CHILD AND NON-OFFENDING CARE GIVER RATINGS OF POST-TRAUMATIC STRESS SYMPTOMS BEFORE AND AFTER TRAUMA-FOCUSED COGNITIVE BEHAVIOR THERAPY: A PRELIMINARY STUDY

A thesis presented to the faculty of the Graduate School of Western Carolina University in partial fulfillment of the requirements for the degree of Master of Arts in Clinical Psychology.

By

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April, 2018
ACKNOWLEDGEMENTS

I would like to thank my Thesis Committee Members Dr. Alvin Malesky and Dr. Nathan Roth for their support and guidance throughout this process. I would especially like to acknowledge and thank Dr. Kia Åsberg, my Thesis Committee Chair, for her mentorship, support, guidance, and encouragement from start to finish. I would like to acknowledge also my family and friends for their love and support. Finally, it is with sincere gratitude that I would like to thank the Mountain Child Advocacy Center for allowing me access to their data, and for answering my many questions; without them this project would not have been possible.
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ABSTRACT

CHILD AND NON-OFFENDING CARE GIVER RATINGS OF POST-TRAUMATIC STRESS SYMPTOMS BEFORE AND AFTER TRAUMA-FOCUSED COGNITIVE BEHAVIOR THERAPY: A PRELIMINARY STUDY

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The adverse impact of child maltreatment (CM) is undisputed. In fact, the experience of CM can have lasting negative effects across multiple psychosocial domains. For children who have experienced CM, intervention, in particular the availability of evidence-based treatment, is paramount in promoting positive child outcomes. Further, studies have confirmed the role of parent psychopathology in the prediction of child outcomes, yet assessment of parents’ trauma histories, psychopathology, and overall adjustment is not consistently performed by Child Protective Services and other agencies in charge of the welfare of children and families. Thus, the primary aims of the proposed study were to examine parental psychopathology and trauma in non-offending parents of children with maltreatment histories, and the role that these parental factors may have on children’s pre- and post-treatment adjustment; including the impact that separate parent treatment (Cognitive Processing Therapy) has on child treatment (Trauma-Focused Cognitive Behavioral Therapy) outcomes. Additional aims of this study sought to examine predictors of child treatment completion, child and parent rater concordance of child Post-Traumatic Stress Disorder (PTSD) symptomology, and changes in children’s PTSD symptoms pre- and post-treatment. While sample size issues prevented analyses of the primary
aims regarding parental factors, significant results were found for concordance rates between child and parent reports of children’s PTSD symptomology, as well as the difference between children’s pre- and post-treatment PTSD scores.
CHAPTER 1: INTRODUCTION

The economic, social, and emotional costs of child maltreatment, which includes various forms of abuse and neglect, are enormous. In fact, Fang, Brown, Florence, and Mercy (2012) estimate “the total lifetime economic burden resulting from new cases of fatal and nonfatal child maltreatment in the United States in 2008 is approximately $124 billion” (p. 156). Beyond economics, the total cost of child maltreatment (CM) on families and communities is unmeasurable. While reports of CM fluctuate annually, there are generally over 3 million reports of suspected CM each year (U.S. Department of Health & Human Services [US DHHS], 2016). The 2014 National Child Abuse and Neglect Data System (NCANDS) report states that approximately 3.2 million reports of suspected child maltreatment were investigated or identified as alternative response victims (not investigated, but otherwise handled) (US DHHS, 2016). Of the cases reported, 702,208 (or 1 in 5) cases of suspected child maltreatment were confirmed or substantiated (US DHHS, 2016). However, due to underreporting by victims and professionals (Sedlak et al., 2010; Theodore & Runyan, 2006), this number is likely inaccurate. The true number of children affected by maltreatment may be closer to 25 percent, or 1 in 4 children (Finkelhor, Turner, Shattuck, & Hamby, 2015). These prevalence rates are alarming in and of themselves, but even more so when we consider the impact of CM on a variety of adjustment outcomes.

Specifically, the last two decades of research surrounding child abuse, neglect, and other adverse childhood experiences have shed light on the pervasive and long-lasting effects that CM can have on a person throughout their lifespan. Potential adverse outcomes have been found in nearly every domain of child functioning, including lasting effects on neurodevelopmental-, physiological-, cognitive-, social-, and emotional functioning (Anda et al., 2006; DeGregorio,
2013; Felitti et al., 1998; Springer, Sheridan, Kuo, & Carnes, 2007). While not every child who
experiences CM will develop related trauma symptoms or psychopathology (e.g., PTSD, depression, anxiety, anger, physical symptoms, and medical diagnoses), an estimated 80 percent
will (Silverman, Reinherz, & Giaconia, 1996; Springer et al., 2007). As trauma\(^1\) research and our
understanding of these mechanisms progress, so too does the knowledge that it must be
addressed in a timely and effective manner to help mitigate/alleviate symptomology and adverse
outcomes. In part, due to this recognition, there has been an increased focus on interventions for
children and adolescents that address trauma (e.g., Trauma-Focused Cognitive Behavioral
Therapy).

Although the efficacy of these interventions has been established, less is known about
variables that may increase retention and augment positive outcomes among survivors. Thus, the
primary aim of this study was to examine the relationship between parent and child trauma and
psychopathology, and the amount of change over the course of treatment. A second aim was to
examine the impact of non-offending parents’ participation in their own therapy (aside from their
child’s treatment for CM) on child outcomes. Third, the present study sought to examine parent
and child ratings of the child’s post-traumatic stress symptoms pre- and post-treatment (i.e.,
concordance; Stover, Hahn, Im, & Berkowitz, 2010), as previous studies have found mixed
results in terms of parents’ ability to rate accurately their children’s symptoms. Lastly,
differences in severity of symptoms pre-treatment between families that completed treatment and
those who did not were explored.

\(^1\) Trauma is defined as: “… an event, series of events, or set of circumstances that is experienced by an individual as
physically or emotionally harmful or threatening and that has lasting adverse effects on the individual's functioning
and physical, social, emotional, or spiritual well-being” (Substance Abuse and Mental Health Services
Administration [SAMHSA], 2014, p. 7).
CHAPTER 2: LITERATURE REVIEW

Child Maltreatment: Definitions, Prevalence, and Risk Factors

While the main types of child maltreatment (physical abuse, sexual abuse, emotional abuse, and neglect\(^2\)) are widely recognized, there is no universal definition of maltreatment. Individual states set their own definitions of CM using the Child Abuse Prevention and Treatment Act (CAPTA) as a guide (Child Welfare Information Gateway, 2016a). CAPTA defines child abuse and neglect as “…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" (CAPTA Reauthorization Act of 2010, §5101, Note §3). In addition to the main types of CM, some states may include additional definitions for parental substance use and child abandonment as well (Child Welfare Information Gateway, 2016a). While not legally recognized as a form of CM, witnessing interpersonal/family violence (IPV) has been clinically recognized for its deleterious effects on children (Wathen & MacMillan, 2013). Definitions of maltreatment types are listed next.

Physical Abuse

Child physical abuse (CPA), which occurs in approximately 17 percent of CM cases, is defined generally as “any non-accidental physical injury to the child, and can include striking, kicking, burning, or biting the child, or any action that results in a physical impairment of the child” (Child Welfare Information Gateway, 2016a, p. 2).

\(^2\) Exploitation is one of the five main types of CM, however for the purposes of this paper it is generally considered to be recognized under either sexual abuse or “other”.
Sexual Abuse

Child sexual abuse (CSA) consists of “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 for the purpose of producing a visual depiction 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” (42 U.S.C.A., 2012, §5106g(a)(4). In studies that utilize self-report among adolescents and adults, prevalence rates of CSA range from 10 percent to 35 percent (Asberg & Renk, 2013; Aspelmeier, Elliot, & Smith, 2007; Finkelhor, Shattuck, Turner, & Hamby, 2014; Pérez-Fuentes et al., 2013). Rates of CSA among females are typically higher than rates among males (Briere & Elliott, 2003).

Neglect

Neglect is one of the more common forms of maltreatment, yet it has received significantly less attention in the research literature relative to other types (see Stoltenborgh, Bakermans-Kranenburg, & van IJzendoorn, 2013, for a review). Neglect is defined typically as “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” (Child Welfare Information Gateway, 2016a, p. 2). In general population and college student samples, 23 percent to 38 percent of people report a history of neglect (Finkelhor, Turner, Shattuck, & Hamby, 2013; Lowell, Renk, & Adgate, 2014).
Emotional Abuse

Emotional (sometimes referred to as psychological abuse in the literature) has multiple definitions. In addition, whether or not something constitutes emotional abuse may be determined based on the impact of the [parent’s or care-giver’s] actions on child functioning. Specifically, most definitions of emotional abuse include language that suggests "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’ and injury as evidenced by ‘anxiety, depression, withdrawal, or aggressive behavior’” (Child Welfare Information Gateway, 2016a, p. 3). Although often not captured in child welfare statistics, recent studies suggest that emotional and psychological abuse is common, occurring in approximately 26 percent to 68 percent of individuals (Finkelhor et al., 2013; Lowell et al., 2014).

Prevalence of Child Maltreatment

As mentioned previously, there is no universal definition of CM and CM subtypes, which complicates the assessment of the true prevalence rates. For example, in addition to different legal definitions (as in states’ cases), agencies and disciplines (e.g., medicine, criminal justice, psychology) may have their own operational definitions of CM and subtypes (Leeb, Paulozzi, Melanson, Simon, & Arias, 2008). This, along with issues regarding underreporting, creates challenges when researching CM as well as understanding its actual prevalence (Leeb et al., 2008). Studies on CM and CM reporting data bases generally suggest that 20 percent to 25 percent of children in the United States are maltreated in some form (Finkelhor et al., 2015; Sedlak et al., 2010; US DHHS, 2016). Studies that report higher rates of CM may attribute these differences to study definitions of CM, the specific populations under study, or may represent the
inclusion of less severe incidences than those typically referred to Child Protective Services (CPS) (Newcombe & Locke, 2001).

