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The Effectiveness of Trauma-Focused Cognitive Behavioral Therapy on Children and Adolescents Who Suffer From Complex Trauma and Exhibit Post-Traumatic Stress Disorder/Symptoms: A Systematic Review

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The Effectiveness of Trauma-Focused Cognitive Behavioral Therapy
on Children and Adolescents Who Suffer From
Complex Trauma and Exhibit
Post-Traumatic Stress Disorder/Symptoms: A Systematic Review

by

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MSW Clinical Research Paper

Presented to the Faculty of the
School of Social Work
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This Clinical Research Project is a graduation requirement for MSW students at St. Catherine University/University of St. Thomas School of Social Work in St. Paul, Minnesota and is conducted within a nine-month time frame to demonstrate facility with basic social research methods. Students must independently conceptualize a research problem, formulate a research design that is approved by research committee and the university Institutional Review Board, implement the project, and publicly present the finding of the study. This project is neither a Master's thesis nor a dissertation.

Abstract

The purpose of this study was to examine current literature on Trauma-Focused Cognitive Behavioral Therapy in order to identify the effectiveness of this treatment on children and adolescents who suffer from complex trauma and exhibit Post-Traumatic Stress Disorder (PTSD) or Post-Traumatic Stress Symptoms (PTSS). An inclusion criterion was created to capture studies that used TF-CBT or similar CBT techniques with this population. A systematic review research design was utilized resulting in 11 studies meeting criteria and these articles were then analyzed. The findings of the included studies were extracted and then divided into five distinct categories based on the PTSD/PTSS instrument used. The results measured statistically significant reductions in PTSD/ PTSS following the use of TF-CBT and other CBT methods when compared to wait-list control groups. Additionally, TF-CBT or/and other CBT methods were found to be as effective or more effective at reducing PTSD or PTSS when compared to other treatment methods including; supportive group for parents, standard community care, child-centered therapy, non-directive supportive therapy, and EMDR. Therefore, the findings of this study suggest that TF-CBT or comparable CBT methods are effective and can be utilized with children and adolescents suffering from PTSD/PTSS who have experienced complex trauma.

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Table of Contents

Introduction.....	6
Literature Review.....	11
Methods.....	31
Findings.....	36
Discussion.....	56
Conclusion.....	63
References.....	65
Appendices.....	76

List of Figures and Tables

Figure 1. Search and review strategies.....	34
Table 1. Search Categories and Terms.....	34
Table 2. Excluded Studies.....	38

A substantial number of children within the United States and around the world are exposed to and are victims of traumatic events such as abuse (physical, psychological, emotional), crime, neglect, rape, domestic or community violence, natural disasters and sudden death of loved ones. International studies have documented that nearly 25% of children around the world are in some way affected by child sexual abuse, physical abuse and/or domestic violence (Ammar, 2006; Chen, Dunne, & Han, 2004; Nelson et al., 2002). In a British national survey of 2,869 young adults, nearly 16% of the sample indicated they were victims of severe maltreatment in their youth (May-Chahal C & Cawson P, 2005) and according to the U.S Department of Health and Human Services (2012) for the fiscal year of 2011, approximately 676,569 children were victims of child abuse and neglect.

Children and adolescents within the United States are more likely to be exposed to crime or other acts of violence than their adult counterparts (Finkelhor, Turner, Ormrod, Hamby, & Kracke, 2009). Thankfully many children and adolescents are remarkably resilient to these devastating circumstances. However, others end up having lasting physical, psychological and emotional impairments that affect development. Some exhibit symptoms in the form of an inability to self-regulate and others through depersonalization or dissociation. Meanwhile others display poor impulse control, self-destructive behaviors, aggression, substance abuse/ use and increased rates of depression. Others present with regressive behaviors, psychological difficulties, sensorimotor development problems, conduct problems, complications with attachment, and difficulties with executive functioning and/ or low self-concepts (National Child Traumatic Stress Network, 2003; Cook et al., 2007, Finkelhor et al., 2009; Cohen, Mannarino, Berliner, & Deblinger, 2000; Cohen, Mannarino, & Knudsen, 2004).

Physical Effects of Trauma

There are immediate physical health consequences of abuse and/or neglect. These effects are primarily due to neglect but can include minor (bumps or bruises) as well as severe (broken bones, hemorrhage, growth retardation, brain damage, severe brain damage, and even death) cases of abuse (Child Welfare Information Gateway, 2011; Child Welfare Information Gateway, 2013). Furthermore research has indicated that prolonged and unpredictable amounts of stress have a profoundly negative impact on children's brain development (Child Welfare Information Gateway, 2009). The ACE Study found that certain adverse childhood experiences: such as emotional, physical and sexual abuse and/or emotional and physical neglect, are major risk factors "for the leading causes of illness and death as well as poor quality of life in the United States" (Felitti & Anda, 1997). Several other studies have indicated a correlation between child maltreatment and poor physical health such as cardiovascular disease, diabetes, asthma, liver and heart disease and obesity (Felitti & Anda, 1997; Child Welfare Information Gateway, 2013; Widom, Czaja, Bentley, & Johnson, 2012; Shin, & Miller, 2012).

Behavioral Effects of Trauma

Many children who experience childhood trauma are at risk for and exhibit emotional and behavioral problems. The Child Welfare Information Gateway (2013) found that children who experience child abuse and neglect are nine times more likely to become involved in criminal activity. Some traumatized children exhibit uncontrolled or impulsive behavior in part due to deficits in their executive functioning. However, for others re-enactment behaviors are a means of attempting to master an understanding of the trauma they endured (Child Welfare Information Gateway, 2013). These behaviors can appear as

sexualized behaviors, ineffective relationship dynamics, self-injurious behaviors, aggression, or control. Conversely, some individuals use alcohol and other substances as a way to avoid intolerable emotions and memories (Child Welfare Information Gateway, 2013; Cook et al., 2007; National Child Traumatic Stress Network, 2003). Dube, Miller, Brown, Giles et al. (2006) completed a study on the impact of adverse childhood experience (ACE) leading to multiple problems including alcohol and drug use. They concluded that those children with multiple ACE's were two to three times more likely to initiate alcohol use before the age of 14. While a different study determined that more than a third of adolescents with abuse and neglect in their childhoods will have a substance use disorder before their 18th birthday (Wilson, Dolan, Smith, Casanueva & Ringeisen, 2012).

Emotional Effects of Trauma

Traumatic events are associated with emotional and psychological difficulties ranging from fear and lack of trust to full blown lifelong difficulties including Posttraumatic Stress Disorder (PTSD) or Posttraumatic Stress Symptoms (PTSS); complications with attachment; regressive behaviors; borderline personality disorder; increased rates of depressions, anxiety, suicidality; low self-esteem; relationship difficulties; substance use disorders; externalizing symptoms; conduct problems and at times aggressive conduct disorders (Child Welfare Information Gateway, 2013; Cohen et al., 2000; Cohen et al., 2003).

Felitti & Anda (2009) found that roughly 54 percent of cases of depression and 58 percent of suicide attempts in women were somehow connected to adverse traumatic childhood experiences that persisted into adolescence or adulthood. This notion that untreated trauma could lead to future chronic emotional, behavioral and psychological

difficulties is one commonly supported by researchers (Child Welfare Information Gateway, 2013; Frommberger, Angenendt, Berger, 2014; Casanueva et al., 2012). Chapman, Whifield, Felitti, Dube, et al. (2004) found that there was a strong relationship between adverse childhood experiences and the probability of a recent or lifetime depressive disorder. Suggesting that childhood exposure to ACE's are associated with increased risk for depression up to decades after the occurrences of the ACE's (Chapman et al., 2004).

Trauma's Influence on Society

While acts of violence are inflicted on children and adolescents, the impact does not end there; these acts impact society as a whole. One study determined that the daily cost of child abuse and neglect in 2001 was approximately \$258 million a day; including both direct cost (mental health, child welfare, physical health concerns, hospitalizations and law enforcement) and indirect costs (increased use of healthcare system, juvenile delinquency and adult criminal activity, increased domestic violence, lower productivity in society) (National Child Traumatic Stress Network, 2003). Moreover, according to a study funded by the CDC "the lifetime cost of child maltreatment and related fatalities in 1 year totals \$124 billion" U.S dollars (Child Welfare Information Gateway, 2013).

National statistics and studies (U.S. Department of Health and Human Services, 2013; U.S. Government Accountability Office, 2011; Finkelhor et al., 2009; Cohen et al., 2000) have documented disproportionately higher levels of traumatic exposure for children and adolescents within the United States. This level of exposure leaves lasting effects on the children and adolescents that fall victim to trauma (Child Welfare Information

Gateway, 2013; Cohen et al., 2000; Cohen et al., 2003). Social workers and other mental health professionals are among the first in line to meet this overwhelming need.

Social workers and other professionals are utilized to help with the treatment of traumatized children and adolescents exposed to abuse (physical, sexual, psychological, emotional), crime, neglect, rape, domestic violence, community violence, and natural disasters. They are called to advocate and be a voice for the needs of children and adolescents affected by childhood traumas. Social workers are also held to key principles of service to address social problems that affect society, advocate for the needs of others and continue to increase their professional knowledge (National Association of Social Workers, 1999). Due to the lasting effects of trauma, such as PTSD/PTSS, it is essential that social workers and other professionals provide these children and adolescents with the best and most effective treatment possible.

Trauma-focused cognitive behavioral therapy (TF-CBT) has been shown to be a superior method to comparative treatments that reduce the long lasting effects, symptoms and behaviors of those affected by trauma (Kornor et al., 2008, p.2; Cohen et al., 2000). Studies have examined the TF-CBT compared to treatments such as Child Centered Therapy (CCT), Standard Community Treatment (SCT), Nondirective Supportive Therapy and more. These studies have found that TF-CBT is particularly effective at reducing symptoms of PTSD and improving anxiety and behaviors on a wide scale (Cohen, 2004; Deblinger et al., 2006; Cohen & Mannarino, 1996; Cohen et. al, 2000).

Nonetheless, little research has noted the efficiency of TF-CBT with regard to children and adolescents suffering from PTSD or PTSS that have experienced complex trauma. Therefore, it is essential to determine the effectiveness of TF-CBT on children

and adolescents that suffer from complex trauma and exhibit PTSD or PTSS. This paper proposes a systematic review of the literature in order to assess the effectiveness of TF-CBT on children and adolescents that suffer from complex trauma and exhibit PTSD or PTSS.

Literature Review

TF-CBT was developed by Dr. Anthony Mannarino, Judith Cohen and Esther Deblinger during the 1990's and since then it has undergone refinements to help children and adolescents recover from trauma. It has been suggested that a large proportion of children and adolescents exposed to traumatic events are later referred for mental health services (Deblinger, McLeer, & Henry, 1990; Deblinger, Lippman, & Steer, 1996). McLeer, Deblinger, Henry & Orvaschel (1992) suggest 43.9% of those referred for mental health services meet criteria for PTSD and a vast majority suffer from PTSS.

PTSD and PTSS have both long-term and short-term implications for children; therefore an effective and efficient treatment method is of the utmost importance. More precisely, determining the effectiveness of TF-CBT on children and adolescents who experience complex trauma and exhibit PTSD/PTSS is key. In order to better understand the need for answers, a detailed description of what constitutes PTSD/PTSS and complex trauma is necessary.

PTSD/PTSS

PTSD and PTSS have the potential to be associated with serious mental health concerns as well as emotional and behavioral concerns that emerge from any type of traumatic event (Deblinger, Mannarino, Cohen, & Steer, 2006; Cohen, Mannarino, Perel, & Straton, 2007). PTSD is distinguished from other diagnostic psychiatric disorders in that

PTSD has a known etiology or a specific life event that ultimately causes PTSD in some individuals (National Center for Posttraumatic Stress Disorder, 2009). Examples of these life events could include prolonged or brief war exposure, assault, community violence, murder, torture, rape, childhood physical or sexual abuse, domestic violence, serious accidents or other forms of severe trauma.

PTSD was made an official diagnosis in the DSM-III of the American Psychiatric Association in 1980 (National Center for PTSD, 2009). Prior to the 1980's the symptoms now described as PTSD were recognized in a variety of other diagnoses such as; rape trauma syndrome, concentration camp syndrome or war neurosis (National Center for PTSD, 2009). Currently the diagnostic criteria for PTSD include a history of exposure to a traumatic event that is followed by symptoms in four categories: intrusion, avoidance, negative alterations in cognitions and mood, and alterations in arousal and reactivity.

