mentoring, Advocacy, Recovery, and Treatment (SMART) program is focused on reducing problematic sexual behaviors in children ages 4-11 who experienced child sexual abuse (Offerman et al., 2008). SMART uses a three phase model of treatment and is comprised of 12 months of sessions, including a combination of 34 individual sessions, 40 family sessions, and 24 group sessions. The first phase, Safety & Stabilization, occurs over the course of about 8 weeks and includes a trauma assessment, risk reduction strategies, and family and community engagement. The second phase, Trauma Integration & Recovery, takes place over about 32 weeks and includes sessions focused on: risk management, affect modulation, impulse regulation, trauma triggers, trauma narrative/gradual exposure, cognitive processing, sharing the narrative, and apology letter. The third phase, Re-socialization, involves 12 weeks focused on using and integrating healthy coping skills, forming positive relationships, building self-esteem, and relapse prevention (Offerman et al., 2008).

Population. The SMART program is focused on children who have experienced child sexual abuse, but the authors note that many of the children have also experienced

multiple stressors, including physical abuse, exposure to violence, traumatic grief, and neglect. The ages of children ranged from 4-11 years old, and caregivers were present during sessions with children who were 4-6 years old.

One strength of this program is its focus on children in the child welfare system, as more than 50% of the children reside in foster or kinship care. Additionally, this program was conducted with a majority of low-income families from urban neighborhoods, who were predominantly African American (Offerman et al., 2008).

Research. To date, there has been one pilot effectiveness study, using a one group, pre-test, posttest design (Offerman et al., 2008). Participants were children with a history of sexual abuse who also displayed sexual behavior problems. This study included 62 children (34 males, 28 females) ranging in age from 4-11 years old, with a mean age of 8.3 years at intake. Participants were 74% African American, 16% Caucasian, and 10% Multiracial (Offerman et al, 2008). No data were published regarding the income levels of participants' families.

Outcomes for this study included a measures of functional impairment in children and problematic sexual behaviors, including: Preschool and Early Childhood Functional Assessment Scale (PECFAS; Hodges, Wong, & Latessa, 1998), SMART Clinic Symptom Checklist, and the Child Sexual Behavior Checklist (CSBCL; Johnson, 1995). The PECFAS is a measure of functional impairment in children ages 3-6. It is administered by the clinician, rating the child on seven subscales: School/Work (Day Care) Performance, Home Role Performance, Community Role Performance, Behavior Toward Others, Moods/Emotions, Self-Harmful Behavior, and Thinking (Offerman et al., 2008). The PECFAS was reported to have strong interrater reliability ($r = .90$) and strong

internal consistency (alpha = .86) for the total score (Murphy et al., 2012). With regards to concurrent validity, Murphy et al. also reported the PECFAS to be significantly correlated with parent report of child's mental health problems, teacher ratings of child's mental health problems on another screening inventory (DIAL-R), psychiatric diagnoses, and mental health referrals.

The SMART Clinic Symptom Checklist was developed by the authors to measure the frequency of symptoms in children who are "sexually reactive toward other" (Offerman et al., 2008, p.185). Offerman et al. reported the SMART Checklist to have good reliability for the full scale (Cronbach's alpha = 0.89 at admission, 0.80 at discharge). The CSBCL is a caregiver-report measure of the frequency of 150 sexual behaviors observed in the child. Cronbach's alpha was reported to be .96 for this measure.

For this pilot study, outcome measures were completed at intake, termination, and 6- and 12-month follow-up sessions. Results of this study indicated a statistically significant decrease in both functional impairment and problematic sexual behaviors at termination, which was sustained at 6-month follow-up. The authors also reported continued reduction in problematic sexual behaviors at 12-month follow-up (Offerman et al., 2008).

Accessibility. Training for this program is available onsite at The Family Center at the Kennedy Krieger Institute, and includes a two-day didactic training with monthly follow-up consultation calls (CEBC, 2013b). Training fees were not available on the website.

Limitations. The SMART program is not recommended for children under 3 years old, and some strategies may be more appropriate for school aged children (e.g., apology letter). The use of SMART appears to be limited to children with sexualized behavior problems, and does not include children with other types of trauma or symptoms. Another limitation of the SMART program is the length of treatment (12 months), which may be a difficult commitment for families in poverty with multiple additional stressors. Finally, the research base is limited, as there has been only one published study with a single group pretest-posttest design.

Attachment-Based Interventions

Child-Parent Psychotherapy

Program. Child-Parent Psychotherapy (CPP) is an evidence-based treatment for young children who experienced early childhood trauma or who have other emotional, behavioral, or attachment problems. CPP is based primarily on attachment theory, but the treatment approach uses components from psychodynamic, developmental, neurobiological, and trauma theories (Lieberman & Van Horn, 2008).

In CPP, the parent-child relationship is the primary target of treatment. There are multiple components that were recommended to occur over an average of 50-52 weekly sessions, lasting 1 to 1.5 hours. However, in a randomized controlled trial with a specifically low-income population, children were included in the research if they completed a minimum of 10 treatment sessions (Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002). The first component, focus on safety, involves safety in the environment, safe behaviors, validating feelings within the context of safe and supportive behaviors, building appropriate limit setting strategies, and establishing parent and child

roles. The second component, affect regulation, involves providing education regarding children's emotional reactions and regulation, supporting and labeling emotions, helping parents respond in helpful, soothing ways when the child is upset, fostering the child's ability to use the parent as a secure base, and developing strengths for regulating emotions. Reciprocity in relationships includes strategies to highlight the dyad's love and support for each other, foster expression of feelings about others, help the dyad understand each other's perspectives, discuss the differences and autonomy of each member of the dyad, and develop interventions to change maladaptive patterns of interactions. The next component, focus on the traumatic event, involves helping the parent and child understand the experience of each other with regards to the traumatic event, understanding the relationship between thoughts, feelings, and behaviors, helping the parent understand the connection between the parent's experiences and parenting practices, creating a joint trauma narrative, and reinforcing positive behaviors. The final essential component is continuity of daily living, referring to fostering prosocial behaviors, engaging in positive activities, and developing predictable routines (CEBC, 2012; Lieberman & Van Horn, 2008).

Population. CPP was designed specifically for young children ages 0-5 who have experienced exposure to violence or other interpersonal traumas. CPP has been used with families from a range of income levels (and primarily lower income) and a wide range of racial and ethnic populations. CPP is designed to be tailored to the needs of the child and family (Lieberman & Van Horn, 2008).

Research. CPP was rated by the California Evidence Based Clearinghouse for Child Welfare as Level 2, or supported by research evidence (CEBC, 2012). Multiple

research studies have been conducted establishing the effectiveness of CPP in improving the caregiver-child relationship and reducing trauma symptoms in children who have witnessed domestic violence (Lieberman, Van Horn, & Ghosh Ippen, 2005), children with multiple traumatic events (Ghosh Ippen, Harris, Van Horn, & Lieberman, 2011), maltreated infants and preschoolers (Cicchetti, Rogosch, & Toth 2006; Toth, Maughan, Manly, Spagnola, & Cicchetti, 2002), anxiously attached infants (Lieberman, Weston, & Pawl, 1991), and children with depressed mothers (Toth, Rogosch, & Cicchetti, 2006). Various outcomes were used for each of these studies, including measures of child behaviors (e.g. CBCL 1.5-5), child trauma symptoms (Trauma Symptom Checklist for Young Children; TSCYC), and caregiver symptoms (e.g., Beck Depression Inventory).

Two of these studies were conducted specifically with primarily low-income families. The first was a study of anxiously-attached children (ages 11-14 months at baseline) and parents in low-income families who were recent immigrants from Mexico and Central America (Lieberman, et al., 1991). The primary outcome measure for this study was child attachment style, based on the Strange Situation (Ainsworth, et al., 1978). The additional measures included the Maternal Attitude Scale and the Life Event Inventory (a measure of potentially stressful life events). The Strange Situation involves observing the behavior of child during a 20-minute procedure involving two brief separations from the caregiver. The child's attachment styles are scored as either secure, insecure-avoidant, or insecure-resistant, based on the following behaviors: proximity and contact seeking, contact maintaining, avoidance of proximity and contact, and resistance to contact and comforting (Ainsworth et al., 1978).

The Strange Situation was completed at baseline and children categorized as anxiously attached at baseline were randomly assigned either to the intervention group (CPP) or to a control group. There was also a second control group of securely attached children. The Strange situation was completed again after 24 months. At the end of treatment there were no between differences in attachment security, but the children in the intervention group reportedly had higher scores on empathic responsiveness and goal-corrected partnership. The intervention group also had lower scores on angry behavior and displayed less proximity avoidance and contact resistance than the anxious control group. There were no between group differences in maternal attitudes, and the secure control group demonstrated higher attachment than the intervention group at posttest. The attrition rate was reported to be 18% for this study (Lieberman et al., 1991).

In a second study conducted with primarily low-income families, the participants were preschool children and their parents referred for child protective services due to maltreatment; that is, physical, sexual, emotional abuse, or neglect (Toth et al., 2002). The research design was a randomized controlled trial comparing the effects of CPP (here referred to as Preschooler-Parent Psychotherapy; PPP) with two control groups: psychoeducational home visitation (PHV) and community standard (CS). A fourth comparison group included non-maltreating families (NC).

The primary outcome measure was the child's internal representations of self and parent, based on the child's narratives in the MacArthur Story-Stem Battery (MSSB; Bretherton, Oppenheim, Buchsbaum, Emde, & The MacArthur Narrative Group, 1990) or the Attachment Story Completion Task (ASCT; Bretherton, Ridgeway, & Cassidy, 1990). The authors reported that the narrative outcome was selected because the

narratives of maltreated children have been found in previous research (Toth, Cicchetti, Macfie, Rogosch, & Maughan, 2000) to "contain more conflictual and fewer moral–affiliative themes" than non-maltreated children, which partially mediated the relationship between child maltreatment and behavior problems (Toth et al., 2002, p.881). Nine story-stems were presented with dolls including a mother, father, grandmother, and two same-sex children of different ages. The dolls and story characters were the same gender and ethnicity as each child participant. Story stems were presented and the child was asked, "Show me and tell me what happens now" (Toth et al., 2002, p.887).

Child narratives were coded for maternal representations (positive, negative, controlling, incongruent, and disciplining) with a composite score for either adaptive or maladaptive maternal representation. Similarly, stories were narratives were coded for self-representation (positive, negative, or false). Coding scores were based on the MacArthur narrative coding manual (Robinson, Mantz–Simmons, Macfie, & MacArthur Narrative Working Group, 1996), and good reliability was reported among the clinicians trained to do the coding (weighted $\kappa = 0.78–1.0$). Additionally, a reliability analysis yielded the following kappa coefficients for representation codes: positive mother ($\kappa = 0.94$), negative mother ($\kappa = 0.92$), disciplining mother ($\kappa = 0.91$), controlling mother ($\kappa = 0.92$), incongruent mother ($\kappa = 0.86$), positive self ($\kappa = 0.94$), negative self ($\kappa = 0.91$), and false self ($\kappa = 1.00$).

The story-stem task was repeated at posttest, and repeated measures analyses of variance were used to compare pretest and posttest change between groups. The researchers found a significantly greater decrease in maladaptive maternal representations and negative self-representations in the intervention group, compared to the PHV and CS

groups. They also found a significantly greater decrease in negative self-representations in the intervention group compared to all three comparison groups. The rate of attrition was reported to be 25.8% with an average of 32 sessions completed in the treatment group (Toth et al., 2002).

Accessibility. Training in CPP includes a 3-day workshop as well as 3 quarterly 2-day booster workshops, followed by weekly, monthly, or bimonthly supervision, depending on the needs of the participants (CEBC, 2012). The training costs $2000-$3500 per day (NCTSN, 2012c). Practitioners need to have a at least a master's degree, and supervisors in the model need to have a master's degree and one year of practice in the model. Practitioners of CPP should also engage in reflective supervision (CEBC, 2012).

Limitations. The recommended length of treatment may be a barrier to families with significant life stressors, and further research should identify the actual dosage of treatment sessions necessary to produce positive outcomes. With regards to research, the primary outcome measures used in these two studies with low-income families (the Strange Situation and the story completion tasks) are time-consuming for the participants and require additional training for researchers to learn the coding scheme. Moreover, these two outcome measures have a degree of subjectivity, and the research with low-income populations may be enhanced by including additional measures of child trauma symptoms.

Attachment, Self-Regulation, and Competency Model

Program. Attachment, Self-Regulation, and Competency: A Comprehensive Framework for Intervention with Complexly Traumatized Youth (ARC) is based on

literature from four primary theoretical approaches: attachment theory, early child development, traumatic stress impact, and factors promoting resilience (Arvidson et al., 2011). The focus of ARC is on improving the child's systems of care to address symptoms of complex traumatic stress, and the approach can be used in multiple treatment modalities, including: individual, group, family, workshops, systems intervention and home-based treatment (NCTSN, 2012b). The program is designed as a long-term treatment, and in their pilot study, families who completed treatment participated in an average of 50 treatment sessions (Arvidson et al., 2011).

The ARC framework addresses multiple components within the three primary domains (Arvidson et al., 2011). The Attachment domain refers to building a safe attachment system with the child's important caregiving adults whether biological parents, other caregivers, school personnel, or therapist. The components addressed within the Attachment domain include: caregiver management of affect, attunement, consistent response, and routines and rituals. Self-Regulation refers to "child's ability to identify, modulate, and express his or her internal experience" (Arvidson et al., 2011, p. 36). The components addressed in the Self-Regulation domain include: affect identification, modulation, and affect expression. Finally, Competency focuses on helping the child developing skills for ongoing development, rather than just survival. The components addressed in the Competency domain include: executive functions, and self-development. The final fourth domain, Trauma Experience Integration, integrates the skills developed from the other three domains and focuses on addressing and resolving any remaining posttraumatic elements, such as trauma reminders or triggered arousal states (Arvidson et al, 2011).

When implementing ARC with very young children, the program is specifically focused on increasing caregiver attunement to build a more secure attachment base, enhancing the caregiver's ability to support the young child's development and use of self-regulation strategies, and teaching caregivers to support the young child's positive sense of self and mastery (Arvidson et al., 2011). Together, these components within the ARC framework appear to align well with the aspects of therapy for young traumatized children identified in the literature. The ARC program is designed to be adaptable to work within the client's caregiving systems, and the program specifically mentions identifying culturally relevant caregiver supports (NCTSN, 2012b).

Population. ARC was developed for youths ages 2-21, primarily those with exposure to complex trauma, such as children in the child protective system due to maltreatment. ARC includes literature specifically addressing developmental concerns for very young children (Arvidson et al., 2011). The research has been conducted with ethnically and culturally diverse children, including pilot research with a population of young Alaskan Native children in the child welfare system (Arvidson et al., 2011), and the authors have described cultural implications for specifically implementing the program with Alaskan Native children. Information regarding the socioeconomic background of the study participants was not provided in the published article. However, the program is designed to be flexible and tailored to the specific needs of the client, family, provider, and system, including clients experiencing ongoing adversity, and therefore appears to be a good fit for families living in poverty.

Research. There is one published study including young children (ages 3-12 years old) in foster care due to maltreatment (Arvidson et al., 2011). All of the children

experienced more than one stressor, and the types of traumas addressed by ARC in their pilot study included: caregiver impairment, neglect, traumatic loss/bereavement, domestic violence, emotional abuse or psychological maltreatment, and physical maltreatment (Arvidson et al., 2011).

The primary outcome measure used in this study for children under 5 years old was the CBCL 1.5-5 (Achenbach & Rescorla, 2000). The measures were administered at intake, at three month intervals, and at termination from the program. At the time of the published study, there were 21 clients who had completed treatment with posttest data. The authors reported a statistically significant decrease in CBCL scores from pre- to posttest, based on a paired samples *t*-test. Moreover, authors reported 92% of the children who completed treatment were in a permanent placement (e.g., adoptive home or reunification with biological parents). The authors reported 52% of the participants with "end of treatment status" at the time of the published article had completed the treatment program (Arvidson et al., 2011, p. 47). The primary reasons for attrition were: relocation of the family (26%), family dropped out of treatment (14%), and family lost to follow-up (8%). The researchers also reported that one of the main reasons that families dropped out of treatment was due to reunification of a foster child with a biological caregiver (Arvidson et al., 2011).

Accessibility. Training has been provided in Boston, or at specific sites requesting training in this model. The two-day training was reported to cost between $7,000 – 8,000, plus "affiliated expenses," as well as the cost of consultation (NCTSN, 2012b).

Limitations. As with other long-term therapy programs, the number of treatment sessions required for successful completion of the program may be a barrier to families with significant life stressors. Future research may focus specifically on identifying a minimum number of treatment sessions needed for successful outcomes, modifications for families who cannot commit to 50 treatment sessions, or strategies for engaging families who may be at risk for dropping out of treatment prematurely. Also, while the pilot research is promising, the sample size for the intervention group was still somewhat small (N=21). Research support for ARC would be strengthened by conducting a randomized controlled trial with a comparison group.