Although the true prevalence rate of maltreatment is not known, most reports do suggest that neglect is the most common type, and nearly four to eight times more common than physical and sexual abuse, respectively. Specifically, using the NCANDS 2014 report, of the 702,208 substantiated cases of maltreatment, neglect accounted for 75 percent, physical abuse 17 percent, sexual abuse 8.3 percent, and other maltreatment 6.8 percent (US DHHS, 2016). According to the same report, 85.8 percent of victims suffered from only one type of maltreatment, however it notes that maltreatment may have been reoccurring. The remaining 14.2 percent of victims suffered from more than one type of maltreatment. It should be noted that child fatalities \(N=1546\) were included in the total above.

**Risk Factors for Maltreatment Victimization**

There are many risk factors associated with child maltreatment victimization; most prevalent in the literature are: age, gender (as related to type of CM), socioeconomic status (SES), and number of children in family home. According to the 2014 NCANDS report, the victimization rate by gender is roughly equal for males and females; however this differs by age at the time of maltreatment and by type of CM. For example, males age 0 to 5 years have higher prevalence rates of CM compared to females of the same age, whereas females between ages 6 to 10 and 11 to 17 years have higher prevalence rates of CM than males of the same age (US DHHS, 2016). Gender differences can also be seen with regards to the type of CM, where females are more likely to be sexually abused than males. Moreover, Briere and Elliott (2003) examined the self-reported rate of physical and sexual abuse in a general population sample and found that while physical abuse was nearly equivalent between genders, 32 percent of females
reported sexual abuse compared to 14 percent of males. Potentially most alarming is the rate of victimization by age, where nearly half of all abuse reported happened from >1 to 6 years old; with 27.4 percent of victims less than 3 years old (US DHHS, 2016). This is alarming when considering that the first 3 to 5 years of a child’s life are a particularly sensitive time for critical brain development (e.g., neural circuits) (National Scientific Council on the Developing Child [NSCDC], 2007).

Furthermore, low socioeconomic status (SES), or poverty, is another key risk factor of CM. While being poor does not cause CM, low SES is highly correlated with greater risk for CM (Sedlak et al., 2010); this may be due in part to parental stress (Steele et al., 2016). The Fourth National Incidence Study of Child Abuse and Neglect (NIS-4) found that children in low SES homes “had significantly higher rates of maltreatment in all categories […] In fact, these children experienced some type of maltreatment at more than 5 times the rate of other children; they were more than 3 times as likely to be abused and about 7 times as likely to be neglected” (Sedlak et al., 2010; p. 12). Also reported in the NIS-4, the risk of CM increased for households with 4 or more children (Sedlak et al., 2010). Similarly, Miyamota and Colleagues (2017) found this to be true in regards to the number and age of the children in the household; where the greater number of children under the age of 5 increased the likelihood of serious maltreatment.

Minority status may also be a risk factor for maltreatment, although it varies by type of abuse. By race the total number of victims was highest in the White demographic (44%), followed by Hispanic (22.7%), and African-American (21.4%) (US DHHS, 2016). African-American and Indian or Alaska Native children had the highest rates per 1,000 children, with 15.3 per 1,000 and 13.4 per 1,000 respectively. Whereas, Hispanic and White children had rates of 8.8 per 1,000 and 8.4 per 1,000 respectively. Studies have found that African-American and
Hispanic children may be overrepresented in the child welfare system compared to their White counterparts due to poverty, single parent status, young maternal age, and if they have an African-American case worker (Drake, Lee, & Jonson-Reid, 2009; Font, Berger, & Slack, 2012; Jonson-Reid, Drake, & Zhou, 2013; Lanier, Maguire-Jack, Walsh, Drake, & Hubel, 2014). Studies have found also that sexual orientation minorities (Lesbian, Gay, Bisexual) are at increased risk for child maltreatment compared to their heterosexual counterparts (Austin et al., 2008; Balsam, Rothblum, & Beauchaine, 2005), and that double minority status (LGB people of color, including Native Americans) are at even greater risk for experiencing child maltreatment than their white LGB counterparts (Morris, & Balsam, 2003; Balsam, Huang, Fieland, Simoni, & Walters, 2004). Overall, a variety of socio-demographic variables are worth noting in the prediction of maltreatment and recidivism. However, studies note that “even if each individual risk factor may not […] indicate that future maltreatment might occur, considering the total number of risks may be useful in case planning” (Solomon, Asberg, Peer, & Prince, 2016, p. 86).

**Adverse Outcomes of Child Maltreatment**

The adverse outcomes of child maltreatment are many and varied; touching on almost every domain. In addition, child maltreatment (physical, sexual, emotional abuse, and neglect) is just one of the many potential challenging experiences affecting the outcomes for children, other adverse experiences include: household dysfunction such as domestic violence, substance abuse, parental mental illness, incarceration of a parent, etc. The term adverse childhood experiences (ACE) comes from the 1998 landmark study by Felitti et al. which sought to measure the relationship between exposure to childhood abuse and household dysfunction, and later adult health risk behavior and disease. The study found a graded relationship between exposure to ACEs and multiple health risk factors and disease in adulthood; as the number of ACEs
increased, so too did the number of risk factors and diseases (including: alcoholism, drug abuse, 
depression, suicide attempts, smoking, ischemic heart disease, liver disease, chronic lung 
disease, skeletal fractures, and cancer) (Felitti et al., 1998). The study demonstrated the impact 
that ACEs, such as child maltreatment, can have on a survivor’s behavior (coping and social) and 
later health outcomes.

Moreover, a study by Springer et al. (2007) had similar findings to the ACE study. After 
controlling/adjusting for sex, age, family background, and childhood adversities, they found that 
adults who self-reported childhood physical abuse reported more diagnosed illnesses, physical 
symptoms, anxiety, anger, and depression (Springer et al., 2007). These two studies are 
important examples of the connection between CM and the epidemiology of disease.

In addition to the original ACE study, Anda et al. (2006) ran a logistic regression analysis 
on the original data and found that “the risk of every outcome in the affective, somatic, substance 
abuse, memory, sexual, and aggression domains increased in a graded fashion as the ACE score 
increased” (p. 174). The significance of these findings, according to Anda et al. (2006), is that 
“the graded relationship of the ACE score to 18 different outcomes in multiple domains 
theoretically parallels the cumulative exposure of the developing brain to the stress response with 
resulting impairment in multiple brain structures and functions” (p. 174). Furthermore a review 
of neuropsychological research by DeGregorio (2013) lends credence to this theory by pulling 
together multiple research findings which show CM has measurable effects on neurobiological 
development. These effects may lead to neurological impairments/deficits in multiple brain 
regions (e.g., reductions in the hippocampus, amygdala, orbitofrontal cortex, corpus callosum, 
etc.) – thereby effecting attachment, social behavior, coping, risk, etc. (DeGregorio, 2013).
Since the ACE Study was published, the term ACEs has been used widely and synonymously with many other terms relating to adverse childhood experiences. Kalmakis and Chandler (2014) sought to clarify the term by creating the following operational definition: “Adverse childhood experiences are childhood events, varying in severity and often chronic, occurring within a child’s family or social environment that cause harm or distress, thereby disrupting the child’s physical or psychological health and development” (p. 1495). This is important to understand in the context of ACEs, because research has shown that maltreatment and adversities do not exist in separate spheres, but are oftentimes overlapping and may have a cumulative effect/impact on adverse outcomes (Finkelhor, Vanderminden, Turner, Hamby, & Shattuck, 2014). This may be due to the underlying mechanisms that contribute to later dysfunction – mainly the stress response system and neurobiological development – which are affected by traumatic and/or toxic stress. It would be important, then, to assess for additional ACEs and the context in which the CM occurred when studying the outcomes for children.

Although the exact mechanism by which ACEs and CM impacts the child’s development across multiple domains is unknown, studies point to the deleterious effect of stress on the developing brain. Specifically, the Harvard Center on the Developing Child explains the pathways between ACEs and adverse outcomes by noting the effect of stress (i.e., from ACEs, traumatic experiences) on the developing brain, reporting that chronic stress from ACEs can become “toxic stress” (NSCDC, 2005/2014). Once this happens, the body’s stress response system remains activated for prolonged periods, diverting resources from higher cognitive functions (or keeping the child in a heightened arousal state/flight, flight, or freeze), making learning, self-regulation, etc. difficult. This toxic stress can derail healthy brain development, not only causing deficits (i.e. cognitive, social/attachment) (NSCDC, 2005/2014), but also
potentially leading victims of CM to employ maladaptive coping strategies to deal with the affects (e.g., self-medicate symptoms of psychopathology) (Khantzian, 1997).

Related to this sequelae, research is finding that genetics also play an important role, specifically epigenetic modification (EM). EM is a complex and broad domain in and of itself, and far beyond the scope of this paper, however it is important to include a brief description as scientific understanding in this area grows. The principle of EM basically states that each child inherits a set of DNA/genes that interact with the child’s environment through different stages of development. These genes are then either “turned on” or “turned off” by the child’s experiences (NSCDC, 2010). Therefore it is easy to see how a child’s exposure to toxic stress from ACEs can lead to adverse outcome across domains, and last a lifetime. That is not to say that all children exposed to chronic adversity develop deficits, however, the likelihood is significantly increased. It should be noted that resiliency research is growing alongside ACEs research in an effort to identify protective factors that protect the child from developing adverse outcomes.