Traumatic events may happen once for some individuals, others may experience recurring trauma. Many children experience multiple traumas (Copeland et al., 2007; Deblinger et al., 2006; National Child Traumatic Stress Network, 2003). This habitual exposure to multiple traumatic events can lead to complex trauma.

Complex Trauma

Complex trauma describes the dual relationship between a child's exposure to traumatic events as well as the impact this exposure has on both short-term and long-term outcomes (National Child Traumatic Stress Network, 2003; Cook et al., 2007). Complex traumatic exposure typically occurs when a child experiences multiple traumatic events which may consist of any combination of the following: child sexual, emotional or physical abuse; child neglect or maltreatment; and even such acts as domestic violence,

ethnic cleansing, war, and/ or community violence (Cook et al., 2007; National Child Traumatic Stress Network, 2003; Deblinger et al., 2006; Cohen et al., 2011). The National Child Traumatic Stress Network (2003) denotes that “the initial traumatic experience (e.g., parental neglect and emotional abuse) and the resulting emotional dysregulation, loss of a safe base, loss of direction, and inability to detect or respond to danger cues often leads to subsequent trauma experiences (e.g., physical and sexual abuse, or community violence) (p.5).

Negative outcomes of complex trauma appear after such exposures and correlate to a range of clinically significant symptomology. For example early childhood sexual abuse and stress are associated with PTSD; however, the symptoms extend beyond a mere diagnosis of PTSD (National Child Traumatic Stress Network, 2003). These other symptoms are a result of impaired or negatively affected domains such as: self-regulation, damaged attachments, affect confusion and impairment, addictions, physical aggression, sexualized behaviors and disorders, re-victimization, physical health concerns, dissociation, social impairments, eating disorders and immune deficiencies (National Child Traumatic Stress Network, 2003; Cook et al., 2007; Lennarts et al., 2013; Deblinger et al., 2006).

Individuals with complex trauma that exhibit PTSD/PTSS symptoms are at a high risk of symptomology that can ultimately affect a child’s daily life. There could be an impact on the child’s affect, behavior, school performance, interpersonal relationships, attention, self-perceptions, self-concept and emotional regulation (Child Welfare Information Gateway, 2013). Recognizing the importance of early intervention, TF-CBT was created to assist children in overcoming these obstacles.

Overview of Trauma-Focused Cognitive Behavioral Therapy

TF-CBT is a therapy treatment for traumatized individuals with residual symptoms stemming from trauma. TF-CBT is a manualized treatment, which is a product of a combination of earlier treatments developed by Cohen/Mannarino and the Deblinger team, which focused on the treatment of childhood sexual abuse (Cohen and Mannarino, 1993; Deblinger, Stauffer, and Steer, 2001). Cohen and Mannarino's initial treatments went by an assortment of names; Structured Parent Counseling-Child Psychotherapy (CPC-CP), Cognitive-Behavioral Therapy adapted for Sexually Abused Pre-school children (CBT-SAP), and Sexual Abuse-Specific Cognitive Behavioral Therapy (SAS-CBT) (Cary, & McMillen, 2012, p. 749). CBT-SAP used interventions based on cognitive reframing, psychoeducation and caregiver participation while SAS-CBT included a stress management component along with the other interventions.

Conversely, in 1996 Deblinger and Heflin's cognitive behavioral manual used gradual exposure as the central intervention for traumatized children. The treatment encouraged in vivo exposure to the trauma reminders as a way to overcome avoidance and anxiety. There was also a narrative component where the child was asked to describe the details of the trauma along with the feelings and thoughts that accompany the reminders and previous experience(s) (Cary & McMillen, 2012, p. 749). Along with the in vivo exposure, Deblinger explored the role parents had on the therapeutic success of the treatment (Cohen et al., 2006). It wasn't until 1997 that Cohen, Mannarino and Deblinger merged together to find an approach that effectively treated traumatized youth, which became TF-CBT. "TF-CBT is a components-based psychosocial treatment model that incorporates elements of cognitive-behavioral, attachment, humanistic, empowerment and

family therapy models” (Child Sexual Abuse Task Force and Research Practice Core, National Child Traumatic Stress Network, 2004). TF-CBT also incorporates exposure therapy (Cohen et al., 2006).

The following four models make up TF-CBT: Attachment, Family Therapy, Exposure Therapy and Cognitive Behavioral Therapy. For example, attachment theory influences the way in which caregivers are integrated into therapy. It is deemed extremely important for parents to be able to provide meaning, context, support, effective modeling of skills, positive parent-child attachment and to reiterate and create a safe environment for children of traumatic experiences (Mannarino, Cohen & Deblinger; 2014). Family therapy is also incorporated into TF-CBT by way of guiding parents on a way of addressing behavioral difficulties as well as assisting communication and support. While exposure and cognitive behavioral therapy models allow for the child to reflect on and make connections between triggers, symptoms and behaviors in order to change the maladaptive trauma-related thoughts, feelings and behaviors (Mannarino, Cohen & Deblinger; 2014, CWIG; 2012). Each module will be reviewed in order to deepen the understanding of the elements that make up TF-CBT.

Attachment. Attachment is an “inborn system in the brain that evolves in ways that influence and organize motivational, emotional, and memory processes with respect to significant caregiving figures” (Siegel, 1999, p. 67). The attachment relationship initially helps newborns establish a dyadic relationship in which the growing infant creates an inner working model. This inner working model will help the child begin to understand emotions as the significant caregiver mirrors and helps the growing child begin to understand, evaluate and regulate their own emotions. Sroufe (1986) indicated that children “bring

forward only an organization of feelings, needs, attitudes, expectations, cognitions and behaviors” (p. 52) that were created through the initial attachment relationships. This initial relationship is indicative of the way in which the individual will interact and form relationships with others (Sroufe, 1986; Siegel, 1999; Main, 2000).

John Bowlby denotes that infants’ attachment to their parents becomes internalized and if the relationship is problematic, like those exposed to early interpersonal trauma by the parental figures or other important relationships, then the development of normal behaviors and ways of viewing the world gets altered (Siegel, 1999, p.72). Early exposure to traumatic experiences causes a rupture within the evolutionary context in which caregivers are to provide safety and security for the child. When this rupture or damage occurs, an infant or child is unable to regulate their arousal or affective states leaving them helpless and unregulated (Sroufe, 1986).

Therefore, attachment theory influences the importance of a strong therapeutic alliance and the active involvement of a parent and the therapist throughout TF-CBT. Specifically, attachment theory emphasizes the importance of parents providing meaning and a framework for their child’s emotions, modeling the expression of emotions, evaluation and coping with difficult emotions, as well as mirroring these emotional states and the creation of a safe environment. TF-CBT utilizes this attachment theory in its basis of utilizing the parental figure to help reformulate the insecure attachments that may have been the result of traumatic experiences.

Family therapy. Parents and guardians are often included in the mental health treatment of children and adolescents (Cohen et al., 2000). Family therapy is used to help facilitate repair of attachment relationships, and to assist with parental reinforcement of

therapeutic interventions within the home for the best possible treatment experience (Cohen et al., 2000; Deblinger, 1996). It is also utilized to help facilitate a better understanding and context regarding the child's functioning, familial system, current family dysfunction or dysfunction that may have occurred immediately following the trauma (Cohen et al., 2000). Parents are supposed to be the sounding boards for their children; however, Deblinger (1990) determined that in many cases parents actually reinforce the connection between their child's trauma thoughts and emotional response. This happens because parents attempt to minimize distress for their child and try to shield their child from the abuse-related stimuli or discussion surrounding the reality of the traumatizing experience. This is all done for the child with hopes of helping the child get over or be less affected by the trauma (Deblinger, 1990). Unfortunately, these actions of shielding, regardless of the intent, end up reinforcing the trauma because it remains unsafe, dangerous, embarrassing and unspeakable (Deblinger, 1990).

Parental role and education. The goal of family therapy is for the therapist to teach the parent, legal guardian or foster parent, a variety of skills, including stress management skills. Stress management skills enable guardians to better deal with their own emotional reactions and distress associated with their child's trauma (Child Welfare Information Gateway, 2012). The guardians are also taught parenting and behavioral management skills in order to better help the child gain mastery or control over their experiences. Additionally, this allows them to be better equipped to mirror the skills for the youth (National Child Traumatic Stress Network, 2003). Many of these children have learned to re-enact behavioral aspects of the trauma through aggression, self-injurious behaviors, sexualized behavior, or dominating and controlling relationship dynamics.

Guardians are taught the reasoning behind these behavioral concerns and given skills to work with their child on better expressing their emotions and regulating internal experiences (The National Child Traumatic Stress Network 2003, p.14). Parents are also taught communication skills in order to help facilitate open conversation about the trauma and the emotional reactions to the traumatic experience. This skill is beneficial for both the guardians vicarious trauma and the child's.

Family therapy is used to examine patterns of interaction among the family members and to better influence the maladaptive parent-child interactions that may exist (Child Welfare Information Gateway, 2012, p.3). The familial support and emotional responses can act as strong mitigating factors against the development of PTSD or PTSS, thus the more knowledgeable the guardians become the better they are able to enhance and strengthen the resolve of symptom relief in their children (Cohen et al., 2000). The guardian interaction plays an essential role in providing meaning and context to the experience and they learn to model effective coping and supportive strategies while providing a safe environment for emotional expression of traumatic experiences (Deblinger et al., 1996).

Cognitive therapy. Cognitive therapy aims to alter behavior by way of addressing an individual's thoughts or perceptions, particularly those that have created distorted and maladaptive views of the world in the aftermath of a traumatic experience (Cohen et al., 2006). Despite how maladaptive the beliefs and cognitions may be, in the moment they are a way for the youth to understand or explain the traumatic event. The youth adapt to the situation, find or create meaning out of what happened to them and use it as a way to gain a sense of control. These children might look for something they did to cause the trauma

with the hope to avoid it in the future or to prepare for future traumatic events (Cohen et al., 2006).

Mannarino and Deblinger (1996) note that the most essential theoretical underpinning of TF-CBT is the cognitive-behavioral principles and the ability for the individual to make connections between maladaptive trauma-related feelings, thoughts and behaviors. Some of these trauma-related feelings and thoughts include self-blame for the traumatic event or what led up to the event, survivor's or other related guilt, negative view of self and/or others, and a changed view of the world as a place that no longer appears safe and is unjust and/or dangerous (Cohen et al., 2000).

Therapist role. The cognitive therapy process can be identified into primary steps or components. This begins with the therapist teaching, mirroring and encouraging skill use to assist with traumatic reminders. The therapist then helps the youth to investigate and determine/ identify any current distortions regarding the event. Using self-blame as an example, the “therapist explores the child’s beliefs about why the trauma occurred, who made it happen, could anyone have prevented it, could/should that child have done something differently, and, if he or she had, what would have changed” (Cohen et al., 2000). Finally the therapist works with the child to replace the cognitive distortions with more accurate and positive alternatives (Child Welfare Information Gateway, 2012; Cohen et al., 2000; Deblinger et al., 1990).

Cognitive therapy is effective when it impacts the way in which youth respond to traumatic reminders with the use of age appropriate coping skills (Cohen et al., 2000; Child Welfare Information Gateway, 2012). The therapist engages with the client by way of teaching relaxation skills, emotional regulation skills and cognitive coping skills. These

skills are provided to assist the child or adolescent in the expression of emotions, thoughts and feelings related to triggering situations, past experiences, and current experiences.

These skills are then used during the exposure therapy so the youth is able to express the trauma in an appropriate, effective and therapeutic way (Deblinger et al., 1996).

Exposure therapy. Exposure therapy is a key component within TF-CBT as the child is gradually exposed to the thoughts and emotions surrounding their traumatic event in a safe environment. Prolonged or gradual exposure aims at assisting individuals in disengaging the association created, specifically those between negative emotional responses (shame/anxiety) and abuse-related thoughts, distortions, memories, and other trauma reminders (Cohen & Mannarino, 2008; Cohen et al., 2000; Deblinger et al., 1996; Deblinger et al. 1990). Cohen & Mannarino (2008) denote that this gradual exposure is facilitated through the use of a trauma narrative, which can be accomplished by way of writing a book, a piece of poetry, engaging in talk show like interviews, text messaging, constructing a play, or possibly drawings for younger children.

Gradual exposure reverses patterns of avoidance by encouraging the youth to confront trauma related stimuli in a safe and therapeutic environment, once they have the skills to handle the emotions that are felt when discussing the trauma. Repeat and gradual exposure is utilized throughout the treatment alongside the trauma narrative, which allows for the traumatic reminders to reduce slightly from session to session. The intensity of the horrifying, traumatic, anxiety-provoking reminders and/or the avoidant responses become less disruptive the more the individual becomes more desensitized to the content of the trauma (Deblinger et al., 1996). Once the narrative is complete the therapist re-reads the narrative to the youth as another way to reduce the reactions and to further desensitization.

