

## **American Academy of Child and Adolescent Psychiatry**

AACAP is pleased to offer Practice Parameters as soon as they are approved by the AACAP Council, but prior to their publication in the *Journal of the American Academy of Child and Adolescent Psychiatry (JAACAP)*. This article may be revised during the *JAACAP* copyediting, author query, and proof reading processes. Any final changes in the document will be made at the time of print publication and will be reflected in the final electronic version of the Practice Parameter. AACAP and *JAACAP*, and its respective employees, are not responsible or liable for the use of any such inaccurate or misleading data, opinion, or information contained in this iteration of this Practice Parameter.

### **PRACTICE PARAMETER FOR THE ASSESSMENT AND TREATMENT OF CHILDREN AND ADOLESCENTS WITH POSTTRAUMATIC STRESS DISORDER**

#### **ABSTRACT**

This practice parameter reviews the evidence from research and clinical experience and highlights significant advances in the assessment and treatment of posttraumatic stress disorder (PTSD) since the previous parameter was published.<sup>1</sup> It highlights the importance of early identification of PTSD, the importance of gathering information from parents as well as children, and the assessment and treatment of comorbid disorders. It presents evidence to support trauma-focused psychotherapy, medications, and a combination of interventions in a multimodal approach. **Key Words:** child, adolescent, posttraumatic stress disorder, treatment, practice parameter.

#### **ATTRIBUTION**

This parameter was developed by Judith A. Cohen, M.D., primary author and the Work Group on Quality Issues: Oscar Bukstein, M.D., M.P.H. and Heather Walter, M.D., M.P.H., Co-Chairs; and R. Scott Benson, M.D., Allan Chrisman, M.D., Tiffany R. Farchione, M.D., John Hamilton, M.D., Helene Keable, M.D., Joan Kinlan, M.D., Ulrich Schoettle, M.D., Matthew Siegel, M.D., and Sandra Stock, M.D. AACAP Staff: Jennifer Medicus.

AACAP practice parameters are developed by the AACAP Work Group on Quality Issues (WGQI) in accordance with American Medical Association policy. Parameter development is an iterative process between the primary author(s), the WGQI, topic experts, and representatives from multiple constituent groups, including the AACAP membership, relevant AACAP components, the AACAP Assembly of Regional Organizations, and the AACAP Council. Responsibility for parameter content and review rests with the author(s), the WGQI, the WGQI Consensus Group, and the AACAP Council.

The AACAP develops both patient-oriented and clinician-oriented practice parameters. Patient-oriented parameters provide recommendations to guide clinicians toward best treatment practices. Recommendations are based on empirical evidence (when available) and clinical consensus (when not), and are graded according to the strength of the empirical and clinical support. Clinician-oriented parameters provide clinicians with the information (stated as principles) needed to develop practice-based skills. Although empirical evidence may be available to support certain principles, principles are primarily based on expert opinion derived from clinical experience. This parameter is a patient-oriented parameter.

The primary intended audience for the AACAP practice parameters is child and adolescent psychiatrists; however, the information contained therein may also be useful for other mental health clinicians.

The author wishes to acknowledge the following experts for their contributions to this parameter: Lisa Amaya-Jackson, M.D., M.P.H., Michael Debellis, M.D., M.P.H., Anthony

## American Academy of Child and Adolescent Psychiatry

Mannarino, Ph.D., Frank Putnam, M.D., Robert Pynoos, M.D., M.P.H., and Michael Scheeringa, M.D., M.P.H.

This parameter was reviewed at the Member Forum at the AACAP Annual Meeting in October, 2007.

From February 2009 to September 2009, this parameter was reviewed by a Consensus Group convened by the WGQI. Consensus Group members and their constituent groups were as follows: WGQI (Heather Walter, M.D., M.P.H., Scott Benson, M.D., Saundra Stock, M.D., Allan Chrisman, M.D.); Topic Experts (Anthony Mannarino, Ph.D., Michael Scheeringa, M.D., M.P.H.); AACAP Components (Nancy Black, M.D. [Disaster and Trauma Issues Committee], Efrain Bleiberg, M.D. [Psychotherapy Committee]); AACAP Assembly of Regional Organizations (Jeanne Bereiter, M.D., Gail Edelson, M.D., Susan Scherer, M.D.); and AACAP Council (Kenneth Rogers, M.D., Yiu Kee Warren Ng, M.D., Paramjit Joshi, M.D.).

Disclosures of potential conflicts of interest for authors, WGQI chairs, and expert reviewers are provided at the end of the parameter. Disclosures of potential conflicts of interest for all other individuals named above are provided on the AACAP Web site on the Practice Information page.

This practice parameter was approved by the AACAP Council on October 7, 2009.

This practice parameter is available on the Internet ([www.aacap.org](http://www.aacap.org)).

Reprint requests to the AACAP Communications Department, 3615 Wisconsin Ave, N.W., Washington, D.C., 20016.

© 2009 by the American Academy of Child and Adolescent Psychiatry.

### INTRODUCTION

More than one of four children experiences a significant traumatic event before reaching adulthood.<sup>2</sup> These traumas may include events such as child abuse; domestic, community or school violence; disasters, vehicular or other accidents, medical traumas, war, terrorism, refugee trauma, the traumatic death of significant others, or other shocking, unexpected or terrifying experiences. While most children are resilient following trauma exposure, some develop significant and potentially long lasting mental health problems. This practice parameter was written to help child and adolescent psychiatrists and other medical and mental health professionals assess and treat one such condition, PTSD. Because the diagnosis of PTSD requires the passage of at least one month following exposure to an index trauma, this practice parameter does not address the immediate psychological needs of children following disasters or other acute traumatic events, i.e. within the first month.