When examined collectively, CM prevalence, adverse outcomes, neurobiological development research, etc., the potential domino effect of CM becomes clear. Additionally, if left un- or ineffectively treated, childhood adverse outcomes from maltreatment may impact adult parenting; potentially leading that parent to continue the cycle of violence with their own children (Banyard, Williams, & Siegel, 2003). The notion of intergenerational transmission is important to the present study, and this body of literature will be discussed next.

**Intergenerational Transmission of CM, Parental Trauma, and Psychopathology**

There is a large and well established body of research supporting the theory of intergenerational transmission of CM, or the cycle of violence in families (Berlin, Appleyard, & Dodge, 2011; Bert, Guner, & Lanzi, 2009; Cort, Toth, Cerulli, & Rogosch, 2011; Milner et al.,
2010; Newcombe & Locke, 2001; Pears & Capaldi, 2013; Romero-Martínez, Figueiredo, & Moya-Albiol, 2014; Thornberry et al., 2014). Specifically, the cycle of violence posits that parents who were maltreated in childhood are at an increased risk for maltreating their own children (Milner et al., 2010). Consistent with Milner et al. (2010), research has found that between 23 percent and 47 percent of parents who were maltreated in childhood will go on to maltreat their own children (Cort et al., 2011; Pears & Capaldi, 2001). The difference in prevalence findings pertaining to IGT may be attributed to different study methods, populations, or operational definitions (Cort et al., 2011). It should be noted that the majority of parents who are survivors do not go on to maltreat their children; this is generally thought to be due to protective factors or resiliency (Wright, Turanovic, O'Neal, Morse, & Booth, 2016). Regardless, this should not diminish the serious impact of those parents who do, and the importance of taking parental victimization into account when studying the risk- and protective- factors associated with child maltreatment outcomes.

In addition to an increased risk of perpetrating CM, adult survivors of CM, trauma, and those with psychopathology, are at risk for transmitting trauma symptoms and psychopathology to their offspring (sometimes called secondary trauma). Research has shown that offspring of parents with PTSD/PTS symptoms generally have higher elevations of mental health problems (i.e., internalizing/externalizing disorders, anxiety, depression) (Leen-Feldner et al., 2013; Swartz et al., 2005). Yehuda, Halligan, and Bierer (2001) found that children of Holocaust survivors had higher levels of PTSD, depression, and lifetime psychiatric disorders compared to children of parents who did not have Holocaust experiences (traumatic experiences). In general, parent psychopathology (i.e., major depressive disorder, generalized anxiety, panic, and substance use disorders) has been found to be strongly associated with offspring psychiatric
disorders (McLaughlin et al., 2012). It is important to note that the transmission of CM, trauma, and psychopathology is complex and likely has many pathways (i.e., genetics, environmental). As these studies indicate, children of parents who have experienced trauma, and/or who have psychopathology, are at elevated risks for developing mental health problems, or otherwise suffer more negative outcomes. Less is known, however, about the impact of parental trauma history and adjustment on treatment outcomes for children who have experienced CM. Specifically, although there is growing evidence suggesting the effectiveness of psychological interventions in promoting positive child outcomes, more research is needed to identify individual differences that may augment (or hinder) such outcomes.

**Child Wellbeing Following Maltreatment**

Child wellbeing is a nebulous term, one that has been defined in various ways in the literature. Pollard and Lee (2003) suggest that the term “wellbeing” may be best generally defined as a multidimensional construct that incorporates elements from the physical, psychological, cognitive, social, and economic domains; including indicators that assess both positive (i.e., happiness, self-esteem) and negative/deficit (i.e., anxiety, depression) aspects. While there are many indicators which may be used to measure wellbeing in these various domains, pertinent to this study are PTSD (e.g., hypervigilance, intrusive thoughts, avoidance) and trauma (e.g., anxiety, depression, dissociation) symptomology.

The most recent version of the DSM 5 has a chapter dedicated to trauma- and stressor-related disorders. The diagnostic criteria for PTSD that must be met is the “exposure to actual or threatened death, serious injury, or sexual violence,” through direct experience, in-person witness of, learning of it happening to a close friend or family member, or repeater or extreme exposure to averse details (American Psychological Association [APA], 2013). Additionally, one
or more of the following criteria need to be met: intrusion symptoms associated with the traumatic event (i.e., recurrent, intrusive memories or distressing dreams related to the trauma, dissociative reactions), persistent avoidance of stimuli associated with the trauma, negative changes to thoughts or moods associated with the trauma (i.e., dissociative amnesia, persistent fear/shame, diminished interest in activities), and noticeable changes in arousal and reactivity associated with the trauma (i.e., angry outbursts, hypervigilance, sleep disturbances, etc.) (APA, 2013). Individuals with symptoms of trauma- and stressor-related disorders such as PTSD, which cause significant impairment, but do not meet the full diagnostic criteria may be diagnosed with either Other Specified Trauma- and Stressor-Related Disorder, or Unspecified Trauma- and Stressor-Related Disorder (APA, 2013).

While not all children who experience CM or are exposed to trauma will develop PTSD or trauma-related symptoms, studies have found that between 26 percent to 40 percent will meet either full or partial DSM criteria for PTSD (Lipschitz, Rasmusson, Anyan, Cromwell, & Southwick, 2000; Runyon, Deblinger, & Steer, 2014). Further, studies have shown that not all trauma is created equal; cumulative trauma and interpersonal trauma have worse outcomes (Ford, Elhai, Connor, & Frueh, 2010; Hodges et al., 2013). A 2009 study by Luthra and Colleagues examined the relationship between exposure to different types of traumatic events and the development of PTSD in children. They found that interpersonally traumatic events such as experiencing physical abuse, sexual abuse, and domestic violence, or hearing traumatic news was significantly associated with PTSD; whereas being exposed to non-interpersonal violence (i.e., community violence) was not significantly related to PTSD. Their findings are consistent with adult literature which also identified IPV as a predictor to the development/diagnosis of
PTSD (Ford, Stockton, Kaltman, & Green, 2006; Kessler, Sonnega, Bromet, Hughes, & Nelson, 1995; Resnick, Kilpatrick, Dansky, Saunders, & Best, 1993).

**Rater Concordance/Cross-Informant Ratings**

Many assessment instruments/measures that evaluate child wellbeing are either self or observer rating forms. Therefore it is important to acknowledge the potential concordance or differences between various raters (e.g., child self-rater vs. parent observer rater) on measures of child wellbeing. The literature on rater concordance, also referred to as cross-informant ratings, is mixed. A study on post-traumatic stress symptoms in a sample of pediatric cancer patients found that parents were accurate raters of their children’s distress (Clawson, Jurbergs, Lindwall, & Phipps, 2013). Similarly, Hamblin et al. (2016) found that child-parent concordance was significant for ratings of child symptoms related to social anxiety disorder and social phobia; but were generally poor for other anxiety disorders. In addition, Stover et al. (2010) found statistically significant concordance for reports of traumas such as being a victim or witness of sexual activities or IPV, having experienced the death of someone close, or had a family member arrested or in jail. In relation to PTSD symptoms, they found nonsignificant agreement of avoidance and hyperarousal. However, they generally found mixed results, with low child-parent concordance on certain traumas, and on the impact of the traumas on the children. Given the inconsistent findings in extant literature, child-parent concordance is deserving of further study.

When considering concordance rates, is also important to be aware of parent trauma (e.g., history or secondary) and/or psychopathology, as a parent’s own experiences and psychopathology symptoms (e.g., anxiety, PTSD, etc.) may influence their rating of their child’s wellbeing. In fact, Shemesh et al. (2005) found that although children and adolescents’ self-reports of their posttraumatic stress symptoms were significantly associated with the “best
estimate” PTSD diagnosis, parents’ reports of their children’s symptoms were not significantly associated with the “best estimate” diagnosis of PTSD. Furthermore, researchers discovered that 64 percent of the parents identified their child’s traumatic experience as their own, and that parents’ own posttraumatic symptoms were associated with parental reports of the child’s overall PTSD symptoms; indicating that parent symptomology influenced how they rated their children’s symptomology (Shemesh et al., 2005). These findings of parental psychopathology influencing parent’s ratings of children’s symptoms/behaviors are similar to other studies (non-clinical community sample, Affrunti, & Woodruff-Borden, 2015; Renk et al., 2007; pediatric cancer and PTSD, Clawson et al., 2013; pediatric chronic illness, Ingerski, Shaw, Gray, & Janicke, 2010).

In addition, in a Dutch sample, Ferdinand, van der Ende, and Verhulst (2004) found that reviewing adolescent and parent ratings on behavioral and emotional measures can have an additive or discrepancy effect. The study examined whether parent-child rating disagreement predicted later adverse outcomes (e.g., suicide attempts, referral for mental health services, police/judicial contacts, etc.). Researchers found an additive effect when looking at both child and parent ratings; if both scores were above the 90th percentile, this indicated a worse prognosis. They also found that significant discrepancy effects, those where more internalizing or externalizing problems were reported by either the parent or the child, led to poorer prognoses, and indicated potential issues with treatment. This study underscores the need for information from multiple raters in clinical practice, as rating differences may be important for diagnosis, treatment issues, and outcomes (Ferdinand et al., 2004). The psychological intervention of interest to the present study will be discussed next.
Child Maltreatment Interventions

Given the prevalence of CM and all of the adverse outcomes (including IGT), it is imperative that child and adolescent survivors of CM receive efficacious treatment. While there are a multitude of treatment options that address trauma, Cognitive Behavioral Therapy (specifically Trauma-Focused) has been shown to be particularly effective in reducing symptoms (Silverman et al., 2008).