The narrative is also read to guardians in order for them to emotionally process their child's traumatic experiences. In many instances these parents express feelings of depression, PTSD symptoms, and emotional distress (NCTSN, 2003). The exposure therapy is used to help parents make a corrective understanding of the child's experience. During joint sessions the child shares the narrative directly to the parent involved in the therapy process. This exposure allows for the parent to hear the trauma directly from the child as well as allowing for the parent and children to build on their abilities to discuss the traumatic experience together (Cohen & Mannarino, 2008).

Components of Trauma Focused-Cognitive Behavioral Therapy

TF-CBT is fundamentally comprised of the four models introduced previously. The specific guidelines for enacting TF-CBT are well known in the literature and are repeated here for clarity. Typically treatment is provided for as few as 12 sessions and more if needed depending on the individual's specific treatment need (National Child Traumatic Stress Network, 2003; Child Welfare Information Gateway, 2013). TF-CBT was designed to address the unique needs of children and adolescents who have trauma-related symptoms such as PTSD, PTSS, behavioral problems, anxiety related to the traumatic experience, sexualized behaviors, depression, maladaptive or unhelpful beliefs and attributions about the world or themselves and other difficulties and mental health disorders related to traumatic life experiences (Cohen et al., 2010; Cohen & Mannarino, 2008; Cohen et al., 2000; National Child Traumatic Stress Network, 2003; Child Welfare Information Gateway, 2013).

The components involved in TF-CBT are taught to the individual as well as the guardian separately and then in joint sessions. Each individual session is designed to "build

the therapeutic relationship while providing education, skills and a safe environment in which to address and process traumatic memories” (Child Welfare Information Gateway, 2013). The joint therapy sessions are aimed at helping the parents and children practice using the skills together while the child shares his/her traumatic experience. This joining allows for more effective parent-child communication regarding the traumatic experience (Child Welfare Information Gateway, 2013). The specific components utilized throughout the treatment sessions are summarized by the acronym PRACTICE. **P**sychoeducation and **P**arenting skills; **R**elaxation skills; **A**ffect expression and modulation skills; **C**ognitive coping skills; **T**rauma narrative and processing; **I**n vivo exposure; **C**onjoint parent-child sessions and **E**nhancing safety and developmental trajectory. Each of these components is described below in more detail.

Psychoeducation and parenting skills. Psychoeducation is introduced from the initial contact with the family and ultimately continues throughout TF-CBT treatment until after termination. Psychoeducation targets the misconceptions and faulty thinking of the family as well as offering new information for parents with regard to potential changes for their child (Deblinger et al., 2006). When parents and children are seeking services for traumatic events the family is reasonably under distress, worried and have many questions about what the trauma indicates long term for their child. Psychoeducation typically provides families with a brief overview about the nature of the child’s traumatic experience, current symptomology, and hope for recovery (Cohen & Mannarino, 2008; Cohen & Mannarino, 2010, Deblinger et al., 2006).

Many parents and children feel stigmatized and isolated with these experiences. A component of psychoeducation is to provide information to normalize the child and

parents' situations. For example, "children who experience sexual abuse may feel less alone if they learn that a quarter of all girls and a sixth of all boys experience this kind of abuse" (Cohen & Mannarino, 2010). This knowledge may assist in helping children reduce their tendency to isolate themselves and allow parents and children to recognize the child's symptoms are an expected or typical response to the traumatizing incident. Similarly, when parents are told that the majority of sexually abused children do not disclose their abuse in childhood this may provide the families with solace and decrease their stress (Deblinger et al., 2006). Therapists are an active participant in providing optimism and hope for the future. Providing statistics that nearly 80% of children experience a "remission from symptoms after 12 sessions of TF-CBT" provides essential hope for many of these families (Cohen et al., 2010).

Another key component to psychoeducation is the utilization of low-level gradual exposure. Low-level gradual exposure is enacted when the therapist provides general information regarding the child's traumatic experiences without making direct reference to their personal experience. It is also observed when the therapist utilizes the correct terminology for the type of trauma the child experienced. For example, "sexual abuse, physical abuse, gang rape", etc. are used. This is important in allowing the family and child to begin to grow comfortable with talking about trauma and traumatic experiences in general before getting to the child's specific experience further along in treatment (Cohen & Mannarino, 2010).

According to Cohen & Mannarino (2010) TF-CBT therapists are also trained to "not lower their voices, look away or otherwise inadvertently convey shame or discomfort" when discussing and talking about the trauma in general and specifically when the child is

describing their experiences. These non-verbal techniques used by the therapist helps to lower the stigma around the trauma as well as provide the family with context as to how to model a lack of avoidance and the use of direct communication (Cohen & Mannarino, 2010; Deblinger et al., 2006).

As previously noted, parents are a key component in treatment using TF-CBT. The parents receive parallel sessions that address each of the PRACTICE components as well as interventions used to optimize parenting skills. These parenting skills include strategies such as “praise, selective attention, and/or contingency behavioral programs” (Cohen & Mannarino, 2010), the appropriate use of time outs, reinforcements, and consequences (Cohen & Mannarino, 2008). Therapists collaborate with parents and encourage the use of skills with the children allowing the parents to determine what will best work for their child, taking into account the family history and dynamics. TF-CBT also recognizes that therapists only see the child once a week while parents are with their children much of the week. TF-CBT relies on the parents to continuously implement what is learned in therapy at home to provide the child with consistency and a place to master the content.

Relaxation techniques. According to DeBellis et al. (1999) traumatic experiences result in physiological changes in the body including an increase in resting and reactive heart rate, adrenaline production and output, increase blood pressure, startle response, and other central nervous system changes resulting in the maintenance of a fear response and hyper-responsiveness to danger or perceived danger within the individuals environment. Relaxation skills are a way for children to gain mastery over these physiological changes by helping reduce internal conditioned responses (Cohen & Mannarino, 2008; Cohen & Mannarino, 2010). Therapists assist children in teaching them a variety of self-sooth and

relaxation skills. This is used to help provide children with a sense of control that they were deprived of during the original traumatic experience. These relaxation skills include but are not limited to: deep breathing, progressive muscle relaxation, visual imagery, drawing, yoga, listening to music, body scans, reading, writing poetry, dancing, listening to relaxation tapes, singing, or more active activities such as playing sports (Child Welfare Information Gateway, 2013; Cohen & Mannarino, 2008; Cohen & Mannarino, 2010; Deblinger et al., 2006). Parents are also taught these skills to encourage children to use them during times of stress at home.

Affect expression and modulation. Many children who have experienced trauma may have difficulty accurately identifying emotions in themselves and others or may avoid expressing feelings altogether. For example their emotions may be constrictive, resulting in “feeling nothing or numb” (Cohen & Mannarino, 2010). Others may have difficulty distinguishing emotions, stating they are always “angry or upset” (Cohen & Mannarino, 2010). Still others may be unresponsive or unable to identify negative cues or even positive ones from others (Cohen & Mannarino, 2010). Therapists assist children and at times their parents in learning to accurately identify, express and modulate their feelings. Some therapists utilize feeling expression games in order to begin to express and learn a variety of feelings and emotions.

Another aspect of affect expression and modulation is helping the children to more actively seek out social supports that can help them modulate their emotions if they are unable to do so themselves (Cohen & Mannarino, 2010). A part of the affect expression process also includes gradual exposure with the therapists’ assistance. The therapist asks

the child to recognize the trauma reminders so they can learn to modulate and express their feelings regarding the traumatic experience (Cohen & Mannarino, 2008).

Cognitive coping and processing. Once children and parents are better able to modulate their emotions regarding the traumatic experience, it is time for them to learn the connections between thoughts, feelings and behaviors with the use of cognitive coping. Therapists encourage children and parents to identify situations that elicit upsetting or unsettling feelings related to everyday events. Then they are encouraged to examine and explore the connection between any accurate or inaccurate attributions created. If they are inaccurate the therapist will work with the child and the parent to more appropriately and accurately think about the situations to help facilitate a change in the feelings and behaviors that are exhibited in any given situation (Cohen & Mannarino, 2010).

A child may have the following progression in a given situation: “the world is an unsafe place for me” (thought), this thought may lead the child to feel scared, sad, or alone (feelings), and due to the thought and the feelings attributed to the thought the child may then become isolated and remain at home (behavior). The therapist would examine the above thoughts and help the child see that the thought is most likely not as accurate as they may believe it to be. The world that the child experienced may not have been safe, however the world is not always a bad place and the child is safe now. This new way of thinking may very well create a different set of feelings with a different behavioral response.

Cognitive coping and processing allows for children and parents to re-assess automatic thoughts about current situations and traumatic experiences. This also provides them with more control over their own thoughts, feelings and behavior rather than their

thoughts controlling their feelings and behaviors; which is very common in traumatized individuals (Cohen & Mannarino, 2010; Cohen & Mannarino, 2008; Cohen et al., 2000).

Trauma narrative and processing. After the completion of the skill building components listed above, therapists move to the trauma-related components, which usually occur over 3-5 sessions. During this section the child works with the therapist to create a trauma narrative. The trauma narrative is the gradual telling of the specifics of the child's traumatic event, usually completed by way of written work but sometimes in songs, text messages, drawings, poems, book, play, or question and answer talk-show (Cohen & Mannarino, 2008). The hope is that due to the gradual exposure throughout the other skills components, this step in the actual discussion of the traumatic event does not produce too much stimulation and dysregulation.

The trauma narrative comprises the following:

1) overcoming avoidance of traumatic memories; 2) identifying and processing maladaptive cognitions about the trauma through the child telling about it in his or her own words; 3) contextualizing the child's trauma experience into the larger perspective of the child's life through telling the story in context (Cohen & Mannarino, 2010).

This context allows the child to see him or herself as more than just a victim. The narrative generally begins with identifying "who am I" and then goes on to describe the child's relationship with the perpetrator and the good memories before or if the perpetrator is not known, the child can describe what they can remember of life before the traumatic incident. After this is complete the child is encouraged to describe the details of the trauma, at times needing to go back and add more detail as the child feels more

comfortable discussing the traumatic event. The final section of the trauma narrative is “how I have changed and what I would like to tell other children who have gone through this” (Cohen & Mannarino, 2010).

Once the child has created the narrative the therapist and the child go back through the narrative and add additional thoughts, feelings, body sensations and the worst moments of the traumatic event for the child (Cohen & Mannarino, 2008). The next steps are for the therapist to assist the child in cognitively processing and challenging any cognitive distortions that are a result of the traumatic event that may be contributing to negative affect states or maladaptive coping strategies. For example the child may express self-doubt, self-blame, shame, feelings of inadequacy, low self-esteem, and/ or poor self-image (Cohen & Mannarino, 2010). The same cognitive processing exhibited during the previous stage in therapy is also used during the trauma narrative in order to help change maladaptive thoughts, combat black and white thinking and help the individuals create a story with a beginning, middle and end.

As the child is completing the narrative the parent hears the narrative in their parallel sessions. In many cases this is the first time in which the parents are hearing any part of the child’s traumatic experience. This is completed in the parallel session so the parents have the opportunity to prepare themselves for the joint session as well as possibly needing to cognitively process aspects of the trauma with the therapist for themselves (Cohen & Mannarino, 2008; Cohen & Mannarino, 2010; Child Welfare Information Gateway, 2013).

In vivo mastery. In vivo mastery of the trauma involves the utilization of gradual exposure in order to help cope with the child’s usual avoidance of potentially harmful cues

and situations. For example, a child who was sexually or physically assaulted in the basement of the family home may now be afraid of entering any basement; or a child who was sexually assaulted at bedtime may now try to avoid sleep or the bedroom. In many cases children's avoidance becomes evident and disruptive in social, academic, physical, or psychological aspects of the child's life (Cohen & Mannarino, 2010).

According to Cohen & Mannarino (2010) "in order to do in vivo exposure it is important to develop a hierarchy of feared cues, and to gradually help the child to master these feared stimuli through gradual exposure" (Cohen & Mannarino, 2010). Through this process of in vivo, the anxiety related to the feared stimuli decreases and over time the exposure to the once feared danger will diminish. However it is noted that this in vivo mastery is not appropriate when the perpetrator or the dangers are still present and real for the child. In this case it would only serve to reinforce the child's conditioned response and fear (Cohen & Mannarino, 2010).