These guidelines are applicable to the evaluation and treatment of child and adolescent patients age 17 and younger. This document presumes familiarity with normal child development and the principles of child psychiatric diagnosis and treatment. In this parameter the word “child” refers to both adolescents and younger children unless explicitly noted. Unless otherwise noted, “parents” refers to the child’s primary caretakers, regardless of whether they are the biological or adoptive parents or legal guardians.

### METHODOLOGY

A literature search was conducted on MEDLINE accessed at [www.pubmed.gov](http://www.pubmed.gov) using the following MeSH terms: stress disorders, posttraumatic AND randomized controlled trials; Limits

## American Academy of Child and Adolescent Psychiatry

All child: 0-18 years, only items with abstracts, English, Randomized controlled trials. This resulted in 70 abstracts. A search of PsycINFO was conducted using the following Thesaurus terms: posttraumatic stress disorder; Limit 1 to “treatment outcome/randomized clinical trial”; Limit 2 to (childhood or adolescence), resulting in 24 abstracts. A search of the PILOTS database was conducted using the terms “clinical trials AND child AND adolescent”, resulting in 20 abstracts. The search covered the period from 1996 to 2006 and was conducted on May 7, 2007. Only abstracts which included randomized controlled trials (RCTs), instruments measuring childhood PTSD symptoms, and significant results with regard to PTSD symptoms were included. This search was augmented by programs listed on the National Child Traumatic Stress Network website ([www.NCTSN.org](http://www.NCTSN.org)), those nominated by expert reviewers, and manuscripts that have recently been accepted for publication in peer-reviewed journals.

### CLINICAL PRESENTATION

PTSD is one of the few psychiatric diagnoses in DSM-IV-TR that requires the presence of a known etiologic factor, i.e., a traumatic event that precedes the development of the disorder. In order for PTSD to be present, the child must report (or there must be other compelling evidence of) a qualifying index traumatic event as well as specific symptoms in relation to that traumatic experience. Compelling evidence might include sexually transmitted infection in a young child, a reliable eyewitness report (for example, a police report that a child was rescued from the scene of an accident) or a forensic evaluation confirming the likelihood that the child experienced a traumatic event. Childhood adversities such as foster care placement or parental substance abuse do not typically qualify as traumatic stressors to which children develop PTSD. However, specific events may have occurred within these contexts (for example, child abuse or domestic violence) that would qualify as traumatic stressors. An inherent contradiction exists in that avoidance of describing traumatic experiences is a core feature of PTSD as indicated below; yet diagnosing PTSD requires that the child describe the traumatic event.

In the absence of child report or other compelling evidence of a qualifying index trauma, a PTSD diagnosis should not be made. There may be situations where children or adolescents present with symptoms suggestive of PTSD (for example, general anxiety symptoms, nightmares and impairment; or in an older youth, self-injurious behavior such as repeated cutting, substance abuse and indiscriminant sexualized behavior) in the absence of a disclosure of trauma exposure. In this situation the clinician should not presume that trauma has occurred. Clinicians are wise to ask in nearly all routine evaluations whether traumatic events (e.g., maltreatment, acute injuries, disasters, and witnessed violence to loved ones) have occurred. However, if both children and caregivers cannot confirm that a traumatic event has occurred, then clinicians ought not to imply that symptomatology is a consequence of forgotten trauma. Conversely some children may be afraid, ashamed, embarrassed or avoidant of disclosing traumatic experiences, particularly upon an initial clinical interview. Avoidance may take the form of denial of trauma exposure and as such may be an indication of the severity of the child's avoidance symptoms rather than lack of trauma exposure. Parental denial of the child's exposure to trauma may occur because the parent is unaware of the child's trauma exposure, because the parent is a perpetrator, or for a variety of other reasons. An error in either direction, i.e., mistakenly attributing symptoms to trauma that did not occur, or disregarding the possibility of a real trauma history, has potential risks. Children should be referred for a forensic evaluation if the clinician has suspicion of trauma

## American Academy of Child and Adolescent Psychiatry

exposure but no confirmed reports. There are many differences between forensic and clinical evaluations; clinicians should not attempt to conduct forensic assessments in the context of a clinical evaluation.

The majority of individuals who experience truly life-threatening events manifest posttraumatic symptomatology immediately.<sup>3,4</sup> However, only about 30% on average tend to manifest enduring symptomatology beyond the first month.<sup>5</sup> Therefore, PTSD is not diagnosed until at least one month has passed since the index traumatic event occurred. Following large scale disasters, vehicular accidents or medical trauma, children may be seen very soon after traumatic exposure by medical personnel, mental health professionals or paraprofessionals. Acute stress disorder, adjustment disorder or another disorder may be diagnosed within the first month of exposure. Transient moderate psychological distress may be a normative reaction to traumatic exposure. Recent data suggest that panic symptoms in the immediate aftermath of trauma exposure are predictive of later PTSD in children and this may be an important symptom to evaluate in this acute period.<sup>6,7</sup> Little is known about the efficacy of early interventions that are typically provided in the immediate aftermath of disasters, and whether they may cause harm to children as they have been found to do in some adult studies.<sup>8</sup> One randomized controlled study demonstrated that providing an early mental health intervention, psychological debriefing, was neither better nor worse than a control group in improving PTSD symptoms for children in road traffic accidents.<sup>9</sup>