Attachment and Biobehavioral Catch-up

Program. Attachment and Biobehavioral Catch-up (ABC) is based in attachment theory as well as research in neurobiological stress (NCTSN, 2012a). ABC was developed for use with children ages 0-24 months old who have experienced early adversity and focuses on three key components: 1) helping parents provide especially nurturing care, even when the child does not elicit nurturance; 2) helping parents behave in ways that allow children to develop strategies for regulating biologically and behaviorally, such as following the child's lead; and 3) helping parents reduce behaviors that are frightening or overwhelming to the developing child (NCTSN, 2012a). The focus of treatment is on changing the caregivers' behaviors. Relevant discussions about the caregiver's own childhood experiences with their parents are included to help caregivers develop insight into their own use of frightening or threatening behaviors (Bernard, et al., 2012). The ABC program typically involves 10 one-hour sessions, conducted in the families' homes with a parent coaching model (NCTSN, 2012a).

Population. ABC was developed for use with ethnically diverse (African American, Hispanic, and White) low-income families, and includes specific modifications for young children in foster care (NCTSN, 2012a). ABC has also been conducted with both single-parent families was well as multigenerational families.

Research. ABC has been rated as Level 1, or having well supported research evidence (CEBC, 2014, September). The researchers have conducted two studies with randomized controlled trials (RCTs), including one with foster children, and one with children in families at risk for referrals for child protective services (Bernard, et al., 2012; Dozier et al., 2006).

In the first study, participants were 60 children in foster care (ages 3-39 months old). Participants were randomly assigned to one of two groups: the intervention group received ABC, while the control group received an educational program called Developmental Education for Families (DEF). Both groups received 10 in-home sessions by professional social workers or psychologists with at least 5 years of clinical experience (Dozier et al., 2006). The primary outcome measures in this study included: cortisol production (assessed through salivary samples) and problem behaviors (assessed through the Parent's Daily Report with infant-toddler or preschool version, adapted from the PDR (Chamberlain & Reid, 1987). Dozier et al. stated the PDR was reported to have "moderate stability over time and relate well to other problem behavior inventories" (p.773). To measure cortisol levels, caregivers were trained in collecting saliva samples from the child two times daily over a 2-day period. The saliva samples were stored in a freezer at the family's home until the cortisol levels could be assayed by researchers at the laboratory. The process required a high level of compliance in order to provide

accurate results. This was achieved through the use of compliance caps on the containers holding the dental cotton rolls used for collecting saliva. These compliance caps used a microchip to record the time that the container was opened (Dozier et al., 2006).

The authors reported a main effect for intervention group in the primary analysis; children who received ABC had significantly lower cortisol levels in both the morning and at bedtime, compared to the intervention control group. A secondary analysis was conducted with 104 "typically developing" children who had never been in foster care, and the cortisol levels of children in the ABC group were not significantly different from the typically developing comparison group. However, there were no main effects for intervention when assessing caregiver report of behavior problems, but there was an interaction effect of intervention by age. Specifically, parents in the ABC group reported statistically fewer behavior problems for toddlers than infants, while there were no differences in behaviors by age in the control group (Dozier et al., 2006).

The second RCT focused on attachment style of children (N=120) in families with needs or at risk for concerns such as domestic violence, parental substance use, homelessness, and child neglect, but the children were not in foster care (Bernard, et al., 2012). The ages of the children ranged from 1.7 and 31.9 months. Families were again randomly assigned either to ABC or to the same in-home parent education program (DEF).

The primary assessment measure in this study was the child's attachment style, assessed by the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978). In this assessment, trained examiners (blind to other details of the study) viewed videos of the Strange Situation and coded specific attachment behaviors in the children, including

proximity seeking, contact maintenance, avoidance, and resistance. Children were classified as either secure (42%), avoidant (12%), resistant (2%), or disorganized (44%). The researchers used chi-square tests to analyze between-group differences in child attachment style. Children in the ABC intervention showed lower rates of disorganized attachment (32%) compared to control (57%) and higher rates of secure attachment (52%) compared to the control intervention (33%) (Bernard et al., 2012). Overall, these results of these two studies appear to suggest that ABC is particularly effective in reducing cortisol levels in traumatized children and strengthening parent-child attachment, but not necessarily effective in reducing behavioral problems.

Accessibility. While licensed professionals conducted all interventions assessed in the research, the developers of the model report that parent coaches may have any level of education to be trained in this model. Parent coaches must receive 3 days of training plus 1 year of supervision (1.5 hours weekly), which includes both group supervision and in-the-moment individual supervision) to become a Certified Parent Coach (CEBC, 2014, September). ABC is implemented in the home environment and requires the use of a laptop computer, video camera, and webcam for supervision. Costs of training were not available.

Limitations. ABC was designed for children under 3 years old, and may not be as appropriate for children ages 3-5 years old. Also, these studies were conducted with foster parents as participating caregivers, and with parents at risk for family concerns but whose children were not yet in the foster system. For children who are in the foster care system, improving attachment with the biological parent may be equally important. Additional research may focus on improving outcomes for children in the foster care

system who would be reunified with biological parents, as well as strategies for engaging biological parents in the treatment program.

As with CPP, the use of the Strange Situation as an outcome measure may be time-consuming and requires training for researchers desiring to conduct additional research in this model. Additionally, using cortisol as an outcome measure may also be less desirable for the children and families, as it requires more training and attention to detail than other caregiver report or observational outcome measures. Moreover, using cortisol levels as an outcome is expensive for researchers, as several pieces of equipment were necessary to collect and assay cortisol levels, such as the compliance caps, and the Salimetrics, Inc. High Sensitivity Salivary Cortisol Enzyme Immunoassay Kit (Dozier et al., 2006).

Strengthening Family Coping Resources

Program. Strengthening Family Coping Resources (SFCR) is based in multiple theoretical perspectives including attachment theory, family systems theory, family ritual and routine theory, coping theory, and social support theory (Kiser, Donohue, Hodgkinson, Medoff, & Black, 2010). The program uses a 15-session group format with three modules. The first module involves three 2-hour sessions which are designed to develop family rituals and routines, such as telling family stories. Each session begins with a family meal, which incorporates rituals such as giving thanks or using a relaxation activity. The second module involves 6 sessions focused on building coping resources, such as enhancing safety in the home, building social supports, planning and carrying out family activities, and using spirituality to explore personal values. The third and final

module is comprised of 6 sessions that are focused on creating a family trauma narrative with a shared sense of meaning (Kiser et al., 2010).

Population. This program was specifically designed for families living in urban poverty (Kiser, et al., 2010). The pilot study (N=19) included primarily African American families with children ages 1-12 years old. However, the authors were unclear how many of the children were under the age of 5 years old, and many of the outcomes were based on measures administered only to school-aged children.

Children included in the research study needed to be in the custody of at least one stable caregiver who did not have active psychosis or risk of harm to self or others. In addition to exclusion criteria based on severity of children's mental health (e.g., acute psychosis, mental retardation, etc.), children were also excluded from the research study if they were at "imminent risk for re-exposure due to their living environment (e.g., ongoing violence at home)" (Kiser et al., 2010, p.3). These distinctions allow for more interpretable research findings, but may limit the generalizability of the SFCR program to children in foster care or families with ongoing stress due to conditions of chronic poverty.

Research. Children included in the research study were included if they were exposed to multiple DSM-IV-TR defined traumatic experiences. The primary outcome measure for children under 6 years old was the TSCYC (Briere et al., 2001). The TSCYC is a caregiver report measure of 90 possible trauma symptoms in children ages 3-12 years old. The measure includes eight clinical scales (Anxiety, Depression, Anger/Aggression, Posttraumatic Stress - Intrusion, Posttraumatic Stress - Avoidance, Posttraumatic Stress - Arousal, Dissociation, and Sexual Concerns) and a PTSD Total scale. The reliabilities of

the clinical scales were reported to range from .81 to .93, with an average of .87 (Briere et al., 2001). Diagnostically, Gilbert, Briere, Taylor, and Viglione (2004) found the PTSD-Total Scale to have a sensitivity of .72 and a specificity of .75 in identifying PTSD as defined by the UCLA PTSD Reaction Index (TSCYC, 2007).

The additional outcome measures used for school aged children included the UCLA PTSD Index (Steinberg, Brymer, Decker, & Pynoos, 2004), the CBCL 1.5-5 (Achenbach & Rescorla, 2000), and the Schedule for Affective Disorders and Schizophrenia for School Age Children-Present (K-SADS P/L; Kaufman, Birmaher, Brent, Rao, & Ryan, 1995).

Kiser et al. (2010) reported significant reductions in overall symptoms of PTSD as well as symptoms of arousal, based on the K-SADS P/L, using a *t*-test to evaluate change from pretest to posttest. They also stated:

> "The Schedule for Affective Disorders and Schizophrenia for School Age Children- Present (K-SADS P/L) could not be used for three children in the sample due to age restrictions of the measure and logistical constraints at one treatment site. Therefore, trauma symptom reports were taken from either the Trauma Symptom Checklist for Young Children (TSCYC; Briere et al., 2001) or the UCLA PTSD Index (Steinberg et al., 2004). Scores on the TSCYC and UCLA PTSD Index were transformed and included with the K-SADS scores reported" (Kiser et al., 2010, p. 8).

The authors also reported significant reductions in symptoms on the CBCL for school aged children: anxious/depressed, withdrawn, social, attention, aggression, internalizing, and total symptoms (Kiser et al., 2010). However, these latter findings do not apply to the

younger participants (under age 6) because the CBCL was not administered to younger children. Families also reported a high level of satisfaction with the program, based on a satisfaction questionnaire (Kiser et al., 2010).

Accessibility. Training consists of two days of didactic seminars in traumatic stress, constructive family coping, and intervention, plus weekly consultation phone calls for the first 15-week intervention group and biweekly consultation phone calls for the second 15-week intervention group. Training for this model can be provided on site for agencies seeking training, and costs vary based on travel expenses and other individual factors (NCTSN, 2012d).

Limitations. SFCR may not be appropriate for families experiencing ongoing stress (such as chronic poverty), as families at risk for trauma re-exposure were not included in the pilot study. Also, the majority of the children included in the research were over the age of five years old, and the primary outcome measures were administered only to the school aged children. Therefore, the SFCR program appears to be best suited for school aged children, rather than young children. Moreover, the research is limited to a pilot study with a smaller sample size (N=19) that used a single group pretest-posttest design. As with other developing programs, a randomized controlled trial with a comparison group is recommended to strengthen the research base.

Summary of Therapy Programs

Program. While there were different theoretical orientations reflected in these programs, the therapeutic components address similar issues in trauma informed care with different language and strategies. Many of these programs included variations on most or all of the components recommended for young traumatized children (refer to

Appendix B for a summary of these program elements). Among the specific components, while enhancing safety was often a core component of these treatment programs, ensuring a stimulating home environment was rarely a strong focus of treatment. This likely reflects the nature of most programs occurring in an outpatient setting. Also, building caregiver supports and addressing caregiver health needs was not often included in these programs. Understandably, addressing the unique needs of more than one identified client is quite an undertaking.

Population. The primary differences between these therapy programs appear to reflect primarily the type of trauma and population served. Several therapy programs for treatment of trauma were designed for school-aged children and were either adapted for use with children under the age of five years old, or included a small number of very young children in the pilot research. Only six programs address the mental health needs of children under the age of four years old (TF-CBT, PCIT, Honoring Children, CPP, ARC, ABC). Only three of the nine programs (i.e., PCIT, CPP, and ABC) were specifically designed for children under the age of five years old. Of these three therapy programs designed for use with very young children, only two (CPP, ABC) were designed specifically to address the symptoms of traumatic stress in young children. PCIT has a strong evidence base in reducing behavioral problems in young children, but its relevance to issues of trauma other than reducing the risk of physical abuse is somewhat limited.

With regards to the cultural issues of poverty, few of these programs described specific modifications for clients in poverty, or mentioned ways that they collaborate with other community providers to address basic needs of families. SFCR most clearly

identified how their program fits the unique needs of families living in poverty in an urban context. Honoring Children specifically referenced using a collaborative approach in goal setting, and they collaborate to establish relationships within the tribal context. TF-CBT and ARC are reported to be flexible programs, with specific treatment components used in all cases. CPP indicated that the program is tailored to meet the needs of the child and family. PCIT does not appear to collaborate with clients in setting goals, but tried using a treatment enhancement to provide additional support for families. The SMART program conducted pilot research with primarily families of low-income who were involved in the child welfare system, but goals are predetermined by the group format. Similarly, the goals of ABC, SFRC, and are determined by the program.

Research. The programs with the strongest (Level 1) evidence base include: TF-CBT, PCIT, and ABC, based on the findings of the California Evidence Base Clearinghouse of Child Welfare. The program with the next strongest research base (Level 2) is CPP. The other programs do not yet have enough published research available to receive a rating.

Accessibility. It is difficult to determine which programs are most cost effective in terms of training and implementation of the model, as this information was not uniformly available for each of the programs reviewed here. With the information that was provided, it appears that the costs and accessibility of training in each of these programs is roughly comparable. An additional consideration for practicing mental health professionals is length of treatment. Among these programs, the recommended length of treatment varies from as few as 10 sessions (ABC) to at least 50 sessions (CPP, ARC, SMART).

Limitations of Literature Review

There are a number of areas for continued study. With regards to theoretical literature, there was less written in general regarding the psychological and social experiences of children who live in poverty. Much of the research about the effects poverty on children focused on the neurological, biological, and cognitive outcomes of growing up under chronic stress, while the literature focused on the experience of being poor was based on qualitative research with adults. Similarly, much of the qualitative research in childhood trauma is conducted with adults, based on subjective experiences and memories of childhood. The phenomenological experience of growing up in the context of poverty may have psychological and social outcomes that are not currently identified in research.

Moreover, while this literature review focused specifically on the cultural issues affecting families living in poverty, there are several pressing research questions surrounding other issues of culture, such as those of racial and ethnic cultural identity, especially for ethnic minority groups. Additionally, this review focused generally on poverty as a cultural factor, but there are other implications that might be studied with regards to geography, differences in poverty based on an urban or rural context, or global cultural practices surrounding mental health of young children, issues of poverty, experiences of adversity, and healing practices. Further study may also highlight more specifically which cultural modifications are essential in enhancing treatments for clients living in poverty.

Conclusion

As previously discussed in the summary of therapy programs, very few evidence-based programs are specifically designed for use with very young children and their families. Even fewer programs are focused specifically on the unique needs of children and families living in poverty, and further research should focus on the needs of this very unique and important population. However, it should be noted that there may be many existing programs with promising outcomes that have not yet been identified as evidence-based by the National Child Traumatic Stress Network or the California Evidence-Based Clearing House for Child Welfare. In cases such as these, further research is needed to establish efficacy of other promising programs. The present study seeks to evaluate the efficacy of the *New Hope* program, which is specifically focused on the needs of young children and families living in poverty.

CHAPTER III: METHODOLOGY

Participants

This study used archival data that were part of a larger study approved by the Internal Review Board of Marquette University. Participants were 64 children ages one-to-five years old referred to a clinic that serves young children in poverty with emotional and behavioral problems (Fox, Keller, Grede & Bartosz, 2007). Eligibility criteria for participation in the research study were the following:

(a) The child was less than six years old at the start of treatment.

(b) The child experienced some type of potentially traumatizing event, as indicated on the Traumatic Events Screening Inventory - Parent Report Revised (TESI-PRR). To qualify for participation the study, at least one response on the TESI-PRR was endorsed positively, except for item number 4.3, which reads "Has your child ever seen acts of war or terrorism on the television or radio" because the DSM-5 specifies that witnessing a traumatic event "does not include events that are witnessed only in electronic media, television, movies, or pictures" (APA, 2013, p. 273).

(c) The child exhibited at least four symptoms of posttraumatic stress disorder (PTSD) as defined by the *Diagnostic and Statistical Manual of Mental Disorders – Fifth Edition* (DSM-5; APA, 2013), and at least one symptom was an *intrusion* symptom and one was an *avoidance and negative alterations in cognition* symptom (see Appendix C for symptom checklist and diagnostic criteria). This approach is consistent with previous research using clinical trials which required four DSM-IV-TR defined posttraumatic stress symptoms for study eligibility with at least one symptom of *re-experiencing/intrusions* and one of *avoidance* (Meiser-Stedman, Smith, Yule, &

Dagleish, 2008; Sheeringa, 2011; Sheeringa & Zeanah, 2008; Sheeringa, Zeanah, Myers, & Putnam, 2003). The requirement of four symptoms for the present study is consistent with previous research as well as current *DSM-5* diagnostic criteria for PTSD for children under six years old.

(d) The family received public assistance, indicating that the household income was below the federal poverty level.

(e) Signed consent was obtained by the child's legal guardian (see Appendix D for IRB-approved informed consent form).