Conjoint parent/child sessions. As the narrative and in vivo sessions draw to a close it essential to have conjoint parent/child sessions. One of the goals of conjoint sessions is to facilitate a place for open communication and expression of feelings between parents and child. Instead of the child talking to the therapist the child has the opportunity to discuss the traumatic event directly with the parent. This also helps facilitate a necessary shift, one in which the therapist takes a step back and allows for the parents to take the encouraging, praising, supportive modeling, repairing, and safe role once again.

These sessions not only provide reassurance to the child that the parent is a safe reliable resource, it also allows for the parent and child to talk about other concerns related to the trauma, and for the future. These issues may include future safety, preparation for

trauma reminders, discussion on how to move forward together, and at times a space where the child can ask questions such as “do you think I should have stopped it?” or “are you mad at me for what happened?” in order to address lingering issues or questions (Cohen & Mannarino, 2010). However, at times parental involvement may not be possible. If a caregiver is not available it is suggested that another important adult steps in such as a relative, family friend, or supportive individual (Deblinger et al., 2006). If this is not possible either TF-CBT can be effectively completed without a parental role (NCTSN, 2004).

Enhancing safety and developmental trajectory. Maintaining and optimizing safety for the individual is of the utmost necessity in addition to helping the child regain his or her developmental trajectory, these are the aspects of the final component in the PRACTICE skills (Cohen & Mannarino, 2010). In many instances traumatized children exhibit risk-seeking behaviors and this final step helps provide the extra needed safety skills (Pynoos et al., 2009). Some of these extra skills include knowledge of healthy sexuality for those who have been sexually abused, prevention skills; “stop” or “no”, domestic violence safety plans, individualized safety plans for anxiety provoking situations, bullying deflection skills, drug refusal skills, and education on healthy relationships (Cohen & Mannarino, 2008; Child Welfare Information Gateway, 2013). Cohen & Mannarino (2010) also note that “helping children realistically assess danger, learn safety skills and health-promoting decisions is important for ensuring that children will not experience future victimization nor victimize others”. This is the key objective of this final component. Once this component ends, children and parents are encouraged to utilize the skills learned during TF-CBT when difficult situations arise while the child is

out in the community (Cohen & Mannarino, 2010; Child Welfare Information Gateway, 2013).

A variety of national statistics and studies have documented disproportionately high levels of traumatic exposure for children and adolescents within the United States (U.S. Department of Health and Human Services, 2013; U.S. Government Accountability office, 2011; Finkelhor et al., 2000). In many cases these traumatic events are continual or occur more than once and result in complex trauma. Complex trauma is characterized by significant problems with building attachment relationships, affect regulation, emotional regulation, biological regulation, behavioral regulation, cognitions and self-concept (Cook et al., 2007). While many children are quite resilient despite their traumatic experiences, many others exhibit immediate and long-term negative psychological effects including PTSD/PTSS (Cohen & Mannarino, 2010; Cohen et al., 1996; Mannarino et al., 1994). The purpose of this study is to determine the effectiveness of TF-CBT on children and adolescents who experience complex trauma and exhibit PTSD/PTSS.

Methods

A systematic literature review is utilized in order to aggregate the large collection of research conducted by a variety of people within a variety of settings. This type of review is employed to answer questions about what is working within the field and what is not (Petticrew & Roberts, 2005). This systematic review like all others consists of specific inclusion criteria, an all-inclusive and distinct search strategy, and objective criteria for synthesizing and reporting the findings (Petticrew & Roberts, 2005). This review will ultimately determine the effectiveness of TF-CBT on children and adolescents who experience complex trauma and exhibit PTSD/PTSS.

Research Design

A systematic review will be conducted to evaluate the effectiveness of the specific evidence-based intervention known as TF-CBT. The review aims to systematically evaluate how effective this particular treatment is with adolescents and children that exhibit PTSD/PTSS after experiencing complex trauma. This systematic review relies on a specific set of scientific methods in order to limit systematic errors, such as bias, by way of identifying, appraising and synthesizing all relevant studies to address the indicated question (Petticrew & Roberts, 2005). Systematic reviews adopt a particular methodology that in many cases is different from that of a non-systematic review. Many non-systematic reviews are conducted by experts who are very knowledgeable in regards to a specific issue. In turn they may not be balanced in the selection and use of materials (Petticrew & Roberts, 2005). Furthermore systematic reviews are able to inform policy and inform the practice of those involved with delivering treatment methods (Petticrew & Roberts, 2005).

Due to these factors and a desire to examine multiple studies and outcomes from a variety of results, this study will utilize a systematic review of TF-CBT to evaluate the effectiveness of TF-CBT with regards to the reduction of PTSD/PTSS symptoms in children and adolescents with complex trauma.

Data Collection

Inclusion criteria. The initial task was to determine what would constitute TF-CBT in order to determine which studies should be included in this systematic review. Cohen et al., (2000) denoted that exposure, cognitive coping and processing, stress management and a parental component were the “four main components” of TF-CBT (p. 1202). While later in 2006 they indicated that psychoeducation was also “one of the major

components of TF-CBT” (Cohen et al., 2006, p. 59), bringing the number of components to five. The first inclusion criteria is to include studies that contain at least four of the five key components listed above in order to be accepted into the systematic review.

In addition, the following predetermined parameters will be utilized when determining studies to be included in the systematic review:

- Studies will have to evaluate psychotherapeutic treatment techniques that utilize at least four of the main components that make up the TF-CBT;
- The reviews must have been published between 1990, when the initial study of TF-CBT was established and 2014;
- Only randomized and non-randomized controlled clinical trials will be included. Given the complexities of blinding participants and practitioners, studies will not be excluded if blinding was not completed;
- Studies with the following types of comparison will be included: wait list comparison groups, delayed comparison treatment groups, treatment as usual, other psychotherapeutic treatments and/or no treatment comparisons;
- Participants must be assessed for PTSD/PTSS associated with complex traumatic experiences in order to be included in the systematic review;
- No minimal sample size per treatment condition will be required;
- The studies must include children and adolescents under the age of 18 who have experienced multiple traumatic events (i.e. two or more);

Search strategy. Figure 1 depicts the strategies that were used for the retrieval of articles. The studies that were assessed to be used in this systematic review were obtained from the following electronic databases: PsychINFO, Academic Search Premier, Child

Development and Adolescent Studies, SocINDEX, Social Work Abstracts, MEDLINE, and Dissertation Abstracts. The search terms are shown in Table 1 including the following criteria; 1) CBT, 2) use with children and adolescents, 3) youth who have been traumatized, 4) youth that exhibit PTSD/PTSS, 5) in a study. Due to time constraints, only research articles in English will be included; however articles may be from any country and from all types of publications.

Figure 1
Search and review strategies



Table 1
Search Categories and Terms

Search Categories	Search Terms
1: CBT	“Trauma-Focused Cognitive Behavioral Therapy” or “Trauma focused cognitive behavioral therapy” or “trauma focused cognitive behavioral treatment” or “trauma focused cognitive behavioral tx” or “cognitive behavioral tx” or “TF-CBT” or “trauma focused CBT” or “cognitive behavioral therapy” or “cognitive behavioral tx of trauma”
2: Use with Children and Adolescents	“child*” or “adolescents” or “youth”
3: Complex trauma	“trauma*” or “abuse” or “maltreat*” or “complex trauma” or “multiple trauma*”
4: Youth that exhibit PTSD/PTSS	“posttraumatic stress disorder” or “PTSD” or “posttraumatic stress symptoms” or “symptoms of stress” or “PTSS” or “posttraumatic*”
5: In a study	“treatment” or “intervene*” or “therapy” or “eval*” or “trial” or “experiment”

Data analysis and abstraction. In order to determine which articles would be accepted for use in this systematic review the following key information and data was needed and abstracted from the research. For one, the articles needed to address and utilize either TF-CBT as a branded treatment model or another treatment model that met enough of the previously stated inclusion criteria as well as being directed towards traumatic events. The sample must have been comprised of specifically children and/ or adolescents under the age of 18; however the size of the sample was unrestricted.

For this systematic review the sample also needed to denote the type of traumatic event along with the exposure. Due to the lack of research specifically identifying complex trauma variations, additional research will be accepted into this systematic review. Some examples are, research that denotes more than 50% of the sample as identifying more than one trauma, assumed ongoing trauma (interpersonal violence), and individuals that identified as being affected by war, being a child soldier, or individuals affected by trafficking.

The research previously conducted must have included comparison groups that were either randomized or non-randomized controlled clinical trials; no other method were accepted. The surveys also needed to assess PTSD or PTSS with a verified research tool assessed by a clinician or trained professional. This was evaluated on a case-to-case basis due to the multiple types of possible measures. In order to determine the effectiveness of TF-CBT each study must have evaluated PTSD or PTSS by way of utilizing a pre-test and a post-test research assessment tool.

Strengths and limitations. Given that systematic reviews aim to identify, evaluate and summarize the findings of all relevant scientific studies they have the ability to view a

problem on a wider scale (Hemingway & Brereton, 2009). Systematic reviews also have the advantage of being led via a peer-reviewed protocol which in many cases has decreased the possibility of bias as well as making it possible to be replicated (Hemingway & Brereton, 2009). The use of a systematic review provided a wider framework to see how effective TF-CBT is with adolescents and children who experienced complex trauma and are suffering from PTSD/PTSS. However, there are also limitations to conducting a systematic review.

Systematic reviews are to be rigorous with well-defined topics, in-depth search for possible articles, and detailed inclusion criteria; however, there are other aspects that may be harder for this review to accomplish given the time and nature of this study (Hemingway & Brereton, 2009). For one, missing information is supposed to be sought from the original study investigators, this will not be possible or appropriate for this systematic review, meaning some information will be lost. Another limitation for this systematic review is that due to time and access there is a possibility that not all available research papers that meet criteria were found; this limits the thoroughness of this systematic review.

Findings

In order to determine the effectiveness of TF-CBT with adolescents and children who experienced complex trauma and are suffering from PTSD/PTSS a systematic review was utilized. Figure 1 depicts the strategies that were used for the retrieval of articles utilized in this review. The studies that were used in this systematic review were obtained from the following electronic databases; PsychINFO, Academic Search Premier, Child Development and Adolescent Studies, SocINDEX, Social Work Abstracts, MEDLINE,

and Dissertation Abstracts. The search terms that were used are shown in Table 1 including the following criteria; 1) CBT, 2) use with children and adolescents, 3) youth who have been traumatized, 4) youth that exhibit PTSD/PTSS, 5) in a study. Due to time constraints only research articles in English were included; however articles were utilized regardless of the country of origin the research was conducted. This search yielded 5,643 articles for review.

The abstracts of the 5,643 articles were briefly reviewed to determine whether the abstract warranted a more thorough assessment and review. The brief abstract review yielded 83 results for further assessment to see if it met the eligible criteria. Some articles were duplicated and thus only one was reviewed. The 83 articles that appeared to match were further read to determine whether they met the inclusion criteria fully. Of the 83 articles, 25 had the potential to meet this criterion. No articles from the Dissertation Abstracts met the criteria, while the Child Development & Adolescent studies, Academic Search Premier, Social Work Abstracts and SocINDEX combined accounted for 13, MEDLINE provided three and nine of them were accounted for by PsychINFO. Seventeen articles met the full inclusion criteria and were included in this systematic review. Eight were excluded due to the following reasons: (1) lack of explicit measurement of PTSD or PTSS; (2) lack of the four of five major components; (3) not enough individuals meeting the criteria for having experienced complex trauma; and (4) not enough information provided in order to ascertain whether individuals meet criteria for complex trauma, see Table 2 for more details.

Table 2
Excluded Studies.