Acute PTSD is diagnosed if the symptoms are present after the first month and for less than 3 months after the index trauma; chronic PTSD is diagnosed if the symptoms persist beyond 3 months. Debate is ongoing whether or not an alternative condition alternatively referred to as “complex PTSD” (also known as disorders of extreme stress not otherwise specified [DESNOS] or developmental trauma disorder [DTD]) exists in severely, early or interpersonally traumatized children or adolescents.<sup>10</sup> An alternative view with substantial support is that “complex PTSD” is chronic PTSD occurring with or without other comorbid DSM-IV-TR conditions.<sup>11</sup> In either perspective, there is clinical consensus that children with severe PTSD may present with extreme dysregulation of physical, affective, behavioral, cognition, and/or interpersonal functioning that is not adequately captured in current descriptions of PTSD diagnostic criteria. Some of these children may be misdiagnosed with bipolar disorder because of severe affective dysregulation related to PTSD; others may have true bipolar disorder but also need attention to their trauma symptoms. It is also important for clinicians to be aware that children can have a trauma history yet have psychiatric symptoms that are unrelated to the trauma; discerning the role that the trauma plays in the child’s current symptoms requires knowledge of both the complexity with which PTSD and other trauma symptoms may present, and general child psychopathology. Child and adolescent psychiatrists can fulfill a critical need in this regard.

**PTSD symptom clusters:** In addition to the presence of a known trauma, diagnosing PTSD requires the presence of symptoms in three distinct clusters.

Reexperiencing of the trauma must be present as evidenced by at least one of the following symptoms: recurrent and intrusive recollections, nightmares, or other senses of reliving the traumatic experience. In young children this can take the form of repetitive play in which aspects or themes of the trauma are expressed, or trauma-specific reenactment may occur. Frightening dreams without trauma-specific content may also occur. Trauma reminders (people, places, situations or other stimuli that remind the child of the original traumatic event) may lead to intense psychological or physiological distress.

## American Academy of Child and Adolescent Psychiatry

Persistent avoidance of trauma reminders and emotional numbing must be present as evidenced by at least three of the following symptoms: efforts to avoid trauma reminders including talking about the traumatic event or other trauma reminders; inability to recall an important aspect of the trauma; decreased interest or participation in previously enjoyed activities; detachment or estrangement from others; restricted affect; and sense of a foreshortened future.

Persistent symptoms of hyperarousal must also be present as evidenced by at least two of the following symptoms: difficulty falling or staying asleep; irritability or angry outbursts; difficulty concentrating; hypervigilance; and increased startle reaction.

Young children also manifest new aggression, oppositional behavior, regression in developmental skills (toileting and speech), new separation anxiety and new fears not obviously related to the traumatic event (usually fear of the dark or fear of going to the bathroom alone) as associated symptoms.<sup>12</sup>

There is ongoing debate about the validity of the DSM-IV-TR diagnostic criteria for children, particularly the requirement of three avoidance/numbing symptoms in pre-adolescent children, because these symptoms require children to report on complex internal states that are too difficult for young children to comprehend and for parents to observe. Empirical studies have also raised serious questions about the appropriateness of this threshold for prepubertal children.<sup>13-15</sup>

Childhood PTSD confers increased risk for a number of problems in later childhood, adolescence and adulthood. PTSD related to child abuse or domestic violence is associated with smaller cerebral volume and smaller corpora collosa,<sup>16</sup> with the severity of these changes being proportional to the duration of the children's trauma exposure. Some studies have shown that childhood PTSD is associated with lower academic achievement compared to children who have been exposed to trauma but have not developed PTSD,<sup>17</sup> whereas a more recent study found that only reexperiencing symptoms were associated with cognitive impairment in adults with child maltreatment-related PTSD.<sup>18</sup> Certain types of traumatic events seem to be particularly associated with poor outcomes, whether or not children develop full-blown PTSD. For example, childhood sexual abuse alone is a strong predictor of a number of adverse outcomes in adolescence and adulthood, including substance abuse, conduct disorder and depression.<sup>19</sup> The relationship of child sexual abuse with suicidality is particularly serious, with up to 20% of all adolescent suicide attempts being attributable to this trauma and childhood sexual abuse victims being eight times more likely than their non-sexually abused counterparts to attempt suicide repeatedly during adolescence.<sup>19-21</sup> Adolescents with sexual abuse-related PTSD also have high risk sexual behaviors.<sup>22</sup> Adults with PTSD related to childhood trauma have been found to have significantly higher rates of depression, suicide attempts, substance abuse, psychiatric hospitalizations and relationship difficulties compared to anxiety disordered adults who either have a trauma history without PTSD or no trauma history.<sup>23</sup>

## EPIDEMIOLOGY

One sample of adolescents and young adults indicated that the overall lifetime prevalence of PTSD in the general youth population was 9.2%.<sup>24</sup> A recent national sample of adolescents (12-17 year olds) indicated that 3.7% of males and 6.3% of females met full diagnostic criteria for PTSD.<sup>25</sup> A survey of 1,035 German adolescents found a lifetime prevalence rate of 1.6%.<sup>26</sup> Many more trauma exposed children develop clinically significant PTSD symptoms without

meeting full diagnostic criteria; research indicates that these children have comparable functional impairments to those with a diagnosis of PTSD.<sup>27</sup> The few studies that examined the natural course of PTSD in children have sometimes concurred with the general trend of adult studies that PTSD rates per sample decrease, albeit gradually, with time.<sup>13,28-31</sup> Despite these group averages that show overall “natural recovery” (i.e., remission without treatment), within these samples are always those who experience chronic PTSD over the course of many years. In other words, cohorts of children exposed to sexual abuse, natural disasters, war, accidents and school violence have been documented to have decreases in rates of PTSD over the course of time, but significant proportions of these cohorts continued to meet criteria for chronic PTSD as well. More ominous are two prospective studies that showed no group average decrease in PTSD symptomatology. McFarlane showed that Australian school-age children (mean age 8.2 years) did not decrease their PTSD symptomatology over 18 months following a bushfire.<sup>32</sup> Scheeringa et al.<sup>33</sup> showed that preschool-age children did not decrease PTSD symptomatology over two years. An important question is whether younger children are more vulnerable to permanent effects of trauma. Another important question is whether earlier treatment would result in better outcomes than delayed or no treatment, even if rates of PTSD diagnosis decline over time for all age groups during childhood and adolescence. A new study indicates that this is the case for adults.<sup>34</sup>

