

## POST-TRAUMATIC STRESS DISORDER

### 1. INTRODUCTION

Post-traumatic Stress Disorder (PTSD) is a persistent and sometimes crippling condition precipitated by psychologically overwhelming experience. It develops in a significant proportion of individuals exposed to trauma, and untreated, can continue for years. Its symptoms can affect every life domain – physiological, psychological, occupational, and social.

Post-trauma stress reactions have been recognized throughout history. They are described in classical Greek literature and in the early literature of scientific medicine, but it was first diagnostically defined in modern times in the 1980 American Psychiatric Association Diagnostic and Statistical Manual. The surge of scientific and clinical interest in the condition over the past two decades has been largely due to awareness of problems associated with returning Vietnam combat veterans and advocacy by the feminist movement on behalf of rape victims. PTSD has not been documented in other groups including abused children, victims of crimes, accidents, and natural disasters.

Not all trauma survivors develop PTSD. About 20% of crime victims, across type of crime, will meet diagnostic criteria. The rates are substantially higher for some crimes. For example, more than half of rape victims are afflicted. However, most crime victims do have some initial PTSD symptoms that subside over time.

### DIAGNOSTIC CRITERIA

The diagnosis of PTSD, as described in the DSM-IV (APA, 1994), requires the presence of definite traumatic experience and certain symptoms. A person must A1) have been subjected to an experience that threatened loss of life or identity or serious injury, and A2) have reacted to that event with intense emotion – horror, fear, or helplessness; B) re-experience the event in dreams, flashbacks, vivid intrusive thoughts, or emotional and physiological reactions to reminders of the event; C) show three or more avoidant and/or numbing features associated with the event; D) exhibit symptoms of arousal. (**See Table I for a listing of symptoms.**) Additional diagnostic requirements include that at least a month must have elapsed since the index event and that the person have some functional disability – inability to function normally at work, in their families, or within their social networks.

The current DSM-IV criteria rely heavily on items that require verbal descriptions of internal experiences and states. There is growing consensus that more developmentally sensitive criteria are needed for children due to their limited ability to express their subjective experiences. The current modifications in the DSM-IV symptom criteria for children are presented in bolded text in Table i.

Some experts have proposed a variant known as Complex PTSD. In this condition some individuals may have more pervasive disturbances, including identity problems,

difficulties in affect regulation. Complex PTSD is not an officially sanctioned diagnosis at this time.

## BIOLOGIC CHARACTERISTICS

There is increasing evidence that PTSD is associated with biological alterations or abnormalities. Individuals with PTSD have an atypical stress response. Instead of producing increases in cortisol, a stress related hormone, the usual hypothalamic-pituitary axis mechanisms are disrupted and result in lower than expected levels of the hormone. It is possible to induce PTSD symptoms in diagnosed individuals with injection of relatively benign chemical stimuli. Decreased brain volume or volume of specific brain structures have been documented in some adults and children with PTSD. The biologic correlates have not yet been fully explored, nor are the implications for intervention established.

**TABLE 1: POST-TRAUMATIC STRESS DISORDER  
DSM IV DIAGNOSTIC CRITERIA**

**CRITERION A: CRITERIAN B: CRITERIAN C: CRITERION D: CRITERION E & F**

<b>Trauma (Both)</b>	<b>Re-experiencing Symptoms (1+)</b>	<b>Numbing and Avoidant (3+)</b>	<b>Arousal Symptoms (2+)</b>	<b>Additional Diagnostic Requirements</b>
1. Traumatic and 2. Intense response; may be expressed by <b>disorganized or agitated behavior</b>	1. Intrusive thoughts of trauma or <b>repetitive posttraumatic play</b> 2. Recurrent nightmares <b>(includes those w/o recognizable content)</b> 3. Flashbacks or <b>trauma-specific reenactment</b> 4. Distress at reminders of the trauma 5. Physiological reaction to reminders	1. Avoids thoughts/ feelings 2. Avoids activities/ people 3. Failure of recall of the trauma 4. Loss of interest in significant activ- 5. Detachment from others 6. Restricted affect 7. Lost sense of the future	1. Insomnia 2. Irritability 3. Difficulty concentrating 4. Hyper-vigilance 5. Exaggerated startle response	Duration of Sxs:>one month and Disturbance causes clinic-ally significant distress or impairment in social, occupational, or other important areas of function

**KEY: BOLDED TEXT = MODIFICATIONS IN DAGNOSTIC CRITERIA FOR CHILDREN**

## POPULATIONS AT RISK

According to general population surveys conducted over the past five years, PTSD is among the most common psychiatric conditions in American society. Younger adults and adolescents seem somewhat more susceptible than older adults. Less is known about the very young, who respond to trauma in less typical ways, but post-traumatic syndromes are believed to occur and to exert profound influences on development and later emotional health.

One representative national sample of women revealed a life-time prevalence of PTSD of 12.3% and rate of current PTSD of 4.6% (Resnick, et al., 1993). The authors estimated that 11.8 million adult women in the U.S. would have experienced PTSD at some time during their lives, and 4.4 currently have PTSD. This study found a significantly higher rate of PTSD among crime versus non-crime victims (25.8% vs. 9.4%). Another general population study (Kessler, et.al, 1995) reported a lifetime prevalence of 7.8% (5% of men; 10.4% of women).

There is a single nationally representative survey of adolescents that assessed for PTSD diagnosis (Kilpatrick & Saunders 1997). This study found that 8.1% of the adolescents surveyed met DSM-IV criteria for PTSD during their lifetime and 4.9% currently met criteria. They estimated that 1.8 million adolescents in the U.S. meet the DSM-IV criteria at some point during their lifetime and 1.1 million currently suffer from PTSD. The survey also showed that the rates of lifetime and current PTSD increase significantly with age; by age 17, the rates of lifetime and current PTSD increased to 13.1% and 8.4%, respectively.

People vary in susceptibility to PTSD. Genetic factors may play a significant role in susceptibility. Women develop PTSD at about twice the rate as men, even for the same crimes. Individuals with a prior trauma history or multiple traumas are at increased risk. A premorbid psychiatric history also increases the likelihood of developing the disorder. It may be that people who have fewer supports and limited inter-personal coping skills are more likely to develop PTSD. Studies of concentration camp survivors and prisoners of war, however, suggest that even given sufficient trauma intensity and duration most of those who are exposed develop PTSD.

A positive relationship has been found between trauma intensity and the likelihood of PTSD. people who have been injured or perceived the event as life threatening are more likely to develop PTSD than those with less severe trauma. Human caused traumatic events such as assaults and murder have a more powerful impact than accidents and natural disasters. Among crime victims, individuals who have suffered more brutal trauma have higher frequencies of PTSD – torture (54%), rape (49%); badly beaten (32%), and other sexual assault (24%). Dissociation during the trauma, peritraumatic dissociation, is associated with risk for PTSD.

As previously mentioned, most crime victims experience PTSD symptoms although they do not develop the disorder. Re-experiencing and arousal symptoms are almost universal

in the immediate aftermath. Similar relationships between the nature and severity of trauma and PTSD symptoms as for those with the disorder have been found in adults and adolescents (Boney-McCoy & Finkelhor, 1995; Norris & Kaniasty, 1994).

Cognitive distortions and faulty attributions are commonly associated with PTSD. Maladaptive cognitions may be specifically related to the trauma per se. Guilt and shame about aspects of the experience or the fact of being victimized are the most common. Other cognitive impacts reflect alterations in basic assumptions about self, others, and the world.

## **CLINICAL COURSE**

Once established PTSD tends to persist. About half of those who develop PTSD spontaneously recover over the two years following the event. After that time symptoms may wax and wane in intensity or different clusters may be more prominent at a particular time, but they usually do not dissipate entirely. Anniversaries and life crises may precipitate setbacks.