Authors and Year of publication	Article Name	Reason for Exclusion
Smith, Yule, Perrin, Tranah, Dalgleish, & Clark; 2007	Cognitive-Behavioral Therapy for PTSD in Children and Adolescents: A Preliminary Randomized Controlled Trial	Not enough individuals meeting the criteria for having experienced complex trauma (28%).
Damra, Nassar, & Mohammad; 2014	Trauma-Focused Cognitive Behavioral Therapy: Cultural Adaptations for Application in Jordanian Culture	Not enough information regarding type or number of traumatic occurrences was available.
Diehl, Opmeer, Boer, Mannarino, & Lindauer; 2014	Trauma-Focused Cognitive Behavioral Therapy or Eye Movement Desensitization and Reprocessing: What Works in Children with Posttraumatic Stress Symptoms? A Randomized Controlled Trial	Not enough individuals meeting the criteria for having experienced complex trauma (43%).
Ertl, Pfeiffer, Schauer, Elbert, & Neuner; 2011	Community-Implemented Trauma Therapy for Former Child Soldiers in Northern Uganda	Lack of the four of five major components
Scheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie; 2010	Trauma-Focused Cognitive-Behavioral Therapy for Posttraumatic Stress Disorder in Three-Through Six Year-Old Children: A Randomized Clinical Trial	Not enough information regarding type or number of traumatic occurrences was available.
Cohen, & Mannarino; 1998	Interventions for Sexually Abused Children: Initial Treatment Outcome Findings	Lack of explicit measurement of PTSD or PTSS
Cohen, & Mannarino; 1996	A Treatment Outcome Study for Sexually Abused Preschool Children: Initial Findings	Lack of explicit measurement of PTSD or PTSS
Cohen, & Mannarino; 1997	A Treatment Study for Sexually Abused Preschool Children: Outcome During a One-Year Follow-up	Lack of explicit measurement of PTSD or PTSS

Results

The 17 studies that met the inclusion criteria were divided into five distinct groups according to the PTSD/PTSS instrument utilized in the study. The following list are the four instrument titles and a fifth “catch-all”:

- Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children- Epidemiologic Version (K-SADS-E),
- Kiddie Schedule for Affective Disorders and Schizophrenia for School-Age Children- Present and Lifetime version (K-SADS-PL),
- University of California- Los Angeles Posttraumatic Stress Disorder Reaction Index (UCLA-PTSD RI),
- Child PTSD Symptom Scale (CPSS) and
- An ‘Catch-all’ group that comprised six different studies using alternative instruments.

One study will be represented in two groups due to multiple instruments being used to measure PTSD, while all others represent one instrument. In Appendix 2 the title of each article, year it was published, author, the four of the five components met, the comparison group, the PTSD/PTSS measure used, age, how it met the threshold of complex trauma, and the results are presented. It is important to note that the following categories do not represent a specific rank or order of best instrument to utilize with children and adolescents suffering from PTSD/PTSS. Each instrument will be defined broadly followed by a brief description of the study and its findings.

K-SADS-E. The K-SADS-E is a semi-structured interview that provides a current diagnostic assessment as well as an assessment of lifetime psychopathology for children and adolescents, generally between the ages of 6 to 18. The K-SADS-E is different from the other versions of the K-SADS due to its specificity in questions regarding suicidal behavior; including thoughts of wanting to die, suicidal ideation, presence of a plan or suicide attempts and even nonsuicidal physical self-damaging behavior. For more details regarding the K-SADS-E instrument reference Orvaschel (2006) in the *Clinician's Handbook of Child Behavioral Assessment*.

Three studies within this systematic review utilized the K-SADS-E as one of the primary instruments assessing for PTSD/PTSS: Deblinger, Stauffer, & Steer (2001), Deblinger, Lippman, & Steer (1996) and the subsequent follow-up study Deblinger, Steer, & Lippman (1999). Deblinger et al. (2001) compared the efficacy of supportive vs. cognitive behavioral group therapies for 44 young children who had been sexually abused and their nonoffending mothers. The study found that participants' undergoing the CBT group had a decrease in their PTSD symptoms evident by a reduction in mean PTSD score. The CBT group decreased from a mean of 14.43 at pretest to 6.57 at posttest then 7.76 at the 3-month follow-up. Despite this reduction the study noted a very low statistical significance $F=0.43$, measured with the MANOVA F test. This indicates that while the overall average PTSD score decreased among completers, the variance within the responses of those that completed the follow-up was diverse. On the other hand, the comparison group (Supportive Group for Parents) indicated a much larger statistical significance, $F=12.55$, with a similar decrease in PTSD symptoms the supportive groups mean scores reduced from 14.04 at pretest, to 6.09 post-test and 5.22 at the 3-month

follow-up. This indicated there was a smaller variance among the respondents at the follow-up in this group than within the experimental group.

The findings of Deblinger et al. (2001), which denoted a reduction in overall PTSD/PTSS symptoms for individuals that participated in a CBT group a study by Deblinger et al. (1996) yielded similar results. 100 families were randomly assigned to one of three CBT conditions, two were considered the experimental group (child-only and parent and child CBT) while the other was determined to be a part of the control group (parent only CBT and community based intervention) comprising of. Deblinger et al (1996) utilized an ANCOVA analysis to determine the reduction in symptoms; ANCOVA F test measures the between class variance over the within class variance. Children assigned to the experimental group in the study (child only and parent and child CBT) exhibited significantly fewer PTSD symptoms at posttreatment, $F=9.75$. Additionally, clinically it was found that among the children assigned to the experimental treatments, only 6 (16%) of the original 38 met PTSD criteria at posttest, whereas 10 (30%) of the 33 children who engaged in one of the control interventions continued to meet criteria for PTSD at posttreatment. This indicates that children assigned to the experimental intervention exhibited greater reduction in PTSS and a large reduction in clinically diagnosed PTSD among participants in the experimental group.

In order to determine if the experimental group had maintained or improved the gains found in the initial study discussed above a follow-up study was completed by Deblinger et al. (1999). The mother-only mean PTSD measure was 5.00 at posttest, and 2.40 at 2-year follow-up; child-only indicated 3.38 at posttest and 3.00 at 2-year; mother and child had a mean of 3.68 at post and 2.53 at the follow-up; the community treatment

intervention noted a 6.50 at posttreatment and 4.43 at 2-year follow-up. These findings indicate that among all participants in the study there continued to be a reduction in PTSD/PTSS indicating there was no return of prior levels of symptomology. However the MANOVA F-test indicated a low statistical significance with regard to this reduction in symptoms ($F=1.39$). Nonetheless all three of these studies found that the CBT intervention modified and specialized for the use with children and adolescents exposed to traumatic experiences was successful in the reduction of PTSD/PTSS following intervention.

K-SADS-PL. Similarly to the K-SADS-E, the K-SADS-PL is a semi-structured interview that was designed to assess current and past episodes of psychopathology in children and adolescents. Probes and objective criteria are utilized in the K-SADS-PL in order to assess and rate individual symptomology. Additionally the K-SADS-PL requires the completion of the following: 1) Unstructured Introductory Interview; 2) Diagnostic Screening Interview; 3) Supplement Completion Checklist; 4) Appropriate Diagnostic supplements; 5) Summary Lifetime Diagnoses Checklist; and 6) the Child's Global Assessment Scale rating. For further information regarding the K-SADS-PL refer to the original writers, Joan Kaufman, Ph.D., Boris Birmaher, M.D., David Brent, M.D., Uma Rao, M.D., and Neal Ryan, M.D.

One of the studies that utilized the K-SADS-PL was Cohen, Mannarino, and Iyenger (2011). The objective of this study was to evaluate community-provided TF-CBT compared to treatment as usual (child-centered therapy) for 124 randomly assigned children and mothers exposed to Intimate Partner Violence (IPV). Cohen et al. (2011) analyzed subjects' total K-SADS-PL scores for both TF-CBT and CCT. The TF-CBT groups' total score decreased by -5.00 (95% CI; -6.10 to -3.89), in contrast, subjects for the

Child-Centered Therapy (CCT) control group only had a decrease in total K-SADS-PL score of -3.24 (95% CI; -4.49 to -1.98). Therefore the mean difference in change scores between TF-CBT and CCT was 1.67 (95% CI; -0.08 to 3.4) thus indicating that TF-CBT resulted in greater improvement in PTSD than CCT. Cohen et al. (2011) also found a clinically significant decrease in PTSD diagnosis for children receiving TF-CBT. In pretreatment 32 children met criteria for a diagnosis of PTSD while at posttreatment only 8 met criteria, a 75% remission (TF-CBT). Conversely, there was a 44% PTSD remission rate for children who completed CCT treatment (from 18 at pretreatment to 10 at posttreatment). These findings were similar to those noted by Cohen, Deblinger, Mannarino & Steer (2004) using CCT as a comparison group with a different type of trauma.

Cohen et al. (2004) compared the effectiveness of TF-CBT and CCT with 229 children who suffered sexual abuse experiences. The Cohen et al. (2004) study determined that the TF-CBT treatment group reduced the prevalence of PTSD symptoms better than the CCT group on a clinically significant level. This particular study broke the K-SADS-PL down into three distinct subscales: re-experiencing, avoidance and hypervigilance. The TF-CBT groups K-SADS Re-experiencing scores decreased from 3.98 (SD 1.31) at pretest to 1.53 (SD 1.39) at posttest indicating a mean difference of 2.45. While the CCT group decreased its K-SADS Re-experiencing scores from 4.08 (SD 1.30) to 2.32 (SD 1.81) calculating only a decrease by 1.76. The mean difference in change between the TF-CBT group and the CCT group was 0.75 (ANOVA F test = 10.68) indicating clinical significance in these findings. With regard to the K-SADS Avoidance scale there was an even greater clinical significance in the findings. The TF-CBT group's pretreatment mean

score was 4.13 (SD 1.33), which decreased to 1.81 (SD 1.36) at posttreatment, denoting a difference of 2.32. The CCT group started with a 4.35 (SD 1.13) mean K-SADS Avoidance score and decreased to 2.89 (SD 1.62) at posttreatment, indicating a 1.46 difference. The mean difference in change for the K-SADS Avoidance scale was 1.04 ($F=21.90$) indicating a large statistical significance reduction for the TF-CBT group versus the CCT group.

The final K-SADS scale, Hypervigilance had the least clinical significance for reduction in PTSD between the three subscales. The TF-CBT group started with a mean score of 3.67 (SD 1.21) and at posttreatment the mean was 1.69 (SD= 1.28) denoting a difference of 1.98. The CCT group's pretest scores measured a mean of 3.68 (SD 1.26) and posttreatment 2.23 (SD 1.59), a reduction by 1.45. The mean difference between the TF-CBT group and CCT group was 0.54 with the ANOVA F-test equaling only 7.22, denoting a statistical significance reduction for the TF-CBT group.

In order to determine if these findings were maintained Deblinger, Mannarino, Cohen, & Steer (2006) completed a follow-up study to evaluate the progress at 6 and 12 months posttreatment. During the follow-up only 183 children and their primary caregivers were able to be assessed and evaluated. The findings of Deblinger et al. (2006) indicated that the TF-CBT experimental group experienced less PTSD symptoms during the follow-up phases than the CCT control group. In addition the PTSD symptoms measured by each of the K-SADS subscales decreased from posttreatment to the 6-month follow-up and then decreased again at the 12-month. For the K-SADS Re-experiencing subscale the mean for TF-CBT posttreatment was 1.53 (SD 1.39) and decreased to 1.19 (SD 1.33) at the 6-month and then decreased again to 1.00 (SD 1.14) at the 12-month follow-up denoting a

difference of 0.33 and 0.19, respectively. Meanwhile the CCT group's mean at posttreatment was 2.32 (SD 1.81), which decreased to 1.91 (SD 1.66) at 6-month and then 1.33 (SD 1.41) at 12-month, a decrease of 0.41 and 0.58. This indicated that overall the TF-CBT group had less PTSD symptoms on the K-SADS Re-experiencing subscale at the 12-month follow-up; however the CCT group decreased more throughout the follow-up phase than did the TF-CBT group.

For the K-SADS Avoidance scale TF-CBT measured a mean score of 1.81 (SD 1.36) at posttreatment and 1.69 (SD 1.50) at 6-month and 1.41 (SD 1.24) at 12-month follow-up, a difference of 0.12 and 0.28. On the other hand, the CCT group measured 2.89 (SD 1.62) at posttreatment, 2.13 (SD 1.48) at 6-month and 1.93 (SD 1.48) at the 12-month, denoting a difference of 0.76 and 0.2. Denoting a larger decrease for the CCT group from the posttreatment to the 6-month follow-up notwithstanding, an overall larger decrease within the TF-CBT group with regard to K-SADS Avoidance scale. For the Hypervigilance scale the CCT group measured 2.32 (SD 1.59) at pretreatment 1.75 (SD 1.33) at 6-month and then 1.36 at 12-months, a difference of 0.48 and 0.39. While the TF-CBT group measured 1.69 (SD 1.28) at posttest, 1.46 (SD 1.32) at 6-month and then 1.15 (SD 1.15) at the 12-month follow-up with a difference of 0.23 between posttreatment and 6-month and 0.35 difference between the 6-month and 12-month follow-up. Unlike the Re-experiencing and Avoidance scale the findings in the Hypervigilance subscale indicates that the CCT group not only declined more throughout the follow-up phase but also experienced an overall larger decrease than the TF-CBT group. Overall the articles that utilized that K-SADS-PL instrument measured a statistically significant reduction in PTSD/PTSS among participants in TF-CBT groups.