## **RISK AND PROTECTIVE FACTORS**

Female gender, past trauma exposure, multiple traumas, greater exposure to the index trauma, the presence of a pre-existing psychiatric disorder (particularly an anxiety disorder), parental psychopathology and lack of social support are all risk factors for a child developing PTSD following trauma exposure.<sup>35</sup> Conversely, parental support, lower levels of parental PTSD and resolution of other parental trauma-related symptoms have been found to predict lower levels of PTSD symptoms in children.<sup>36,37</sup> In the context of a disaster, increased television viewing of disaster-related events, delayed evacuation, extreme panic symptoms, or having felt that one’s own or one’s family member’s life was in danger have each been found to be independently and significantly associated with developing PTSD symptoms in children.<sup>38-40</sup> Recent research suggests that children’s psychological reactions to trauma exposure are to some degree influenced by genetic factors.<sup>41</sup>

## **EVIDENCE BASE FOR PRACTICE PARAMETERS**

In this parameter, recommendations for best treatment practices are stated in accordance with the strength of the underlying empirical and/or clinical support, as follows:

- Minimal Standard [MS] is applied to recommendations that are based on rigorous empirical evidence (e.g., randomized, controlled trials) and/or overwhelming clinical consensus. Minimal standards apply more than 95% of the time (i.e., in almost all cases).
- Clinical Guideline [CG] is applied to recommendations that are based on strong empirical evidence (e.g., non-randomized controlled trials) and/or strong clinical consensus. Clinical guidelines apply approximately 75% of the time (i.e., in most cases).
- Option [OP] is applied to recommendations that are acceptable based on emerging empirical evidence (e.g., uncontrolled trials or case series/reports) or clinical opinion, but lack strong empirical evidence and/or strong clinical consensus.

## American Academy of Child and Adolescent Psychiatry

- Not Endorsed [NE] is applied to practices that are known to be ineffective or contraindicated.

The strength of the empirical evidence is rated in descending order as follows:

- [rct] Randomized, controlled trial is applied to studies in which subjects are randomly assigned to two or more treatment conditions
- [ct] Controlled trial is applied to studies in which subjects are non-randomly assigned to two or more treatment conditions
- [ut] Uncontrolled trial is applied to studies in which subjects are assigned to one treatment condition
- [cs] Case series/report is applied to a case series or a case report

### SCREENING

**Recommendation 1.** *The psychiatric assessment of children and adolescents should routinely include questions about traumatic experiences and PTSD symptoms [MS].*

Given the high rate of trauma exposure in children and the potentially long lasting course of PTSD, it is important to detect this condition early. Routine screening for PTSD during an initial mental health assessment is therefore recommended. Even if trauma is not the reason for referral, clinicians should routinely ask children about exposure to commonly experienced traumatic events (for example, child abuse, domestic or community violence or serious accidents) and if such exposure is endorsed, the child should be screened for the presence of PTSD symptoms. Screening questions should use developmentally appropriate language and be based on DSM-IV-TR criteria. Obtaining information about PTSD symptoms from multiple informants including children and parents or other caretakers is essential for pre-pubertal children because the addition of caretaker information significantly improves diagnostic accuracy.<sup>14</sup>

In order to screen for PTSD symptoms, clinicians must first determine whether children have been exposed to qualifying traumatic experiences. One of the most comprehensive tools in this regard is the Juvenile Victimization Questionnaire (JVQ), which has been validated for ethnically diverse samples of children ages 2-17 years of age.<sup>42</sup> Optimal screening strategies will depend on children's ages. For children 7 years and older, children can self-report both trauma exposure and symptoms. Self-report measures for PTSD such as the University of California at Los Angeles Post-traumatic Stress Disorder Reaction Index<sup>43</sup> or the Child PTSD Symptom Scale (CPSS)<sup>44</sup> can assist with screening and monitoring response to treatment. An abbreviated version of the UCLA PTSD Reaction Index is included below.

Figure 1: Abbreviated UCLA PTSD Reaction Index

When screening children younger than seven years old, instruments must be administered to caregivers as young children do not yet possess the developmental capacities for accurate self-report of psychiatric symptomatology. The PTSD-PAC (PTSD symptoms in preschool children) is an 18-item checklist that covers most of the PTSD items plus several items appropriate for young children.<sup>45</sup> A subset of 15-items in the Child Behavior Checklist has shown promising sensitivity and specificity compared to a gold-standard interview for PTSD.<sup>46</sup> The Trauma Symptom Checklist for Children (TSCC)<sup>47</sup> is a checklist for a wide range of trauma-related

difficulties such as PTSD, depressive, anxiety, dissociative and anger symptoms. The companion instrument for younger children, the Trauma Symptom Checklist for Young Children (TSC-YC) has also been found to have good psychometric properties and its PTSD subscale correlated well with PTSD scores on the UCLA PTSD Index in young children.<sup>48</sup>

## **EVALUATION**

***Recommendation 2. If screening indicates significant PTSD symptoms the clinician should conduct a formal evaluation to determine whether PTSD is present, the severity of those symptoms, and the degree of functional impairment. Parents or other caregivers should be included in this evaluation wherever possible [MS].***