Trauma-Focused Cognitive Behavioral Therapy for Children (TF-CBT)

The gold standard for treatment of trauma, TF-CBT, is an evidence based intervention which is widely used to address trauma-related issues such as PTSD, depression, anxiety, and behavioral and cognitive problems in children and adolescents (Cohen & Mannarino, 2015). According to Cohen, Mannarino, and Deblinger (2017), TF-CBT is a hybrid treatment model that integrates trauma-sensitive interventions, cognitive-behavioral principles, attachment theory, developmental neurobiology, and aspects of family, empowerment and humanistic theoretical models. The core values of TF-CBT, known by the acronym CRAFTS, are: components-based, respectful of cultural values, adaptable and flexible, family focused, therapeutic relationship is central, and self-efficacy is emphasized (see Cohen et al., 2017 for details).

According to Cohen et al. (2017), TF-CBT is provided in three phases, usually of equal length; however this can be modified based on specific child/family needs. The first phase is the stabilization and skill building phase, which focuses on general education about the traumas the child experienced and on skill building sessions related to managing trauma reminders. The second phase is the trauma narration and processing phase, which focuses on discussing and/or writing about the child’s traumatic experiences. This is followed by the third and final integration and consolidation phase, where what has been learned is brought together “with an
emphasis on *in vivo* mastery, enhancing parent-child trauma-related communication, safety skills development, and the internalization of lessons learned” (Cohen et al., 2017, p. 42). Sessions are generally structured in 50 to 90 minute individual child, individual parent, and/or conjoint child-parent therapy sessions, which focus on multiple components of treatment. TF-CBT has many treatment components which can be remembered with the use of the well-known PRACTICE acronym: psychoeducation and parenting skills, relaxation, affective modulation, cognitive processing, trauma narrative, *in vivo* desensitization, conjoint parent-child sessions, and enhancing safety and social skills (see Murray, Cohen, Ellis, & Mannarino, 2008 for details).

Although TF-CBT is a child-focused model, non-offending parent/caregiver participation is an important component. Studies have found that non-offending parent participation has been shown to increase positive treatment outcomes in comparison to child or parent only treatment (Deblinger, Steer, & Lippmann, 1999). In addition, Holt, Jensen, and Wentzel-Larsen (2014) found that parental participation in TF-CBT (compared to treatment as usual) resulted in lower rates of depression for parents, which mediated lower depression rates in children at post-test. However, parents may present with their own issues in therapy, either due to their own trauma or secondary trauma from their child’s trauma experience, which may prevent them from being able to engage in therapy successfully (Cohen et al., 2017; G. Sidoli, personal communication, December 2017). This is why Cohen et al. (2017) recommend that parents seek separate individual treatment for themselves if this is the case.

Moreover, multiple randomized control trial (RCT) studies and other study designs on TF-CBT have shown that it is an effective treatment for use in treating symptoms of trauma, traumatic grief, and PTSD across a wide variety of populations and settings. An early RCT study by Deblinger and Lippman (1996) found that children and adolescents seeking treatment for
sexual abuse who were assigned to TF-CBT treatment conditions versus a control group showed significant reductions in PTSD symptoms. Another RCT study by King et al. (2000) found that compared to controls, sexually abused children and adolescents who received TF-CBT treatment had significantly reduced posttraumatic stress disorder symptoms, and less fear and anxiety on self-reports. Also, an RCT study by Jensen et al. (2014), which utilized a sample drawn from Norwegian community mental health clinics, found TF-CBT to be more effective at reducing PTSD symptoms and comorbid depression compared to treatment as usual. Another RCT study by Scheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie (2011) which utilized a sample of children ages 3 to 6 years, found post-TF-CBT scores yielded medium to large effect sizes for change in trauma symptomatology and other indicators of psychological adjustment. Overall, the efficacy of TF-CBT is undisputed.

In addition to TF-CBT treatment being more effective than controls at reducing PTSD symptoms, a Canadian RCT study by Konanur, Muller, Cinamon, Thornback, and Zorzella (2015) found that treatment gains were retained six months post-follow up. Similarly, Deblinger, Mannarino, Cohen, and Steer (2006) found TF-CBT treatment maintenance gains for reduced PTSD symptoms for up to 12 months post treatment, and an earlier study by Deblinger et al. (1999) found maintenance of treatment gains for up to two years. Furthermore, other studies support TF-CBT treatment efficacy in foster care populations (Dorsey et al., 2014; Weiner, Schneider, & Lyons, 2009), and in juvenile justice populations (Cohen et al., 2016). Overall, TF-CBT can be considered a highly efficacious treatment, with satisfactory outcomes at both post-treatment and follow-up. However, in order for trauma survivors to benefit from the treatment, there is an expectation of completing the full protocol. As with other treatments, attrition and treatment drop-out remains an issue, which will be discussed next.
Treatment Completion

Although TF-CBT has been shown to be an effective treatment for child and adolescent populations with histories of CM, treatment completion remains an issue. According to previous research, the prevalence rate of attrition (e.g., drop out, non-completion) from TF-CBT treatment ranges anywhere from 11 percent to 70 percent (Cary & McMillen, 2012; Cohen, Mannarino, & Iyengar, 2011; Hayes et al., 2017; Jensen et al., 2014; Wamser-Nanney & Steinzor, 2017). This means that, even among those who have access to TF-CBT, a significant portion fail to complete the treatment. Studies have examined various factors that may contribute to attrition in general, such as demographics (e.g., age, ethnicity, family income, distance from treatment facility), abuse characteristics (e.g., single verse cumulative trauma, severity, relation to perpetrator, perpetrator age) and child factors and caregiver factors (e.g., psychopathology, trauma symptoms, parent education level, parental marital status). For example, several studies have found that less severe child internalizing symptoms/behaviors and/or moderate to high externalizing behaviors predict treatment attrition (Eslinger, Sprang, & Otis, 2014; Sprang et al., 2013; Tebbett, Brown, & Chaplin, 2018). A study by Murphy and Colleagues (2014) found that higher levels of avoidance in a sample of children who were abused sexually mediated the relationship between trauma and treatment completion; children who scored higher on avoidance were significantly less likely to complete treatment. Moreover, children with a single incident of trauma (versus multiple or cumulative trauma), that did not experience “life threat” or “physical injury during the victimization”, and where the abuse was perpetrated by an older child (rather than a parental figure) were more likely to drop out of treatment (Chasson, Mychailyszyn, Vincent, & Harris, 2013, p. 734). In two different studies, Sprang and colleagues also found that child and parent age, being African-American, whether the child was in state custody, and has a
diagnosis of PTSD, Oppositional Defiant Disorder, or Major Depressive Disorder, were all predictive of treatment drop out (Eslinger et al., 2014; Sprang et al., 2013).

While there are multiple studies that found statically significant predictors of treatment attrition, findings from others were mixed. Recently, Wamser-Nanney and Steinzor (2017) found that “children from higher income households, children of mothers or fathers with more years of education, and no prior CPS involvement were more likely to have successfully completed therapy,” while neither child nor parent ratings of PTSD symptoms, nor child’s age, gender, or distance from treatment facility, were related to treatment attrition (p. 80). In addition, Cohen et al. (2011) found that high treatment attrition for children with PTSD from IPV was impacted by several environmental stressors/factors, including: “multiple traumas occurring during therapy, potential homelessness, violence from the IPV perpetrator, and serious legal and financial difficulties” (p. 20). Thus, not only is it important to identify factors related to the abuse, trauma symptomology, and child and parent demographics, but it is important also to account for external challenges that families may be facing when attempting to predict treatment completion.

**Parental Factors that Impact Child Treatment Outcomes**

As discussed, research has shown the negative effects of CM, the importance of treatment for children CM victims, and the role that parental factors (i.e., trauma, psychopathology) can have on children, however, relatively little is known about how parental factors affect child treatment outcomes. Specifically related to child therapy interventions, studies have shown both positive and negative effects of parent factors on child outcomes. For example, Yasinski and colleagues (2016) found that caregiver (parent) processing of trauma during the narrative phase of TF-CBT predicted the reduction of child internalizing and externalizing symptoms over the course of treatment and after treatment. The same study showed that caregiver avoidance and
blame of the children during therapy predicted worsening of internalizing and externalizing symptoms at follow-up (Yasinski et al., 2016). Similarly, a study by Rishel, Greeno, Marcus, and Anderson (2006) found that children of mothers with mental health problems had greater behavior issues, and demonstrated less improvement during treatment, compared to children of mentally healthy mothers. Also, Garber and colleagues (2009) found that adolescents of parents with current depression fared worse in treatment; showing less reduction in their own depressive symptoms.