UCLA-PTSD reaction index. The purpose of the UCLA-PTSD reaction index is to screen for the presence of any type of traumatic event and the frequency of PTSD symptoms as a result of such events. The UCLA-PTSD instrument is a brief screening instrument that does not intend to diagnose PTSD just assess for symptom severity using a 5-point Likert scale from 0 (none of the time) to 4 (most of the time). For more information regarding this specific instrument refer to original authors of the instrument, Pynoos, Rodriguez, Seinberg, Stuber, and Frederick (1998). The following studies utilize the UCLA-PTSD reaction index in order to obtain an understanding as to the PTSD symptomology for each individual enrolled in each study.

Two of the studies, O’Callaghan, McMullen, Shannon, Rafferty & Black, 2013 and McMullen, O’Callaghan, Shannon, Black & Eakin, 2013 used the UCLA-PTSD reaction index to compare patients receiving TF-CBT to a wait-list control group of patients. Both of these studies measured a significant improvement in participants PTSD symptoms at posttreatment as well as maintaining the gains at a 3-month follow-up.

O’Callaghan et al. (2013) randomly assigned 52 war-affected Congolese girls to either group-based TF-CBT or a wait-list. The TF-CBT groups UCLA-PTSD mean score in the O’Callaghan et al. (2013) study was 40.88 (SD 10.03) while at posttest it was 18.38 (SD 10.53) equaling a mean difference of 22.50 (SD 16.39). In contrast the pretreatment scores for the waitlist group was 40.29 (SD 10.91) with a posttreatment measure of 42.93 (SD 13.67), a negative difference of -2.64 (SD 12.84). This indicated that the treatment group got worse while the TF-CBT treatment group got better (mean change difference 25.14, $F=52.708$). At the 3-month follow-up the intervention groups mean change difference was 25.79 points (95% CI 20.440-31.143) denoting a continuation of remission

with regard to PTSD/PTSS.

Similarly, McMullen et al. (2013) found that the TF-CBT group had significant reductions in posttraumatic stress disorder when compared with the wait-list control group. The McMullen et al. (2013) studies purpose was to evaluate the effectiveness of TF-CBT with 50 former child soldiers and war-affected boys in the Dominican Republic of Congo. The TF-CBT group had a pretest score of 37.1 (SD 9.2) and a posttest of 10.6 (SD 4.5) with a difference in change of -26.5 (SD 10.7) compared to the wait-list group that had a pretest of 37.3 (SD 8.5) and a posttest of 34.8 (SD 11.6) with a difference in change of -2.6 (SD 13.2). The ANCOVA F-test resulted in a value of 89.27 denoting a clinically significant reduction in PTSD/PTSS among participants in the TF-CBT group opposed to the wait-list group. Notwithstanding this article also provided a 3-month follow-up to determine if the scores were maintained. The ANCOVA T-tests indicated that the significant improvements found at posttreatment were well maintained ($T=7.5$) with no significant increase in PTSD symptoms ($T= 0.54$).

The final study using the UCLA-PTSD instrument was Schottelkorb et al. (2012). This study investigated the effectiveness of Child-Centered Play Therapy (CCPT) in comparison to TF-CBT with 31 traumatized refugee children in an elementary school setting. The results from the study indicated both groups demonstrated a significant decrease in severity rating on the UCLA-PTSD reaction index from pretreatment to posttreatment. The mean measure for CCPT at pretest was 20.29 (SD 11.87) and 16.93 (SD 14.07) at posttreatment indicating a difference of 3.36. On the other hand the TF-CBT groups mean score at pretest was 22.33 (SD 10.09) and posttest was measured at 20.08 (SD 15.07) only measuring a difference of 2.25 suggesting that the CCPT group had a

larger decrease in PTSD symptoms among its participants than the TF-CBT group despite the significant decrease in PTSD symptoms among both intervention groups.

Overall all of the studies that utilized the UCLA-PTSD reaction index denoted a significant reduction among the participants within the TF-CBT group. However, it should be noted that in one study CCPT denoted a larger reduction in PTSD/PTSS symptoms compared with TF-CBT despite the statistically significant reduction in TF-CBT.

CPSS. CPSS is the child version of Posttraumatic Diagnostic Scale developed for adults. This is a self-report measure that assesses for the frequency of PTSD symptoms within the past month for a child with whom has noted past traumatic experiences. Within this instrument there is only one question for each of the DSM PTSD symptoms in the following three clusters: Re-experiencing, Avoidance and Arousal. The specifics of each study that utilized the CPSS instrument will be discussed in more detail.

One of the studies utilized a wait-list control group while another used a wait-list delay intervention, and the final used a community treatment as usual control. All three of the studies indicated similar measures with regard to a decrease in PTSD symptoms following TF-CBT or equivalent CBT treatment in comparison to the control groups listed above.

Kataoka et al.(2003) assigned 198 traumatized Latino immigrant students to either a school based cognitive-behavioral therapy group (Cognitive-Behavioral Intervention for Trauma in Schools) or a waitlist comparison group. The PTSD symptoms were measured at pretreatment and then at a 3-month follow-up in this study to assess the maintenance of the results following intervention. The CPSS mean PTSD scores for the intervention group at pretest was 18.8 (SD 7.7) and 13.0 (SD 7.6) at the 3-month follow-up while the waitlist

mean score at pretest was 18.1 (SD 8.0) and 15.7 (SD 13.2) at the follow-up. The mean difference in chance score between the intervention group and the waitlist was calculated using the F test, measure 7.5. This indicates a statistically significant reduction in PTSD symptoms among the participants in the intervention group.

Stein, Jaycox, Kataoka, Wong, Tu, Elliott, & Fink (2003) also utilized the Cognitive-Behavioral Intervention for Trauma in Schools however evaluated it's effectiveness using a wait-list delayed intervention group. One hundred and twenty six sixth-grade students were randomly assigned to either an early intervention group or the delayed group. The early intervention group had a 3-month assessment, which was their posttreatment assessment while the wait-list delayed group had a 3-month assessment as a post delay assessment. Similarly the 6-month assessment was actually a 3-month follow-up for the early intervention group and a posttest for the delayed intervention group. Using CPSS the early intervention groups' mean score was 24.5 at pretest, 8.9 at 3-month assessment and 8.2 at 6-month. In contrast the mean score at pretest for the wait-list delay group only decreased from 23.5 to 15.5 at 3-months, however it decreased from 15.5 to 7.2 at 6-months. This indicates that the intervention was highly successful at decreasing PTSD scores among participants regardless of if they were assigned to the early intervention or the delayed intervention group.

The final study that utilized CPSS compared TF-CBT to Treatment as Usual (TAU) in order to assess PTSS in participants (Jensen et al. 2014). This article randomly assigned 156 traumatized youth in a Norwegian Community Center. For the purpose of this study the TAU condition consisted of whatever treatment clinicians believed to be most effective for the particular client. With regard to the PTSS the mean CPSS score for the TF-CBT

group was 26.82 (SD 8.05) at pretest and 11.34 (SD 10.52) at posttest whereas the pretest mean score for the TAU group was 26.88 (SD 7.90) and 16.87 (SD 11.49) at posttest. The difference in score for the TF-CBT group was 15.48 while the TAU difference was 10.01. Indicating that those participants in the TF-CBT group experienced a statistically significant reduction in PTSS scores when compared to those that engaged in TAU.

Using a CPSS subscale Jensen et al. (2014) measured the impact of PTSS on daily functional impairment (fCPSS). These measures indicated that trauma influenced daily functioning significantly less in the TF-CBT group than the TAU group at the end of the intervention. The difference in mean scores between pretest and posttest for the TF-CBT group was 2.3 (pretest 8.03, posttest 10.33) while the difference for the TAU group was only 1.23 (pretest 7.99, posttest 9.22) (this measure indicates less influence with a higher score).

According to the findings of Kataoka et al. (2003), Stein et al. (2003) and Jensen et al. (2014) the TF-CBT and Cognitive-Behavioral Intervention for Trauma in Schools groups exhibited greater remission of PTSD/PTSS symptoms following intervention than a wait-list, delayed-wait list and TAU group.

Other: In conjunction to the findings noted above for the Jensen et al. (2014) study using the CPSS instrument Jensen et al. (2014) also measured PTSS scores by way of using the Diagnostic Clinician-Administered PTSD scale (CAPS) interview. The purpose of the CAPS is to assess and diagnose children and adolescents PTSD symptoms for up to three different identified traumatic events. The measure allows for the evaluation of the frequency and severity of each PTSD symptom, and the impact of these symptoms on individuals social functioning. The measurements indicated that the participants in the TF-

CBT group met full criteria for PTSD less at posttreatment than did the TAU group. The mean score for the TF-CBT group at pretest was 60.19 (SD 19.90) and then at posttest the mean measurement was 30.55 (SD 25.30), which indicated a difference of 29.64. On the other hand, the mean pretest score for the TAU group was 60.65 (SD 21.20) and the posttest scores were 42.05 (SD 26.58), a difference of 18.6. These measures indicate a larger reduction in symptoms among those in the TF-CBT group than those in the TAU control group. The findings also denoted that two participants in the TF-CBT group that had not been diagnosed with PTSD at pretreatment were diagnosed at posttreatment while three participants of the TAU group that did not meet criteria at pretest met criteria for PTSD at posttest. This suggests that one more person in the TAU group got worse following treatment compared to the TF-CBT group.

Unlike the findings of Jensen et al. (2014) where TF-CBT was compared to TAU, which could be any treatment module, Jaberghaderi, Greenwald, Rubin, Zand & Dolatabadi (2004) randomized two active trauma treatment conditions: a manualized CBT treatment and Eye Movement Desensitization and Reprocessing (EMDR). PTSD/ PTSS was evaluated using the Child Report of Post-traumatic Symptoms (CROPS) which is a 25-item child-self report measure for PTSS from the previous seven days using a 3-point Likert scale (0=none, 1=some, 2=lots). Jaberghaderi et al. (2004) randomly assigned 14 sexually-abused Iranian girls to either CBT or EMDR. The results of this study found that the mean difference in change between the CBT group and EMDR was not statistically significant. The mean score for the EMDR group at pretest was 43.86 (SD 5.8) and the posttest score was 18.86 (SD 7.9) indicating a difference of 16. Where as the CBT groups mean score at pretest was 30.00 (SD 6.4) and 22.71 (SD 6.9) at posttest, a difference of

only 7.29. The mean scores on the CROPS at pretest and posttest between the CBT group and EMDR group indicated a statistically significant reduction in PTSD symptoms among those assigned to EMDR and not to the CBT group. Despite the EMDR groups' reduction in PTSD score at a more clinically significant rate, both groups experienced a reduction in PTSD symptoms.

In a different study treating sexually-abused individuals Cohen, Mannarino, & Knudsen (2005) evaluated the effectiveness of TF-CBT and Non-directive Supportive Therapy (NST) using the Trauma Symptom Checklist for Children (TSC-C). The TSC-C is a 54-item self-report measure that was designed to evaluate the impact of trauma on individuals both in symptoms of PTSD and related psychological symptomology. The outcomes demonstrated significantly greater improvements in PTSD scores for individuals assigned to the TF-CBT group compared to the NST group. Using the TSC-C measure the TF-CBT pretreatment mean score was 10.36 (SD 5.17) and 8.78 (SD 4.88) at posttest, indicating a difference of 1.87. In comparison the NST groups mean pretest score was 10.83 (SD 5.84) and 9.92 (SD 5.28) at posttreatment, only a difference of 0.91. In order to determine if the reduction in symptoms was sustained following the completion of either treatment module Cohen et al. (2005) also completed a 6-month follow-up and a 12-month follow up. Both TF-CBT and NST decreased in PTSD symptoms at the 6-month follow up (TF-CBT by 1.12 and NST by 0.32) and then again at the 12-month follow up (TF-CBT by an additional 0.49 and NST by an additional 0.02). These results suggest that not only is TF-CBT more effective at reducing PTSD/PTSS than NST, the reduction was also maintained and continued to decrease 12-months following the intervention.

Contrasting all of the other studies that compared a single CBT treatment with a comparison group, King et al. (2000) not only compared an experimental group to a waitlist comparison (WLC) it also assessed the difference between child-only CBT and family CBT within the experimental group. King et al. (2000) evaluated the efficacy of the above treatments with 36 sexually abused children. In order to assess these children's PTSD symptoms this study utilized the PTSD section from child version of the Anxiety Disorders Interview Schedule (ADIS). The ADIS is a structured interview that aims to establish the presence of symptoms/disorders that are currently causing marked impairment in functioning. Using the ADIS pretreatment scores it was determined that there was a significant difference between treated children and waitlist children.