The proper assessment of PTSD requires relatively more diligence and educational interviewing than perhaps for any other disorder. Respondents need to be educated about complicated PTSD symptoms so that they understand what is being asked so that they do not over- or under-endorse symptoms based on misunderstandings of what is being asked. For instance, most people intuitively know what symptoms from other disorders such as sadness or hyperactivity look like, but few have experienced an over-generalized fear reaction in the presence of a reminder of a life-threatening traumatic event in the past, or dissociative staring, or a sense of a foreshortened future. This would be especially true for non-traumatized parents responding about their children. This style of interviewing runs counter to the way most clinicians were trained in that interviewers do not want to “lead” children during interviews. In order to prevent this, clinicians can ask children to provide adequate details about onset, frequency and duration to be convincing. In one study, 88% of PTSD symptomatology was not observable from clinical examination of young children.<sup>12</sup> The reexperiencing and avoidance items in particular require an individual to recognize that their emotions and behaviors are yoked to memories of past events that, almost by the definition of PTSD, they are trying to avoid remembering. In particular, it is insufficient to ask about reexperiencing and avoidance items generically, such as, “Do you have distress at reminders of your past event?” Interviewers must tailor these probes to the individualized experiences of each patient with specific examples, such as, “When you went past the house where the event occurred, did you get upset?” Many individuals will respond in the negative to the generic question, but in the affirmative to the specific probe once they have been properly educated on what the interviewer is asking about.

The clinician should ask the child and parent about symptom severity and functional impairment along with the presence of PTSD symptoms during the assessment. The CPSS includes a rating of functional impairment that can be followed during the course of treatment to monitor improvement. Younger children may use more developmentally appropriate visual analogues such as gradated depictions of fearful to happy faces or a “fear thermometer” to rate symptom severity and interference with functioning.

Although formal psychological testing or questionnaires are not required to diagnose PTSD, several instruments may be helpful in supplementing the clinical interview in youth 4-17 years old. Clinicians may find the Clinician’s Assessment of PTSD Symptoms-Child and Adolescent Version (CAPS-CA)<sup>49</sup> or the Schedule for Affective Disorders and Schizophrenia for School Aged Children-Present and Lifetime Version (K-SADS-PL) PTSD Section<sup>50</sup> helpful in this regard. Both of these entail child and parent consensus ratings of PTSD symptoms which are rated in relation to an index trauma selected at the beginning of the interview. For preschool children, the Posttraumatic Stress Disorder Semi-Structured Interview and Observational Record

for Infants and Young Children (PTSD-SSI) is an interview for caregivers that contains appropriate developmental modifications.<sup>51</sup>

**Recommendation 3. *The psychiatric assessment should consider differential diagnoses of other psychiatric disorders and physical conditions that may mimic PTSD [MS].***

Psychiatric conditions may present with symptoms similar to those seen in PTSD. Avoidance and reexperiencing symptoms of PTSD such as restless, hyperactive, disorganized and/or agitated activity or play can be confused with attention deficit hyperactivity disorder (ADHD). Hyperarousal symptoms in children such as difficulty sleeping, poor concentration, and hypervigilant motor activity, also overlap significantly with typical ADHD symptoms, and unless a careful history of trauma exposure is taken in relation to the timing of the onset or worsening of symptoms, these conditions may be difficult to distinguish. PTSD may also present with features more characteristic of oppositional defiant disorder (ODD) due to a predominance of angry outbursts and irritability; this may be particularly true if the child is being exposed to ongoing trauma reminders (such as the presence of the perpetrator of violence). PTSD may mimic panic disorder if the child has striking anxiety and psychological and physiological distress upon exposure to trauma reminders and avoidance of talking about the trauma. PTSD may be misdiagnosed as another anxiety disorder including social anxiety disorder (SAD), obsessive compulsive disorder (OCD), general anxiety disorder (GAD) or phobia due to avoidance of feared stimuli, physiological and psychological hyperarousal upon exposure to feared stimuli, sleep problems, hypervigilance and increased startle reaction. PTSD may also mimic major depressive disorder (MDD) due to the presence of self-injurious behaviors as avoidant coping with trauma reminders; social withdrawal, affective numbing and/or sleep difficulties. PTSD may be misdiagnosed as bipolar disorder as discussed above, due to children's hyperarousal symptoms and other anxiety symptoms mimicking hypomania; traumatic reenactment mimicking aggressive or hypersexual behavior; and maladaptive attempts at cognitive coping mimicking pseudo-manic statements. An examination of the revised criteria for juvenile mania and child PTSD symptoms reveals significant overlap.<sup>52</sup> PTSD may be misdiagnosed as a primary substance use disorder as drugs and/or alcohol may be used to numb or avoid trauma reminders. Conversely it is important to remember that there are many youth with a history of trauma who have primary substance use disorders with few trauma symptoms; these youth will typically benefit more from receiving treatment for substance use than for PTSD.

Some children with PTSD may be severely agitated. The severity of their hypervigilance, flashbacks, sleep disturbance, numbing and/or social withdrawal, may mimic a psychotic disorder. Other children with PTSD may have unusual perceptions that should be differentiated from the hallucinations of a psychotic illness. The likelihood of a delirium should also be considered in the presence of impairment of sensorium and fluctuating levels of consciousness. Any underlying physical illness associated with trauma requires immediate medical care.

Physical conditions that may present with PTSD-like symptoms include hyperthyroidism, caffeinism, migraine, asthma, seizure disorder, and catecholamine or serotonin secreting tumors. Prescription drugs with side effects that may mimic aspects of PTSD include antiasthmatics, sympathomimetics, steroids, selective serotonin reuptake inhibitors (SSRIs), antipsychotics (akathisia), and atypical antipsychotics. Nonprescription drugs with side effects that may mimic PTSD include diet pills, antihistamines and cold medicines.