(f) The child and primary caregiver completed the comprehensive intake evaluation and at least five treatment sessions (in the immediate treatment group). Previous studies conducted with a similar population used a minimum number of 3 treatment sessions as part of treatment completion criteria (Fung & Fox, 2014). Given the complex nature of trauma, it was hypothesized that more treatment sessions would be needed to produce change, and therefore participants were included in the final sample if they completed at least five or more treatment sessions. Participants in the wait list control group were included in primary data analyses if they completed the initial intake and a second intake 4-6 weeks later. Participants in the wait list (WL) control group who subsequently completed at least 5 treatment sessions were also included in follow-up analyses.

Exclusion criteria. Children with autistic spectrum disorders, severe to profound intellectual disabilities, or serious physical illnesses were not included in this study and, when appropriate, were referred to more appropriate services. Children who were eligible for in-home counseling services but did not meet all of the inclusion criteria for this

research study and/or refused to be part of a research study still received the full complement of mental health services offered at the Behavior Clinic.

A priori sample size estimations were conducted using statistical power analysis based on population effect size, statistical power, and significance criterion. The minimum acceptable sample size for analysis of covariance (ANCOVA) was calculated with the G*Power computer software, using a large effect size (F=.40) as reported in literature (Cohen, 1998) and conventional estimates of alpha (.05) and beta (.80). A total sample size of at least 52 participants was needed, and the final sample included 64 participants with 32 in each group.

Procedure

A comprehensive intake evaluation was completed for each participant in the study. A semi-structured parent interview was conducted to gain information regarding the child's background, strengths, family composition and mental health history, child's health history, daily routines and living skills, specific problem behaviors, and trauma history (see Appendix E for Intake Form). The pretest assessment measures described below were also completed. All items were read to caregivers unless they preferred to answer them on their own. Any child meeting the PTSD diagnostic criteria from the *DSM-5* was given a psychiatric diagnosis that was reviewed by a qualified professional (e.g., licensed psychologist, licensed professional counselor, or a licensed clinical social worker). Treatment sessions were scheduled to occur once per week for about one hour. The caregiver and therapist collaborated to identify treatment goals at the first session. Each week a daily practice sheet tracking treatment goals was provided to the caregiver (included in Appendix F). Treatment sessions began by reviewing and documenting

progress toward treatment goals and completing the weekly assessments. The *New Hope* program was designed to take 8-16 weeks to complete, depending on the individual needs of the child and family. However for this study, a minimum of five treatment sessions was required to be included. Additional booster sessions were sometimes provided after the 4-6 week follow-up session, depending on the needs of the family and clinical judgment of the therapist.

Treatment program. The treatment program involves an integration of the evidence-based *Early Pathways* program along with the trauma-informed companion program, *New Hope.* The program was piloted with three separate therapists and families prior to implementation. A sample treatment schedule outlining the integration of *Early Pathways* and *New Hope* is included in an Appendix H. A complete copy of the *New Hope* manual may be obtained by contacting the author (joanna.love@mu.edu).

The five core elements of the *Early Pathways* program were retained as part of the *New Hope* treatment program. These elements include: (a) strengthening the parent-child relationship through child-led play and other nurturing activities; (b) helping parents maintain developmentally appropriate expectations for their child (c) helping parents learn cognitive strategies to respond calmly and thoughtfully to their child's challenging behaviors; (d) using differential attention and positive reinforcement to strengthen the child's pro-social behaviors; and (e) using limit-setting strategies to reduce the child's challenging behaviors, such as redirection, ignoring, or time-out (Fox & Gresl, 2014). Limit-setting strategies were modified to reflect best practices in trauma-informed care. For example, a *Time-In* strategy would be used in place of time-out or ignoring in cases where a child's emotional outburst was triggered by a trauma reminder rather than a

functional temper tantrum, or in cases where the child has not developed the ability to self-regulate emotions.

In addition to these core elements, the trauma-informed treatment components included: Basic Safety, Caregiver-Child Relationship, Predictable and Nurturing Environment, Trauma-Informed Limit Setting Strategies, Calming Strategies, Naming and Practicing Feelings, Healthy Thoughts and Feelings, Identifying Sources of Support, Building Prosocial Skills, and Seeking Closure. A brief overview of each of these components of the *New Hope* program follows:

Basic Safety. This chapter was designed to establish basic safety for the child and family and their environment. This chapter was placed first in the *New Hope* manual because basic safety must be established before other treatment components can be effective. This chapter also provides both the caregiver and child with psychoeducation throughout the treatment process. It is important that the caregiver has the knowledge they need to support the child's healing process. It is equally important that the child is given developmentally appropriate explanations for the activities they may be asked to try with the therapist.

Caregiver-Child Relationship. Strengthening the caregiver-child relationship is a foundational component in the *Early Pathways* program. This should occur very early in treatment and should be an ongoing activity throughout the counseling process. A strong and supportive caregiver-child relationship is necessary before continuing to the second phase of treatment. Additional information for building healthy attachment in young children and creating a safe relationship for processing early childhood trauma is

included. This is especially important for foster or adoptive parents and children who have been removed from biological parents.

Predictable and Nurturing Environment. The importance of consistency in daily routines is also a component of the *Early Pathways* program. This is especially important for children who have experienced trauma. Discussions about routines should occur early in treatment, but only after a strong rapport has been established with the caregiver. Any changes in home routines and schedules should be completed in collaboration with the caregiver.

Trauma-Informed Limit Setting Strategies. Part of creating a predictable environment for the child also includes the use of clear and consistent rules and consequences. Refer to the *Early Pathways* manual or online program (Fox & Gresl, 2014) for using clear instructions, positive reinforcement, appropriate developmental expectations, and structured behavior charts. Whenever appropriate, *Early Pathways* program strategies were used to teach and model appropriate discipline strategies, such as natural consequences and redirection. This treatment component also includes recommended trauma-informed modifications to two discipline strategies used in the *Early Pathways* program, *ignoring* and *time-out*. All treatment strategies are discussed, practiced, and reinforced throughout treatment. When the child presents with severe externalizing behaviors (e.g., violence, aggression, severe temper tantrums), limit setting strategies may need to be implemented before other treatment activities can be used.

Calming Strategies. The purpose of this treatment component is to teach children and parents specific strategies for assisting in calming the body to help calm the mind. Relaxation strategies that the child and parent identify as useful can be used to help

children calm down during sessions and throughout the week. Every child is different, so some strategies may work well with some children, but not with others. Therapists should be creative in using these approaches or identifying new ways to teach these skills to children and their caregivers. The therapist may have to try several strategies to find the one that works best (trial and error). These strategies can be taught as early as the first treatment session and practiced throughout treatment with the child. With young children, it is generally best to focus on one simple relaxation strategy at a time. These strategies should be used if a child appears agitated or upset due to discussions about the trauma.

Naming and Practicing Feelings. The purpose of this treatment strategy is to help children identify and express their own feelings. As children become familiar with labels used for specific emotions, they will be better prepared to discuss feelings regarding their own personal traumatic experiences. Therapists need to ensure that emotional and physical safety have been established in the child's environment. Earlier sessions focus on feelings identification in general, and later sessions may focus on expressing feelings regarding the specific traumatic event.

Healthy Thoughts and Feelings. This treatment component is focused on activities that help children learn positive thoughts and beliefs about themselves, the traumatic event, and their relationships with supportive caregivers. This is, in effect, cognitive pre-structuring; that is, helping the child to develop adaptive thoughts before maladaptive cognitions become more ingrained. For children who have verbal abilities, this chapter is also focused on helping children express feelings related to the trauma. Activities that focus on self-esteem or relationships can be done at any point in treatment. Activities that include discussions of the traumatic event should be done later in

treatment, when a strong therapeutic rapport has been established, and preferably after the child has learned some relaxation strategies to use when necessary.

Identifying Sources of Support. This section is about identifying sources of support for the child. Judith Herman refers to this process of reconnecting with others, stating, "By the third stage of recovery, the survivor [of trauma] has regained some capacity for appropriate trust" (Herman, 1997; p. 205). With the young child, the capacity for appropriate trust depends on the support of a loving caregiver. At this point in the therapy process, the caregiver-child relationship has been strengthened through play, activities, positive words, and creating a more nurturing environment. This chapter reinforces the parent-child bond and then allows the child to identify other possible sources of safe connection.

Building Prosocial Skills. This chapter is focused on building the child's capacity for empathy and belonging within his or her family and community. Once interpersonal safety has been established, and the child has learned healthy ways to cope with trauma-related thoughts and feelings, the therapist and caregiver can begin helping the child learn and develop prosocial skills.

Seeking Closure. This brief section is focused on preparing the child and caregiver for the end of therapy and instilling confidence for the future. These discussions and activities should occur in the final therapy sessions.

Training. Clinicians included licensed professional counselors, counselors working towards licensure, and graduate students in in community counseling, counseling psychology, or clinical social work. Spanish-speaking clients received the treatment program from either a bilingual therapist or from an English-speaking therapist

with a translator. All therapists trained in the *New Hope* program already received extensive training in the *Early Pathways* program. The didactic training component for *New Hope* included formal workshops, weekly staff meetings and additional training sessions as well as a review of the *New Hope* treatment manual. All staff and graduate students received weekly group supervision sessions with a licensed psychologist; students also receive weekly individual supervision. A treatment fidelity checklist (included in Appendix I) was used with each case to ensure that the program was implemented with fidelity. Therapists were asked to indicate which treatment components were discussed with the family or implemented in each treatment session. Not every individual treatment activity was necessary for each family. For example, providing psychoeducation to parents who were victims of intimate partner violence is a necessary treatment component for children who have witnessed violence, but may not be a relevant component for families who have not experienced violence. However, for each of the categories of topics (e.g., Family Safety) therapists were trained to use clinical judgment to determine the extent to which each specific topic needs to be addressed with each family.

Measures

Traumatic Events Screening Inventory - Parent Report Revised (TESI-PRR). The TESI-PRR (Ghosh-Ippen, et al., 2002) includes 24 items such as "Has your child experienced the death of someone close to him/her" and is answered by a caregiver with either *Yes*, *No*, or *Unsure*. Research has not yet been conducted to examine the psychometric properties of the TESI-PRR. Inter-rater reliability for the original TESI (Ford & Rogers, 1997) was reported to range from .73 to 1.0 for the different types of

traumatic events (Gray & Slagle, 2006). Gray and Slagle report there are no data available regarding validity of the original TESI (Gray & Slagle, 2006).

The Early Childhood Behavior Screen. The ECBS (Holtz & Fox, 2012) is a 20-item caregiver-report measure which assesses the frequency of a young child's prosocial behaviors (e.g., "Shares toys") and challenging behaviors (e.g., "Hits others"). Items are rated on a three-point Likert scale (3 = often, 2 = sometimes, 1 = almost never). Total scores on the positive behavior scale (PBS) range from 10 to 30 with higher scores indicating a greater frequency of pro-social behaviors. Total scores on the challenging behavior scale (CBS) range from 10 to 30 with higher scores indicating a greater frequency of challenging behaviors. This tool was developed for use with children from low-income families, and it is written at a 3.9 grade level. Field-testing was conducted with a representative, diverse sample of 439 parents from low socioeconomic status in an urban community. The internal consistency using coefficient alpha was .87. The CBS demonstrated adequate levels of concurrent validity (r = .75) with the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999), as well as adequate levels of sensitivity (82%) and specificity (80%) based on the relationship with the ECBI. Only the Challenging Behavior Scale (CBS) was used in the present study.

The Pediatric Emotional Distress Scale (PEDS). Two subscales from the PEDS (Saylor, Swenson, Reynolds, & Taylor, 1999) were used to assess for possible trauma symptoms: Anxious/Withdrawn (PEDS-AW) and Fearful (PEDS-F). The PEDS was designed for use with children ages two to ten years old, and the items are written at a 4.0 grade level. The PEDS-AW includes six items (e.g., "Seems worried"), with subscale scores ranging from 6-24, and the PEDS-F includes five items (e.g., "Has bad dreams")

with subscale scores ranging from 5-20. Items are rated on a four-point Likert scale (1 = Almost Never, 2 = Sometimes, 3 = Often, 4 = Very Often). Four geographically and developmentally diverse samples were used to determine preliminary psychometrics (Saylor et al., 1999). The participants (N = 475) were children ages 2 to 11 years old (mean age 5.52 years). There were equal numbers of males and females. The children were predominantly Caucasian (93%) and parents were primarily middle class. The authors reported adequate alpha coefficients for the PEDS-AW (r = .74) and the PEDS-F (r = .72). Concurrent validity was demonstrated with significant correlations between parents' reports of PTSD symptoms on the Child Posttraumatic Stress Reaction Index (CPTS-RI; Frederick, 1985) with both PEDS-AW (r = .62) and PEDS-F (r = .59).

Parent-Child Relationship Scale (PCRS). This scale was used to measure the clinician's subjective assessment of quality of the caregiver-child relationship (Fox & Nicholson, 2003). The PCRS uses a scale of 0-100 with five anchors at 20-point intervals: poor (ranging from 0-20), below average (ranging from 20-40), average (ranging from 40-60), good (ranging from 60-80), and exceptional (ranging from 80-100). Multiple descriptive markers are provided for each interval to improve inter-rater reliability (e.g., "Parent is often thoughtful when interacting with child" or "Parent can be responsive to child's needs and set appropriate limits on child's behavior, but not consistently"). Inter-rater reliability was determined based on 101 cases, and a kappa coefficient of .57 was reported (Fung & Fox, 2014), indicating moderate agreement between observers (Viera & Garrett, 2005).

Therapist Treatment Report (TR). The therapist treatment report was completed during or immediately following each weekly treatment session. This report

includes clinical notes, observations, and progress toward parent and child goals. The treatment report also includes a four-item scale based on the primary objectives of the *Early Pathways* treatment program, designed to assess caregiver adherence to program strategies. These items are: (a) "Does the parent maintain appropriate expectations?" (b) "Does the parent stop and think before responding?" (c) "Does the parent utilize rewards appropriately?" and (d) "Does the parent utilize appropriate discipline?" Items are scored using a three-point Likert scale (1 = rarely/not at all, 2 = sometimes, 3 = most times). The four scores were combined for a composite score that ranged from 4 to 12, with higher scores representing greater caregiver adherence to treatment. For the present study, therapists were trained to rate these items in the context of the child's trauma. For example, parent use of appropriate discipline refers to appropriate trauma-informed discipline strategies. Reliability for this scale was determined from 102 observations (Fung, 2015). Two clinicians independently scored the items, and kappa coefficients were computed for each scale item: appropriate expectations = .89, stop and think = .92, utilized rewards = .95, utilized discipline = .89. The coefficient alpha of the entire scale for the sample was .88, indicating good agreement between observers (Viera & Garrett, 2005).

Family Satisfaction Survey (FSS). A 7-item survey was used to assess caregiver satisfaction with the treatment services. This scale is used anonymously to facilitate caregivers providing honest feedback. On a 7-point Likert rating scale, caregivers were asked to rate: the quality of services received (1 = *poor* to 7 = *excellent*), how the services contributed to their child's improvement (1 = *not at all* to 7 = *a lot*), how the clinic helped them to improve management of their child (1 = *not at* to 7 = *a lot*), if caregivers

would use the clinic again if needed (1 = *no, definitely not* to 7 = *yes, definitely*), current status of the child's referral concern (1 = *considerably worse* to 7 = *greatly improved*), if caregivers would recommend the clinic to others (1 = *no, definitely not* to 7 = *yes, definitely*), and the caregiver's confidence in managing their child's behavior in the future (1 = *not at all confident* to 7 = *very confident*). Total scores range from 7 to 49, with higher scores indicating greater satisfaction with services. In a similar study, internal consistency for this measure was reported to be r=.82 (Fung & Fox, 2014).

Qualitative Caregiver Satisfaction Survey. A brief qualitative survey (included in Appendix G) was also be used with participants who completed treatment to allow caregivers the opportunity to provide additional feedback on their experience in the program. At least two attempts by phone and one attempt by mail were made to contact each caregiver who completed at least five treatment sessions. The primary investigator or research assistant contacting each caregiver did not provide clinical services to the family, to allow for the caregiver to provide more honest and constructive feedback. Caregivers were asked to describe which parts of the program they felt were most helpful and least helpful for both themselves and for their children. All responses were transcribed verbatim and analyzed for common themes.

Research Design

A convenience sample of children referred to the clinic for participation in the trauma therapy program was used. Eligibility for the trauma study was determined after the completion of the intake evaluation. Therefore, participants meeting full criteria for inclusion were randomly assigned to immediate treatment (IT) or wait list (WL) groups

using a computer-derived random numbers table upon completion of the intake evaluation.

Participants in the IT group were scheduled to start treatment immediately following their initial intake. Participants randomly assigned to the WL group waited four to six weeks for treatment services after their initial intake. Using a four-to-six week wait list was based on previous studies with populations living in poverty (Harris, Fox, & Love 2015; Fung & Fox, 2014). This wait-list decision was to avoid the risk of increased attrition due to a longer wait to receive services. Also, for any child where family safety was a concern, or where the traumatic symptoms were judged to be so severe as to require immediate treatment, these children were provided immediate treatment. Eleven participants originally in the WL group were moved to the IT group. No participants were moved from IT into the WL group. The therapists were encouraged to use clinical judgment and to seek supervision when making changes to the treatment group, and all participants who changed treatment groups were tracked on a data spreadsheet. This decision was made in order to ensure that client care would be prioritized in all decision-making processes, and also to avoid extending the time needed to obtain sufficient subjects for this study.