The mean ADIS score for the Child-only CBT group was 13.33 (SD 2.61) and the Family-CBT was 13.58 (SD 1.56) while at posttreatment the mean scores were 7.58 (SD 4.42) for Child-only and 6.50 (SD 5.14) for Family-CBT. The difference between pretreatment and posttreatment for the Child-only group was 5.53 and 7.08 for the Family-CBT group as opposed to only a difference of 1.47 for the wait-list group (pretreatment 12.83 (SD 2.25) and posttreatment 11.36 (SD 2.11)). After an ANCOVA analysis it was determined there was not a statistically significant difference of posttreatment scores between the Child-only and the Family-CBT group. These findings specify that the CBT groups experienced a statistically significant reduction in PTSD/PTSS in comparison to the wait-list comparison. Additionally, the findings note a larger decrease, but not statistically significant difference, in symptoms among the Family-CBT group as opposed to the Child-only potentially suggesting the importance of parental involvement.

King et al. (2000) also completed follow-up measuring in order to determine if the

progress made after treatment was sustained. An ANCOVA analysis revealed significant differences between treated children (child-only and family) and the WLC children in relation to their total PTSD scores, $F= 6.46$. However, the ANCOVA analysis failed to reveal any significance between the two intervention groups with regard to their follow-up assessment.

Similarly to King et al. (2000) the final two studies both utilized wait-list comparison groups; however, both studies utilized different PTSD instruments. Ehnholt, Smith & Yule (2005) used the Revised Impact of Events Scale (R-IES) in order to assess PTSD severity pretreatment, posttreatment and at follow-up. The R-IES is a 22-item self-report measure that assesses subjective distress caused by traumatic events rated on a 5-point Likert scale (0=not at all to 4= extremely). Ehnholt et al. (2005) set out to evaluate the PTSD severity for refugee children who had experienced war-related trauma by randomly assigning 26 children to either a school-based CBT treatment or the wait-list comparison group. Following an ANCOVA F-test of the CBT group and the waitlist group there was an indication of high significance between the groups with regarding the overall PTSD symptom severity, $F=10.96$. This suggests that the CBT group had better results in the reduction of PTSD/PTSS than the waitlist group. The mean pretreatment R-IES score for the CBT group was measured at 39.80 (SD 8.40) while at posttreatment it was 33.80 (SD 9.71), a difference of 6. In contrast the control group, waitlist, measured pretest scores of 38.55 (SD 8.37) and then 42.18 (SD 9.38) at posttest, measuring an increase of 3.63. Ehnholt et al. (2006) also found that at the 2-month follow-up the CBT group did not maintain the gains earlier noted improvements at posttreatment (only 8 of the initial 26 children were able to be reassessed).

The final study by Barron, Abdallah, & Smith (2014) studies the effectiveness of a cognitive-behavioral school based program compared to a waitlist group for 20 Palestinian traumatized children. This study measured PTSD levels using the Children's Revised Impact of Events Scale (CRIES-13). The CRIES-13 is a 13-item, self-report questionnaire designed to screen children for PTSD. It consists of four questions to assess for intrusion, four to assess avoidance, and five to assess arousal. Each question is answered on a 4-point Likert-scale (0=not at all, 1= rarely, 3= sometimes, 5=often) while total scores indicate severity of PTSS response ranging from 1 to 65. An ANCOVA analysis was initiated which indicated a significant reduction in PTSS for the participants in the CBT group. According to the study, 53 subjects (63.9%) in the intervention group were diagnosed with PTSD prior to the program compared to only 28 subjects (33.7%) following the intervention. Where as there was no significant decrease in those diagnosed with PTSD among the wait-list control group, 25 (50%) at pretreatment and 22 (44%) at posttreatment. This indicates that a little less than half of the completers of the CBT group found their PTSD to be below clinical symptomology while only 12% of the waitlist group fell below diagnostic symptomology.

All of the studies that were compared to a wait-list control group analyzed in this systematic review measured statistically significant reduction in PTSD/PTSS. Whereas many of the other studies comparing alternative treatments in this systematic review did not find such a large statistical significant difference between the treatment group and control group as was seen with the wait-list group. Notwithstanding all of the studies measured a decrease in PTSD/PTSS among completers of TF-CBT or equivalent CBT method regardless of comparison group. Those that were assessed along side other

treatment modalities mostly indicated a slightly better reduction among TF-CBT or CBT completers when compared to the control group. However one study comparing EMDR to TF-CBT denoted a slightly greater statistically significant reduction for the EMDR group over the TF-CBT group.

Discussion

Previous research has noted that exposure to traumatic events during childhood may lead some individuals to experience lasting physical, psychological and emotional impairments that affect development. Due to the lasting effects of trauma it is essential that these children and adolescents receive the best and most effective trauma focused therapy available. The objective of the current study was to systematically evaluate whether TF-CBT is effective at reducing PTSD and PTSS for children and adolescents who suffered from complex trauma.

Seventeen articles met full criteria and were analyzed in this systematic review. In order to meet full criteria all of the articles had to evaluate the therapeutic effectiveness of branded TF-CBT or CBT comparable method at reducing PTSD/PTSS. Branded TF-CBT was established in 1990, and is a manualized component-based treatment model that incorporates trauma-sensitive intervention with cognitive behavioral, family and humanistic principles and techniques. Branded TF-CBT works with children and adolescents as well as parents to help process thoughts and feelings related to traumatic life experiences; manage and resolve distressing thoughts, feelings, and behaviors related to traumatic life events; and to enhance safety, growth, parenting skills, and family communication. In order to be considered a branded TF-CBT treatment model the following components must be utilized: Psychoeducation and parenting skills, Relaxation

skills, Affect expression and regulation skills, Cognitive coping skills and processing, Trauma narrative, In vivo exposure, Conjoint parent-child sessions, and Enhancing safety and future development. This systematic review also incorporated articles that assessed CBT methods that met at least four of the five critical components. These components were defined by Cohen et al., (2000 & 2006) and denoted that exposure, cognitive coping and processing, stress management, a parental component and psychoeducation were the major components of TF-CBT. All of the studies in this systematic review either utilized the branded form of TF-CBT or this CBT alternative that incorporated at least four of the five major components of TF-CBT.

The results of this systematic review strongly suggest that branded TF-CBT and the alternative CBT methods are more effective treatment models at decreasing PTSD and PTSS than waitlist control conditions, standard community care, child-centered therapy, and non-directive supportive therapy. This review also shows that TF-CBT is as equally effective at decreasing PTSD/PTSS as EMDR; which is an alternative evidence based treatment model for the treatment of trauma. Of the 17 studies included in this systematic review only 7 of them utilized the branded form of TF-CBT while all others were CBT with an emphasis on trauma that met four of five required components.

Seven TF-CBT or equivalent CBT treatments were compared to wait-list control groups, 9 were compared to a specific alternative method and one was a treatment as usual in the community. All seven studies that were compared to a wait-list control group measured a statistically significant reduction in PTSD/ PTSS for those within the experimental group. Similarly, the majority of the studies that compared alternative methods also measured a decrease in PTSD/PTSS. However, Jaberghaderi et al. (2004) and

Schottelkorb et al. (2012) noted a non-significant trend between the experimental group and the control group with regard to reduction in PTSD/PTSS. Both of the following control groups: EMDR (Jaberghaderi et al.) and Child-Centered Play Therapy (Schottelkorb et al.), performed as well as the CBT experimental group with regard to overall improvement in symptomology.

Of the studies incorporated in this systematic review, five provided information regarding the sustainability of the initial findings months after the intervention. Despite the initial findings of Ehntholt et al. (2005), which indicated a significant reduction in PTSS, the two-month follow-up revealed the decrease was not well maintained. Conversely, Stein et al. (2003) found that at three-months the intervention group had maintained the reduction in symptoms while Deblinger et al. (2006) and Cohen et al. (2005) noted that the reduction in PTSD/PTSS continued to reduce slightly at 6-month and 12-month follow-ups. Surprisingly, upon the two-year follow-up by Deblinger et al. (1999) the findings regarding PTSD symptom reduction was still maintained after two years following the intervention.

Limitations

The findings of this systematic review are impacted and could be impacted by the following limitations; sample size, treatment non-completers and children lost, validity of the PTSD/PTSS measure, therapists, and publication bias.

One limitation of this particular systematic review is the variability in sample size. The largest sample size used in any of the included studies was 182 while the smallest was only 8. This variability in sample size can have large effects on the reported percentage outcomes especially for small sample sizes; one anomaly can have an abnormal effect on

the outcome percentage and averages. Additionally, no consideration was given to sample size when evaluation of the overall results.

The second limitation identified in all of the studies examined in this systematic review non-completers did not affect final outcomes; however, it was not made clear whether the pretest scores were used in overall pretest results. This had the potential to skew results and decrease the external validity of the study. It should also be noted that the validity of the results could have been affected by the sheer validity and reliability of the PTSD/ PTSS measure. Some of the studies did not provide this information at all making the cross comparison between different metrics difficult without a relative rating comparing measure accuracy.

Another limitation within this systematic review is the variety of conditions with regard to therapists. Many of the studies used one therapist for one of the treatments and an entirely different therapist for another, making it impossible for the study to distinguish between therapist effect and specific treatment effect. It should also be noted that some of the studies did not utilize licensed therapists at all and instead used trained counselors. Thus creating an unaccounted variable in the efficacy of the treatment as well as an unaccounted for variability in treatment compliance.

The final limitation worth noting is the potential publication bias with regard to the work by Cohen, Mannarino and Deblinger. This is due to the fact that this research group initially developed the TF-CBT framework and manual. There may be a subconscious tendency for this group to report positive feedback; however, their results do appear to be in agreement with the other studies performed by outside groups. Other potential publication biases could include clinicians in the field that may be proponents of this

treatment and its efficacy.

Implications for Future Research

The majority of the studies included in this review excluded individuals who were a danger to themselves or others, therefore it is hard to assess if TF-CBT alone would be sufficient in helping children and adolescents that are actively suicidal. Children and adolescents experiencing such difficulties should be examined in the future to see whether stabilization is required prior to treatment or if the TF-CBT components are sufficient at reducing suicidality.

The presented studies also lacked explicit inclusion criteria for individuals suffering from complex trauma. There appears to be a lack of studies that evaluate how complex trauma is affected by any interventions, let alone TF-CBT based interventions. The studies included in this evaluation were thoroughly examined prior to inclusion in order to ascertain if more than 50% of the participants had experienced more than one traumatic experience and could be considered complex trauma. Future research should go into the study of complex trauma and its effects on children and adolescents due to the increasing number of these cases within the United States.

Social Work Implications

The findings of this study have several implications for future clinical social work practices with children and adolescents with PTSD or PTSS suffering from complex trauma. First, the results of this systematic review suggest that TF-CBT or similar CBT treatment methods are superior to wait-list, treatment as usual in the community, child-centered therapy, and non-directive supportive therapy and almost equally effective as EMDR at reducing PTSD/PTSS for children and adolescents who have experienced

complex trauma.

Social workers as well as other professionals are at the forefront of helping individuals who have been exposed to abuse, crime, neglect, rape, domestic violence, war, community violence, natural disaster and all other traumatizing experiences. Due to the long lasting effects of such traumatic experiences it is the duty of social workers to utilize a treatment that is most effective and verified by evidence. With this systematic review it is clear that TF-CBT or similar CBT treatment methods should be the first treatment method considered for youth diagnosed with PTSD or experiencing high levels of PTSS who suffer from complex trauma.

The other main clinical implications for this study are that TF-CBT or similar CBT treatment is equally effective in a school based setting, can also be adapted to work effectively in a population that is culturally different from its original target population, can reduce PTSD/PTSS caused by a wide variety of traumatic experiences and finally can be adapted to work effectively in a group based format. First, the research implies that social workers should consider the use of TF-CBT or similar CBT treatment methods within school based clinics or other school based mental health programs. According to Stein et al. (2003), for many children schools provide a large majority of mental health services. Among the studies analyzed, five were implemented in a school setting, all of which indicated that school based interventions are able to provide high quality and reliable interventions.

Second, this study indicates that TF-CBT or similar CBT treatments can be adapted or developed for a variety of populations that are vastly culturally different from one another as well as from the original target population. McMullen et al. noted that if an

intervention is not able to adapt for the culture in which it is being implemented, the results are unlikely to have a lasting effect simply due to the inherent differences in culture. The systematic review incorporated articles that implemented treatment with Iranian girls, boys in the Dominican Republic of Congo, Congolese girls, Palestinian children in Nablus, Latino Immigrant children, one study was implemented with refugee children from 17 different countries while another was implemented with asylum-seekers from war-affected counties such as Kosovo, Sierra Leone, Turkey, Afghanistan and Somalia. All of these studies had been culturally adapted and noted the efficacy of the TF-CBT or CBT treatment module.