## **CO-MORBIDITY – ADULTS**

Individuals with PTSD often suffer from other psychiatric conditions; nearly 80% of women and 90% of men with lifetime history of PTSD develop at least one other disorder (Kessler et al., 1995). Depression accompanies PTSD almost half of the time (Davidson & Foa, 1993). Substance abuse develops frequently among men, whereas women are more prone to psychologically determined physical complaints. Anxiety disorders (i.e. generalized affective disorder, panic disorder, simple phobia, social phobia, agoraphobia) are common among both sexes. Co-morbidity with PTSD would be expected for some of these disorders due to the overlap in symptom criteria; for example, criteria C and D PTSD symptoms (e.g., irritability, hypervigilance, exaggerated startle) overlap with symptoms that characterize generalized anxiety disorder and criterion B5 (physiological reactivity) could overlap with panic disorder, simple phobia, and/or social phobia (see **Table 1**).

## **CO-MORBIDITY - CHILDREN**

Children with PTSD also have fairly high rates of psychiatric co-morbidity (ACAP, 1998). Depression and other anxiety disorders (e.g. agoraphobia, separation anxiety, and generalized anxiety disorder) are quite common in children who have been traumatized. Other children may respond to trauma by displaying externalizing symptoms-or behavioral problems. Disruptive behavior disorders, like Conduct Disorder and Oppositional-Defiant Disorder, are not uncommon among children with PTSD, and are most often associated with physical abuse, exposure to violence, or coercive family dynamics. Young children often present anxiety-related responses manifested by hyperactivity, distractibility, and impulsivity which are hallmarks of Attention-Deficit Disorder (ADHD). However, some authors have suggested that ADHD in traumatized children may actually be misdiagnosed PTSD.

## 2. ACUTE STRESS DISORDER

### OVERVIEW

Many victims of crime suffer from a variety of short-term stress and dissociative symptoms during or immediately after the trauma. Although these reactions do not necessarily lead to PTSD, they can cause significant emotional and psychological distress as well as functional impairment. The diagnosis of Acute Stress Disorder (ASD) was recently incorporated into the DSM-IV in order to recognize and classify the psychological reactions and sequelae that occur within one month after an acute stressor (Briere, 1997).

### DIAGNOSTIC CRITERIA

The defining features of ASD are the development of dissociative and post-traumatic stress symptoms that occur within one month of the traumatic event (APA, 1994). The diagnostic criteria of ASD similar to PTSD regarding the stressors involved and the symptoms experienced, except that only one symptom each of the –re-experiencing, avoidant, and arousal clusters are required for an ASD diagnosis (see Table 2), The individual must have at least three of the following dissociative symptoms during or after experiencing the traumatic event: (1) a subjective sense of numbing, detachment, or absence of emotional responsiveness, (2) a reduction in awareness of his or her surroundings (e.g., “being in a daze”), (3) de-realization, (4) depersonalization and/or (5) dissociative amnesia (i.e. inability to recall an important aspect of the trauma)(APA, 1994).

**TABLE 2: ACUTE STRESS DISORDER  
DSM IV DIAGNOSTIC CRITERIA**

<b>Trauma (Both)</b>	<b>Dissociative Sx (3+)</b>	<b>Re-experiencing Sx (at least 1)</b>	<b>Anxiety or Arousal Symptoms (at least 1)</b>	<b>Additional Diagnostic Requirements</b>
1. Traumatic event and 2. Intense response	1. Subjective sense of numbing, detachment, or absence of emotional responsiveness 2. A reduction in awareness of surroundings 3. De-realization 4. De-personalization 5. Dissociative amnesia	1. Intrusive thoughts of trauma 2. Nightmares 3. Flashbacks 4. Distress at reminders of the trauma 5. Physiological reaction to reminders  Avoidance Symptoms (at least 1) Avoids trauma reminders: 1. Thoughts, feelings 2. Conversations, activities 3. People, places	1. Insomnia 2. Irritability 3. Difficulty concentrating 4. Hypervigilence 5. Exaggerated startle response 6. Motor restlessness	Duration of Sxs: 2 days to 4 weeks AND Disturbance causes clinically significant distress, or impairment in social, occupational, or other important areas of function. AND The disturbance is not due to the direct physiological effects from substance abuse of drug or use of a medication

## **DURATION**

This disturbance lasts for a minimum of two days and does not persist beyond four weeks; when symptoms persist beyond 1 month, a diagnosis of PTSD may be appropriate if the full criteria are met. ASD symptoms and reactions must also **occur within four weeks of the traumatic event**, whereas PTSD diagnosis requires that at least **one month** has elapsed since the traumatic index event.

### **3. ASSESSMENT AND MANAGEMENT OF PTSD ADULTS**

#### **DIAGNOSTIC CRITERIA**

Please read the Diagnostic Criteria Section of these guidelines

#### **ASSESSMENT**

There are a number of excellent assessment guides that have been recently published to help mental health professionals through this process (See Briere, 1997; Carlson, 1997; Wilson & Keane, 1996; Stamm, 1996; van der Kolk et. al., 1996). The following recommendations for PTSD assessment are based on this current literature.

#### **1. PLANNING AND PREPARING FOR ASSESSMENT**

It is important to provide a neutral or positive, and safe setting for the evaluation. Clinicians should be aware of the potential re-traumatizing effects of assessment interviews and the use of probing techniques. The assessment setting or clinician characteristics may resemble those of the offender or the traumatic scene and reactive post-traumatic stress. Recalling and describing the traumatic event during the assessment may also trigger intense feelings of distress and a desire to escape or avoid the situation. Clinicians should anticipate and be prepared to respond to distress reactions. For example, a clinician may choose **not** to administer a particular psychological test or delay having the victim provide a detailed description of the traumatic event until they are more stable.

Clinicians must strive to maintain the victim's state of well being and avoid potential harm. It follows that the pacing, tone, and preparation for the interview should be carefully considered and adjusted as necessary. The developmental and comprehension level of the client must also be taken into account. Alerting victims beforehand that they may experience assessment-related distress, as well as providing assurance and grounding afterwards may be helpful (e.g. reminding them that they are safe; explaining that their reactions are reasonable due to the circumstances) (Briere, 1997).

## 2. OBJECTIVES OF ASSESSMENT

The primary task in assessing PTSD is to firmly establish the presence of specific symptoms of the disorder (van der Kolk et.al., 1996). It should **not** be assumed that clients suffer from PTSD solely because they have been exposed to a high-magnitude stressor; it is possible they suffer from another condition that may or may not be associated with exposure to trauma.

Clinicians will need to query victims regarding the presence of **all** symptom criteria occurring within the specified time range. To do this, enough **accurate** information about traumatic experience will need to be gathered by asking specific questions. Obtaining a precise factual account of the traumatic event may not be as important as learning about **perceptions** of the experience. For example, perceived life threat has as much influence on the development of PTSD as objective factors such as injury or threat of violence. Victim reports of symptoms and experiences are the major source of clinically relevant information. Sometimes however, victims under report or over report their symptoms because of high levels of emotional distress, faulty thinking patterns, avoidant coping mechanisms or because they wish to justify or explain their problems. In an attempt to maximize the accuracy of victims' reports, **systematic** assessment methods are a critical part of this process.

Another assessment goal involves determining when possible, whether victims' current state and symptoms are a result of the index traumatic event. Careful questioning about the content, initial onset and external cues associated with symptoms can help improve understanding of complex relationships between the symptoms and the stressor. Furthermore, because research has indicated that those who have experienced a significant stressor are more likely to be exposed to two or more stressors over the life span, it is important to explore this possibility in the assessment. Since post-traumatic stress is often accompanied by other significant co-existing disorders (e.g. depression, anxiety disorders, alcohol and drug abuse), other diagnostic possibilities should be considered and ruled out.

## 3. ASSESSMENT STRATEGIES

it is considered the ideal by experts in the field that assessment involve a “semi-structured clinical interview assessing lifetime exposure to potentially traumatic events, PTSD, and other disorders, as well as self-report measures, psychophysiological assessment, and collateral assessment” (Newman et al., 1996, p. 243). However, this level of comprehensiveness is not necessary or feasible in every case. At minimum a standard clinical assessment with specific attention to the impact of the traumatic event should occur prior to the onset of treatment.

Numerous standardized measures of traumatic experiences exist. They range from self-report measures, inventories, and questionnaires to structured interviews. Carlson (1997) provides a comprehensive list and description of recommended assessment measures. See Table 3 for a sample of profile instruments.