As these studies indicate, parental factors have been shown to impact child therapy outcomes. This is especially concerning given the negative impact that parental trauma or psychopathology can have on child treatment outcomes. However, current treatment interventions for CM may not take this into account, as parental screening and assessment in these interventions are less common. When studies have assessed parents of children in treatment, they found psychopathology in between 17 percent and 61 percent of parents (e.g., Swartz et al., 2005; Vidair et al., 2011). This further underscores the importance of assessing parent trauma and psychopathology during child treatment interventions. Moreover, in substantiated CM cases where individual psychotherapy is recommended for the parent, child maltreatment recidivism is significantly reduced (Solomon & Åsberg, 2012). Overall, the role of parent variables as it pertains to child adjustment and treatment outcomes warrants further investigation. In addition, the effect of parent participation in their own treatment (if warranted) during child participation in TF-CBT (or Cognitive Processing Therapy, CPT), is also in need of study.
The Current Study

The adverse outcomes of CM are undisputed, and have the potential to impact child functioning across a number of domains (Anda et al., 2006; DeGregorio, 2013). The negative impact of CM can last into adulthood, and increase the risk of attachment disruptions, parenting deficits, and mental health problems (Bert et al., 2009; Berthelot et al., 2015; Briere, & Jordan, 2009). Over the past decade, there has also been an increased understanding of the role that such parent trauma history and psychopathology may play in predicting child functioning (McDonnell & Valentino, 2016) and child treatment outcomes (Rishel et al., 2006; Garber et al., 2009). However, child protective services (CPS) and agencies that serve children and families in the aftermath of CM have only recently begun to assess for these parent factors, and many do not do so on a routine basis. Thus, the primary aim of the current study was to add to the existing literature by examining the relationships between parent and child trauma and psychopathology, and the amount of change over the course of treatment. Second, the proposed study sought to examine the impact that individual parent treatment has on child treatment outcomes. The study aimed also to identify group differences and predictors between treatment completers and non-completers. And lastly, the study aimed to examine child and parent rating concordance on measures of child PTSD symptoms.

Specifically, this study aimed to identify answers to the following hypotheses:

1) a) Parent baseline psychopathology (i.e., scores on PTSD Checklist for DSM 5 (PCL-5) will be positively associated with child baseline psychopathology (i.e., scores on UCLA-PTSD Reaction Index for DSM 5, Trauma Symptoms Checklist for Children).
b) Parent baseline psychopathology will be associated also with post-treatment outcomes for their child.

2) a) Treatment outcomes among children whose parents are not screened and treated separately, will be lower overall compared to child treatment outcomes of children whose parents are screened and receive separate CPT.

b) Parental psychopathology and trauma (after controlling for child symptomatology at baseline) will contribute significantly to a model of child adjustment at post-treatment.

3) Group differences on variables (i.e., PTSD and trauma symptoms) between treatment completers and non-completers will be predictive of treatment completion. We expect that children with higher levels of self or parent reported PTSD symptoms, cumulative traumas (indicated by multitype maltreatment), and those who were abused by an older adult who was related to them, will be more likely to complete treatment (Chasson et al., 2013). We expect also, that child age (older children) and ethnicity (i.e., African-American) will be predictive of treatment attrition (Eslinger et al., 2014; Sprang et al., 2013). As appropriate (should the aforementioned group mean differences emerge), a logistic regression to predict treatment completion will also be examined.

4) While the current literature is mixed (Clawson et al., 2013; Stover et al., 2010), it is expected that child and parent rating of child PTSD and trauma symptoms will be positively correlated, and concordant.

5) Children receiving treatment will show improvement as evidenced by lower scores on measures of psychopathology at post-treatment (relative to pre-treatment)
consistent with previous literature (Jensen et al., 2014; Scheeringa et al. 2011). The effect size for this change is predicted to be medium to large (Cohen, 1988; Lipsey & Wilson, 1993; Sheeringa et al., 2011).
CHAPTER 3: METHODS

Participants

Participants consisted of 128 treatment-seeking families, specifically children with histories of CM (primarily CSA) and their non-offending parent/caregiver (legal guardian). Note that the N=128 indicates the number of children who were screened by clinicians at the agency. Specifically, families were seeking treatment through the Mountain Child Advocacy Center (MCAC) in Asheville, NC (referred throughout as the CAC). (See procedure section for more details about the clinic). In the overall sample of 128 families, children’s ages ranged from 5-months to 20-years-old ($M = 9.95$, $SD = 4.29$). The gender breakdown of the child sample was 58.6% female and 39.1% male (2.3% missing), and nearly 50 percent of children were brought to the CAC by their maternal guardian. Notably, guardian characteristics (mother, father, grandparent, etc.) were missing for nearly 30 percent of the sample. The sample was fairly homogenous, with 64.1% White, 12.5% African-American, 10.9% Hispanic, and 9.4% Multiracial (3.1% missing). (See Tables 1-3 for additional demographic, abuse, and perpetrator variables).

Of the total sample of 128 children, 53 children who completed the CAC’s clinical assessment and were deemed eligible for TF-CBT treatment were included for further analyses. Others were referred out for other treatment, or were not eligible for the specific services offered by the CAC. Moreover, 48 out of the 53 eligible children completed TF-CBT treatment; however, of these 19 had pre- or post- treatment scores, and only 29 children had both pre- and
post-treatment scores for the child-parent dyad (UCLA PTSD RI-Child and Parent versions); pre-treatment only scores were available for 5 children who did not complete treatment.  

Table 1

Demographic Child Variables (N=128)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>50 (39.1)</td>
</tr>
<tr>
<td>Female</td>
<td>75 (58.6)</td>
</tr>
<tr>
<td>Missing</td>
<td>3 (2.3)</td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>0-5 Years</td>
<td>29 (22.7)</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>44 (34.4)</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>41 (32)</td>
</tr>
<tr>
<td>16-20 Years</td>
<td>11 (8.6)</td>
</tr>
<tr>
<td>Missing</td>
<td>3 (2.3)</td>
</tr>
<tr>
<td>Total (N=128, $M_{age}=9.95$, $SD=4.29$)</td>
<td></td>
</tr>
<tr>
<td><strong>Ethnicity</strong></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>82 (64.1)</td>
</tr>
<tr>
<td>Black/African American</td>
<td>16 (12.5)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>14 (10.9)</td>
</tr>
<tr>
<td>Multiracial</td>
<td>12 (9.4)</td>
</tr>
<tr>
<td>Missing</td>
<td>4 (3.1)</td>
</tr>
<tr>
<td><strong>Legal Guardian</strong></td>
<td></td>
</tr>
<tr>
<td>Mother</td>
<td>62 (48.4)</td>
</tr>
<tr>
<td>Father</td>
<td>13 (10.2)</td>
</tr>
<tr>
<td>Grandparent</td>
<td>7 (5.5)</td>
</tr>
<tr>
<td>Other (e.g., kinship, foster)</td>
<td>9 (7.0)</td>
</tr>
<tr>
<td>Missing</td>
<td>37 (28.9)</td>
</tr>
<tr>
<td><strong>Special Classifications</strong></td>
<td></td>
</tr>
<tr>
<td>Deaf/Hard of Hearing</td>
<td>1 (.8)</td>
</tr>
<tr>
<td>Disabilities:</td>
<td></td>
</tr>
<tr>
<td>Cognitive/Physical/Mental</td>
<td>8 (6.3)</td>
</tr>
<tr>
<td>LGBTQ</td>
<td>1 (.8)</td>
</tr>
<tr>
<td>Limited English Proficiency</td>
<td>4 (3.1)</td>
</tr>
<tr>
<td>Unknown/Not Applicable</td>
<td>114 (89.1)</td>
</tr>
</tbody>
</table>

Note that several of the hypotheses were based on the assumption that complete pre-post data would be available for all children who completed treatment (i.e., N=48). In light of the reduced sample size, our results must be interpreted with caution.
**Procedure**

This study was conducted in partnership with the Mountain Child Advocacy Center (MCAC) (referred throughout as the CAC), and was approved by the Western Carolina University Institutional Review Board. Participants were children with maltreatment histories (i.e., primarily CSA) and their non-offending parent/caregiver who were referred to the CAC for evaluation and treatment by DSS. At intake, families completed administrative forms with demographic information and clinical measures as part of their assessment. Depending on their needs, families who met criteria for treatment at the CAC received standard TF-CBT treatment, or other outpatient treatment (i.e., trauma-informed interventions). Child and family data (i.e., the demographics, pre- and post-treatment symptom levels, treatment variables, and discharge information) was entered into the CAC’s database for data storage and program purposes. Archival data collected from the CAC database from cases closed between October 25, 2016 and January 10, 2018 were included in the study. Two phases of data were planned for collection. Phase I data was data that was collected by CAC staff on standard child-parent TF-CBT treatment (i.e., data that does not contain trauma screening or separate treatment for the parent). Phase II data was data that was collected by CAC staff on standard child-parent TF-CBT treatment and concordant separate parent treatment (CPT), which contained parent trauma screenings and measures of parental psychopathology. However due to unanticipated staffing delays (i.e., training time, maternity leave, etc.), only 4 Phase II families had completed treatment and had closed cases by January 10, 2018. Archival data from closed cases was de-identified by CAC staff, and was then collected by researchers in the form of an excel spreadsheet. Researchers did not have access to participant clinical identifiers. Data was then entered in SPSS for analyses.
Measures

Administrative Forms

Parents/caregivers filled out administrative forms with basic demographic information (e.g., child age, sex, ethnicity, etc.), as well as answered questions regarding abuse characteristics (e.g., type of maltreatment, relation to and age of perpetrator, etc.).

UCLA-PTSD Reaction Index for DSM 5 Child and Parent Versions

The UCLA-PTSD Reaction Index is a semi-structured interview process which was used to assess child and adolescent participants’ trauma history and full range of DSM-5 PTSD diagnostic criteria (Elhai et al., 2013; Steinberg et al., 2004; Steinberg et al., 2013). The UCLA-PTSD RI for DSM 5 consists of 27 questions, which are answered using a five point Likert scale (i.e., how much of the time during the past month: […] none, little, some, much, most). Example items that could be endorsed are: “I feel not connected to my body, like I’m not really there inside,” and “I feel jumpy or startle easily, like when I hear a loud noise or when something surprises me” (Steinberg et al., 2013).