Next, TF-CBT can be effectively utilized for the reduction of PTSD/PTSS for a large range of traumatic events. Many of the studies measured statistically significant reduction in children who experienced sexual abuse. However, other forms of traumatic experiences seen in this systematic review were as follows: severe punishment and revenge, murder, lack of food or water, accidents, sudden death of loved ones, ongoing Intimate Partner Violence (IPV), beating, knife attacks and loved ones being tortured, to name a few. This review indicated that despite the variety within the type of traumatic experience TF-CBT or similar CBT treatment proved to be effective in reducing the PTSD/PTSS after enduring such hardship.

The final clinical implication of this study is that TF-CBT can be altered to a group-based format of delivery and still be a viable alternative to standard individual treatment. Six out of the original 17 studies used a group-therapy approach. Many of the studies included found therapeutic value inherent to group therapy. This allowed for individuals to receive and provide support for others facing similar problems as well as

reducing any stigma (Deblinger et al. 2001; McMullen, 2013; O'Callaghan, 2013).

Conclusion

Systematic reviews are utilized in order to ascertain how well an intervention works, what population it works best for and what symptoms the intervention best treats. This systematic review set out to review all available randomized clinical trials for the effectiveness of TF-CBT using longitudinal, quantitative studies. An explicit inclusion and exclusion criterion was used to identify qualifying studies in which specific data regarding PTSD/ PTSS was abstracted. The findings from this systematic review revealed the overall effectiveness of utilizing TF-CBT and other CBT methods with children and adolescents that suffer from complex trauma and were exhibiting PTSD or PTSS following a traumatic experience. However, this appeared to have no affect on the effectiveness of the treatment in the long run on reducing overall symptomology regardless of diagnosis.

This review also suggests a variety of clinical implications for the use of TF-CBT or similar CBT treatment. It appears that TF-CBT is effective in school based settings, is adaptable to work effectively in a population that is culturally different from its original target population, can reduce PTSD/PTSS caused by a wide variety of traumatic experiences and can work effectively in a group based format. All the included studies measured statistically significant reductions in PTSD or PTSS following the use of TF-CBT or other CBT methods when compared to wait-list control groups. Additionally TF-CBT/other CBT were found to be as effective or more effective at reducing PTSD/PTSS when compared to other treatments: Supportive group for parents, standard community care, child-centered therapy, non-directive supportive therapy, and EMDR. Therefore, TF-CBT or comparable CBT methods should be the first therapies utilized with children and

adolescents suffering from PTSD/PTSS who have experienced complex trauma.

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Appendices

Appendix A

- A: Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways:
 1. Directly experiencing the traumatic event(s).
 2. Witnessing, in person, the event(s) as it occurred to others.
 3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental.
 4. Experiencing repeated or extreme exposure to aversive details of the traumatic event(s).

- B: Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
 1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).
 2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).
 3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)
 4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
- C: Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:
 1. Avoidance of or effort to avoid distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
 2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).
 - D: Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
 1. Inability to remember an important aspect of the traumatic event(s) (typically due to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).
 2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world.
 3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
 4. Persistent negative emotional state.
 5. Markedly diminished interest or participation in significant activities.
 6. Feelings of detachment or estrangement from others.
 7. Persistent inability to experience positive emotions.

- E: Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
 1. Irritable behavior and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression towards people or objects.
 2. Reckless or self-destructive behavior.
 3. Hypervigilance.
 4. Exaggerated startle response.
 5. Problems with concentration.
 6. Sleep disturbance.
- F: Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.
- G: The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
- Criterion H: The disturbance is not attributable to the physiological effect of a substance or another medical condition (American Psychiatric Association, 2013).

Appendix B

Title/ Date	Authors	Experimental/ 4 of 5 Components	Comparison	PTSD/ PTSS Measure	Age	Complex	Results
Comparative Efficacies of Supportive and Cognitive Behavioral Group Therapies for young Children Who Have Been Sexually Abused and Their Nonoffending Mothers (2001)	Deblinger et al.	-Cognitive-Behavioral Group for Parents and co-occurring group for children Psychoeducation, cognitive coping, gradual exposure, parental component (N=21)	Supportive Group for Parents & Co-occurring group for Children (N=23)	K-SADS-E	2-8yr	34% occurrence once, 66% more than once-sexually abused	PTSS scale for children= slightly better for cognitive than supportive and cognitive maintained it slightly more than supportive
Sexually Abused Children Suffering Posttraumatic Stress Symptoms: Initial Treatment Outcome Findings (1996)	Deblinger et al.	-Parent/Child & Child-only Cognitive-Behavioral Treatment: (possible) parental component, cognitive processing, psychoeducation, exposure, stress management (N=25 for each)	Parent only, community (N=25 for each)	K-SADS-E	7-13yr	47% 2-10 episodes, 22% 11-50 episodes 13% more than 50 abusive episodes	-Experimental exhibited significantly fewer PTSD symptoms than Control. -6 (16%) of the 38 children continued to meet PTSD criteria at posttreatment (experimental) where as 10 (30%) of the 33 children continued to meet criteria (control)
Two-year follow-up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms (1999)	Deblinger et al.	Same as above study	Parent only, community (N=25 for each)	K-SADS-E	7-13yr	47% 2-10 episodes, 22% 11-50 episodes 13% more than 50 abusive episodes	The significant decrease measured in original findings remained; however there was not a significant continuation of reduction at 3 months, 6 months, 1 year and 2 years.

A Multisite, Randomized Controlled Trial for Children With Sexual Abuse-Related PTSD Symptoms (2004)	Cohen et al.	Branded TF-CBT (N= 114)	Child-Centered Therapy (N=115)	K-SADS-PL	8-14yr	More than 90% complex	Children assigned to TF-CBT, compared to those assigned to CCT, demonstrated significantly more improvement in PTSD scores.
A Follow-up Study of a Multisite, Randomized, Controlled Trial for Children with Sexual Abuse- Related PTSD Symptoms (2006)	Deblinger et al.	Branded TF-CBT (N= 92)	Child-Centered Therapy (N=91)	K-SADS-PL	8-14yr	More than 90% complex	Children treated with TF-CBT had significantly fewer PTSD symptoms than those treated with CCT at both 6 and 12 month follow-up
Community Treatment of Posttraumatic Stress Disorder for Children Exposed to Intimate Partner Violence: A randomized controlled trial (2011)	Cohen et al.	Branded TF-CBT (N=64)	Child-Centered Therapy (N=60)	K-SADS-PL	7-14 yrs.	-Mean number = 3.65 total -50 of the 124 (40%) ongoing trauma during treatment	TF-CBT completers had significantly greater improvement than CCT completers in K-SADS-PL total score. -Children in TF-CBT with PTSD diagnosis from pre to post decreased from 32 to 8 (75% remission), whereas CCT decreases from 18 to 10 (44% remission)
Group trauma-focused cognitive-behavioral therapy with former child soldiers and other war-affected boys in the DR Congo: A randomized controlled trial (2013)	McMullen et al.	TF-CBT w/o parent (psychoeducation skills/stress management, cognitive coping and exposure) (N= 25)	Wait-list (N=25)	UCLA-PTSD Reaction Index	13-17yr	-War affected or child soldiers # traumatic events TF-CBT 13.1 (SD 6.2) Control 11.7 (SD 5.6)	TF-CBT group had significant reduction in posttraumatic stress symptoms

Treatment of Childhood Refugee Trauma: A Randomized, Controlled Trial (2012)	Schottelkorb et al.	Branded TF-CBT (N= 17)	Child-Centered Play Therapy (N= 14)	UCLA-PTSD Reaction Index	6-13yr	Refugee children from combat regions Several traumatic events	Results indicated both groups demonstrated a significant decrease in severity rating from pre assessment to post with no difference between the two groups
A Randomized Controlled Trial for Trauma-Focused Cognitive Behavioral Therapy for Sexually Exploited, War-Affected Congolese Girls (2013)	O'Callaghan et al.	Branded TF-CBT (N= 24)	Wait list (N=28)	UCLA-PTSD Reaction Index	12-17yr	Children from brothels or victims of violence TF-CBT mean: 11.79 (SD 4.92) Wait list mean: 12.36 (SD 3.59)	Compared to the wait list control, TF-CBT group experienced significantly greater reduction in trauma symptoms
A School-Based Mental Health Program for Traumatized Latino Immigrant Children (2003)	Kataoka et al.	-Cognitive-Behavioral Intervention for Trauma in Schools: psychoeducation, cognitive coping, exposure, stress management, choice of parental involvement (N= 182)	Wait-list (N=47)	Child PTSD symptom Scale	8-14 yrs.	Mean total exposure violence score 18 (SD 10)	PTSD symptoms decreased from 19 to 13-intervention and 18 to 16 – waitlist Of 108 children with clinically significant PTSD at pre- mean scores declined from 20 to 13 in treatment group and 19 to 16 in waitlist

A Mental Health Intervention for Schoolchildren Exposed to Violence A Randomized Controlled Trial (2003)	Stein et al.	Cognitive-Behavioral Intervention for Trauma in Schools: psychoeducation, stress management, cognitive coping, exposure (N=61)	Wait list Delayed Intervention (N=65)	Child PTSD symptom Scale	11-12 yrs.	Early int.: experienced 2.8(SD2.1), witnessed 5.8(SD 2.2) Delay int.: experienced 2.7(SD 2.2), witnessed 6.1(SD 2.2)	Early intervention had significantly lower scores on PTSD scale at 3-month (post) while minimal significance between groups at 6-month after both groups had received the treatment
Randomized Control Trial of a CBT Trauma Recovery Program in Palestinian Schools (2013)	Barron et al.	Skills-based CBT program "Teaching Recovery Techniques" Exposure, cognitive coping, stress management, psychoeducation (N=90)	Wait-list (N=50)	CRIES-13	11-14 yrs.	Intervention: average = 13.49 (SD 7.19) wait-list: average= 12.66 (SD 3.19)	Significant reduction in PTSD symptoms for intervention group vs. wait-list group. Those diagnosed at pretest 53 (63.9%) only 28 (33.7%) continued to meet criteria posttest in intervention group whereas 25 (50%) at pretest and 22 (44%) at posttest for wait-list
A Comparison of CBT and EMDR for Sexually-abused Iranian Girls (2004)	Jaberghaderi et al.	CBT trauma treatment skill develop., exposure, cognitive coping, stress management, and parental component (N=8)	EMDR (N=9)	Child Report of Post-traumatic Symptoms	12-13 yrs.	18 in study only 3 indicated single event (83% more than one)	A non-significant trend on self-reported PTSS favored EMDR over CBT, however overall improvement for both

A Randomized Effectiveness Study Comparing Trauma-Focused Cognitive Behavioral Therapy With Therapy as Usual for Youth (2014)	Jensen et al.	Branded TF-CBT (N= 79)	Therapy as Usual (N=77)	CAPS-CA & CPSS	10-18yr	Mean number =3.6 (SD 1.8)	CAPS-CA: Significantly more reduction in TF-CBT than TAU CPSS: TF-CBT group scored significantly lower at post on CPSS scores than comparison group
Treating Sexually Abused Children With Posttraumatic Stress Symptoms: A Randomized Clinical Trial (2000)	King et al.	Cognitive-Behavioral Treatment psychoeducation, cognitive processing, coping skills, gradual exposure	Wait-list , Child CBT, Family CBT (N=12 for each)	PTSD portion of ADIS	5-17yr	Mean number = 7.64 (SD=3.11)	Significant reduction in PTSD symptoms was found by the children treated alone or in family CBT. Study failed to reveal any significance between the two intervention groups
Treating Sexually Abused Children: 1 Year follow-up of a Randomized Controlled Trial (2005)	Cohen et al.	Branded TF-CBT (N=41)	Non-directive Supportive Therapy (N=41)	Trauma Symptom Checklist for Children	8-15 yrs.	14%= 2-5 traumatic episodes, 11% 6-10, 27% more than 10	TF-CBT group had statistically significant reduction in PTSD symptoms at posttest, 6-month follow-up and 12-month follow-up than NST
School-based Cognitive-Behavioral Therapy group intervention for refugee children who have experienced war-related trauma (2005)	Ehnholt et al.	Manual-based CBT psychoeducation, skills/stress management, gradual exposure, cognitive coping (N=15)	Wait list (N=11)	13-item Revised Impact of Events Scale	11-15yr	Mean number recalled 16.5 (range 5-28, SD 5.9)	Children in the CBT group showed statistically significant but clinically modest improvements following the intervention, with decreased in overall severity of PTSS. 2-month follow-up indicates gains were not maintained (8 available)