Preliminary information about trauma history, psychiatric status, and level of functioning guide clinical decision-making about the comprehensiveness of the assessment process. For example, if a victim has experienced a recent assault and the clinician is aware of a history of traumatic events and psychological symptoms and conditions is indicated. On the other hand, an otherwise well functioning victim who appears to be suffering some PTSD symptoms but does not report other history will not require an extensive battery or detailed assessment for all possible diagnoses.

## **PSYCHOSOCIAL TREATMENT STRATEGIES**

Comprehensive reviews of psychosocial interventions (van der Kolk et.al, 1996; Meichenbaum, 1994) document that virtually every form of treatment has been used with individuals who have PTSD. of the various approaches, four strategies have been distinguished by both empirical evaluation and the development of treatment manuals that enhance standardized training of procedures to clinicians. The following approaches can be recommended as current best practices because of their efficacy, goal-focus and brief nature. Currently, only the cognitive-behavioral approaches have been investigated sufficiently to make empirically based recommendations. As Edna Foa notes “non-behavioral treatments have not been the subject of well-controlled studies to the extent that cognitive-behavioral treatments have. However, this is not to say that they cannot prove effective as well (Foa & Rothbaum, 1998, p. 67). Examples of other forms of interventions used to treat individuals with PTSD include psychodynamic/psychoanalytic therapies, in-patient milieu, and family and couple therapy. The literature regarding these interventions is emerging.

According to the State of Washington’s Task Force on Promotion and Dissemination of Psychological procedures (1995), the four strategies that meet criteria for either “probably efficacious” or “well-established” are briefly described as follows:

### **1. PROLONGED EXPOSURE (PE)**

Prolonged Exposure is a standard technique that has been used with various anxiety disorders and has now been adapted for PTSD in rape victims (Foa & Rothbaum, 1998). PE involves repeated imaginal re-living of the traumatic experience. Then it is followed up with subsequent real life exposure to situations that are unpleasant reminders of the cause of the fear. The theory posits that repeated pairing of the emotional memories, with a non-dangerous environment will lead to reconditioning of the emotionally aversive associations to trauma memories. Gradually being reminder or remembering the trauma will lose the

intense negative quality. Breathing retraining to assist with relaxation is an initial component of the approach.

Foa and Rothbaum (1998) offer a detailed treatment rationale and manual that specifies the techniques on a session by session basis. The treatment ordinarily is carried out over ninety minute sessions that may occur twice a week.

PE has been proven effective with female victims of rape, with at least 90 days of sobriety if there has been a substance abuse issue. High-risk concerns such as psychosis, homicidal or suicidal tendencies should be addressed. neither depression nor its management with antidepressants, nor co-morbid personality disorder precludes effective treatment.

Primary Resource:

Foa, E.B. & Rothbaum, B.O. (1998). <u>Treating the trauma of rape: Cognitive-behavioral therapy for PTSD</u> . New York: Guilford.
--

## **2. COGNITIVE PROCESSING THERAPY (CPT)**

Cognitive Processing Therapy is an approach that focuses primarily on trauma-related attributions and cognition that are maladaptive. There is exposure to the trauma, but it occurs in a modulated fashion and is accomplished through having victims write descriptions of the trauma that are repeatedly reviewed and read. The description is analyzed to identify blocks and dysfunctional cognitions and cognitive therapy techniques are used to challenge and replace these distortions with more appropriate, accurate and adaptive views. Themes of safety, trust, power, esteem and intimacy are specifically addressed. Coping skills are taught to assist victims in predicting and managing stress responses. CPT has been proven effective with female rape victims.

Resick and Schnicke (1995) provide the theory underlying the approach and a detailed description of the various techniques. The treatment occurs over 12 sessions.

Primary Resource:

Resick, P. A. & Schnicke, M.K. (1993). <u>Cognitive processing therapy for rape victims: A treatment manual</u> . Newbury Park, CA: Sage Publications.
--

## **3. STRESS INOCULATION TRAINING (SIT)**

SIT is a CBT approach that has a primary focus on teaching the identification and management of anxiety reactions to stressful situations. Michenbaum (1985) first developed this intervention for use with a wide variety of populations suffering from anxious response including trauma. he has since published a manual (Michenbaum, 1994) that is specifically devoted to PTSD. SIT involved explaining the physical,

cognitive and behavioral components of fear and anxiety reactions. Then victims are taught various coping strategies to address dysfunctional thoughts and unpleasant feelings that come up with exposure to certain trauma reminders. These include relaxation, shifting attention and self-coaching dialogues. The goal is that victims learn to manage trauma related anxiety with confidence and efficacy.

SIT has been found effective with various stress-related conditions and for female rape victims. Typically this approach consists of 8-14 sessions.

Primary Resources:

Meichenbaum, D. (1985). Stress inoculation training. Boston: Allyn and Bacon.

Meichenbaum, D. (1994). A clinical handbook/practical therapist manual for assessing and treating adults with post-traumatic stress disorder (PTSD). Waterloo, Ontario, Canada: Institute Press.

#### **4. EYE MOVEMENT DESENSITIZATION AND REPROCESSING (EMDR)**

Shapiro (1995) developed the Eye Movement Desensitization and Reprocessing (EMDR) approach. Like SIT, this approach has been advocated as a treatment for a variety of psychological problems involving intense emotions and intrusive thoughts. It is generally considered a form of imaginal exposure accompanied by cognitive re-framing, which are standard elements of CBT. Victims are encouraged to imagine a stressful scene and replace dysfunctional cognitions with more adaptive ones while engaging in lateral eye movements. Therapists move fingers back and forth to facilitate this process.

The unique aspect of the treatment is the eye movement component. The currently available research has established EMDR is as effective as CBT treatments. However, the eye movements have not been found to be necessary and they do not explain symptom reduction. Initially, it was claimed that EMDR could cure PTSD in one or two sessions. The developer of the method now takes the position that up to 12 sessions may be necessary in some cases to achieve full effects.<sup>7</sup>

Primary Resources:

Shapiro, F. (1995). Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures. New York: Guilford.

## **DISCUSSION**

All of the described therapeutic interventions involve some degree of exposure. SIT and other anxiety regulation and management approaches have the greatest amount of empirical support across populations of individuals with anxiety based conditions. A significant component of PE and CPT incorporates aspects of anxiety management. PE(including imaginal and in vivo procedures) has been proven to effective as the central

ingredient of treatment. Practically however, exposure to intense imaginal and in vivo stimuli may not always be necessary. The other interventions have as much empirical validity as PE; although they involve exposure (writing the trauma account and re-reading it) and emphasizes cognitive processing and restructuring of beliefs.

## **PHARMACOTHERAPY OF ADULT PTSD**

Though seldom the sole, or even primary treatment for PTSD, pharmacotherapy can alleviate suffering, help restore immediate functioning, and be a supportive adjunct to psychotherapy.

The scientific literature on PTSD pharmacology is relatively sparse. Most studies have been trials of different medications, only a few randomized trials have been conducted and they have had equivocal results. Treatment guidelines are largely developed on the basis of clinical experience and expert opinion. Antidepressants are the backbone of PTSD treatment; they are particularly useful for their anxiolytic qualities and ability to reduce arousal. The newer selective serotonin reuptake inhibitors and related medications are generally safer, better tolerated, and possibly more effective than older formulations.

A full psychopharmacologic approach can include the use of anticonvulsants and mood stabilizers, major tranquilizers and anti-psychotic medications of which newer drugs are well tolerated, and adrenaline blocking drugs. Use of these combinations is usually best left to psychiatrists who are expert in the treatment of PTSD.

Related reading:

Dunner, D.L. (1997). Current psychiatric therapy II (2<sup>nd</sup> ed.). Philadelphia, PA. W.B. Saunders Company.

## **4. ASSESSMENT AND MANAGEMENT OF PTSD IN CHILDREN AND ADOLESCENTS**

### **DIAGNOSTIC CRITERIA**

The PTSD criteria for symptoms include several modifications for children. Criterion A2 specifies that the extreme traumatic stressor may be experienced as producing intense fear, horror or helplessness as well as disorganized or agitated behavior in children. Currently, as with adults, in order to receive a DSM-IV PTSD diagnosis, child victims must exhibit at least one re-experiencing symptom, three avoidance/numbing symptoms, and two increased arousal symptoms (see Table 1).