## American Academy of Child and Adolescent Psychiatry

PTSD is often associated with somatic symptoms such as headaches and abdominal complaints. A mental health assessment should be considered early in the medical evaluation of youth with somatic complaints, particularly those with a known history of trauma exposure. There is some preliminary evidence to suggest that trauma exposure adversely impacts immunologic functioning in children.<sup>53</sup>

### TREATMENT

**Recommendation 4. *Treatment planning should consider a comprehensive treatment approach which includes consideration of the severity and degree of impairment of the child's PTSD symptoms* [MS].**

Treatment of children with PTSD symptoms should include education of the child and parents about PTSD, consultation with school personnel and primary care physicians once informed consent/assent has been obtained, and trauma-focused psychotherapy including cognitive-behavioral therapy, psychodynamic psychotherapy, and/or family therapy. Pharmacotherapy may also be considered in the multimodal approach to children with PTSD. School-based screening and treatments should be considered following community level traumatic events since this is an efficient way of identifying and treating affected children. Selection and timing of the specific treatment modalities for an individual child and family in clinical practice involves consideration of psychosocial stressors, risk factors, severity and impairment of PTSD, age, cognitive and developmental functioning of the child and family functioning and other comorbid conditions. In addition, child and family factors such as attitudes or acceptance of a particular intervention and clinician factors such as training, access to and attitudes about evidence based interventions, and affordability of such interventions need to be considered.

Children with significant PTSD symptoms who do not meet full criteria for a PTSD diagnosis often have comparable functional impairment to those with a PTSD diagnosis.<sup>27,33</sup> Treatment decisions for children should take into account symptom severity and functional impairment, regardless of whether or not they have an actual PTSD diagnosis. Until evidence from comparative studies can inform clinical practice, treatment of mild PTSD should begin with psychotherapy. Valid reasons for combining medication and psychotherapy include the following: need for acute symptom reduction in a child with severe PTSD, a comorbid disorder that requires concurrent treatment, or unsatisfactory or partial response to psychotherapy and potential for improved outcome with combined treatment.<sup>54</sup>

There is evidence that including parents in treatment is helpful for resolution of children's trauma-related symptoms. Deblinger et al.<sup>55[rect]</sup> provided trauma-focused CBT to parents alone, children alone or to parents and children and compared these three conditions to community treatment as usual. Parental inclusion in treatment resulted in significantly greater improvement in child reported depression and parent reported behavior problems. Studies have demonstrated that lower levels of parental emotional distress.<sup>39[rect],56[rect]</sup> and stronger parental support<sup>57[rect]</sup> predict more positive treatment response, including in PTSD symptoms, during children's participation in trauma-focused CBT treatment.

**Recommendation 5. *Treatment planning should incorporate appropriate interventions for comorbid psychiatric disorders* [MS].**

## American Academy of Child and Adolescent Psychiatry

Children with PTSD often have comorbid psychiatric conditions. Appropriate diagnosis and treatment should be provided in a timely manner, following established treatment guidelines for the comorbid condition. PTSD commonly occurs in the presence of depressive disorders,<sup>58</sup> attention-deficit/hyperactivity disorder (ADHD),<sup>59</sup> substance abuse,<sup>60</sup> and other anxiety disorders.<sup>58</sup> Ideally treatment of comorbid conditions should be provided in an integrated fashion. One evidence-supported model for treating adolescents with PTSD and comorbid substance abuse has been described.<sup>61,62</sup> This model, Seeking Safety, integrates evidence-based interventions for PTSD and substance use disorders, and focuses on assuring safety in the present moment.

### **Recommendation 6. *Trauma-focused psychotherapies should be considered first line treatments for children and adolescents with PTSD [MS].***

Amongst the psychotherapies there is convincing evidence that trauma-focused therapies, that is, those that specifically address the child's traumatic experiences, are superior to non-specific or non-directive therapies in resolving PTSD symptoms. This has been true across the developmental spectrum from preschoolers through adolescents, and encompassing diverse theoretical therapies such as psychoanalytic, attachment and cognitive-behavioral treatment models.<sup>63[rect],64[rect],65[rect]</sup> The importance of directly addressing the child's traumatic experiences in therapy makes sense when considering PTSD symptoms: avoidance of talking about trauma-related topics would be an expected occurrence when children are given a choice of focus during treatment, as is the case in non-directive treatment models. This outcome was observed in a study comparing child centered therapy sessions to trauma-focused treatment, i.e., children in child centered therapy rarely spontaneously mentioned their personal traumatic experiences.<sup>63[rect]</sup> Timing and pacing of trauma-focused therapies are guided in part by children's responses which therapists and parents monitor during the course of treatment. Clinical worsening may suggest the need to strengthen mastery of earlier treatment components through a variety of interventions, rather than abandoning a trauma-focused approach.

Amongst the trauma-focused psychotherapies, trauma-focused CBT (TF-CBT)<sup>66</sup> has received the most empirical support for the treatment of childhood PTSD. TF-CBT and a similar group format, Cognitive Behavioral Intervention for Trauma in Schools (CBITS)<sup>67</sup> have been supported by numerous randomized controlled trials for children with PTSD comparing these treatments to either wait list control conditions or to active alternative treatments. Child-Parent Psychotherapy<sup>68</sup> combines elements of TF-CBT with attachment theory and has been tested in one randomized controlled trial. A trauma-focused psychoanalytic model<sup>65</sup> for sexually abused children has been tested in one randomized study. Many other models are in development and at various stages of testing.