All measures were administered for both IT and WL at intake (Time 1), except the satisfaction survey, which was only administered at the completion of the program (at Time 2 for IT group and at Time 3 for WL group). The TESI was only administered at Time 1 to screen for the presence of potentially traumatizing events. The primary assessments (ECBS-CBS, PEDS-AW, PEDS-F, and therapist Treatment Report [TR]) were completed at each treatment session. The WL group completed the measures again

when beginning the treatment program (Time 2), and again at the completion of the program (Time 3). For both IT and WL groups, a follow-up occurred 4-6 weeks after the final posttest to assess for maintenance of treatment gains using the study's primary measures (ECBS-CBS, PEDS-AW, PEDS-F, TR, PCRS). The following chart (Figure 1) illustrates the flow of participants throughout stages of the research study.

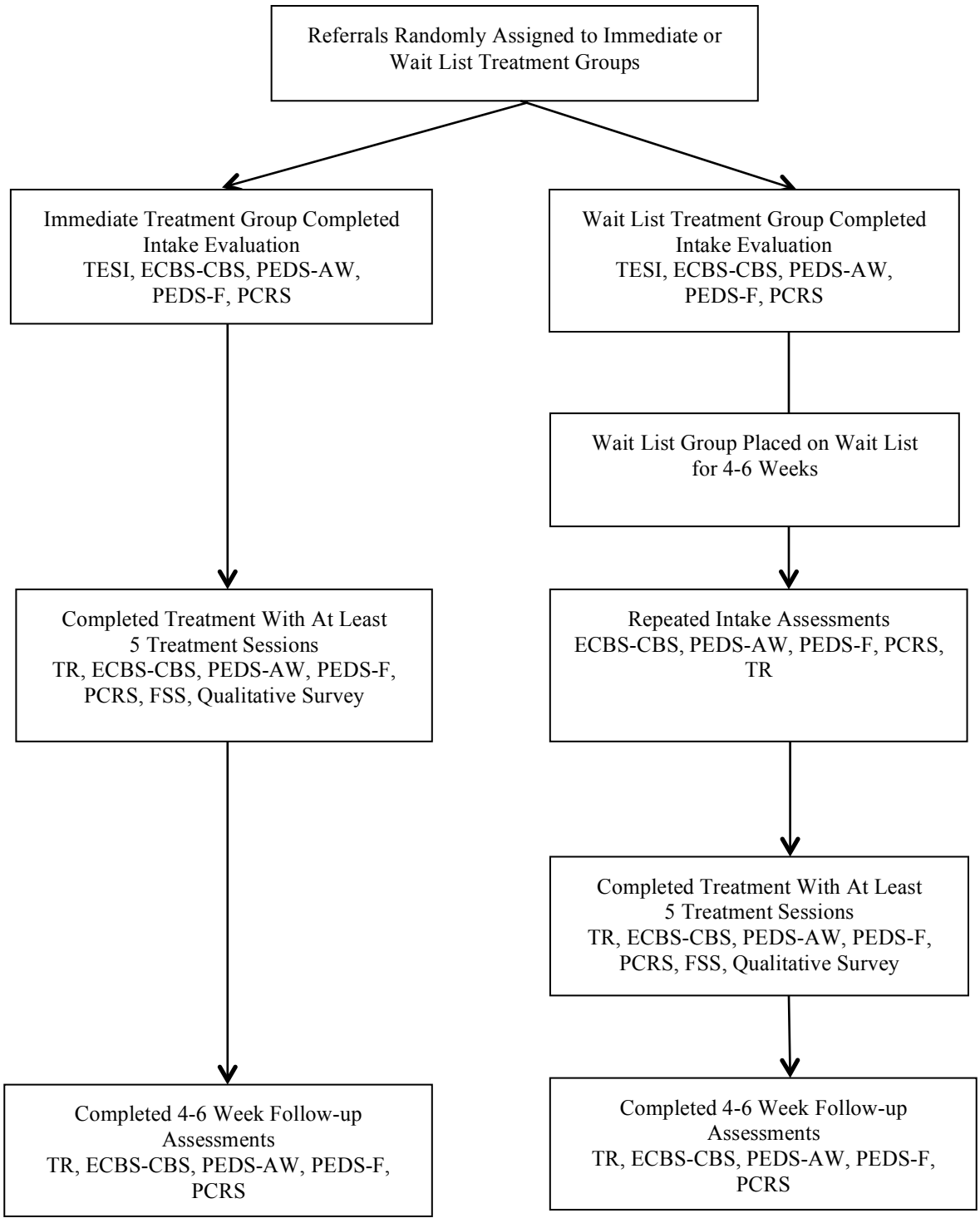

Figure 1: Research flowchart from random group assignment through short-term follow-up evaluations.

CHAPTER IV: RESULTS

Participants

The final sample included 64 participants with 32 in the immediate treatment (IT) group and 32 in the wait list (WL) control group (see Table 1). There were 44 males (68.8%) and 20 females (31.3%). Children were African American (42.2%), multiracial (28.1%), Latina/o or Hispanic (18.8%), and European American (10.9%). Children were an average of 39.11 months old (*SD* = 13.32), and 20.3% of children had been previously diagnosed with a developmental delay. At intake, all children met criteria for a *DSM-5* psychiatric diagnosis, including adjustment disorders (35.9%), PTSD (25.0%), other trauma- or stressor-related disorders (23.4%), or disorders of disruptive behavior (14.1%). The most common primary referral concerns were temper tantrums (40.6%) and aggression toward others (37.5%).

Twenty-three percent of children had been exposed to two different potentially traumatic events in their lifetime, and 73% of children had been exposed to three or more different traumatic events, based on the Traumatic Events Screening Inventory (TESI). The traumatic events endorsed most frequently were: separation from a primary caregiver (75%), witnessing violence in the home (53.1%), incarceration of a family member (35.9%), witnessing verbal abuse in the home (32.8%), experiencing physical abuse (28.1%), experiencing neglect (26.6%), witnessing community violence (23.4%), having a life-threatening illness or injury (21%), experiencing verbal abuse (17.2%), and other stressful experiences (34.4%). Experiencing sexual abuse was endorsed by caregivers as "unsure" for 14.1% of children. In most cases, suspected sexual abuse is difficult to substantiate, and very young children are less likely to disclose sexual abuse (Fontenella,

Harrington, & Zuravin, 2001; Hewitt, 1991). The primary traumatic event occurred twice for 35.9% of children, and 43.8% of children had experienced a traumatic event three or more times. For most children, exposure to the source of stress or perpetrator of abuse was ongoing, with 6.3% exposed to the stressor or perpetrator monthly, 20.3% exposed weekly, and 34.4% exposed multiple times per week.

Caregivers were biological mothers (57.8%), both biological parents (18.8%), foster/kinship caregiver (15.6%), or other relatives (7.8%). Caregivers were more likely to be single (57.8% never married, 14.1% were separated, and 12.5% were divorced), and about one-half of caregivers were unemployed (51.6%). Of the children's biological parents, 15.7% of mothers and 32.4% of fathers had completed less than a 12^{th} grade education, 70.6% of mothers and 61.8% of fathers had completed 12^{th} grade, and 10.9% of mothers and 5.9% of fathers had completed at least some post-high school education. Average caregiver age was 31.52 years (SD = 10.55).

The immediate treatment (IT) and wait list (WL) groups were compared on demographic variables using independent-group t-tests for continuous variables and chi-square tests for categorical variables (see Table 1). No significant differences were found on demographic variables. However, participants in the IT group endorsed more potentially traumatic events in the child's lifetime based on the Traumatic Events Screening Inventory (TESI) [$t(62) = 2.20$, $p = .031$].

Table 1

Between Group Comparisons of Demographic Variables for Immediate Treatment vs. Wait List Groups

	Immediate (n = 32)			Wait List (n = 32)		
Variable	%	X	SD	%	X	SD
Child Age (months)		40.91	14.31		37.31	12.20
Child Gender						
Males	78.1			59.4		
Females	21.9			40.6		
Has developmental delay	18.8			21.9		
Child Race						
African American	31.3			53.1		
Multiracial	34.4			21.9		
Latina/o	21.9			15.6		
European American	12.5			9.4		
Caregiver						
Biological mother	53.1			62.5		
Both parents	25.0			12.5		
Foster/kinship	15.6			15.7		
Other relative	6.3			9.4		
Caregiver age		32.16	10.25		30.91	10.95
Caregiver married	15.6			15.6		
Caregiver employed	50.0			46.9		
Mother finished 12th grade	84.0			84.6		
Father finished 12th grade	76.5			58.8		
Children in home		2.63	1.41		2.56	1.08
Number of traumatic events		5.06*	2.72		3.78	1.84

*Note: *p<.05*

Attrition

A Consort Diagram (see Figure 2) was used to show the flow of participants in each group throughout the entire study from intake through follow-through. As shown in Figure 2, a total of 12 (27.2%) participants in the IT group dropped out prior to completing five treatment sessions and 5 (13.5%) participants in the WL group dropped out prior to completing a second intake (see Figure 2). In the IT group, 11 participants completed a follow-up evaluation. In the WL group, a total of 17 participants completed the treatment with at least five sessions, and 10 participants completed a follow-up evaluation. Treatment completers and non-completers were compared on demographic variables and pretest measures using independent-group *t*-tests for continuous variables and chi-square tests for categorical variables. Treatment completers were any participants in the IT group who completed at least five treatment sessions, and participants in WL group who completed the second intake. Treatment non-completers were defined as any IT participants who ended services prior to completing at least five treatment sessions, and WL participants who did not complete the second intake. There were no significant differences in demographic or pretest variables between treatment completers and non-completers.

The average program duration and number of treatment sessions also were compared between the IT and WL treatment groups. The average program duration was 21.84 weeks (SD = 10.01) for the IT group and 20.31 weeks (SD = 9.54) for the WL group. Within the WL group, there was an average wait time of 7.25 weeks (SD = 5.52) from first intake (Time 1) to second intake (Time 2). The immediate group completed an average of 10.22 sessions (SD = 5.10). For the combined sample, there was an average

length of 7.5 weeks (SD = 8.85) between posttest session and short-term follow-up session.

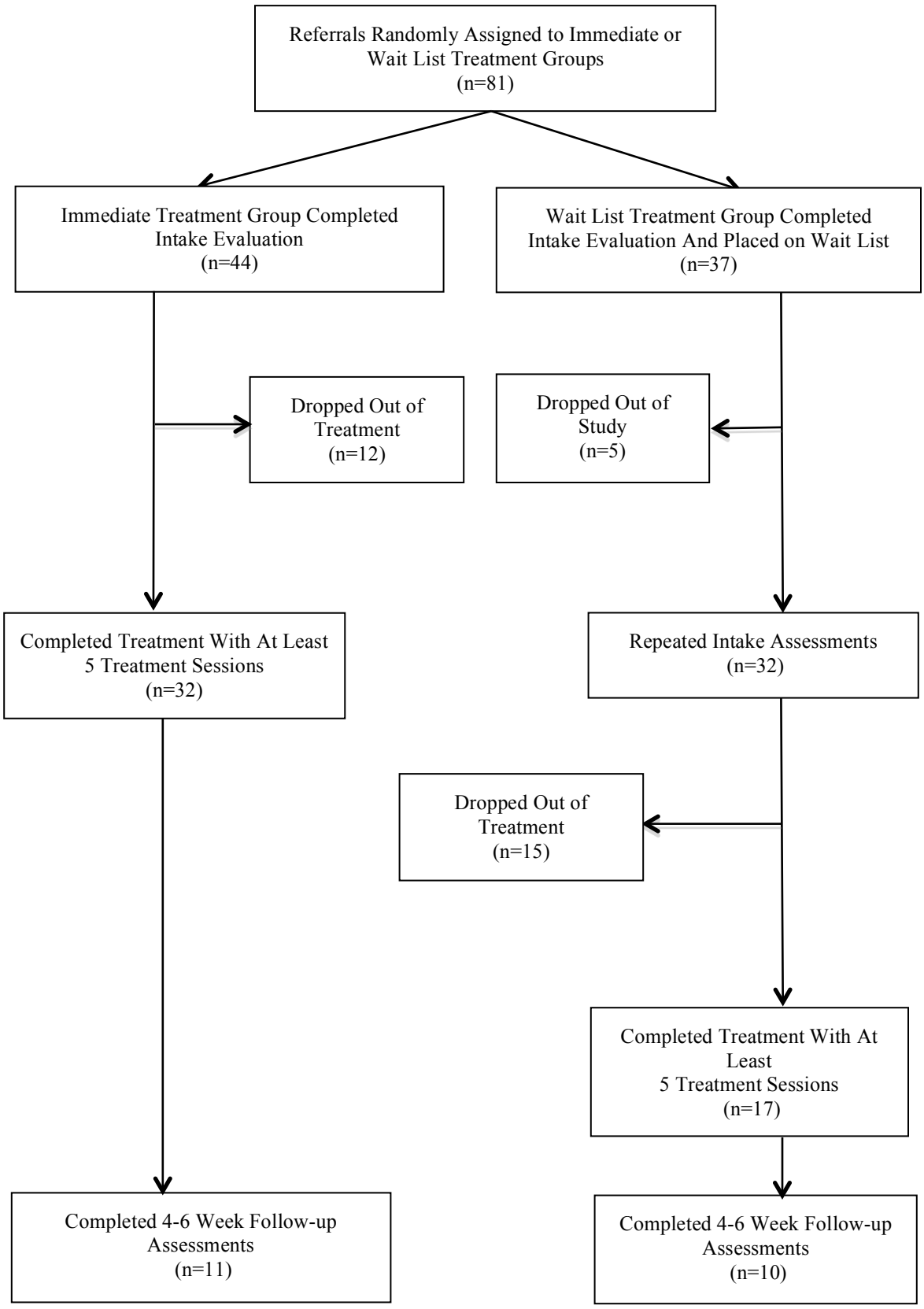

Figure 2: Participant flowchart from random group assignment through short-term follow-up evaluations.

Data Analyses

The IBM SPSS Statistics for Windows, Version 21.0 (IBM Corp., 2012) program was used to conduct the quantitative statistical analyses for this study. For all participants who met inclusion criteria, intention-to-treat (ITT) analyses were used with last observation carried forward (Gupta, 2011). This means that families in the immediate treatment (IT) group who dropped out of treatment after the fifth treatment session were still included in statistical analyses. Participants in the IT group who did not complete an intake and at least five treatment sessions were eliminated from the database and designated as non-completers. Similarly, participants in the wait list (WL) control group who did not complete a second intake (at Time 2) were eliminated from the database and designated as non-completers. Figure 2 illustrates the flow of all participants throughout all phases of the study.

For research question one, it was hypothesized that children who participated in the *New Hope* program would decrease challenging behaviors from pre to post-test as measured by the Early Child Behavior Screen – Challenging Behavior Scale (ECBS-CBS) compared to a wait-list control group. For hypothesis one, an analyses of covariance (ANCOVAs) with pretreatment scores as covariates, was used to determine treatment effects based on the ECBS-CBS.

For research question two, it was hypothesized that children who participated in the *New Hope* program would improve emotional well-being from pre- to post-test as measured by the Pediatric Emotional Distress Scale's Anxious/Withdrawn (PEDS-AW) subscale and Fearful subscale (PEDS-F) compared to a wait-list control group. To test this hypothesis, a multivariate analyses of covariance (MANCOVA) was used with the

relevant pretreatment scores as covariates to determine treatment effects based on the PEDS-AW and PEDS-F.

For research question three, it was hypothesized that caregivers who participated in the *New Hope* program would improve from pre- to posttest as measured by the weekly treatment report (TR) treatment adherence items total score and the Parent-Child Relationship Scale (PCRS), compared to a wait-list control group. For hypotheses three, an analyses of covariance (ANCOVA) was used with the pretreatment scores as covariates to determine treatment effects based on the PCRS. Because the TR is not completed at pretest, and ANOVA was used to determine treatment effects on the TR variables at Time 2.

The use of ANCOVAs in research questions one through three was decided because ANCOVA is a statistically more powerful method than repeated measures analyses and is recommended for randomized control trials (Van Breukelen, 2006). Effect sizes for research questions one through three were examined using Cohen's *d* (Cohen, 1988).

For research question four, it was hypothesized that treatment gains based on the ECBS-CBS, PEDS-AW, PEDS-F, TR, and PCRS would be maintained at 4-6 week follow-up. After the WL group completed the program, repeated measures ANOVAS were conducted to determine if significant change was made from pre-test to follow-up for the overall sample of both groups.

For research question five, it was hypothesized that caregivers would report satisfaction after their participation in the *New Hope* program, as measured by the Family Satisfaction Survey (FSS), and would offer constructive comments about their experience

in the *New Hope* program based on a series of open-ended, post-treatment questions. For this research question, scores on the seven items from the Family Satisfaction Scale (FSS) were summed to provide an aggregate total. All participant scores were combined to determine an average score and standard deviation. Qualitative interviews were conducted with 25 participants after termination from the *New Hope* program. Each participant responded a brief six-question protocol. Responses from the qualitative survey were examined for common themes by consensus of a small team of investigators.