PTSD can manifest in a wide variety of clinical features in children. For this reason, there is controversy among clinicians and researchers regarding whether or not the required number of symptoms in each DSM-IV category is appropriate and whether the current criteria adequately capture children's trauma responses, especially those of younger children. The DSM-IV does specify that re-experiencing/intrusive symptoms in

children may be expressed as recurrent, generalized, frightening dreams, repetitive post-traumatic play or trauma reenactment (see Criterion B, Table 1). For example, elementary school-aged children may not exhibit certain characteristic features such as visual flashbacks but instead show post-traumatic reenactment of the trauma during their play, artwork, or verbalizations.

Commentators have observed that prepubertal children often experience sleep disturbances and may experience psychosomatic symptoms and omen formation (Benedek, 1985; Pfefferbaum, 1997; Terr, 1983). Very young children (i.e. infants, toddlers, and preschoolers) rarely meet full diagnostic criteria, in part because many criteria require verbal descriptions of internal states (Scheeringa, 1995). Instead they may present with generalized anxiety symptoms, sleep difficulties, and avoidance of particular situations. However, as children mature, they are more likely to present with PTSD symptoms similar to those experienced by adults. It is evident that developmental factors play a strong role in how PTSD is manifested in children and must be considered closely when considering a diagnosis and treatment plan. Many experts have suggested the need for a “developmental stage-specific diagnosis criteria” for PTSD in children and adolescents (AACP, 1998, p. 14s).

Most children who experience traumatic events do not meet full diagnostic criteria, but a majority manifest some post-traumatic symptoms, especially emotional reactions to reminders of the event, fearfulness, sleep disturbance, and irritability. In addition, the severity of the trauma exposure, parental distress related to the trauma, and temporal proximity to the traumatic event have been found to consistently mediate the development of PTSD symptoms in children (Foy et. al., 1996). It is the current consensus that children experiencing Criterion A events should be offered treatment, although they may not meet all of the strict DSM-IV components.

## **ASSESSMENT**

The diagnosis of PTSD or the presence of PTSD symptoms in children and adolescents is based primarily on clinical interviews conducted with children and their caregivers. In cases where the caregiver is the alleged offender of the child abuse or partner violence (the index traumatic event), only the non-offending parent is routinely interviewed as part of the assessment process. The following recommendations are primarily based on the AACAP’s (1998) practice parameters for the assessment of children and adolescents with PTSD.

### **1. PLANNING AND PREPARING FOR ASSESSMENTS**

See adult PTSD section.

### **2. OBJECTIVES OF ASSESSMENT**

The goal of assessment is to obtain a description of the traumatic event(s) and determine whether it was experienced with horror, fear, or helplessness that can

be expressed by agitation in children. The nature of the event, when it occurred and the degree of exposure to the event should be noted. The presence of the various symptoms is assessed. It is also important to learn about any preceding concurrent, or more recent stressors in the child's life (e.g. child abuse/neglect, separation or divorce, frequent moves or school changes, family deaths, illnesses, substance abuse, exposure to domestic or community violence, caregiver's experience with serious trauma the child knows about) that might be accounting for PTSD symptoms.

Information is gathered both from the caretaker and directly from child victims. The developmental level of the child must be carefully considered when examining the variations in clinical presentation (e.g., non-specific nightmares versus reenactments of the trauma). Obtaining a report of the child's past psychiatric, medical, and developmental history helps identify potential exacerbating factors. It is especially important to learn about the caregivers' emotional reactions to the traumatic event because this may substantially effect the child's presentation and trauma impact.

During the child interview, it is critical to use developmentally appropriate language to assess the child's understanding of the reasons for his/her referral, the child's trauma-related attributions and perceptions, and most importantly, the child's report of present symptoms related to the trauma. Careful observation of the child's behaviors and responses will give the clinician a picture of the child's mental status and possible PTSD symptomatology.

It is also helpful in some cases to obtain information from school, daycare or other key sources to confirm certain symptoms or changes in behavior related to PTSD (e.g., changes in academic functioning, interactions with peers, presence or absence of ADHD symptoms before and after traumatic event). The clinician must be judicious in determining whether to consult outside parties because of the potential of compromising child confidentiality.

### **3. ASSESSMENT STRATEGIES**

There are various semi-structured diagnostic interviews schedules that have PTSD sections that have been used in research, however, to date, there is no single instrument accepted as a "gold standard" for making the diagnosis of PTSD or monitoring symptoms. The "Semi-Structured Interviews Used to Assess PTSD in Children and Adolescents" table provides a list of several semi-structured interviews to assess PTSD in children. The next table summarizes various child- and parent- report instruments that measure general and specific PTSD symptoms in children and adolescents, all of which are recommended by the AACAP (1998).

A variety of parent- and child- report measures can be informative and helpful in the assessment of PTSD symptoms across different areas of functioning, but they should not substitute for a careful and direct clinical interview. A semi-structured clinical interview can be especially be of great help to clinicians inexperienced in assessing children for PTSD symptoms. Unfortunately, only three of the interviews listed below have been modified to correspond to DSM-IV criteria and none of these instruments have been rigorously psychometrically evaluated regarding DSM-IV clinical diagnosis PTSD.

**SEMI-STRUCTURED INTERVIEWS USED TO ASSESS PTSD IN CHILDREN AND ADOLESCENTS**

<b>Measures: Semi-structured Interviews:</b>	<b>Source</b>	<b>DSM Version Used</b>	<b>Reliability &amp; Validity Data</b>
Schedule for Affective Disorders and Schizophrenia School Age Children-Present and Lifetime version, PTSD scale	Kaufman et al. (1997)	DSM-IV	High inter-rater for reliability, good test-retest reliability
Diagnostic Interview for Children and Adolescents, PTSD	Famularo et al. (1996)	DSM-III-R	None
Diagnostic Interview Schedule, PTSD	Garrison et al. (1995)	DSM-III-R	None
Structured Clinical Interview for DSM-III-R, PTSD	Hubbard et al. (1995)	DSM-III-R	None
Clinician-Administered PTSD Scale for Children Adolescents, DSM-IV version	Nader et al. (1996)	DSM-IV	Currently being evaluated
Childhood PTSD Interview Child Form	Fletcher (1997a)	DSM-IV	High inter-rater reliability, strong construct and convergent validity

Table adapted from AACAP (1998)

#### **4. DISCUSSION**

The inherent limitations in assessing PTSD in children primarily involve the fact that half of the DSM-IV criteria refer to internal emotional states. Children may not recognize or be able to articulate the criteria. Caretakers may not be aware of whether children are having intrusive thoughts, numbing or memory loss because there are no internal manifestations. In addition, children may not spontaneously report symptoms because they do not understand the importance of accurate diagnosis for effective treatment. There is also substantial evidence that parental distress and attributions effect the validity of their observations about children's emotional and behavioral states; they tend to under or over report certain symptoms.

Overall, there is consensus among experts regarding several critical parts of the assessment process. Standardized instruments should not be used to substitute a careful and directed clinical interview in assessing PTSD diagnostic criteria. Assessment measures can be helpful supplemental tools. Another important part of the assessment involves directly asking the children about PTSD symptoms relating to the traumatic event. Empirical and clinical evidence support asking them, for if they are not asked, they are less likely to talk about their PTSD symptoms and ultimately clinicians lack valuable data that could be helpful in determining a diagnosis and treatment plan.

#### **TREATMENT STRATEGIES**

Many writers have described trauma-specific treatment approaches for children who have been diagnosed with PTSD or who exhibit PTSD-related symptoms. These approaches have in common an emphasis on direct emotional and cognitive processing of the trauma. Although relatively few controlled treatment-outcome studies relating to children with PTSD have been conducted, there is strong clinical consensus among experts in the field regarding the essential components of treatment for these children. These include the direct exploration of the trauma, the use of certain stress management techniques, exploration and correction of inaccurate attributions regarding trauma, and the inclusion of parents in treatment (AACAP, 1998). Overall, most researchers and experts in the field believe some level of trauma-focused discussion to be the most significant component of treatment for PTSD in children, regardless of the specific approach by which the trauma is addressed.