Based on the evidence presented below, there is growing support for the use of trauma-focused psychotherapies which a) directly address children's traumatic experiences; b) include parents in treatment in some manner as important agents of change; and c) focus not only on symptom improvement but also on enhancing functioning, resiliency and/or developmental trajectory.

## COGNITIVE BEHAVIORAL THERAPIES

In trauma-focused CBTs the clinician typically provides stress management skills in preparation for the exposure-based interventions which are aimed at providing mastery over

## American Academy of Child and Adolescent Psychiatry

trauma reminders. Cohen et al.<sup>66</sup> describe commonly provided trauma-focused CBT components using the PRACTICE acronym: *Psychoeducation* (e.g., educating children and parents about the type of traumatic event the child experienced, for example, how many children this happens to, what causes it to happen, etc; common trauma reactions including PTSD and about the trauma-focused CBT treatment approach); *Parenting skills* (the use of effective parenting interventions such as praise, positive attention, selective attention, time out and contingency reinforcement procedures); *Relaxation skills* (focused breathing, progressive muscle relaxation and other personalized relaxation activities to reverse the physiological manifestations of traumatic stress); *Affective modulation skills* (feeling identification; use of positive self-talk, thought interruption and positive imagery; enhancing safety, problem solving and social skills; recognizing and self-regulating negative affective states); *Cognitive Coping and Processing* (recognizing relationships between thoughts, feelings and behaviors; changing inaccurate and unhelpful thoughts for affective regulation); *Trauma Narrative* (creating a narrative of the child's traumatic experiences, correcting cognitive distortions about these experiences and placing these experiences in the context of the child's whole life); *In vivo mastery of trauma reminders* (graduated exposure to feared stimuli); *Conjoint child-parent sessions* (joint sessions in which the child shares the trauma narrative with parents and other family issues are addressed); *Enhancing future safety and development* (addressing safety concerns related to prevention of future trauma, return to normal developmental trajectory). Different forms of trauma-focused CBT interventions use varying combinations and dosages of these PRACTICE components, depending on their target populations and types of trauma.

The most widely used and best researched manual based CBT protocol for PTSD is Trauma-Focused CBT (TF-CBT).<sup>66,69</sup> TF-CBT has been designated "supported and efficacious" based on standards of empirical support.<sup>70</sup> TF-CBT was designed for children with PTSD as well as depression, anxiety and other trauma-related difficulties such as shame and self-blame. TF-CBT is typically delivered individually to children and their non-perpetrator parents although it has also been provided in group formats. TF-CBT has been tested in several randomized controlled trials involving more than 500 children and showed clinically significant improvement compared to usual community treatment,<sup>55[rect]</sup> non-directive supportive therapy,<sup>56[rect],71[rect]</sup> child centered therapy,<sup>63</sup> and wait list control<sup>72[rect]</sup> conditions for children between the ages of 3 and 17 years old. Treatment gains were maintained at one year follow-up in several of these studies.<sup>73-76</sup> TF-CBT has been adapted for Hispanic youth<sup>77</sup> and Native American families.<sup>78</sup> TF-CBT was provided in Spanish and English following the terrorist attacks of September 11, 2001 and was effective in decreasing PTSD symptoms.<sup>79[ct]</sup> TF-CBT has also been adapted for Childhood Traumatic Grief (CTG), an emerging condition in which children lose loved ones in traumatic circumstances. Two trials of this adapted treatment model have shown significant improvement in PTSD and CTG symptoms.<sup>80[ut],81[ut]</sup>

The best researched group CBT protocol for childhood PTSD is Cognitive Behavior Interventions for Trauma in Schools (CBITS). CBITS includes all of the PRACTICE components described above, with the exception of the parental component, which is limited and optional in the CBITS model. CBITS additionally provides a teacher component to educate teachers about the potential impact of trauma on students' classroom behavior and learning. CBITS is provided in a group format in the school setting (i.e., group therapy sessions are held in school, but not within children's regular classroom periods). The trauma narrative component is typically conducted during individual "breakout" sessions during which each child meets one on one with their usual group therapist. CBITS has been tested in two studies of children exposed to

## American Academy of Child and Adolescent Psychiatry

community violence. Stein et al.<sup>67[rct]</sup> documented that CBITS was superior to a wait list condition in improving PTSD and depression. Kataoka et al.<sup>82[ct]</sup> also found that children assigned to CBITS improved more than children assigned to a wait list control; this study cohort consisted of immigrant Latino children.

Seeking Safety<sup>61</sup> is a manualized individual or group CBT protocol for PTSD and comorbid substance use disorders which includes sequential interventions for affective modulation, substance abuse risk reduction and trauma-specific cognitive processing. Seeking Safety was superior to treatment as usual in a small randomized controlled pilot group study for adolescent girls with PTSD and substance abuse disorder.<sup>62[rct]</sup>

Several other manualized CBT protocols for child and adolescent PTSD are currently being used and/or evaluated. UCLA Trauma and Grief Component Therapy (TGCT) is an individual or group-based, adolescent-focused intervention that uses CBT in addition to other evidence-based components to alleviate PTSD and traumatic grief, and to restore developmental progression. It was found to improve PTSD, traumatic grief and depressive symptoms in a study of Bosnian adolescents.<sup>83[ct]</sup> In a second study using this model, adolescents exposed to community violence experienced improvement in PTSD symptoms.<sup>84[ut]</sup> This model was also found to be effective for reducing children's PTSD symptoms related to terrorism.<sup>79[ct]</sup> Individual child trauma-focused CBT has shown superiority over a wait list control condition in decreasing PTSD symptoms following single episode traumas.<sup>85[rct]</sup> A cognitive-and family-therapy based treatment model, Surviving Cancer Competently Intervention Program (SCCIP), which is provided in four group and family sessions over a single day, was superior to a wait list control condition in improving hyperarousal symptoms in adolescent cancer survivors.<sup>86[rct]</sup>