Trauma Symptoms Checklist for Children

The TSCC, which measures trauma symptoms related to sexual abuse and other traumatic events in children ages 8-16 years, was used to assess child trauma symptoms. The 54 question TSCC has two validity scales (over- and under-reporting), and has six clinical scales (Anxiety, Depression, Posttraumatic Stress, Sexual Concerns, Dissociation, and Anger); utilizes a 4 point Likert scale (i.e., never, sometimes, lots of times, almost all of the time) (Briere, 1996). Clinical scales α coefficients in the standardization sample ranged from .77 to .89 (Briere, 1996). The current sample included 9 completed (pre- and post-scores) TSCC measures, with a Cronbach’s α of .98.
**Trauma Symptoms Checklist for Young Children**

The TSCYC, which is a caregiver report measure, assesses PTSD and other trauma-related symptoms in children ages 3–12 years (Briere, 2005; Briere et al., 2001). The TSCYC has eight clinical scales (Post-traumatic Stress-Intrusion, Post-traumatic Stress-Avoidance, Post-traumatic Stress-Arousal, Post-traumatic Stress-Total, Sexual Concerns, Dissociation, Anxiety, Depression, and Anger/Aggression). Briere et al. (2001) found good reliability for the TSCYC, with α coefficients ranging from .81 (sexual concerns) to .93 (PTSD Total). However, the current sample only had 2 completed (pre- and post-scores) TSCYC measure, so this measure was not used for analysis.

The following two measures, which assess adult PTSD symptomology and trauma history, were intended for assessment of parent/caregiver factors for the purposes of this study; however at the time of data collection, only 4 parents/caregivers had completed these measures. Due to the low number of completed forms, they will not be included for analyses, and are listed for informational purposes only.

**PTSD Checklist for DSM 5 (PCL-5)**

The PTSD Checklist is a 20 question self-report measure that was planned to assess DSM-5 PTSD criteria in parents (Blevins, Weathers, Davis, Witte, & Domino, 2015; Weathers et al., 2013a). Each question has a 5 point Likert scale (i.e., in the past month, how much were you bothered by: [...] not at all, a little bit, moderately, quite a bit, extremely. Example items that could be endorsed include: “repeated, disturbing, and unwanted memories of the stressful experience?” and “avoiding memories, thoughts, or feelings related to the stressful experience?” (Weathers et al., 2013a). Wortmann et al. (2016) found high internal consistency for the PCL-5 with α coefficients ranging from .75 to .95.
Life Experiences Checklist 5

The Life Events Checklist for DSM-5 (LEC-5) is a self-report measure that was planned to screen for potentially traumatic events in parents’ lifetimes (Weathers et al., 2013b). The LEC-5 measures the level of exposure to 16 potential events that are likely to result in PTSD or distress, and includes one additional item assessing exposure to any event not captured in the first 16 questions (Weathers et al., 2013b). Each question has a 6 point nominal scale (i.e., happened to me, witnessed it, learned about it, part of my job, not sure, doesn’t apply). Example events that could be endorsed include: “physical assault (for example, being attacked, hit, slapped, kicked, beaten up)”, and “sexual assault (rape, attempted rape, made to perform any type of sexual act through force or threat of harm)” (Weathers et al., 2013b).

Data Analysis Plan

IBM SPSS for Windows, Version 24, was used to perform all statistical analyses. First, descriptive statistics were examined for demographic variables (i.e., age, gender, ethnicity, etc.), as well as for abuse (i.e., type of abuse and cumulative abuse) and perpetrator variables (i.e., age, gender, relation, etc.). Second, using Phase II data, a correlation matrix of bivariate associations between pre- and post- treatment parent and child variables was planned (Hypothesis 1). Third, using Phase I and II data, a series of T-tests and a logistic regression were planned to explore group differences between children in standard TF-CBT treatment (Phase I) and parent-child concurrent treatment dyads (Phase II), and to examine predictors of parent variables on child outcomes, respectively (Hypothesis 2). However, due to the low sample size ($N = 4$) of parent-child concurrent treatment dyads (Phase II), analyses for Hypotheses 1 and 2 were not performed. Due to the sample size issue with Phase II data, Phase I data (only) was used to test Hypotheses 3-5. Fourth, group differences between children who completed treatment and
children who dropped-out were explored with a series of $T$-tests (Hypothesis 3). Fifth, bivariate associations among child variables (i.e., pre- and post- treatment scores from child and parent ratings of child PTSD symptoms, and child trauma symptoms) were examined through a correlation matrix (Hypothesis 4). Finally, a between-within subjects repeated-measures analysis of variance (ANOVA) was used to examine the differences in child and parent PTSD symptom ratings (Hypothesis 4), and change in PTSD symptoms from pre-treatment and post-treatment for children in TF-CBT (Hypothesis 5). The effect size (magnitude of the change between pre- and post-treatment scores) was examined by calculating Partial Eta Squared ($\eta^2_p$).
CHAPTER 4: RESULTS

**Descriptives Statistics for Demographic Variables**

In addition to demographic child variables (see Table 1, p. 26), descriptive statistics were utilized also to explore demographic abuse and perpetrator variables. Abuse demographics identified sexual abuse as the most prevalent form of abuse (68.8%), followed by family conflict/violence (29.7%), physical abuse (21.9%), neglect (12.5%), and others (35.9%). Nearly 60 percent of children experienced a single form of abuse, leaving approximately 40 percent having experienced multitype maltreatment (cumulative). Perpetrator demographics identified that approximately half of all perpetrators were 18 years or older, followed by those under 13 years (13.5%) (Table 2). Males were the most prevalent offenders (43.3%) compared to females (6.4%), a number which is likely underinflated due to the large percent (37.6%) of ambiguous identifiers and missing information (i.e., parent’s boyfriend/girlfriend, unknown, etc.) (Table 3). Approximately 50 percent of perpetrators were related to the child, as identified by familial or marriage labels (i.e., Mother, Grandfather, Step-brother), with Fathers and Step-fathers being the most reported offenders (28.4%).
### Table 2

Demographic Abuse Variables (N=128)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Abuse Type</strong></td>
<td></td>
</tr>
<tr>
<td>Sexual</td>
<td>88 (68.8)</td>
</tr>
<tr>
<td>Physical</td>
<td>28 (21.9)</td>
</tr>
<tr>
<td>Emotional</td>
<td>8 (6.3)</td>
</tr>
<tr>
<td>Neglect</td>
<td>16 (12.5)</td>
</tr>
<tr>
<td>Drug Endangerment</td>
<td>7 (5.5)</td>
</tr>
<tr>
<td>Family Conflict/Violence</td>
<td>38 (29.7)</td>
</tr>
<tr>
<td>Witness to Violence</td>
<td>9 (7.0)</td>
</tr>
<tr>
<td>Other</td>
<td>9 (7.0)</td>
</tr>
<tr>
<td>Missing</td>
<td>5 (3.9)</td>
</tr>
<tr>
<td><strong>Single v. Multitype</strong></td>
<td></td>
</tr>
<tr>
<td>Single Maltreatment</td>
<td>74 (57.8)</td>
</tr>
<tr>
<td>Multitype Maltreatment</td>
<td>49 (38.3)</td>
</tr>
<tr>
<td>Two Types of Maltreatment</td>
<td>27 (21.1)</td>
</tr>
<tr>
<td>Three Types of Maltreatment</td>
<td>13 (10.2)</td>
</tr>
<tr>
<td>Four Types of Maltreatment</td>
<td>8 (6.3)</td>
</tr>
<tr>
<td>Five Types of Maltreatment</td>
<td>1 (.8)</td>
</tr>
<tr>
<td>Missing</td>
<td>5 (3.9)</td>
</tr>
</tbody>
</table>

*Note.* “Child on Child” was a category of maltreatment identified in the records that reflected children who were perpetrators as well as victims; although it was ambiguous as to whether it related to sexual abuse, physical abuse, or another type. Therefore it was not reflected in the table above.
Table 3

Demographic Perpetrator Variables (N=141)