Talking about what happened provides an opportunity for the child to discharge negative emotions and gain a more adaptive perspective. Avoidance of the subject may hinder successful processing and consume emotional and cognitive resources that would be better used on normal developmental processes. Early, focused intervention may avert the development of habitual avoidance coping that

can lead to other problems including substance abuse, running away, or not directly confronting difficult life situations.

The inclusion of caregivers in treatment is considered an essential component of child victim therapy. For this reason, most of the recent studies have treated caregivers as well as children. The therapy approach with caregivers is similar to that for children. It is believed that if caregivers process their feelings and gain an accurate view of the traumatic event, they will be better equipped to support and help their children. Including caregivers in treatment also facilitates the monitoring of the child's PTSD symptomatology. Treatment approaches with caregivers often include a psychoeducational component regarding their child's post-trauma symptoms and instructions on how to handle trauma-related behaviors in the child such as sleeping problems, fears, and regressive behavior.

To date, there is no clear evidence regarding the proper length of treatment for children with PTSD, although all proven treatments have been short term (10-18 sessions). Treatment length is dependent upon the child's unique symptomatology and progress in treatment. For example, a child who is exposed to prolonged victimization, has poor pre-morbid adjustment, presents with comorbid conditions, and/or displays chronic PTSD symptoms with predominantly dissociative features may require much longer treatment (AACAP, 1998).

## **1. GENERAL TREATMENT COMPONENTS**

When clinicians offer assistance to traumatized children and their families, they should begin with:

- (1) Establishing rapport with the child and caregiver(s) and
- (2) Providing a rationale for treatment.

The clinician should keep the following points in mind when providing a rationale for treatment. The child and caregiver(s) should separately or together receive information regarding the purpose and process of treatment. Caregivers should be informed about the common effects of traumatic experiences on children; that children can have a variety of different reactions. Most children do not have lasting psychological effects (although with some experiences long term effects are more likely, e.g., abuse by the parent, long-term abuse). Treatment will most often be relatively short term and will involve talking about what happened, learning to express feelings appropriately, and gaining an accurate perception of the event. The treatment rationale and concrete goals of therapy should be presented to the child in a clear and simple manner. In the case of certain crimes, such as sexual abuse or physical abuse, where there may be misinformation about children's roles in what happened or offender patterns, it is important to provide corrective information. Educating caregivers and their children about healthy sexuality and personal safety skills is also important during the initial phase of treatment with victims of sexual abuse.

## **2. COGNITIVE BEHAVIORAL TREATMENT (CBT)**

Empirical evidence from controlled treatment-outcome studies provides strongest support for the use of trauma-focused cognitive-behavioral treatment (CBT) to resolve PTSD symptoms. Therefore, CBT may be considered as the first line approach, either alone or in conjunction with other forms of therapy (AACAP, 1998). CBT usually involves the following components: direct discussion of the trauma, emotional and cognitive coping skills, corrective cognitive distortions, and contingency reinforcement programs for children displaying behavioral problems. The current consensus is it is not necessary that children be diagnosed with PTSD to receive this treatment, only that they have identifiable posttraumatic stress symptoms that interfere with functioning. CBT approaches are based on the interrelationships between thoughts, feelings, and behaviors. In many cases thoughts can lead to emotional states which in turn produce behavioral responses. For example, traumatized children may have over generalized or inaccurate beliefs derived from the crime experience that triggers anxiety responses. Anxiety is expressed as intensely uncomfortable or may be expressed in appropriate behaviors. In addition, avoidance coping may temporarily reduce anxiety but lead to maladaptive behavior patterns.

### **CBT TECHNIQUES**

#### **Primary Resources:**

American Academy of Child and Adolescent Psychiatry (AACAP). (1998). Practice parameters for the assessment and treatment of children and adolescents with PTSD. Journal of the American Academy of Child and Adolescent Psychiatry, 37 (Suppl. 10), 4s-26s.

Deblinger, E., & Heflin, A.H. (1996). Cognitive behavioral interventions for treating sexually abused children. Thousand Oaks, CA: Sage Publications.

Ruma, C.D. (1993). Cognitive-behavioral play therapy with sexually abused children, In S.M. Knell (Ed.), Cognitive Behavioral Play therapy (pp. 197-230). Northvale, NJ: Jason Aronson Inc.

### **A. TEACHING STRESS MANAGEMENT TECHNIQUES**

Stress management techniques such as progressive muscle relaxation, thought-stopping, positive imagery, and controlled breathing are often taught to accompany direct trauma-focused discussion in treatment. It is usually recommended that these skills be taught to children prior to detailed discussions of the trauma. With practice, relaxation strategies can help the child gain confidence to approach the direct discussion of the trauma without overwhelming fear, as well as handle other stressful

situations outside of the therapeutic context (i.e. flashbacks at school). relaxation and breathing techniques can be enjoyable to learn and do. Because stress management is a useful skill and is easy to master, this component of treatment can facilitate a more positive association to therapy to counterbalance some of the more difficult aspects.

## **1. Relaxation Techniques**

Systematic relaxation consists of a series of muscle tensing and relaxation exercises. progressive relaxation and guided tension releasing exercises are recommended for children above 10 years. therapists may want to adapt exercises to the child's most problematic muscle groups or focus on head, torso and leg exercises separately.

Image-induced relaxation is a strategy that may be more effective for younger children. They are taught to distinguish between tense and relaxed states. For example, a child is asked to stand like a "tin soldier" and conversely collapse like a "wet noodle" into a chair. Children are taught when confronted by distressing memories or cues to practice relaxed responding. Children are taught self-instruction such as "relax, hang loose, lighten up, or calm down" at these times and are encouraged to practice at home.

Controlled/deep breathing consists of gradually breathing in and out on a count of four to restore normal breathing states and promote relaxation. This technique can be used in vivo for all types of stress inducing situations.

## **2. Cognitive coping Techniques**

Thought replacement consists of teaching children to interrupt upsetting or disturbing thoughts (e.g., imagines a stop sign and sub-vocalizes the word STOP), and focus on a positive experience or memory (e.g., getting hugged by a parent, going to Disneyland).

Positive coping self-statements challenge the disturbing thoughts with self affirming or reassuring thoughts (e.g., I am strong, I can handle this situation, I am not really in danger now).

## **B. DIRECT EXPLORATION/DISCUSSION OF THE TRAUMATIC EXPERIENCE**

There is a strong clinical consensus that addressing the traumatic experience, regardless of the specific methodology, is the core

ingredient of effective treatment for PTSD in children. Exposure to the traumatic memories and feared reminders under safe circumstances serves to decondition these associations and reduce the use of avoidance coping. Safety does not just mean that the child has developed trust in the therapy environment. Most important is that the child is in a safe and supportive living situation. It is inappropriate and possibly dangerous to encourage children to engage in trauma-focused therapy when they are still at risk.

## **1. Exposure Techniques**

For children, gradual exposure techniques are recommended. However, there are case studies of the use of PE/flooding with traumatized adolescents. These techniques gradually expose a child to thoughts, memories and other cues or reminders of the traumatic experience. When children can tolerate the memories without significant emotional distress they are less likely to resort to avoidant behaviors. The goal is that when children face trauma-related memories or cues, more adaptive responses like feelings of control, mastery, pride and courage will gradually replace fearful/anxious responses.

There are a variety of different exposure techniques used to elicit children's participation and provide them with a sense of control. It is important, regardless of the exposure technique used, that a therapist clearly presents to the child the rationale behind exposure. For example, a therapist may use the "cold swimming pool" analogy and explain how at first getting in is hard and hurts because the water feels freezing and gradually it gets better and finally feels fine. The therapist then relates this experience to thinking and talking about traumatic event(s) (see Deblinger and Heflin, 1996 for a complete example dialogue, p. 45-47). No matter how well a therapist prefaces the exposure procedure, resistance by children may be an initial reaction to this therapeutic approach because significant emotional and physical discomfort may be experienced. For this reason it is important to inform caregivers and children that some increased symptoms are common responses at first. In order to attain relief in the long run, some level of anxiety or distress may need to be endured while confronting fears. Preparing caregivers for children's possible negative reactions to therapy will increase cooperation and compliance.