Statistical Analyses of Primary Research Questions

Results of MANCOVAs and ANCOVAs used in research questions one through three are listed in Table 2. The results reflect intent-to-treat analyses with the last observation carried forward (LOCF) as described in the data analyses section.

For research question one, it was hypothesized participants in the IT group would decrease challenging behaviors from pre to post-test as measured by the Early Child Behavior Screen – Challenging Behavior Scale (ECBS-CBS) compared to a wait-list (WL) control group. Results of the ANCOVA showed significant group differences between immediate and WL groups on the ECBS-CBS with a large effect size [$F(1,61) = 25.55$, $p < .001$, Cohen's $d = .97$).

For research question two, it was hypothesized that scores on the Pediatric Emotional Distress Scale, Anxious/Withdrawn (PEDS-AW) and Fearful (PEDS-F) subscales would decrease in the IT group compared to WL control group. Results of a MANCOVA demonstrated a significant difference on the PEDS measures [$F(2,59) = 13.08$, $p < .001$]. Univariate results showed significant between group differences on the

PEDS-AW with a large effect size [$F(1,60) = 22.97$, $p < .001$, Cohen's $d = 1.05$), and on the PEDS-F with a medium effect size [$F(1,60) = 8.04$, $p < .01$, Cohen's $d = .59$).

For research question three, it was hypothesized that scores on the Parent-Child Relationship Scale (PCRS) and Treatment Report (TR) variables would increase in the IT group compared to WL group. Results of an ANCOVA revealed a significant between group differences in the PCRS with a medium effect size [$F(1,56) = 7.70$, $p < .01$, Cohen's $d = .52$]. Results of an ANOVA also revealed a significant between group difference in TR scores at Time 2 with a large effect size [$F(1,62) = 53.11$, $p < .001$, Cohen's $d = 1.82$].

Table 2

Analyses of Covariance for Dependent Measures for Immediate Treatment (IT) vs. Wait List (WL) Groups at Pretest and Posttest/Pretest 2

	Time 1				Time 2				
	IT Pretest		WL Pretest		IT Posttest		WL Pretest 2		
Measures	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*d*
ECBS-CBS	23.03	4.25	22.81	4.24	17.70***	4.49	22.17	4.73	.97
PEDS-AW	11.44	3.47	11.81	4.06	8.52***	2.06	11.10	2.80	1.05
PEDS-F	12.13	3.29	11.97	3.43	8.69**	3.33	10.65	3.32	.59
PCRS	60.47*	14.67	52.03	13.13	64.77**	18.38	56.44	3.96	.52
TR	n/a		n/a		9.81***	1.99	6.47	1.66	1.82

Note. *$p<.05$, ** $p<.01$, ***$p<.001$. Adjusted Time 2 scores based on analyses of covariance (ANCOVA). The notation *d* refers to Cohen's *d* effect size of ANCOVA comparisons at Time 2 with pretest scores as covariates, based on adjusted mean scores. For TR, the notation *d* refers to Cohen's *d* effect size of ANOVA comparison at Time 2.

For research question four, it was hypothesized that treatment gains would be maintained at a 4-6 week follow-up assessment. To test this hypothesis, repeated measures analyses of variance (ANOVAs) were conducted to determine if significant changes were made across three time points (pretest, posttest, and follow-up) for the combined sample of both groups among participants who completed at least five treatment sessions (see Table 3). For the WL group, pretest scores from the second intake were used in analyses. Results showed a significant change on the ECBS-CBS from pretest to follow up with a medium effect size [$F(2,40) = 10.78$, $p < .001$, Cohen's $d = .75$]. Analyses also revealed significant changes with large effect sizes in both the PEDS-AW [$F(2,40) = 11.99$, $p < .001$, Cohen's $d = 1.04$) and PEDS-F [$F(2,40) = 8.57$, $p < .01$, Cohen's $d = .80$]. Results also demonstrated significant changes across time with large effect sizes on the PCRS [$F(2,30) = 10.53$, $p < .01$, Cohen's $d = .97$), and the TR [$F(2,32) = 47.66$ $p < .001$, Cohen's $d = 1.94$). For all measures, pairwise comparisons showed significant differences between pretest and posttest and between pretest and follow-up, but no differences between posttest and follow-up (see Table 3). There were no significant between-group differences on any of the outcome measures at follow-up.

For research question five, scores from each of the seven items on the Family Satisfaction Survey were summed to create an total score that ranged from 7 (low satisfaction) to 49 (high satisfaction). The mean score at posttest was 46.40 ($SD = 2.38$) for the IT group, indicating a high level of satisfaction.

Table 3

Repeated Measures ANOVAs with Pairwise Comparisons for Both Groups Combined at Pretest, Posttest, and Follow-up

	Pretest		Posttest		Follow-up		
Measures	*M*	*SD*	*M*	*SD*	*M*	*SD*	*d*
ECBS-CBS	21.62	4.96	16.48**	5.02	17.24**	6.63	.75
PEDS-AW	10.86	2.65	8.19**	2.46	8.38***	2.38	.99
PEDS-F	9.71	3.00	7.24**	2.34	7.48*	2.54	.80
PCRS	60.00	16.53	72.81***	13.54	74.38***	14.13	.97
TR	6.53	1.66	10.53***	1.81	10.35***	2.23	1.94

*Note: *p<.05, ** p<.01, ***p<.001.* The notation *d* refers to overall effect size from pretest to follow-up.

Qualitative Research Findings

Qualitative interviews were conducted with 25 participants after termination from the *New Hope* program. The primary investigator and two research assistants completed the interviews by phone. Paper copies of the interview questions were mailed to families who were unable to be reached by phone, along with stamped and addressed return envelopes. Two completed surveys were returned by mail. Participating caregivers responded to six interview questions:

1. What led you to participate in this program with your child?
2. Which parts of the program did you feel were most helpful for you?
3. Which parts of the program did you feel were most helpful for your child?
4. What parts of the program did you feel were less helpful for you?
5. What parts of the program did you feel were less helpful for your child?
6. Were there any factors outside of this program that affected your participation in the program?

Participant responses were transcribed verbatim and initially reviewed by the primary investigator and one research assistant. Both reviewers read the responses simultaneously and coded the data using an inductive approach to label key concepts. The primary investigator then organized all of the coded responses using the concept labels. The primary investigator and research assistant then reviewed the coded responses independently and both reviewers came to a consensus of themes. Any themes that were only present in less than 10% of the total sample were omitted if they could not be merged with other categories.

Themes were categorized within five broad topic areas: 1) Reasons for coming to therapy; 2) What was helpful; 3) What was not helpful; 4) Factors outside of therapy affecting client participation, and 5) General outcomes. There were 17 separate themes within these topic areas. Three of the themes that were categorized under "What was helpful" were similar to themes in "What was not helpful" (e.g., "Flexibility of the treatment program" and "Wanted greater flexibility"). Because the purpose of the interview was to solicit and report both positive and critical feedback, these were reported as separate themes. Fourteen out of 25 participants interviewed reported only positive feedback, and did not provide any critical feedback. Ten participants provided both positive and critical feedback, and one participant provided only critical feedback. The themes most frequently identified are shown in Table 4 along with supporting statements from the transcripts.

Table 4
Most Frequently Endorsed Themes and Supporting Statements of Caregivers

Interview Theme	Number of Respondents	Supporting Statements
Reasons for coming to therapy		
Severity of child's behavior problems	19 (76%)	She would pull out her hair, bite herself, scratch herself, pinching, hit herself in the head, or against the wall. Other people too, she'd bite children, scratch, pinch. He was acting out in school and hitting and pushing me at home. He was violent in school. She started K3, and she was having random outbursts of crying, she'd come out yelling, screaming, and crying for no reason. That's not fair to the other kids, to not be getting their educations. She was throwing stuff.
Referred by others	11 (44%)	It was the pediatrician, I think. I was advised to get him into the [Agency] because of the Guardian Ad Litem. My son was in CPS [child protective services] – so that's how we ended up with you.
Developmental disorders or delays	6 (24%)	J: He was premature, behind for his age and having behavioral issues, with tantrums and hitting people. Down the road, around the time we finished the [Agency], he was diagnosed with moderate autism. He gets frustrated because he can't communicate the way he wants to. And you try to figure out what's wrong with him. Because my son had speech problems and ADHD.
Child exposure to trauma	4 (16%)	I had just left his dad and we moved in with family, and his dad had been very violent toward me. He had a bad experience with his daddy – there was a shooting. He was having some issues, like anger and stuff because both of his parents were incarcerated. So just missing his parents and the homeless situation with us. Just very angry and missing them. He doesn't like change.
What was helpful		
Caregiver gained knowledge	20 (80%)	The techniques were useful. We thought, "How do we do this?" and they always had answers for us. We always thought, "How could we do this better?" We made sure to get out and "run them"; we learned that physical play was really important for them and they liked to run. We also learned to prepare and talk with the kids to let them know what the agenda would be each day to help them feel safe and comfortable.

		She gave us suggestions to learn how to talk to her – bring it down to a kid level. That made a heck of a difference – we didn't even know we were doing it. Giving me different ways to cope with her behavior. The feedback about what I'm doing well and how to do different to teach her right from wrong.
Parent-child relationship improved	15 (60%)	We play together. He got toys, little dolls, I talk to him and he shares his feelings. That really works. She really help us. He used to take me as a joke, but now there's a boundary between being fun and joking with him, and still being the parent and having him listen to me. I still love him, but now, I have to let him know I'm the parent and you just can't have your way all the time. He could communicate his feelings with me. He learned that when he was angry to not let it get to him. He made a face and said, "I'm not going to let anger win."
Caregiver relationship with therapist	11 (44%)	Me and [Therapist] had a good communication, and she listened to my ideas, and gave me good feedback. She was really patient and cooperative with me and my son. My son didn't want to play with her or talk at first and was not cooperative and she was patient. Since he wasn't cooperative she put a lot of time in with me to make sure I was supported and think about what I was doing. She made sure we were okay and that I was okay. Just the talking, too. Actually, [other caregiver] has social anxiety and [Therapist] really helped her with her problems too.
Therapist interaction with child	10 (40%)	When [Therapist] was there, she'd do activities with him and played with him. The way [Therapist] spoke to him and the calmness in her voice helped him stay calm. She went to him when he was sad and isolated and brought him out to play. She talked about his behavior changes and he was less angry. It took time for him to talk to her, and she talked with him about feelings and took time with him so he felt comfortable.
Flexibility of the treatment program	7 (28%)	It was perfect – when she first started coming here she built the whole program around him. She paid attention to what we needed and it really turned around. She used pictures since he couldn't read. The ideas she had were really awesome.
Importance of in-home setting	6 (24%)	She got to witness what was going on. It helped that they were able to come to us. Coming out to the house and working with me [was most helpful].

What was not helpful		
Specific strategies were not useful	5 (20%)	I didn't like the "no TV", or "take away snacks" and then she's stuck sitting there bored. You never know how her day is going to go. Lo de los castigo no me ayudo mucho *[Giving him a time-out didn't help me much]* [I wanted] more things to do instead of the same old time-out.
Wanted more interaction between therapist and child	4 (16%)	Working with my child more and not as much with me. I wanted her to teach him some of the skills and not just me doing it. He learns better from other people sometimes. My son will talk if you push him and she did not push him to talk. He might have responded better and been more cooperative and talked more if she pushed him more. I told her about his but she said that it was OK if he didn't want to talk. I wanted the teacher to interact with her [child] more to teach me instead of talking about what to do, to show me discipline things and how to talk to her [child].
Wanted greater flexibility	3 (12%)	The action plan – always the same thing no matter what the issue was. The same thing that worked for ten kids isn't going to work for every kid. I would have liked it if she was coming more often. But then a week did give us a chance to practice some of what she taught us. Maybe twice a week would have been better. Therapists should have more patience with clients. Therapy was not really too helpful, and [Therapist] – she just left.
Factors outside of therapy that client participation		
Life stress	8 (32%)	He started school and I work and it was hard for me to keep meeting because I have four other kids and it was too hard to make the time of day for it. Had to stop because I started working and was behind on bills. My other son's disability takes a lot of time too. We had stuff going on – it interfered. There were funerals, and doctors' appointments. A lot of clutter.
Inconsistency in child's caregiving experiences	6 (24%)	He is not living with me anymore, but when he went back to his parents for visits he would return and all of my efforts were in vain, we'd have to start all over again to get him back on track. I know why she does the things she does, but the others [her mom and dad] didn't follow the same strategies. Mom doesn't see she has a part to play. Behaviors go up and down when she has visitation with her mom. That inconsistency makes her have behavior problems.

General outcomes		
Positive experience and outcomes	8 (32%)	She's still doing good to this day. No temper tantrums, nothing. I've never seen her this good. I never thought it was possible. It provided a great foundation for [child]. I don't think he would be doing as well as he is in K4 without the therapy from [Agency]. [Therapist] helped, how to guide him in ways and we did get rid of the anger issues.
Continue to experience some behavioral difficulties	6 (24%)	He goes back to acting up a little bit. The techniques helped for aggression for a while but it didn't stick. He is less aggressive now but still has issues with transitions. He was less angry, but still says negative words sometimes.

CHAPTER V: DISCUSSION

Life can be filled with challenges, and even very young children can be impacted by adversity. However, in the context of supportive relationships and other protective factors, adversity in early childhood has the potential to become a source of resilience, rather than overwhelming stress. Mental health professionals play a significant role in providing a process for transforming sources of adversity into sources of resilience.

This study involved the development, implementation, and evaluation of the *New Hope* home-based parent-and-child therapy program for very young children living in poverty who have experienced traumatic events. Results of this study revealed that children who participated in the program decreased challenging behaviors (such as temper tantrums or aggression) as well as anxious/withdrawn and fearful symptoms of trauma (such as sleep disturbance, clinging behavior, or being easily startled). In addition, based on clinician observation, the quality of the caregiver-child relationship improved and caregivers improved in their abilities to use therapy strategies (such as remaining calm, maintaining fair expectations, implementing positive parenting strategies, etc.). Caregivers also reported a high level of satisfaction with the program after their participation. Moreover, these improvements were maintained at least 4-6 weeks after ending services.

These results are similar to results of previous studies of the *Early Pathways* program (Fox & Holtz, 2009; Fung & Fox, 2014). It is difficult to compare the results of the present study with previous efficacy research evaluating other trauma therapy programs with a similar population (i.e., children under age 6 from families living in poverty) because the outcome measures varied substantially. Previous studies of trauma

therapy programs included outcome measures of attachment style (e.g., Child Parent Psychotherapy [CPP], Attachment and Biobehavioral Catch-up [ABC]), cortisol levels (ABC) parent use of corporal punishment (Parent Child Interaction Therapy [PCIT]), children's sexualized behaviors (Safety, Mentoring, Advocacy, Recovery, and Treatment; [SMART]), and children's internal representations of self and parent (CPP) (Bernard et al., 2012; Dozier et al., 2006; Lieberman, et al., 1991; Offerman et al., 2008; Toth et al., 2002). Additionally, the primary outcomes used in the Strengthening Family Coping Resources (SFCR) study did not apply to participants under 6 years old (Kiser et al., 2010).

Nevertheless, the results of this present study are comparable with the results of TF-CBT research, which also used an RCT methodology (Sheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011). In a previous study evaluating the efficacy of TF-CBT with children ages 3-6 years old, the authors reported a decrease in total number of PTSD symptoms with a large effect size. Both TF-CBT and *New Hope* incorporate some similar aspects to treatment such as: enhancing safety, providing psychoeducation, and developing coping skills (such as cognitive coping and relaxation techniques). Given the positive impact of both treatment approaches, the results of the present study may indicate that a more strictly manualized treatment approach with rigid exclusion criteria (such as those required for implementation of TF-CBT) may not be necessary to produce positive effects. The qualitative results of the present study also suggest that a flexible treatment approach is beneficial and facilitates greater engagement in treatment for families with significant life stressors.

The treatment programs that use combined parent-child sessions (ARC, CPC-CBT, PCIT, and *New Hope*) appear to demonstrate a decrease in behavioral symptoms. While studies of the Attachment, Self-Regulation, and Competency (ARC) program did not use an RCT research design, they found a significant decrease in child scores on the Child Behavior Checklist (CBCL; Achenbach & Rescorla, 2000) from pre- to posttest (Arvidson et al., 2011). Similarly, the pilot study evaluating Combined Parent-Child Cognitive-Behavioral Therapy (CPC-CBT) program found reduced behavioral problems in children based on the CBCL, with a large effect size (Runyon, et al., 2009). The *New Hope* program has a strong emphasis on strengthening the caregiver-child relationship and using positive parenting strategies, which likely contributed to the significant decrease in challenging behaviors. The participants in the qualitative study also reported the importance of learning parenting strategies and having a stronger relationship with their children.