<table>
<thead>
<tr>
<th>Variable</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age</strong></td>
<td></td>
</tr>
<tr>
<td>Under 13 years</td>
<td>19 (13.5)</td>
</tr>
<tr>
<td>13-17 Years</td>
<td>10 (7.1)</td>
</tr>
<tr>
<td>18+ years</td>
<td>73 (51.8)</td>
</tr>
<tr>
<td>Unknown</td>
<td>19 (13.5)</td>
</tr>
<tr>
<td>Missing</td>
<td>20 (14.2)</td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>61 (43.3)</td>
</tr>
<tr>
<td>Female</td>
<td>9 (6.4)</td>
</tr>
<tr>
<td>Male/Female, Unknown</td>
<td>53 (37.6)</td>
</tr>
<tr>
<td>Missing</td>
<td>18 (12.8)</td>
</tr>
<tr>
<td><strong>Relationship to Victim</strong></td>
<td></td>
</tr>
<tr>
<td>Father</td>
<td>30 (21.3)</td>
</tr>
<tr>
<td>Step-Father</td>
<td>10 (7.1)</td>
</tr>
<tr>
<td>Mother</td>
<td>5 (3.5)</td>
</tr>
<tr>
<td>Brother</td>
<td>4 (2.8)</td>
</tr>
<tr>
<td>Half-Brother</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Half-Sister</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Step-Brother</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Step-Sister</td>
<td>1 (.7)</td>
</tr>
<tr>
<td>Grandfather</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>Uncle</td>
<td>6 (4.3)</td>
</tr>
<tr>
<td>Cousin</td>
<td>8 (5.7)</td>
</tr>
<tr>
<td>Parent’s Boyfriend/Girlfriend</td>
<td>7 (5.0)</td>
</tr>
<tr>
<td>Mother’s Ex-Husband</td>
<td>3 (2.1)</td>
</tr>
<tr>
<td>Godmother</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Other Known Adult</td>
<td>2 (1.4)</td>
</tr>
<tr>
<td>Other Known Child</td>
<td>4 (2.8)</td>
</tr>
<tr>
<td>Unrelated Adult</td>
<td>10 (7.1)</td>
</tr>
<tr>
<td>Unrelated Child</td>
<td>7 (5.0)</td>
</tr>
<tr>
<td>Friend</td>
<td>1 (.7)</td>
</tr>
<tr>
<td>Unknown</td>
<td>14 (9.9)</td>
</tr>
<tr>
<td>Missing</td>
<td>18 (12.8)</td>
</tr>
<tr>
<td><strong>Related v. Unrelated/Unknown</strong></td>
<td></td>
</tr>
<tr>
<td>Related to Child</td>
<td>73 (51.8)</td>
</tr>
<tr>
<td>Unrelated</td>
<td>25 (17.7)</td>
</tr>
<tr>
<td>Unknown/Unknown Relationship</td>
<td>25 (17.7)</td>
</tr>
<tr>
<td>Missing</td>
<td>18 (12.8)</td>
</tr>
</tbody>
</table>

*Note.* “Related” to child based on familial relationship/marriage identifiers (e.g., Cousin, Step-brother); “Unknown/UNK Relationship” is based on unknown status or ambiguous identifiers (e.g., Godmother, Other Known Adult). The total number of perpetrators (N = 141) is based on children with multiple perpetrators.
Parental Factors

While the primary aim of this study was to examine the impact that parental psychopathology (i.e., PTSD, trauma history and symptoms), and separate but parallel parent treatment (CPT) has on child wellbeing pre- and post-treatment (TF-CBT), analyses were unable to be performed due to the low sample size ($N = 4$) of families who had completed parent-child concurrent treatment dyads. Thus, hypothesis 1 and 2 could not be tested.

Treatment Completion

Fifty-three children had elevated PTSD symptomology which made them eligible for TF-CBT treatment; 48 of these completed treatment and 5 dropped out (Table 4). Of these, pre-treatment scores were available for the following measures: UCLA PTSD RI Child and Parent versions (Completers, $n = 34$, Non-completers, $n = 4$), TSCC scales (Completers, $n = 21$, Non-completers, $n = 3$). A logistic regression analysis to examine predictors of treatment completion versus attrition was attempted, but results did not meet significance due to the low number of families that dropped out. A series of independent samples $t$-tests were examined for mean differences between treatment completers and non-completers; none approached significance. However, with the exception of the UCLA PTSD RI Child (Completers, $M = 45.23$, $SD = 16.59$; Non-Completers, $M = 52.00$, $SD = 12.91$), the overall trend showed higher levels of pre-treatment PTSD and trauma symptoms for completers versus non-completers (Table 5). Results must be interpreted with caution given the limitations (i.e., small sample size, uneven groups). Overall, hypothesis 3 was not supported, but trends were in the expected direction.
Table 4

Sample Eligibility Distribution (N=128)

<table>
<thead>
<tr>
<th>Eligible for TF-CBT Treatment</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed TF-CBT Treatment</td>
<td>48 (37.5)</td>
</tr>
<tr>
<td>Did not complete</td>
<td>5 (3.9)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Eligible for Outpatient Treatment</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed Outpatient Treatment</td>
<td>13 (10.2)</td>
</tr>
<tr>
<td>Did Not Complete</td>
<td>1 (.8)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Referred</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alternate Outpatient Treatment Provider</td>
<td>14 (10.9)</td>
</tr>
<tr>
<td>Higher Level of Care, Residential</td>
<td>1 (.8)</td>
</tr>
<tr>
<td>Did Not Meet Criteria-Referred Out</td>
<td>2 (1.6)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other</th>
<th>N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed Assessment</td>
<td>30 (23.4)</td>
</tr>
<tr>
<td>Did Not Complete Assessment</td>
<td>8 (6.3)</td>
</tr>
<tr>
<td>Chose Another Provider Prior to Assessment</td>
<td>1 (.8)</td>
</tr>
<tr>
<td>No Showed Assessment</td>
<td>2 (1.6)</td>
</tr>
<tr>
<td>Missing/No Response</td>
<td>3 (2.3)</td>
</tr>
</tbody>
</table>

Table 5

Group Mean Comparisons between Completers and Non-Completers on Study Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Completers</th>
<th>Non-Completers</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>(n = 35)</td>
<td>(n = 4)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>UCLA PTSD RI Child Pre-scores</td>
<td>45.23 (16.59)</td>
<td>52.00 (12.91)</td>
<td>-.78</td>
<td>.43</td>
</tr>
<tr>
<td>UCLA PTSD RI Parent Pre-scores</td>
<td>42.23 (13.45)</td>
<td>38.50 (4.50)</td>
<td>.54</td>
<td>.58</td>
</tr>
<tr>
<td>(n = 21)</td>
<td>(n = 3)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TSCC Pre-Anxiety</td>
<td>47.19 (23.29)</td>
<td>31.67 (28.00)</td>
<td>1.05</td>
<td>.30</td>
</tr>
<tr>
<td>TSCC Pre-Depression</td>
<td>43.10 (20.74)</td>
<td>33.33 (31.21)</td>
<td>.72</td>
<td>.47</td>
</tr>
<tr>
<td>TSCC Pre-Anger</td>
<td>41.67 (19.36)</td>
<td>27.67 (24.66)</td>
<td>1.14</td>
<td>.26</td>
</tr>
<tr>
<td>TSCC Pre-Posttraumatic Stress</td>
<td>46.24 (20.65)</td>
<td>34.67 (27.79)</td>
<td>.87</td>
<td>.39</td>
</tr>
<tr>
<td>TSCC Pre-Dissociation</td>
<td>44.95 (21.11)</td>
<td>34.00 (24.26)</td>
<td>.82</td>
<td>.41</td>
</tr>
<tr>
<td>TSCC Pre-Overt Dissociation</td>
<td>44.14 (21.93)</td>
<td>31.00 (28.61)</td>
<td>.94</td>
<td>.35</td>
</tr>
<tr>
<td>TSCC Pre-Dissociation Fantasy</td>
<td>41.14 (23.77)</td>
<td>21.67 (28.00)</td>
<td>1.30</td>
<td>.20</td>
</tr>
<tr>
<td>TSCC Pre-Sexual Concern</td>
<td>46.71 (28.08)</td>
<td>28.67 (32.39)</td>
<td>1.02</td>
<td>.31</td>
</tr>
<tr>
<td>TSCC Pre-Sexual Preoccupation</td>
<td>44.05 (27.14)</td>
<td>26.00 (36.38)</td>
<td>1.04</td>
<td>.31</td>
</tr>
<tr>
<td>TSCC Pre-Sexual Distress</td>
<td>44.71 (30.20)</td>
<td>22.00 (29.59)</td>
<td>1.22</td>
<td>.23</td>
</tr>
</tbody>
</table>

UCLA PTSD RI = UCLA Post-traumatic Stress Disorder Reaction Index, TSCC = Trauma Symptom Checklist for Children, 
SD = Standard Deviation
Rater Concordance and Pre- and Post-Treatment Score Change

Of the 48 children who were eligible for and completed TF-CBT treatment, matched sets of pre- and post-treatment scores (UCLA PTSD RI Child and Parent versions) were available for 29 children. These were examined using a bivariate correlation matrix. Results indicated positive correlations between UCLA PTSD RI parent post-scores and child post-scores \(r = .64, p < .01\), UCLA PTSD RI parent pre-scores and child post-scores \(r = .51, p < .01\), and the UCLA PTSD RI parent pre-scores and parent post-scores \(r = .47, p < .01\). Children’s ratings of their pre-treatment symptoms did not correlate with other variables. Results suggest that children’s and parent’s ratings are similarly related post-treatment.

Table 6

<table>
<thead>
<tr>
<th>Bivariate Correlations Between Study Variables</th>
<th>1.</th>
<th>2.</th>
<th>3.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. UCLA PTSD RI Child Post-Scores</td>
<td>--</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. UCLA PTSD RI Parent Pre-Scores</td>
<td>.51**</td>
<td>--</td>
<td></td>
</tr>
<tr>
<td>3. UCLA PTSD RI Parent Post-Scores</td>
<td>.64**</td>
<td>.47**</td>
<td>--</td>
</tr>
</tbody>
</table>

\(**p < .01\), two-tailed.

Next, a repeated-measures ANOVA was used to examine the difference between pre- and post-treatment scores, and between child and parent scores. The overall model for UCLA PTSD RI pre- and post-treatment scores was significant, \(F(1,1) = 113.48, p < .000, \eta_p^2 = .67\); indicating that PTSD symptoms scores were significantly reduced post-treatment. Using Cohen’s (1988) effect sizes (.01 = small, .13 = medium, .26 = large), the partial eta squared of .67 is a large effect size. Although scores were reduced, there was no control group, therefore the reduction cannot be attributed to the treatment in this study. Child and parent scores were not significantly
different, \( F(1,1) = .044, p = .834 \); indicating a high level of concordance between child and parent ratings of children’s PTSD symptoms using this measure.