Gradual exposure techniques are primarily designed to be useful when post-traumatic stress symptoms are present. Children who do not exhibit fear or anxiety may not need extensive focus on the traumatic experience itself. Emotions such as embarrassment, shame, or sadness associated with recalling the event may be reasonable reactions or may be better addressed through a focus on attributions and perceptions about the event. A child's symptoms may worsen if a therapist insists upon constantly talking about the traumatic memories or events. There is currently no evidence that talking about the details of what happened is necessary to recovery in children.

In sum, a child's capacity to talk about the trauma without experiencing significant distress or use of avoidance coping is an indication of successful emotional processing. However, a child's unwillingness to talk about it may not be because of post-traumatic stress reaction but instead a legitimate response( e.g., tired of talking about it, embarrassed). In these situations, various indirect methods of addressing trauma-related issues like art, book making and play techniques may be more useful. Mediums such as clay or PLAY-DOH can also facilitate children in depicting different aspects of the traumatic event (Ruma, 1993).

## **2. Strategies for Gradual Exposure**

Developing a Fear Hierarchy: The child and therapist collaborate to develop a fear hierarchy wherein trauma-related reminders and memories are placed in order from least to most distressing. The process of gradual exposure begins by confronting the least anxiety provoking stimuli first and works its way through more distressing stimuli (e.g. the child might identify hearing the word "rape" as upsetting, but less so than remembering what actually happened). Talking, writing, speaking into a tape-recorder, responding to "mock interview," or drawing a picture with explanation can be used to accomplish exposure. Role-playing, puppet play, and doll-play can be helpful especially with young children. Some children may choose to create books, poems or songs about their traumatic experiences (Deblinger and Heflin, 1996; Ruma, 1993).

Direct Exposure: This method is appropriate for an older child with good visualization skills. The child is asked to recall specific sensory details of traumatic event, focusing on visual memories. Fantasy is discouraged when recalling the account. This approach should not be confused with hypnotic suggestion or guided imagery. For example, a therapist asks the child to close her eyes (if comfortable) and recall a scene of the traumatic event as if she were there. The therapist poses some specific questions to help the child stay focused like, "describe the room you were in, the time of day, or what the child smells, hears, feels, and thinks at the time." Too many questions may interfere with the child's visualization. The therapist should only ask as many questions as they feel necessary to help the child visualize the scene. The session should not end until the child's anxiety level has decreased or coping techniques have been used to help the child regain a sense of calmness.

In Vivo Exposure: this technique is most used in the later stages of the exposure therapy. The child is helped to identify situations for in vivo practice of exposure to fear inducing stimuli. this should occur in a situation where there is no actual danger or risk thus enabling the child to experience mastery and competence (e.g., confronting fear of the dark by turning off the light during the session, sleeping alone in her room, walking to school).

### **C. EXPLORING AND CORRECTING INACCUATE ATTRIBUTIONS**

Most interventions for traumatized children also involve the evaluation of cognitive assumptions children may have made relating the traumatic experience. Children make sense of their experiences in the world by developing belief systems. Like adults, most children have a generally positive view of themselves, other people and the world. Being the victim of a crime can conflict with those beliefs. In order to resolve the conflict, children may change their ideas and thoughts about themselves and others or develop inaccurate, distorted and confused beliefs about the trauma. Examples of faulty attributions are "Nothing is safe anymore", "It was all my fault", "I must be a bad person for this to have happened." For some children, unfortunately, a traumatic event can serve to confirm already existing negative perceptions.

When treating children with PTSD, it is important to explore and correct these distorted thought patterns related to the trauma. The maladaptive assumptions or beliefs must first be identified. This

means it is important initially to allow children to express beliefs even though they may be inaccurate (e.g. self blame-“I asked for it because I went to his house” – or thinking that drinking caused the offender to abuse). Then through various therapeutic exercises, like role playing, telling stories, and providing corrective feedback, these negative or inaccurate thoughts can be disputed. The therapist helps the child generate positive thoughts to replace negative distorted ones instead of just telling children what they should think. With younger children, play therapy using toys and dolls, art materials, and games may be a more effective approach to explore their inaccurate attributions.

### **Strategies for correcting cognitive distortions**

Cognitive Coping Triangle: The therapist facilitates discussion with the child about the interrelationship among thoughts, feelings, and behavior starting with a general discussion and moving toward trauma-specific examples. Using examples from every day life is a useful way of conveying these connections and then relating them to post-traumatic symptoms. For example, the child is presented with a negative and a positive scenario involving peers. For each situation, the child is asked what his/her thoughts, feelings and behaviors would be. The child practices identifying the emotions generated by different thoughts and then identifying thoughts underlying emotions. The therapist helps the child work through examples modeling the process and pointing out how different thoughts about the same situation can result in very different feelings and behaviors.

This process may be difficult. Visual aids like pencil and paper, a chalkboard, or a dry-erase board are used to help work through fictitious examples until the child understands the problem triangle concept. (see Deblinger and Heflin, 1996 p. 60-64.)

Disputing negative/unproductive thoughts: The therapist explains that changing distressing thoughts and emotions is a skill that can be gradually acquired through practice. The therapist stresses that negative thoughts are not necessarily valid or permanent. The therapist presents fictitious examples through storytelling in which the child practices substituting positive replacement thoughts for negative unhealthy ones. For example, the therapist may use the “Best Friend Role Play” in which the child role plays with the therapist, (or puppet, empty chair, etc.) imagining that their best friend is having negative thoughts and their job is to convince the best friend that these thoughts are NOT true. It is important to distinguish between the personal thoughts and feelings of the

therapist and the role that they are playing during these exercises. For younger children, the use of a puppet reinforces the idea that they are engaged in a game and distinguishes the character's beliefs in the role-play from the therapist's beliefs (see Deblinger and Heflin, 1996, p. 66-67).

Generating Positive Self Statements: the therapist teaches the child a series of positive self-statements that can replace negative dysfunctional thoughts. Children's self-statements are made to fit their individual difficulties. For example, a child with low self esteem and poor self-image may be encouraged to say, "I am just as good as other kids" or generate reasons why they are special. A withdrawn and/or fearful child may be taught to say, "It's fun trying new things or I am very brave sometimes."

## **OTHER TREATMENT MODALITIES**

A variety of other therapeutic modalities used to treat children with PTSD have been described in the clinical literature. The most prominent approach is play therapy. Elaine Gill is considered the leading proponent of trauma focused play therapy (Gill, 1991). This play therapy is usually characterized by using modified versions of play and other non-verbal methods to address the traumatic experience in contrast to the traditional non-directive, interpretative model of play therapy. It shares with CBT interventions a focus on the traumatic experience and may indirectly provide an opportunity for exposure.

Psychoanalytic/psychodynamic interventions for traumatized children have been described in some clinical case examples and are characterized by longer term, individual therapy to address the impact and meaning of the trauma. Fredric (1996) has described a more eclectic approach for sexually and physically abused children. His integrated model of psychotherapy focuses on three main elements: (1) attachment; (2) behavior/emotion regulation; and (3) self-perception. Some examples of goals of this approach involve the therapist establishing a strong therapeutic alliance with the child; providing structure, predictability and a clear rationale and definition of the therapy process; and, stressing the importance of disclosure and discussion of the traumatic event. Helping the child improve their sense of self-efficacy, mastery and competency are important therapeutic goals (Fredric, 1996).

EMDR has shown promise for reducing PTSD symptoms in adult sufferers. One study (Chemtob, Nakashima, Hamada and Carlson, under review) of treatment resistant children following a natural disaster showed improvement with EMDR compared to no treatment, however, there is no published literature on its use with child crime victims.