Comparatively, there are multiple strengths of the present study evaluating the efficacy of the *New Hope* program. The use of a randomized controlled trial (RCT) methodology in the present study contributes to the research support for these trauma-informed adaptions of the *Early Pathways* home-based parent-and-child therapy model. Furthermore, in addition to observing changes in behaviors, this study also demonstrated improvement in emotional symptoms of trauma using two subscales of the Pediatric Emotional Distress Scale (PEDS). Additionally, the outcomes used in this study reflected various perspectives. The Early Childhood Behavior Scale, PEDS Anxious/Withdrawn subscale, and PEDS Fearful subscale reported caregivers' perceptions of child's behavioral and emotional symptoms, while the Parent Child Relationship Scale (PCRS)

and Treatment Report (TR) reflected therapists' clinical judgments. The addition of a brief qualitative interview provides a richer understanding of caregivers' experiences in the therapy program, along with valuable recommendations for continued improvement of the program.

Importantly, the results of the present study indicate that trauma-informed therapy can be effective with families living in poverty. Previous research has identified poverty as a risk factor for poor treatment adherence (Armbruster & Fallon, 1994; Kazdin & Mazurick, 1994), yet children living in poverty are significantly more likely to be exposed to violence, abuse, or other sources of chronic stress (Lieberman, Chu, Van Horn, & Harris, 2011), and therefore are in greater need for trauma-informed therapy. Despite the challenges associated with service delivery and program completion (e.g., the high rate of attrition), children in this study experienced overall improvements with impressive effect sizes. Importantly, the mean scores on symptom measures (ECBS and PEDS) fell generally within normal ranges based on cutoff scores for clinical significance at both posttest and follow-up. The clinical cutoff scores for the ECBS range from 17-21 based on the age of the child, and the cutoff scores for the PEDS-AW and PEDS-F are 9.5 and 8.5, respectively. This indicates that after receiving services, the frequency of these challenging behaviors or symptoms of anxiety and fear are comparable to a general population of same-aged children.

Moreover, since analyses were conducted using the last observation carried forward (LOCF), these results do not only reflect the improvements of clients who complete posttest measures, but also clients with unplanned or premature terminations. Some evidence suggests that clients who complete posttest measures tend to show greater

improvement than those who fail to complete them (Barkham, et al., 2006; Stiles et al., 2003). Therefore, using this more conservative intent-to-treat model strengthens the generalizability of these findings to a more "typical" population of clients seeking therapy, many of whom may realistically drop out of treatment prior to a planned termination session. Altogether, these findings provide strong support for the use of *New Hope* trauma-informed adaptions of a parent-and-child therapy model with very young children living in poverty.

Limitations and Directions for Future Research

A primary limitation of this study is that the participant random assignment procedures deviated from a pure RCT research design, in order to ensure that clients in need of immediate treatment were not impacted negatively by the wait list. From an ethical perspective, client care should take precedence over research methodology, and further study using a more rigorous RCT may strengthen the support of the *New Hope* program. However given that this study demonstrated that children in the wait list control group did not show improvements before receiving the treatment, a wait list control condition may not be necessary or beneficial in future outcome research. While a strength of a wait list control condition is that all participants eventually receive the treatment, it is impossible to know what kind of other support participants in the wait list group received while waiting to begin the therapy program. Another limitation of using a wait list control is the potential for between-group differences in expectations of improvement (West & Spring, 2014). However, there were no significant differences between groups at follow-up, which suggests that both groups benefitted equally from receiving the treatment program.

Moreover, the study used a convenience sample of clients referred to the clinic for mental health services, limiting generalizability of these results to clients typically served by the community agency. However, a strength of using the normal referral procedure to recruit participants is that they are more likely to reflect typical cases (Jensen et al., 2014). Another methodological weakness is that the therapists both provided the therapy services and administered the measures. As a result, there is a risk of researcher allegiance bias, and therapists were not blind to the treatment condition.

Another limitation of this study is the high rate of attrition, which is has also been reported in multiple previous studies conducted with a similar population (e.g., Fung & Fox, 2014; Harris, Fox & Love, 2015; Nicholson et al., 1999). The primary assessment measures were completed at each treatment session in order to partially account for participants who drop out before a final posttest can be completed. However, multiple participants dropped out of treatment between the final treatment session and the follow-up session. In this case, no follow-up data were available for these participants, even when at least two phone attempts and one mail attempt were made to contact each participant for follow-up. This leads to the question of whether there were any substantial differences between participants who were available for follow-up and those who were not available. It is possible that differences in personal factors or life circumstances may also contribute partially to maintenance of treatment outcomes in participants who were available for a follow-up session. Support of this therapy program would also be strengthened by longer-term follow-up research (i.e., 3-6 months or one year after termination). However, given the challenges of reaching participants at only 4-6 weeks

following termination of services, an even greater level of attrition would be expected with a longer follow-up.

In the qualitative research component of this study, life stress was reported as a factor affecting client participation. It is certainly plausible that life stress affected clients who were unable to be reached by phone or mail, as well as those clients who ended services before completing five sessions. Frequently, clients could not be reached because phone numbers had changed or were disconnected, and several letters that were mailed to clients were "returned to sender" because clients no longer lived at the addresses provided. Considering the significant impact of life stress on client participation in therapy, it may be wise to consider how therapists may work effectively with caregivers who truly desire to engage in services, but have difficulties following through with some of treatment for various external reasons. It may be beneficial for agencies to rethink extremely conservative attendance policies when working with multi-stressed populations. For example, clients could be provided a pathway to re-engage in services if their cases are terminated due to missing too many sessions. Also, given the impact of parental stress on their children's health, and even maternal stress on prenatal children (Thompson, 2014), therapy programs should address the impact of chronic stress on caregivers as well as children. The *New Hope* model is designed to tailor the treatment to meet the needs of each family, and the program includes strategies for addressing caregiver stress by providing additional advocacy services, including case management, partnering with parent mentors or other service providers, and intentionally discussing caregiver stress and use of coping strategies as part of the weekly check-in.

As this was a pilot study, there were multiple factors that are yet unknown, including the actual minimum number of treatment sessions needed to produce change. There were two cases out of the original sample who were reported by therapists to have completed the treatment "successfully," but were omitted from the research study because they had only completed four treatment sessions. While these two cases were certainly outliers (as families in the study completed treatment with an average of 10 sessions), it does lead to the question of dosage. Barkham et al. (2006) proposed a "good enough level" (GEL) model of dose-effect relations, suggesting that "in routine practice, level of improvement and treatment duration are mutually regulated so that treatments tend to end when clients, on average, have improved to a degree or level that is *good enough*" (p. 161). This model of treatment dosage also encompasses the idea of "therapist responsiveness" in which the length of treatment is determined by the psychosocial context of the therapeutic environment (Barkham et al., 2006; Stiles, Barkham, Connor, & Mellor-Clark, 2008; Stiles, Honos-Webb, & Surko, 1998). Future research studies may identify the minimum necessary number of treatment sessions needed to produce reliable change in a population of very young children who have experienced trauma. In addition to determining the most efficient and efficacious dose, future research may also identify which specific components of the therapy program are most beneficial to children and caregivers and best predict successful treatment outcomes.

With regards to measurement, another limitation in the present study was the reported moderate reliability of the PCRS and both PEDS subscales. Using clinician observation with a measure such as the PCRS should only be used as one part of defining treatment success. Furthermore, the Early Childhood Traumatic Stress Screener

(ECTSS), a brief screening tool developed recently to assess symptoms associated with trauma in children under six years of age, may be more appropriate for identifying trauma symptoms in the population served in this study (Harris, 2016). Future studies may use the ECTSS to identify treatment effects.

Finally, the primary measures used in this research were focused mainly on the impact of treatment on symptom reduction, rather than on the development of positive skills or traits. The measures used in the present study were selected because they were regularly used at the agency, and they could be easily and quickly administered each week by therapists. Future research may involve the use of a strength-based assessment, such as the Devereux Early Childhood Assessment (DECA), which measures social and emotional skills and competencies in children (Mackrain, LeBuffe, & Powell, 2007). Additional measurement studies may involve the development of an instrument measuring other markers of resilience, such as the "perceptions of resilience in children" checklist used in the International Resiliency Project research. This checklist includes items such as, "The child is willing to try new things" or "The child can count on her/his family being there when needed" (Grotberg, 1995, Appendix 3, np).

Clinical Implications

There are multiple clinical implications resulting from this study. From an ethical perspective, poverty cannot remain a reason that families in greatest need of support do not receive adequate mental health services. There are several strategies that mental health providers may employ to help counteract the "logistical, attitudinal, and systemic barriers" to receiving services (Santiago, Kaltman, & Miranda, 2013, p. 117). These strategies may include: establishing frequent phone contact prior to beginning services,

providing services in the home or community, offering flexible scheduling, providing culturally congruent services, offering bilingual services, and when relevant, acknowledging clients' experiences of oppression or racism (Santiago, Kaltman, & Miranda, 2013). The American Association of Pediatrics (AAP) has suggested that the community may be the most effective means of reaching vulnerable children, and recommended that empirically validated, community- and home-based interventions be replicated on a larger scale (Garner et al., 2012). Therefore, it would be valuable to continue training mental health service providers in the *New Hope* model of therapy.

Identifying very young children in need of trauma-informed therapy is critical for early intervention and prevention of negative outcomes associated with trauma. One of the most interesting findings from the qualitative results is that only 4 participants out of 25 who completed the qualitative interview mentioned a traumatic event at any point in the interview. This is remarkable because every single child in this study had experienced at least one potentially traumatic event, and 73% of children in the study had experienced three or more different traumatic events. One tentative explanation may be that these caregivers did not identify their children's experiences as traumatic. Anecdotally, the author and other therapists at the agency have observed that caregivers frequently respond negatively to the question, "Has your child ever experienced any kind of stressful event or trauma?" However, some of these same caregivers endorsed specific events on the Traumatic Events Screening Inventory. In many cases, families living in living in poverty experience the same chronic stressors as their children (such as violence in unsafe neighborhoods), and stress and adversity may be transferred between generations (Noll, Trickett, Harris, & Putnam, 2008; Sparrow, 2007). In a context of shared chronic

stress, it is possible these caregivers and children experience these adverse events without realizing they may have the potential to lead to a traumatic stress response in children.

While very few participants in the qualitative study even mentioned trauma, 19 out of 25 discussed the severity of the child's behavior problems. Challenging behaviors were identified as the primary concern, even when children also displayed internalizing or emotional symptoms of trauma. Caregivers were not seeking trauma therapy services for their children, but rather solutions or strategies for managing problematic behaviors. Results from the qualitative survey indicated that most caregivers felt empowered by gaining knowledge about the impact of trauma in young children, as well as specific trauma-informed strategies and techniques for managing their children's challenging behaviors and dysregulated emotions. Providing caregivers with trauma-informed positive parenting strategies and psychoeducation about the impact of trauma on children and should be essential parts of any trauma therapy program.

Referring service providers appear to play a role in identifying children in need of therapeutic support. However, some caregiver responses suggested they did not fully understand why their children were referred for therapy. Therefore, it would be beneficial to improve collaboration among pediatricians and community agencies to establish and strengthen referral relationships (Shonkoff et al., 2012). It may also be useful for pediatricians to use a brief screening tool such as the ECTSS (Harris, 2016) at well-child visits to assist in identifying children in need of trauma-informed therapy.

One of the challenges associated with identifying very young children in need of trauma therapy is the current disconnect between psychiatric diagnosis and the presentation of trauma in young children. The present study used rather conservative

inclusion criteria reflecting *DSM-5* symptoms of PTSD in young children. However, some research suggests that young children may be less likely to respond to trauma with specific symptoms, and may be more likely to exhibit "global disturbances of emotion and behavior," such as separation difficulty, aggression, or regressive behaviors (Markese, 2011, p. 345).

Also, most of the children in this study had experienced multiple traumatic events. There is also a growing body of literature supporting the concept of developmental trauma, which argues that responses to chronic or repeated trauma in very young children do not fit neatly into current diagnostic categories (e.g., D'Andrea, Ford, Stolbach, Spinnazola, & van der Kolk, 2012; van der Kolk, 2005). Rather, very young children who have been exposed to chronic or repeated stressors may be likely to experience patterns of very high or low levels of dysregulation in multiple developmental domains, including affective, cognitive, somatic, behavioral, relational, and/or self-attribution (van der Kolk, 2005). (Refer to www.traumacenter.org for a more thorough review of the literature surrounding *developmental trauma disorder*.) Continued research in this area is likely to strengthen the field of early childhood mental health by providing a more nuanced understanding of how trauma presents in very young children. This, in turn, will enable other health providers to make more appropriate referrals to community- and home-based programs like *New Hope* model of therapy used in this study.

Another central component in any therapy program for children exposed to trauma or living in poverty should be a focus on strengthening the caregiver-child relationship. A strong parent-child relationship has been found to buffer the negative behavioral and cognitive effects of both trauma and poverty (Holmes & Kiernan, 2013;

Linver et al., 2002). For children in the present study, the quality of the caregiver-child relationship improved significantly based on clinician observation, and this was also reflected in qualitative research findings. In fact, 60% of participants interviewed spoke about the quality of the relationship improving, specifically discussing changes in their ability to understand each other, play together, and communicate more effectively.

The quality of the therapist relationship with caregivers also appears to be an important component of effective therapy. This is consistent with reviews of previous meta-analytic research which identified the therapeutic alliance as a predictor of treatment outcomes in both adults and children (Ardito & Rabellino, 2011). Moreover, clients' perceptions of the quality of the therapeutic alliance, rather than therapists', appears to be a stronger predictor of positive treatment outcomes (Castonguay, Constantino, & Holtforth, 2006). Similarly, in research with children, parent report of therapeutic alliance appears to be linked more closely to treatment outcomes than youth report or therapist report (McLeod, 2011). In the present study, multiple caregivers shared how valuable it was to feel understood by the therapist and to have someone to talk to about the stress of parenting a child with challenging behaviors or emotional struggles. One way to foster a healthy therapeutic alliance is by establishing a collaborative relationship with clients. Tharinger et al. (2008) argued that collaboration allows clients to be engaged in the process of developing a "new story about themselves or their families" (p. 603).

A collaborative therapeutic relationship requires the ability to tailor the treatment program to meet the needs of the individual client or family. A theme of "flexibility of the therapy program" was present among both the positive feedback and critical

feedback. Many participants identified flexibility as a positive aspect of treatment, though a small number of participants felt that they needed even more flexibility. For example, one participant reported wanting a more tailored treatment plan, while another desired more frequent therapy services. It is possible that the participants who felt they needed more flexibility in treatment had more life stressors in general and truly "needed" more flexibility than a therapy program is able to offer in the modern context of mental health care. There may also be differences between individual therapist approaches and implementation of attendance policies that contribute to differences in client perception of flexibility.

Similarly, many participants in the qualitative study identified the therapist interaction with the child as a positive factor, and a few participants desired even more interaction between the therapist and child. Future modifications of the treatment program may consider increasing the amount of interaction between the child and therapist, when appropriate depending on the individual needs of the client.

Finally, a majority of participants felt that gaining knowledge through specific techniques and strategies was a strength of the program, but a few participants did not find specific strategies useful, such as a time-out strategy. This is consistent with some research that has found that time-outs are not always feasible in home environments with limited space (Eamon & Venkatamaran, 2003; Grimes & McElwain, 2008). The *New Hope* manual recommends the use of a *Time-In* technique as a more appropriate strategy for traumatized children, and suggests that time-outs only be used in cases where the child has demonstrated the ability to regulate his or her emotions. Other discipline strategies, such as natural consequences of loss of privileges may be more appropriate in

cases where a time-out is not effective (Eamon & Venkatamaran, 2003). In all cases, therapists are encouraged to modify treatment strategies to meet the unique needs of each family.

Public Policy

These research findings should also be translated into policies that improve the well-being of children and their families. The American Academy of Pediatrics specifically advocates for policies that improve environmental conditions for pregnant women and children (NCSDC, 2010). In particular, it appears that it would be most beneficial to society as a whole to focus on providing for the holistic needs of single mothers living in poverty to create long term positive outcomes for the children in our communities.

Moreover, policies regarding the foster care system need to reflect the substantial body of research indicating the need for stability in both relationships and environments. When children are moved frequently between foster care environments, they are not being cared for by the system designed to protect their welfare. Participants in the qualitative research study cited inconsistencies among caregivers and in placement decisions as factors that interfered with treatment participation and overall improvements. Building stability in caregiving relationships and reducing stressful transitions for this vulnerable population would have the potential to create long-term positive impacts for our children and our society. Future research should be conducted to identify which systemic factors (i.e., policies and practices) in the child welfare system promote positive outcomes in children in foster care.

Currently, there are many challenges associated with providing therapy services to children in the foster care system. For example, obtaining consent from legal guardians when the participating caregiver is a foster parent can be a barrier to children receiving therapy or may result in prolonging the length of time that a family must wait to begin services. Every single child in the foster care system has been exposed to at least one potentially traumatic event (i.e., separation from a primary caregiver), and Bramlett and Radell (2014) reported nearly one half of children in foster care had experienced four or more adverse childhood experiences. Therefore, referral to trauma-informed therapy for children in the foster care system should be routine rather than incidental. The return on investment for early identification and early intervention would be well worth the cost of implementing an empirically validated program such as the one used in the present study.