Table 7

*Group Mean Comparisons Between Child and Parent Ratings on Study Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Child Mean (SD)</th>
<th>Parent Mean (SD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCLA PTSD RI Pre-scores</td>
<td>45.28 (16.73)</td>
<td>43.10 (13.99)</td>
</tr>
<tr>
<td>UCLA PTSD RI Post-scores</td>
<td>23.07 (11.48)</td>
<td>21.76 (11.98)</td>
</tr>
</tbody>
</table>

Table 8

*Child and Parent Pre- and Post- Treatment Scores Repeated-Measures ANOVA*

<table>
<thead>
<tr>
<th>Source</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>( F )</th>
<th>( p )</th>
</tr>
</thead>
<tbody>
<tr>
<td>ULCA PTSD RI Pre- and Post-Scores</td>
<td>1</td>
<td>13751.45</td>
<td>13751.45</td>
<td>113.48</td>
<td>.000</td>
</tr>
<tr>
<td>Child and Parent Scores</td>
<td>1</td>
<td>5.38</td>
<td>5.38</td>
<td>.044</td>
<td>.834</td>
</tr>
<tr>
<td>Error</td>
<td>56</td>
<td>6785.65</td>
<td>121.17</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Figure 1. Child and Parent Ratings of Children’s PTSD Symptoms Pre- and Post-treatment.
CHAPTER 5: DISCUSSION

Millions of reports of child maltreatment are made to child welfare agencies across the U.S. annually. Approximately 20 percent of these reports are substantiated, indicating that 1 in 5 children (reported) are victims of CM (US DHHS, 2018), and this number may be higher in community samples with unreported accounts of CM. Despite community efforts, CM continues to be a prevalent issue. Given the many potential adverse effects that CM may have on children across all domains (i.e., cognitive, social, psychological, etc.), especially during important developmental stages (DeGregorio, 2013; NSCDC, 2005/2014), continuing research is needed on treatment interventions (including treatment completion), and indicators of child wellbeing pre- and post-treatment. Furthermore, previous studies have indicated that the role of parental/caregiver (non-offending) psychopathology and trauma has the potential to impact their ratings of their children’s wellbeing (Shemesh et al., 2005), and also to affect their children’s treatment outcomes (Rishel, Greeno, Marcus, & Anderson, 2006; Yasinski et al., 2016). Despite this knowledge, parents may not be routinely screened for these issues, and therefore may not be receiving the support and treatment they may need to effectively (positively) impact their children’s wellbeing throughout – and post-treatment.

The primary and secondary aims of this study were to examine parental psychopathology and trauma in non-offending parents of children with maltreatment histories who sought services through a local CAC, and the role that these parental factors may have on children’s pre- and post-treatment adjustment; including the impact that separate parent treatment (CPT) has on child treatment (TF-CBT) outcomes. Specifically, it was expected that parent levels of psychopathology and trauma (e.g., history, symptoms, secondary trauma) identified in this sample would match prior research (Swartz et al., 2005; Vidair et al., 2011), and that higher
levels of parental psychopathology and trauma would negatively impact children’s pre-treatment wellbeing (i.e., increased elevations of PTSD or trauma symptoms), and that parents who were eligible for and completed their own treatment would positively impact children’s post-treatment outcomes (i.e., significantly reduced symptoms post-treatment versus children with parents who did not receive treatment). However, several challenges impeded the planned collection of Phase II data (i.e., that with both child and parent PTSD and trauma symptoms, and separate but concordant parent and child treatment). The implementation of parental screening for psychopathology and trauma, and providing independent CPT treatment for eligible parents, was a new service for the MCAC, and as such required additional time spent on therapist training and program administration. The time delay in being able to recruit and administer treatment to Phase II families was further impeded by staffing issues (i.e., short staff due to maternity leave). Therefore, the intended (and expected) sample size of approximately 30 to 50 families was reduced to 4 families who completed Phase II treatment at the time of data collection for this project. It should be noted that additional families were in the course of treatment at the time of collection. Data, from these and future families, is planned for additional collection during a follow-up study.

The third aim of this study was to examine predictors of child treatment completion. While TF-CBT treatment is considered the gold standard of trauma-informed interventions, and given the need for such treatment in CM populations, the wide range of prevalence of treatment dropout is disturbing (11% -70%; Cary & McMillen, 2012; Cohen et al., 2011; Hayes et al., 2017; Jensen et al., 2014; Wamser-Nanney & Steinzor, 2017). Factors that contribute to treatment completion have been mixed in the literature. This study aimed to examine which variables (i.e., child, parent, abuse, perpetrator) predicted treatment completion. However, while
the initial sample of families served was satisfactory, the unequal and low rate of attrition from those that were eligible for TF-CBT treatment \((n=53)\) but dropped out \((n=5)\) prohibited the completion of a logistic regression. Despite sample size issues, a series of \(T\)-tests was run to examine group differences on pre-treatment measures of PTSD and trauma symptoms in treatment completers and non-completers. With the exception of pre-treatment scores on the UCLA PTSD RI Child version, PTSD and trauma symptoms were trending lower for non-completers compared to completers (see Table 5). While these findings are similar to studies by Chasson et al. (2013) and Tebbett et al. (2018), which found children with less symptomology were more likely to dropout, they should be interpreted with caution due to the low sample size. Additionally, it should be noted that the overall attrition rate (9.4%) from the CAC’s TF-CBT treatment intervention was on the low end compared to the prevalence rates in the literature. Potential factors may be due to the consultation and assessment process used by the CAC (which screens out ineligible children, including potential non-completers; see Table 4), or to other treatment, therapist, or child and family factors.

The fourth aim of this study was to examine child and parent rater concordance of child PTSD symptomology. As the literature on child-parent concordance or cross-informant ratings when assessing child symptomology is also mixed (Clawson et al., 2013; Stover et al., 2010), and because self and observer rating measures are widely used for assessing child wellbeing, further study is warranted. The present study found that parent and child ratings of children’s post-treatment PTSD symptoms were positively correlated. Interestingly, child pre-treatment ratings were not significantly correlated with parent pre-treatment ratings; possibly indicating more variability in children’s ratings of their own symptoms pre-treatment. However, a repeated-measures ANOVA on child and parent pre- and post-treatment ratings indicated that there was
no significant difference between child and parent pre-treatment ratings, and child and parent post-treatment ratings (Table 7, Figure 1). These results indicate that children and parents similarly rated children’s PTSD symptoms using the UCLA PTSD RI, and for this population at least, there seems to be high rater concordance. In regards to the lack of child-parent correlation on pre-treatment scores versus correlated post-treatment scores, one theory may be that children’s ratings may be influenced from their experiences during the psychoeducational component of TF-CBT (e.g., gaining greater understanding or awareness of their symptoms, or internalizing what they learn during therapy), and therefore are more likely to rate themselves more similarly to their parents (who also participate in the therapeutic process).

The final aim of this study was to examine changes in children’s PTSD symptoms pre- and post-treatment. Given the plethora of research on the efficacy of TF-CBT, it was expected that children’s post-treatment scores would be significantly reduced. However, due to the nature of the study design (using archival data), and therefore it not utilizing a randomized control trial (RCT) design, post-treatment symptom reduction cannot be attributed to TF-CBT treatment in this study. It should be noted though that children and parents did report significantly lower child PTSD symptoms post-treatment (pre-treatment, $M = 44.19, SD = 15.32$; post-treatment, $M = 22.41, SD = 11.65$), and that this is in line with findings from RCT studies (Konanur et al., 2015; King et al., 2000; Cohen, & Mannarino, 1996). Future studies may wish to use a randomized control trial design with a waitlist control group, however ethical considerations should be reviewed, as studies have shown that waitlisted children show little to no symptom improvement (King, et al. 2000).
Limitations

As noted throughout, this study was faced with several limitations, the most profound being small sample sizes. Despite best estimates, only 4 families were able to complete separate but concordant child and parent treatment, severely limiting Phase II data and impeding further analyses of parent variables on child pre- and post-outcomes. In addition to delays with Phase II data, there were also inconsistencies in Phase I data (i.e., missing or incomplete pre- and post-treatment scores), which further impacted sample sizes for pre- and post-treatment comparisons. In addition, while considered a positive outcome overall, the limited number of treatment non-completers hindered analyses related to examining predictors of treatment completion. Furthermore, the use of archival data instead of a RCT design, means that significant decreases in children’s PTSD symptoms post-treatment cannot be attributed to TF-CBT in this study. The use of archival data also limited the study in several ways: 1) missing/incomplete data; 2) only total symptom scores were available for the UCLA PTSD RI (i.e, no subscale data was available, lacked detail of severity and chronicity); and 3) researchers did not have access to client files in order to locate missing data (due to study design and IRB approval). Moreover, the use of a clinical sample of children with histories of CM, means that study findings may not be generalizable to other child samples. In light of these limitations, results should be interpreted with caution.

Future Research

Overall, although this study was faced with several limitations, strengths include identifying significant concordance rates between child and parent reports of children’s PTSD symptomology (similar to Renk et al., 2007), as well as identifying a significant difference between pre- and post-treatment PTSD scores (similar to Cohen, & Mannarino, 1996; King et al.,
2000; Konanur et al., 2015). Given the potential impact that parent psychopathology and trauma can have on children’s pre-and post-treatment outcomes following CM, and due to the limitations of this study to add to the field’s understanding of these impacts, further research is encouraged. In fact, being that this was a preliminary study performed during the implementation phase of the CAC providing separate screening and treatment for parents, a follow up study is in the planning process. It is hoped that a larger sample size will allow for analyses which may lead to new findings.
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