### **4. Co-morbid Disorders and Treatment Issues**

Post-traumatic stress symptoms are not the only impacts of traumatic experiences on children and PTSD treatment approaches may not be

sufficient for other symptoms or co-morbid disorders. Studies are equivocal with regard to the effectiveness of PTSD approaches for depression and general behavior problems. Some studies have shown that the trauma-focused CBT treatments also reduce depression and behavior problems. It is not clear whether the benefit is from the trauma-specific components or from the treatment that the parents have received. One way to proceed is to see whether co-morbid symptoms improve with the trauma-focused PTSD treatment and if they do not, to change the treatment focus or use treatments that have been found effective for these disorders. No studies have specifically addressed the effectiveness of treatments for children's dissociative symptoms like partial amnesia, depersonalization and derealization.

## **5. Pharmacotherapy**

Preliminary studies have shown that some children with PTSD present with physiologic abnormalities much like those seen in adults with PTSD (e.g., Perry, 1994). Even though randomized trials have not yet been conducted, preliminary reports have prompted clinicians to use a variety of medication with children suffering from PTSD symptoms and associated symptoms of depression or panic. The psychopharmacological agents that have been recommended include propranolol, carbamazepine, clonidine, and antidepressants (see AACAP, 1998). Most often these medications are not considered the primary intervention but prescribed in conjunction with psychotherapy.

Research on psychopharmacological treatments for children with PTSD have revealed that certain psychotropic medications have significantly reduced reexperiencing symptoms like nightmares and other PTSD related symptoms in uncontrolled clinical trials. However, there is insufficient empirical support for the use of any particular medication to treat PTSD symptoms in children at this time (March et al., 1996). Clinicians must judiciously determine which psychopharmacologic interventions are most appropriate for children with PTSD suffering from prominent depressive, anxiety, panic and/or ADHD symptoms. As a general practice, "medication should be selected on the basis of established practice in treating the co-morbid condition (e.g., antidepressants for children with prominent depressive symptoms)" (AACAP, 1998, p. 18s). Due to their favorable side effect profile and effectiveness in treating both depressive and anxiety disorders, serotonin reuptake inhibitors (SSRIs) are often the first psychotropic medications selected for treating pediatric PTSD. Imipramine also is often chosen to treat children suffering from co-morbid panic symptoms (AACAP, 1998).

## REFERENCES

American Academy of Child and Adolescent Psychiatry (AACAP). (1998). Practice parameters for the assessment and treatment of children and adolescents with PTSD. Journal of the American Academy of Child and Adolescent Psychiatry, 37 (Suppl. 10), 4s-26s.

American Psychiatric Association. (1994). Diagnostic and statistical manual of disorders (4<sup>th</sup> ed.). Washington, DC: American Psychiatric Association.

Benedek, E. (1985). Children and psychic trauma: A brief review of contemporary thinking. In: S. Eth and R.S. Pynoos (Eds.), Post-traumatic stress disorder in children (pp. 1-16). Washington, DC: American Psychiatric Press.

Boney-McCoy, S. and Finkelhor, D. (1995). Psychosocial sequelae of violent victimization in a national youth sample. Journal of Consulting and Clinical Psychology, 63, 726-736.

Briere, J. (1995). The Trauma Symptom Checklist for Children Manual (TSC-C). Odessa, FL: Psychological Assessment Resources.

Briere, J. (1997). Psychological assessment of adult post-traumatic states. Washington, DC: American Psychological Association.

Carlson, E.B. (1997). Trauma Assessments: A clinician's guide. New York: Guilford Press.

Chemtob, C.M., Hamada, R.S., Nakashima, J., Carlson, E.B. (under review). Psychosocial intervention for post-disaster distress in elementary school children: A controlled community field study.

Cohen, J., Mannarino, A.P. (1996). The Weekly Behavior Report: A parent-report instrument for sexually abused preschoolers. Child Maltreatment, 1, 353-360.

Davidson, J. R., and Foa, E. (Eds.). (1993). Post-traumatic stress disorder: DSM-IV and beyond. Washington, DC: American Psychiatric Press.

Deblinger, E. and Heflin, A.H. (1996). Cognitive behavioral interventions for treating sexually abused children. Thousand Oaks, CA: sage Publications.

Dunner, D.L. (1997). Current psychiatric therapy II. (2<sup>nd</sup> ed.). Philadelphia, PA: W.B. Saunders Company.

Eisen, M. (1997). Post-traumatic Symptom Inventory for Children. In E. Carlson (Ed.) Trauma assessments: A clinician's guide (pp. 254-255). New York: Guilford.

Fletcher, K. (1997a). Childhood PTSD Interview-Child Form. In E. Carlson (Ed.), Trauma assessments: A clinician's guide (pp. 248-250). New York: Guilford.

Fletcher, K. (1997b). when Bad Things Happen Scale. In E. Carlson (Ed.), Trauma assessments: A clinician's guide (pp. 257-258). New York: Guilford.

- Foa, E.B. and Rothbaum, B.O. (1998). Treating the trauma of rape: Cognitive-behavioral therapy for PTSD. New York: Guilford.
- Ford, J.D., Thomas, J.E., Rogers, K.C. et al. (1996, November). Assessment of children's PTSD following abuse or accidental trauma. Presented at the annual meeting of the International Society of Traumatic Stress Studies, San Francisco.
- Foy, D.W., Madvig, B.T., Pynoos, R.S., and Camilleri, A.J. (1996). etiologic factors in the development of post-traumatic stress disorder in children and adolescents. Journal of School Psychology, 34, 133-145.
- Fredric, W.N. (1996). An integrated model of psychotherapy for abused children. In J. Briere, L. Berliner, J.A. Bulkley, J. Carole, and T. Reid (Eds.) . The APSAC handbook on child maltreatment. Thousand Oaks, CA: sage Publications.
- Fredric, W.N., Grambsch, P. Damon, L. et al. (1992). The Child Sexual Behavior Inventory: normative and clinical comparisons. Psychological Assessment, 4, 303-311.
- Gil, E. (1991). The healing power of play: Working with abused children. New York: Guilford Press.
- Hubbard, J. Realmuto, G.M. Northwood, A.K., and Masten, A.S. (1995). Co-morbidity of psychiatric diagnoses with post-traumatic stress disorder in survivors of childhood trauma. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 1167-1173.
- Johnson, K.M., Foa, E.B., Jaycox, L.H. and Rescoda, L. (1996, November). A Self-report diagnostic instrument for children with PTSD. Presented at the 12<sup>th</sup> annual meeting of the International Society for Traumatic Stress Studies, San Francisco.
- Kaufmany, J. Birmaher, B., Brent, D., Rao, U., Flynn, C., Moreci, P., Williamson, D., Ryan, N. (1997). Schedule for affective disorders and schizophrenia for school-age children-present and lifetime version (K-SADS-PL): Initial reliability and validity data. Journal of the American Academy of Child Psychiatry, 36, 980-988.
- Kessler, R.C., Sonnega, A., Bromet, E., Hughes, M. and Nelson, C.B. (1995). Post-traumatic stress disorder in the national co-morbidity survey. Archives of General Psychiatry, 52, 1048-1060.
- Kilpatrick, D.G., Sanders, B.E. (1997). (Final Report). Prevalence and consequences of child victimization: results from the national survey of adolescents. Charleston, SC: Medical University of South Carolina National Crime Victims Research and Treatment Center, department of Psychiatry and Behavioral Sciences.
- March, J.S. (in press). Assessment of pediatric post-traumatic stress disorder. In P. Saigh and J. Bremner (Eds.), Post-traumatic stress Disorder. A Comprehensive approach to assessment and treatment. Needham Heights, MA: Allyn and Bacon.
- March, J.S., Amaya-Jackson, L., Pynoos, R.S. (1996). Pediatric post-traumatic stress disorder. In J.M. (Ed.), Textbook of child and

adolescent psychiatry (2<sup>nd</sup> ed.). Washington, DC: American Psychiatric Press.

Martinez, P., Richters, J.E. (1993). The NIMH community violence project, II: Children's distress symptoms associated with violence exposure. Psychiatry, 59, 22-35.

Meichenbaum, D. (1985). Stress Inoculation Training. Boston: Allyn and Bacon.