Final Conclusion

Many pathways can lead to resilience, even for those children that go through adversity. In fact, the only pathway that does not produce resilience is a pathway without any adversity. What makes the difference is the power of relationship: the importance of secure attachments emerges from every area of human research. Whether considering the neurobiology of the developing infant or the subjective experiences of families, supportive relationships throughout the lifespan are the key to building resilience. The impact of toxic stress due to chronic adversity in early childhood has a profound impact on a child's developing brain and body, but mental health professionals have the opportunity to foster positive change through the healing power of a child's relationship with a loving caregiver. In the context of a supportive therapeutic relationship, caregivers are empowered to become part of a child's story of new hope.

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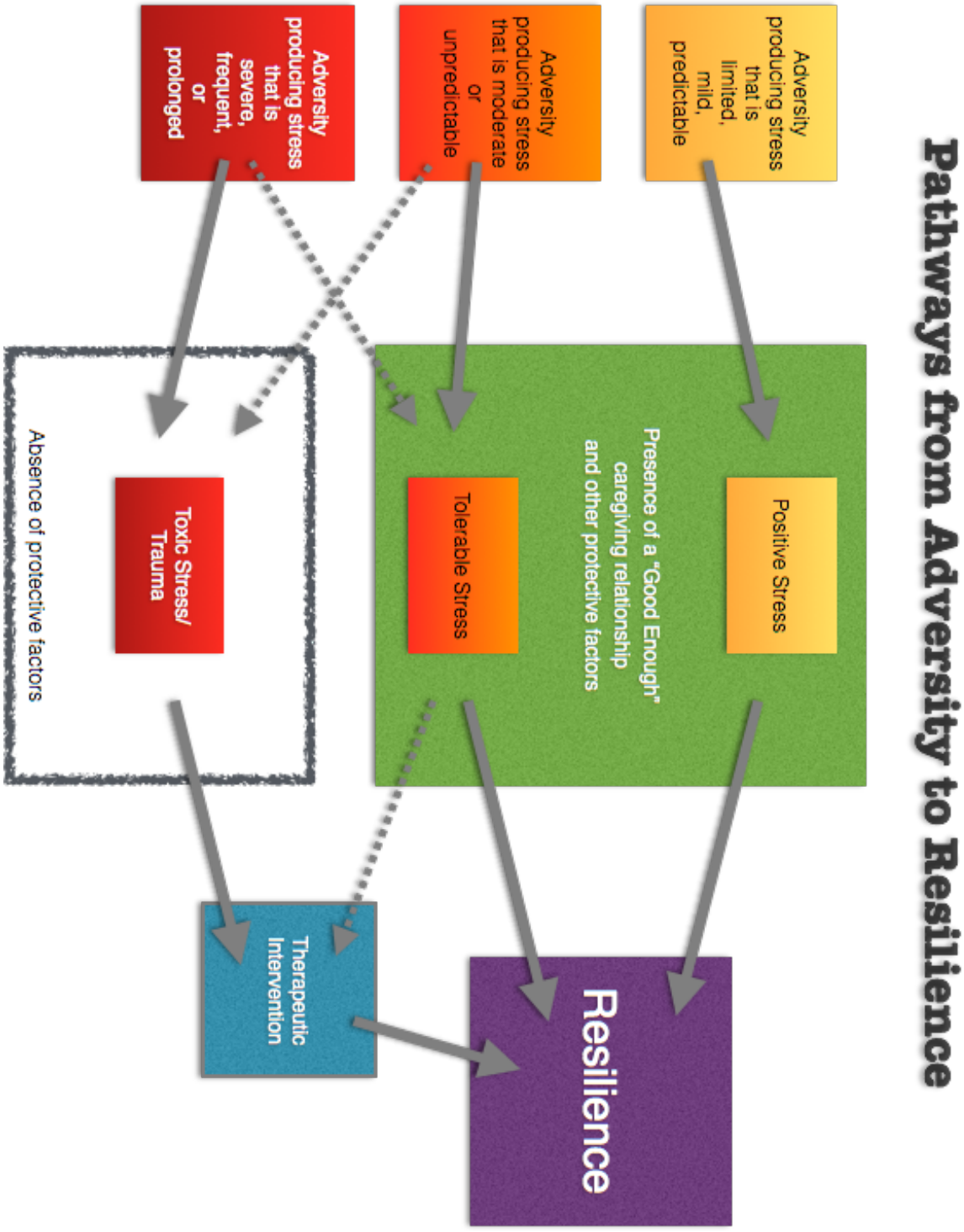
Appendices


Pathways from Adversity to Resilience
Adversity producing stress that is limited, mild, predictable
Adversity producing stress that is moderate or unpredictable
Adversity producing stress that is severe, frequent, or prolonged
Presence of a "Good Enough" caregiving relationship and other protective factors
Positive Stress
Tolerable Stress
Toxic Stress/ Trauma
Absence of protective factors
Resilience
Therapeutic Intervention

Summary of Trauma Therapy Programs

A summary of the extent to which each evidence-based program addresses each component in trauma therapy for young children.

	Strengthening the parent-child relationship	**Creating a safe and stimulating environment**	**Encouraging positive parenting strategies for managing child behaviors**	**Building emotional regulation and coping skills in the child**	**Fostering healthy beliefs about self, relationships, and traumatic experience**	**Strengthening caregiver supports and addressing caregiver mental health concerns**
TF-CBT	Parents are coached in talking with the child about the trauma and supporting the child's healing at home with open communication.	Enhancing safety is a key component; the home environment is not a focus of treatment.	Parenting skills is a key component of treatment.	Affect modulation and relaxation skills are core elements of treatment.	Trauma narration and processing is core element of treatment.	Parents are taught relaxation skills and cognitive strategies for identifying cognitive distortions and replacement beliefs.
PCIT	Child-directed interaction (play and nurturing skills) is a key component focused on improving the parent child relationship.	Reducing physical abuse is a goal, but the environment is not a main focus of treatment; play and nurturing behaviors add to a stimulating environment.	Parent-directed interaction (involving positive parenting strategies) is a key component.	Emotional regulation and coping skills are not a primary focus of treatment.	Beliefs about self or trauma are not a focus of this program.	Strengthening caregiver supports was used as an enhancement to services in one RCT; addressing caregiver mental health is not a focus of treatment.
CPC-CBT	One program goal is improving parent-child interactions.	Reducing physical abuse is a key goal, but the environment is not a focus of treatment.	Positive child management skills is a component of treatment.	Improving emotional adjustment is a focus of treatment.	Beliefs about self and trauma are a focus of treatment.	Strengthening caregiver supports is not a focus of treatment; caregivers are taught skills for managing their anger.

	Strengthening the parent-child relationship	Creating a safe and stimulating environment	Encouraging positive parenting strategies for managing child behaviors	Building emotional regulation and coping skills in the child	Fostering healthy beliefs about self, relationships, and traumatic experience	Strengthening caregiver supports and addressing caregiver mental health concerns
Honoring Children	Enhancing family relationships is a key component.	Enhancing safety is a component of HC-MC; the cultural emphasis on relationship the natural world is an emphasis of treatment.	Culturally informed parenting skills are a focus of treatment.	Affect modulation and relaxation skills are core elements of HC-MC.	Trauma narration and processing is core elements of HC-MC with culturally appropriate modifications; healthy beliefs about sexuality area a component of HC-RW.	The support and health of the whole family, as well as relationships with the community or tribe are a focus of treatment.
SMART	A primary goal is to improve the insight and empathy of caregivers.	Ensuring safety is a core component of treatment; stability in the caregiving environment is a goal.	Providing parents with skills for meeting the child's emotional and physical needs is a goal of treatment.	Affect modulation, impulse regulation, and responding to trauma triggers are components of treatment.	Trauma narrative/gradual exposure, cognitive processing, and sharing the narrative focus on healthy beliefs and meaning.	Promoting family strengths and incorporating cultural values in treatment is a goal of treatment; caregiver mental health is not a focus.
CPP	The parent-child relationship and attachment quality is the main focus of treatment.	Safety in the environment is a core component of treatment; developing routines is an element of treatment.	Developing appropriate limit-setting strategies and clarifying caregiver and child roles are key elements in treatment.	Affect regulation, and supporting and labeling emotions, and regulation emotions are all components of treatment.	Understanding the relationship between thoughts, feelings, and behaviors, and creating a trauma narrative are part of treatment	The caregiver-child dyad is the focus of treatment; improving caregiver mental health symptoms are a focus of research.

	Strengthening the parent-child relationship	Creating a safe and stimulating environment	Encouraging positive parenting strategies for managing child behaviors	Building emotional regulation and coping skills in the child	Fostering healthy beliefs about self, relationships, and traumatic experience	Strengthening caregiver supports and addressing caregiver mental health concerns
ARC	Attachment (including improved caregiver attunement) is one of the core domains of treatment.	Teaching parents routines and rituals is an aspect of treatment.	Teaching caregivers consistent responses is an aspect of treatment.	Self Regulation (including affect identification, modulation, and expression) is a core domain of treatment, along with responses to trauma reminders.	The Competency domain involves skills for self development, and the Trauma Experience Integration also addresses cognitions.	The ARC program includes an emphasis on strengthening family supports. Discussions of caregivers' frightening experiences are used for insight.
ABC	Attachment (including fostering nurturing behaviors in caregivers) is a primary goal of treatment.	Reducing frightening behaviors in caregivers is a goal; the environment is not a focus of treatment.	Appropriate responses to child's behaviors is a focus of treatment.	Helping children learn to regulate through appropriate caregiving behaviors is a focus of treatment.	Cognitions are not a focus of this treatment program.	Sessions are conducted in the family's home using a parent-coaching model; caregiver supports and mental health is not a focus of treatment.
SFCR	Planning and carrying out family activities is a focus of treatment.	Enhancing safety in the home and developing family rituals and routines are components of treatment.	The treatment includes emphases on deliberateness and structure, as well as building family behavior regulation skills.	Regulating emotions and building family coping resources is a focus of treatment.	Constructing a family trauma narrative with a shared meaning is part of treatment.	Building family supports is a focus of treatment; family health is a focus of treatment.

Posttraumatic Stress Symptom Checklist

Children 6 and Younger (DSM-5, APA, 2013)

A. Exposure to actual or threatened death, *serious* injury, or sexual violence

	Circle
. Directly experiencing the traumatic event(s)	Yes / No
. Witnessing in person, the event(s) as it occurred to others, especially primary caregivers	Yes / No
. Learning that the traumatic event(s) occurred to a parent or caregiving figure.	Yes / No

B. Intrusion symptoms

	Circle
. Recurrent, voluntary, and intrusive distressing memories of the traumatic event. Spontaneous and intrusive memories may not necessarily appear distressing and may be expressed as play reenactment.	Yes / No
. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event. It may not be possible to ascertain that the frightening content is related to the traumatic event.	Yes / No
. Dissociative reactions (e.g., flashbacks) in which the child feels or acts as if the traumatic event were recurring. Such trauma-specific reenactment may occur in play.	Yes / No
. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event.	Yes / No
. Marked physiological reactions to reminders of the traumatic event.	Yes / No
Total Items Endorsed "Yes"	_____

C. Avoidance symptoms and negative alterations in cognition

. Avoidance or efforts to avoid activities, places, or physical reminders that arouse recollections of the traumatic event.	Yes / No
. Avoidance or efforts to avoid people, conversations, or interpersonal situations that arouse recollections of the traumatic event.	Yes / No
. Substantially increased frequency of negative emotional states (fear, guilt, sadness, shame, confusion).	Yes / No
. Markedly diminished interest in play or other activities that were previously significant to child.	Yes / No

). Socially withdrawn behavior.	Yes / No
). Persistent reduction in expression of positive emotions	Yes / No
Total Items Endorsed "Yes"	_____

D. Arousal symptoms

. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects (including extreme temper tantrums)	Yes / No
. Hypervigilance.	Yes / No
). Exaggerated startle response.	Yes / No
. Problems with concentration.	Yes / No
). Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).	Yes / No
Total Items Endorsed "Yes"	_____
Total Number of Symptoms Intrusion, Avoidance and Arousal	_____

DSM-5 Diagnostic Criteria for Posttraumatic Stress Disorder (PTSD)	**Circle**
A. **Exposure** to traumatic event	Yes / No
B. **Intrusion** – At least **one** symptom	Yes / No
C. **Avoidance** and **negative alterations in cognition** – At least **one** symptom	Yes / No
D. **Arousal** – At least **two** symptoms	Yes / No
E. Disturbance is more than one month	Yes / No
F. Disturbance causes clinically significant distress or impairment in relationships with parents, siblings, peers, or other caregivers or with school behavior	Yes / No
G. The disturbance is not attributable to the physiological effects of a substance (e.g., medication or alcohol) or another medical condition	Yes / No
Meets all criteria for PTSD	

INSTITUTIONAL REVIEW BOARD
Informed Consent for Research
Protocol Number: HR-2789
IRB Approval Period: 03/23/2015 – 04/08/2016
Parent Consent & Permission Form

MARQUETTE UNIVERSITY
Parent Consent & Permission Form
Behavior Clinic: New Hope Project
Dr. Robert Fox, Professor of Counseling Psychology and Consulting Psychologist for the Behavior Clinic at Penfield Children's Center

You and your child have been invited to participate in this research study. Before you agree to allow you and your child to participate, it is important that you read and understand the following information. Participation is completely voluntary. Whether or not you choose to allow your child to participate in this project will have no effect on your child's treatment or relationship with the clinic. Please ask questions about anything you do not understand before deciding whether or not to give permission for your child to participate. Because this is a treatment study which requires parent involvement, we are also asking you to consent for your own participation.

PURPOSE: The purpose of this research study is to determine if our treatment program is successful in reducing behavior and emotional problems in children who have experienced trauma. Your child will be one of approximately 100 participants in this research study, and there is a 50% chance that your family will receive treatment immediately or following a four to six week waiting period.

PROCEDURES: The following procedures will be part of this project following your initial orientation to the program after your child has been referred: (1) Intake session – You will participate in an interview with your child, be observed interacting with your child, complete surveys, answer interview questions, and have your child's development and behavior assessed. These procedures will require two hours to complete. (2) Treatment sessions – You will meet with clinic staff for eight or more one-and-a-half hour treatment sessions in your home. You will be expected to implement treatment program strategies designed to improve your child's behavior and address any relevant trauma-related concerns that will require up to one hour of your time each day in your home. (3) Post-test session – After the treatment sessions are over, you will meet with a staff member for one hour to repeat a portion of the intake procedures. (4) Short-term follow-up session – About four to six weeks after the post-test session, you will speak with a clinic staff member over the phone or in person to repeat a portion of the post-test session and to complete a satisfaction survey.

DURATION: Your child's family's participation will consist of either one or two intake sessions, eight or more treatment sessions, a post-test session, and one short-term follow-up session. The entire time you and your child are involved in this project will be ten to eighteen weeks.

RISKS: The risks associated with participation in this study include ongoing parenting stress that you may experience in managing your child's behavior, the emotional discomfort your child may experience as you implement new procedures, and the emotional discomfort you may experience in discussing your child's trauma.

BENEFITS: The benefits associated with participation in this study include: You may have an improved understanding of your child and his/her behavior and social-emotional development; you will learn effective strategies to manage your child's behavior and emotional problems; you will have ongoing professional support as you work to improve your child's behavior and emotional problems; you may observe improvement in your child's behavior and emotional health. Your participation in this study may also assist other parents whose children have similar problems or have experienced trauma.

CONFIDENTIALITY: All of your family's research data will be assigned an arbitrary code number rather than using your names or other information that could identify individuals. When the results of the study are presented or published, your family members will not be identified by name. The data will be destroyed by shredding paper documents and deleting electronic files seven years after the completion of the study. The clinical file containing your child's name and code number will be kept in a locked file cabinet at Penfield Children's Center. Because this research study utilizes medical records, you will also be asked to sign a form releasing the records to the researcher. Research records may be inspected by the Marquette University Institutional Review Board or its designees and (as allowable by law) state and federal agencies. The clinic staff members are mandated reporters and are required by law to report child abuse and neglect to the authorities.

VOLUNTARY NATURE OF PARTICIPATION: Participation in this study is completely voluntary and you and your child may withdraw from the study and stop participating at any time without penalty or loss of benefits to which you and your child are otherwise entitled. If you choose to withdraw from this study, your child's research records will be destroyed. If you choose not to participate in this study, you will still receive traditional treatment services at the Behavior Clinic. If Behavior Clinic services are not appropriate for you and your child, you will be referred to alternative services in the community.

CONTACT INFORMATION: If you have any questions about this research project, you can contact Dr. Robert Fox at (414) 345-6351 or email him at robert.fox@marquette.edu. If you have questions or concerns about your or your child's rights as a research participant, you can contact Marquette University's Office of Research Compliance at (414) 288-7570 or orc@marquette.edu.