Meichenbaum, D. (1994). A clinical handbook/practical therapist manual for assessing and treating adults with Post-Traumatic Stress Disorder (PTSD). Waterloo, Ontario, Canada: Institute Press.

Nader, K.O., Kriegler, J.A., Blake, D.D., Pynoos, R.S., Newman, E., and Weathers, F.W.(1996). Clinician administered PTSD scale for children and adolescents for DSM-IV. Los Angeles: national Center for PTSD and UCLA Trauma Psychiatry Program, Department of Psychiatry, UCLA School of Medicine.

Newman, E., Kaloupek, D.G., and Keane, T.M. (1996). Assessment of post-traumatic stress in clinical and research settings. In B.A. van der Kolk, L. Weissaeth, and A.C. McFarlane (Eds.), Traumatic Stress: The effects of overwhelming experience on mind, body and society (Chapter 3). New York: Guilford Press.

Norris, F.H., and Kaniasty, K. (1994). Psychological distress following criminal victimization in the general population: Cross sectional, longitudinal, and prospective analyses. Journal of Consulting and Clinical Psychology, 62, 1110-1123.

Perry, B.B. (1994). Neurobiological sequelae of childhood trauma: Post-traumatic stress disorder in children. In M.H. Murburg (Ed.), Catecholamine function in post-traumatic stress disorder: Emerging Concepts (pp. 233-255). Washington, DC: American Psychiatric Press.

Pfefferbaum, B. (1997). Post-traumatic stress disorder in children: A review of the past 10 years. Journal of the American Academy of Child and Adolescent Psychiatry, 36, 1503-1511.

Pynoos, R.S., Frederick, C., Nader, K., Arroyo, W., Steinberg, A., Eth, S. Nunez, F., and Fairbanks, L. (1987). Life threat and post-traumatic stress 8in school-age children. Archives of General Psychiatry, 44: 1057-1063.

Resick, P. A., and Schnicke, M.K. (1993). Cognitive processing therapy for rape victims: A treatment manual. Newbury Park, CA: Sage.

Resnick, H.S., Kilpatrick, D.G., Dansky, B.S., Saunders, B.E., and Best, C.L. (1993). Prevalence of civilian trauma and post-traumatic stress disorder in a representative national sample of women. Journal of Consulting and Clinical Psychology, 61, 984-991.

Richters, J.E., Martinez, P., and Valla, J.P. (1990). Levonn: A Cartoon-Based Interview for Assessing Children's Distress Symptoms. Washington, DC: National Institute of Mental Health.

- Ruma, C.D. (1993). Cognitive-behavioral play therapy with sexually abused children. In S.M. Knell (Ed.), Cognitive Behavioral Play Therapy (pp. 197-230). Northvale, NJ: Jason Aronson Inc.
- Siagh, P. (1988). The validity of the DSM-III post-traumatic stress disorder classification as applied to adolescents. Professional School Psychology 3, 283-290.
- Saigh, P. (1989). The development and validation of the Children's Post-traumatic Stress Disorder Inventory. International Journal of Special Education, 4, 75-84.
- Saxe, G.N., Stoddard, F.J., Markey, C., Taft, C., King, D., and King, I. (1997, November). The Child Stress Reaction Checklist: A measure of ASD and PTSD in children. Presented at the annual meeting of the International Society for Traumatic Stress Studies, Montreal.
- Scheeringa, M.S., Zeanah, C.H., Drell, M.J., and Larrieu, J.A. (1995). Two approaches to diagnosing post-traumatic stress disorder in infancy and early childhood. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 191-200
- Shapiro, F. (1995). Eye movement desensitization and reprocessing: Basic principles, protocols, and procedures. New York: Guilford.
- Stamm, B.H. (Ed.). (1996). Measurement of stress, trauma, and adaptation. Lutherville, MD: Sidran Press.
- Task Force on Promotion and Dissemination of Psychological Procedures. (1995). Training in and dissemination of empirically-validated psychological treatments: report and recommendations. The Clinical Psychologist, 48, 3-23.
- Terr, L.C. (1983). Chowchilla revisited: The effect of Psychic trauma four years after a school bus kidnapping. American Journal of Psychiatry, 140, 1543-1550.
- van der Kolk, B., Bessel, A., McFarlane, A.C. and Weisaeth, L. (Eds.). (1996). Traumatic stress; The effects of overwhelming experience on mind, body, and society. New York: Guilford.
- Wilson, J.P., and Keane, T.M. (Eds.). (1996). Assessing psychological trauma and PTSD. New York: Guilford Press.

## **RELATED READING**

- Berliner, L. (1997). Intervention with children who experience trauma. In D. Chicchetti and S. Toth (Eds), Developmental Perspectives on Trauma: Theory, Research, and Intervention (pp. 491-514). Rochester, NY: University of Rochester Press.
- Breslau, N., Kessler, R.C., Chilcoat, H.D., Schultz, L. R., Davus, G.C. and Andreski, P. (1998). Trauma and post-traumatic stress disorder in the community. Archives of General Psychiatry, 55, 626-632.

- Brewin, C.R., Andrews, B., Rose, S. and Kirk, M. (1999). Acute stress disorder and post-traumatic stress disorder in victims of violent crime. American Journal of Psychiatry, 156, 360-366.
- Bryant, R., Harvey, A., Dang, S., Sackville, T., and Basten, C. (1998). Treatment of acute stress disorder: A comparison of cognitive-behavioral therapy and supportive counseling. Journal of Consulting and Clinical Psychology, 66, 862-866.
- Famularo, R., Fenton, T., Augustyn, M., and Zuckerman, B. (1996). Persistence of pediatric post-traumatic stress after two years. Child Abuse and neglect, 20, 1244-1247.
- Field, T., Seligman, S., Scafedi, R., and Schanberg, S. (1996). Alleviating post-traumatic stress in children following Hurricane Andrew. Journal of Applied Developmental Psychology, 17, 37-50.
- Frederick, C.J. (1985). Children traumatized by catastrophic situations. in S. Eth and R.S. Pynoos (Eds.). Post-traumatic Stress Disorder in children (pp.71-100). Washington, DC: American Psychiatric Press.
- Garrison, C.Z., Bryant, E.S., Addy, C.L., Spurrier, P.G., Greedy, J.R., and Kilpatrick, D.G. (1995). Post-traumatic stress disorder in adolescents after Hurricane Andrew. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 1193-1201.
- Goenjian, A.K., Pynoos, R.S., Steinberg, A.M., Najarian, L.M., Asarnow, J.R., Karayan, I., Ghurabi, M., and Fairbanks, L.A. (1995). psychiatric co-morbidity in children after the 1988 earthquake in Armenia. Journal of the American Academy of Child and Adolescent psychiatry, 34, 1174-1184.
- Handford, H.A., Mayes, S.D., Mattison, R.E. et al. (1986). Child and parent reactions to the Three Mile Island nuclear incident. Journal of the American Academy of Child and Adolescent Psychiatry, 25, 346-356.
- Joseph, S., Brewin, C., Yule, W., and Williams, R. (1993). causal attributions and post-traumatic stress disorder in adolescents. Journal of the American Academy of Child and Adolescent Psychiatry, 34, 274-353.
- Malmquist, C.P. (1986). Children who witness parental murder: Post-traumatic aspects. Journal of the American Academy of Child and Adolescent Psychiatry, 25, 320-325.
- Parson, E.R. (1997). Post-traumatic child therapy (P-TCT): Assessment and treatment factors in clinical work with inner-city children exposed to catastrophic community violence. Journal of Interpersonal Violence, 12, (2), 172-194.
- Pynoos, R.S., Eth, S. (1986). witness to violence: The child interview. Journal of the American Academy of Child and Adolescent Psychiatry, 25, 306-319.
- Spaccarelli, S. (1995). Measuring abuse stress and negative appraisals in child sexual abuse: Validity data on two scales. Journal of Abnormal Child Psychology, 23, 703-727.

Wolfe, V.V., Gentile, C., and Wolfe, D.A. (1989). The impact of sexual abuse on children: A post-traumatic stress disorder formulation. Behavior Therapy, *20*, 215-228.