AFTER REVIEWING THIS CONSENT FORM, PLEASE SELECT ONE OF THE TWO OPTIONS ON THE FOLLOWING PAGE.

Please select one of the options below.

☐ Option A – By signing below, I voluntarily consent to participate and give permission for my child to participate in the Behavior Clinic research study.

_____
Child's Name

_____ _____
Parent's Signature Date

_____
Parent's Name (Print)

_____ _____
Parent's Signature Date

_____
Parent's Name (Print)

_____ _____
Researcher's Signature Date

☐ Option B – I do not consent to participate or give my child permission to participate in the Behavior Clinic research study. I understand that this does not change my child's eligibility for traditional Behavior Clinic services.

_____
Child's Name

_____ _____
Parent's Signature(s) Date

_____
Parent's Name(s)

_____ _____
Researcher's Signature Date

Intake Form

***Clinician(s):** _____ Child's Medicaid Provider:_____

Interpreter:_____ Child's Medicaid Number: _____

Spanish-speaking family Y N Child's Physician: _____

Child & Family Information

***Child:** _____ ***M F *Date of Birth:** _____ ***Age:**

***Race:** _____ School/Childcare name:_____ Days/Times attend: _____

Mother: _____Age: _____Race: _____

Highest Education Obtained: _____ Time spent with child:_____

*Primary caregiver? Y N Employer: _____ Health:_____

Father: _____Age: _____ Race: _____

Highest Education Obtained: _____ Time spent with child:_____

*Primary caregiver? Y N Employer: _____Health: _____

Additional Caregiver: _____Age: _____ Race: _____

Relationship to child:_____Time spent with child:_____

*Primary caregiver? Y N Employer: _____Health: _____

***Primary Caregiver marital status:** married never married divorced separated widowed

Does a primary caregiver receive public assistance: (WIC, rent assistance, SSI, W2, food stamps) Y N

Household Income (circle one) $0-$9,999 $10,000-$14,999 $15,000-$22,99

$23,000-$33,999 $34,000-$49,999 $50,000-$74,999 $75,000 or more Unknown

Who lives in the home (names, ages, relationship):_____

_____

_____***Total # children under 18 in the home**:_____

***My school aged child(ren) qualify for:** free lunch reduced lunch pay full price not-applicable

Significant family mental health history: _____

_____

Any current or past involvement with the Bureau of Milwaukee Child Welfare (BMCW)? Y N

Child Health

Birth weight: _____ Weeks gestation: _____ Complications: _____

During pregnancy: Drug use: Y N Tobacco use: Y N Alcohol use: Y N Medication use: Y N

If yes, please describe:_____

Past health problems: _____

Current health concerns: _____

Areas of concern: Hearing: Y N Vision: Y N Dental: Y N Activity Level: Y N

Comments:_____Referred for an Evaluation/Test: Y N

Medications: _____Lead tested: Y N Date:_____Level:____

***Assessed for developmental delay**: Y N If no, concerns: _____

Agency: _____ Date: _____

*Results: No Delays Cognitive Delay Language Delay Motor Delay

Type of services: ST PT OT Spec. EdOther: _____

Frequency of services: _____ Location: Home Center

Referred for a developmental evaluation? Y N Evaluation Source: _____

Child's Daily Routine

Eating (Good/Picky Eater; # Meals/Snacks/ Mealtimes; Sugar/Caffeine): _____

Bedtime: _____ What time does child fall asleep: _____Wakes up?_____

Nap: Y N Time put down for nap: _____Total nap time: _____

Total hour's sleep/day (24 hours):_____

Where does child sleep and with whom:_____

Bedtime routine:_____Problems: _____

Toilet Trained: Y N In process Problems:
_____

What does a typical day look like for you and your child? _____

_____

Referral Concerns

Challenging Behavior 1: _____

How long has it been occurring? _____How often does it occur? _____

Where does it occur? _____How long does it last? _____

Antecedents? _____

How do you respond? _____

How does other caregiver respond?_____

How do daycare/teachers respond?

_____

Challenging Behavior 2: _____

How long has it been occurring? _____How often does it occur? _____

Where does it occur: _____How long does it last? _____

Antecedents? _____

How do you respond? _____

How do other caregivers respond? _____

How do daycare/teachers respond?

_____

Do these behaviors present a danger to him/ herself or others at this time? Y N

Prosocial Behaviors

What behaviors do you want to see more of? _____

How often does this behavior occur?_____How often would you like to see this behavior occur?____

What do you do when your child does this behavior? _____

What do you do when your child does not do this behavior?_____

Why do you think your child does not display this behavior as much as you would like?_____

_____

_____

Treatment Goals

Why do you think your child does these behaviors?

_____

What do you think will happen if you don't address your concerns?_____

What do you think you will have to change to improve your child's behavior?_____

What are your child's strengths? _____

What are your families' strengths?_____

Is there anything that I did not ask that would be important for us to know?

_____

Additional Contacts:

Name: _____ Phone # _____

Name: _____ Phone # _____

Additional Notes

Trauma Questionnaire

Child Name: _____ **Date:** _____ **Therapist:** _____

Traumatic Event:_____

Duration (time frame):_____Frequency of Abuse:_____

Was abuse by family member/ stranger /isolated event? _____

_____

_____

_____

Does the child speak about the event?_____

Does the child ask questions?_____

What is affect like when discussing/asking?_____

Do you see these events in their play? Rough play? Refusal to play? _____

_____

Does the child have nightmares/night terrors? How often? _____

Do nightmares have recurring themes/content? _____

What does the child do (run to caregiver, hide under bed, etc.)?_____

_____

Do you see blank stares? How often? How long do they last? How do they stop?_____

_____

Any changes to eating habits, sleeping habits, toilet training problems?_____

_____

How do they respond when the topic is brought up? _____

_____

Does child have current contact with the perpetrator? Y / N How frequently?_____

How does the child act before and after visits? _____

_____

Does child become scared easily? What scares him/her? Hypervigilance? _____

_____

_____

List any other symptoms (intrusion, avoidance, increased arousal):

Therapist Treatment Report Items and Indicators

Direct Observation and Parent Report:

Does parent maintain appropriate expectations? ____ Rarely/Never ____ Sometimes ____ Most Times
Does parent stop and think before responding?____Rarely/Never ____ Sometimes ____ Most Times
Does parent utilize rewards appropriately? ____ Rarely/Never ____ Sometimes ____ Most Times
Does parent utilize appropriate discipline? ____ Rarely/Never ____ Sometimes ____ Most Times
Combined score of Tx variables? ____ Total (Rarely/Never = 1, Sometimes = 2, Most Times = 3

Does parent maintain appropriate expectations?

Rarely/Never	Expectations often too high or too low for developmental age of child (e.g., expects 2-year-old to always share toys; does not expect 4-year-old to help dress him/herself)
Sometimes	Some appropriate expectations but occasionally too high or too low
Most Times	Expectations are consistently appropriate for developmental age (e.g., expects 2-year-old to listen a little over half the time; expects 3-year-old to help clean up)

Does the parent stop and think before responding?

Rarely/Never	Fails to use stop and think strategies (e.g., counting, humming); immediately and inappropriately responds to challenging behaviors
Sometimes	Occasional use of stop and think strategies (e.g., counting, walking away, reflecting) before responding to challenging behaviors
*Most Time*s	Stop and think strategies have become automatic and result in the parent responding to challenging behaviors in a calm and thoughtful manner

Does the parent utilize rewards appropriately?

Rarely/Never	Lack of rewards for appropriate behavior; fails to respond or ignores appropriate behavior; rewards to stop challenging behaviors
Sometimes	Rewards given periodically for appropriate behavior (e.g., verbal/emotional praise for cleaning up); some use of rewards to stop challenging behaviors
Most Times	Rewards are consistently given for appropriate child behavior (e.g., verbal/emotional praise for cleaning up, receives toy for asking politely)

Does parent maintain appropriate discipline?

Rarely/Never	Fails to use appropriate strategies (e.g., ignoring tantrums, natural consequences); use of inappropriate strategies (e.g., yelling, spanking, excessive time-outs)
Sometimes	Occasional use of appropriate strategies; less use of inappropriate strategies
Most Times	Persistent use of appropriate strategies (e.g., ignoring tantrums, removal of privileges for inappropriate use of toys) and rare use of inappropriate strategies.

:

Caregiver Satisfaction Survey

1. What led you to participate in this program with your child?
2. Which parts of the program did you feel were most helpful for you?
3. Which parts of the program did you feel were most helpful for your child?
4. What parts of the program did you feel were less helpful for you?
5. What parts of the program did you feel were less helpful for your child?
6. Were there any factors outside of this program that affected your participation in the program?

Sample Intake and Treatment Schedule

This is a guide to integrating the *New Hope* program with *Early Pathways* in a possible treatment schedule. However, it is important to remember that each family's learning and ability to implement the program will differ. Some will learn and implement the treatment components quickly, while others will take more time. Also, sometimes the order of delivering the strategies will vary so the therapist needs to use good clinical judgment and remain flexible. The therapist must be ready to intervene with any program strategy that is warranted. *Remember, safety trumps everything else*. Consequently, the following schedule should be used only as a general guide.

Intake

- ✧ Establish Safety In The Therapy Session – ***NH 1.1***
- ✧ Do the Intake Evaluation – ***EP Module 2***
- ✧ Introduce *EP* and *New Hope*
- ✧ Instill Hope – ***NH Intro***
- ✧ Schedule next appointment
- ✧ Consult with Supervisor and write Intake Report

Session 1

- ✧ Complete Any Remaining Intake Components
- ✧ Review Results of Intake Assessment
  **In some cases, these two steps may require the entire Session 1 to complete.*
- ✧ Develop Initial Treatment Goals for parent and child in collaboration with Caregiver
- ✧ Develop Treatment Plan integrating Caregiver's goals with assessment findings
- ✧ Address any Family Safety concerns and provide relevant handouts – ***NH 1.2***
- ✧ Address Advocacy Needs of Child/Family
- ✧ Introduce Behavior Plan

Session 2

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Parent
- ✧ Introduce Child-Led Play – ***EP 3.2***
- ✧ Discuss Physical Safety issues with Caregiver and provide relevant handouts – ***NH 1.3***
- ✧ Do Physical Safety activity with Child – ***NH 1.3***
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 3

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Parent
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Introduce STAR Mnemonic (STOP and THINK) – ***EP 3.3***
- ✧ Discuss Behavior – what it is and what contributes to it – ***EP 3.3***
- ✧ Discuss Behavior Cycles – ***EP 3.3***
- ✧ Introduce Nurturing Activities and Positive Reinforcement – ***EP 3.3 & NH 2.1***
- ✧ Revise Treatment Plan as needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 4

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Review STAR Mnemonic (STOP and THINK, then add ASK) – ***EP 3.3***
- ✧ Discuss Child Development and Caregiver Expectations – ***EP 3.3***
- ✧ Discuss Caregiver Attribution – ***NH 2.2***
- ✧ Discuss Understanding Challenging Behaviors in Traumatized Children – ***NH 4.1***
- ✧ Refine Treatment Plan
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 5

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Review Behavior and Behavior Cycles
- ✧ Review Parent Expectations
- ✧ Discuss Caregiver Response to Trauma – ***NH 2.3***
- ✧ Discuss Healthy Attachment – ***NH 2.4***
- ✧ Revise Treatment Plan
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 6

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Introduce Listening – ***EP 3.4***
- ✧ Introduce Consistent Daily and Nightly Routines – ***EP 3.5 & NH 3.1***
- ✧ Discuss Managing Unpredictable Situations – ***NH 3.2***
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 7

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Review STAR Mnemonic (STOP and THINK, ASK, then add RESPOND) – ***EP3.3 & 3.6***
- ✧ Review Understanding Challenging Behaviors in Traumatized Children – ***NH 4.1***
- ✧ Identify Challenging Behaviors
- ✧ Introduce Trauma Informed Limit Setting Strategies – ***NH Chapter 4***
  ***Please Note:** If necessary, introducing limit setting strategies may occur much earlier if the child's challenging behavior warrants it due to severity or safety concerns.*
  - Responding to Aggression
  - Managing Temper Tantrums
  - Time-In
- ✧ Revise Treatment Plan to Include Challenging Behavior, Goals, Strategy
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 8

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Review STAR Mnemonic (STOP and THINK, ASK, and RESPOND)
- ✧ Introduce Calming Strategies with Caregiver and Child – ***NH Chapter 5***
  - Deep Breathing
  - Progressive Muscle Relaxation
  - Other individual calming strategies (e.g., sensory activities)
- ✧ Assess Readiness and Prepare Caregiver for Story Phase – ***NH Phase 2 Intro***
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 9

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Introduce Naming Feelings with Caregiver – ***NH 6.1***
- ✧ Do Practicing Feelings activity with Child – ***NH 6.2***
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 10

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Practice Child-Led Play
- ✧ Review Practicing Feelings activity with Child (or try a new Feelings activity) – ***NH 6.2***
- ✧ Introduce Reinforcing Positive Beliefs – ***NH 7.1***
    - Identify healthy cognitions most salient to the child, family, and specific trauma
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 11

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Do Positive Beliefs activity with Child – ***NH 7.1***
- ✧ Introduce and prepare Caregiver for Narratives Reflecting Actual Trauma – ***NH 7.2***
- ✧ Discuss Caregiver Feelings About the Trauma – ***NH 7.3***
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 12

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Do Positive Beliefs activity with Child – ***NH 7.1***
- ✧ Read Narrative Reflecting Actual Trauma with Child and Caregiver – ***NH 7.2***

- ✧ Child and Caregiver do Child-Led Play or other Nurturing Activity
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 13

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Do Positive Beliefs activity with Child – ***NH 7.1***
- ✧ Do Feelings Activity with Child – ***NH 7.4***
- ✧ Child and Caregiver do Child-Led Play or other Nurturing Activity
- ✧ Assess Readiness and Prepare Caregiver for Recovery Phase – ***NH Phase 3 Intro***
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 14

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Introduce Identifying Sources of Support with Caregiver – ***NH Chapter 8***
- ✧ Reconnecting with Safe People Activity – ***NH 8.1***
- ✧ Child and Caregiver do Child-Led Play or other Nurturing Activity
- ✧ Identify Prosocial Behaviors to Focus on Building – ***NH Chapter 9***
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 15

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Discuss Building Prosocial Skills With Caregiver – ***NH Chapter 9***
- ✧ Read Prosocial Behaviors Narrative with Child – ***NH 9.1***
- ✧ Child and Caregiver do Child-Led Play or other Nurturing Activity
- ✧ Prepare for Termination and Closure activities – ***NH Chapter 10***
    - Assess Readiness for Termination
- ✧ Revise Treatment Plan if needed
- ✧ Address Advocacy Needs of Child/Family
- ✧ Complete New Behavior Plan

Session 16/Final Session

- ✧ Complete Treatment Report
- ✧ Collect Behavior Plan from Caregiver
- ✧ Problem-solve issues that arose in implementing Treatment Plan
- ✧ Do Closure Activity with Child – ***NH 10.1***
- ✧ Psychoeducation and Preparation for Caregiver – ***NH 10.2***
    - Discuss what may come next in child's healing process
    - Discuss maintenance of treatment gains
    - Remind Family that they may contact you if new issues emerge
    - Provide Family with any relevant community resources
- ✧ Address Advocacy Needs of Child/Family
- ✧ Conduct Post-Program Evaluation – Repeat Intake Assessment Measure
- ✧ Complete Caregiver Satisfaction Survey
- ✧ Write Termination Report

New Hope Fidelity Checklist

SAFETY Fidelity Checklist

Chapter 1: Basic Safety _____

1.1 Safety in the Therapy Session

1.2 Family Safety

1.3 Physical Safety

Chapter 2: Caregiver-Child Relationship _____

2.1 Nurturing activities

2.2 Caregiver Attribution

2.3 Caregiver Response to Trauma

2.4 Healthy Attachment

Chapter 3: Predictable and Nurturing Environment _____

3.1 Consistent Daily and Nightly Routines

3.2 Managing Unpredictable Situations

Chapter 4: Trauma Informed Limit Setting Strategies _____

4.1 Understanding Challenging Behaviors

4.2 Responding to Aggression

4.3 Managing Temper Tantrums

Chapter 5: Calming Strategies _____

5.1 Progressive Muscle Relaxation

5.2 Deep breathing strategies

5.3 Other calming strategies

STORY Fidelity Checklist

Chapter 6: Naming and Practicing Feelings _____

6.1 Naming Feelings

6.2 Practicing Feelings

Chapter 7: Fostering Healthy Thoughts _____

7.1 Reinforcing Positive Beliefs in Child

7.2 Narratives Reflecting Actual Trauma

7.3 Caregiver Feelings About the Trauma

7.4 Sharing Trauma Related Feelings

RECOVERY Fidelity Checklist

Chapter 8: Identifying Sources of Support _____

8.1 Reconnecting With Safe People

Chapter 9: Building Prosocial Skills _____

9.1 Prosocial Behaviors

Chapter 10: Seeking Closure _____

10.1 Closure Activities

10.2 The End