Eye Movement Desensitization and Reprocessing (EMDR) is an effective treatment for adult PTSD but most RCTs for child EMDR have had serious methodological shortcomings. One RCT showed that a child-modified EMDR protocol was superior to a wait list control in improving reexperiencing symptoms for Swedish children.<sup>87[rct]</sup> The authors noted that “several deviations” existed between the child and adult EMDR components and techniques. The authors stated that “the similarity of the structured EMDR technique and its components to the principles of cognitive psychotherapy is striking...the cognitive character of the EMDR makes it suitable for child applications”. Because of this description, EMDR is included under CBT interventions.

### PSYCHODYNAMIC TRAUMA-FOCUSED PSYCHOTHERAPIES

Psychodynamic trauma-focused psychotherapies aim to promote personality coherence and healthy development as well as the achievement of traumatic symptom resolution.<sup>88</sup> In younger children, these treatments have focused on the parent-child relationship in order to address traumatic situations in which the parent (typically the mother) was either the victim of the trauma (for example, domestic violence) or was so personally traumatized or emotionally compromised by the experience that she was unable to sustain the child's development. For older children psychodynamic trauma-focused therapies provide an opportunity to mobilize more mature cognitive capacities, objectify and explain symptoms, identify trauma reminders, identify environmental factors which may complicate recovery—especially interactions which heighten regressive experience, and make more explicit ways in which overwhelming fear and helplessness of the traumatic situation run counter to age-appropriate strivings for agency, competence and self-efficacy. The relatively unstructured nature of the sessions may contribute

to adolescents regaining a more internal locus of control which was lost during exposure to uncontrollable traumatic events.<sup>88</sup>

Child-Parent Psychotherapy (CPP) is a relationship-based treatment model for young children (aged infants to 7 years) who have experienced family trauma such as domestic violence.<sup>68</sup> It includes the following components: modeling appropriate protective behavior; assisting the parent in accurately interpreting the child's feelings and actions, providing emotional support to the child and parent, providing empathic communication, crisis intervention and concrete assistance with problems of living; developing a joint parent-child narrative about the family trauma and correcting cognitive distortions in this regard; and interventions for addressing traumatic grief. As is clear from this description, this treatment model is not easily characterized as one specific type of therapy; rather it includes elements of psychodynamic, cognitive behavioral, social learning and attachment treatments.

Child-Parent Psychotherapy is provided in conjoint parent-child treatment sessions. CPP has been tested in one randomized controlled trial for 3-5 year old children exposed to marital violence and shown to be superior to case management plus individual psychotherapy in improving child PTSD and behavior problems.<sup>64[rect]</sup> Improvement in behavior problems was maintained at 6 month follow-up; child PTSD symptoms were not assessed at follow-up due to financial constraints.<sup>89[rect]</sup> CPP has been adapted for young children with traumatic grief<sup>90</sup> and is currently being tested in an open study for this population.

Trowell et al.<sup>65[rect]</sup> found that individual psychoanalytic psychotherapy which addressed sexual abuse related issues was superior to group psychoeducation in decreasing PTSD symptoms among sexually abused children and adolescents. Although the total number of hours spent in treatment between the two conditions was equivalent (psychoeducation groups lasted 1.5 hours whereas individual psychotherapy sessions lasted 1 hour), the authors did not state whether duration of treatment was equivalent across the two conditions (the mean number of individual psychoanalytic sessions was 30 and the mean number of psychoeducation sessions was 18).

***Recommendation 7. SSRIs can be considered for the treatment of children and adolescents with PTSD [OP].***

SSRIs are approved for use in adult PTSD and are the only medications shown to effectively decrease symptoms in all three adult PTSD clusters.<sup>91-93</sup> There are important differences between adults and children with regard to the physiology and manifestations of PTSD<sup>94</sup> that may have ramifications for the efficacy and use of medications in this age group. The history of antidepressant use in children<sup>95</sup> (i.e., early preliminary results were later found to be largely attributable to placebo effects) provides an illustration of why child clinicians should be cautious about basing treatment decisions on the adult literature, and why more medication trials are needed for children with PTSD. A recent acute PTSD treatment study involving over 6000 adult participants illustrated that those who agreed to take medication had significantly worse PTSD symptoms than those who agreed to receive psychotherapy.<sup>34</sup>

Preliminary evidence suggested that SSRIs may be beneficial in reducing child PTSD symptoms. Seedat et al.<sup>96[ut]</sup> compared the rate of improvement in 24 child and adolescent subjects to 14 adult subjects provided with 20-40 mg/day of citalopram and demonstrated equivalent improvements between groups. A Turkish open trial of fluoxetine showed effectiveness in improving earthquake-related PTSD symptoms among 26 participants ages 7-17 years old.<sup>97</sup>

## American Academy of Child and Adolescent Psychiatry

Two recent randomized trials have evaluated the efficacy of SSRI medication for treating PTSD in children and adolescents. The first failed to find any superiority of sertraline over placebo in 67 children with initial PTSD diagnoses although both groups experienced significant improvement, suggesting a strong placebo effect.<sup>98[rct]</sup> The second compared trauma-focused CBT (TF-CBT) + sertraline to TF-CBT + placebo in 24 10-17 year olds with sexual abuse-related PTSD symptoms.<sup>99[rct]</sup> All children significantly improved with no group X time differences found except on Children's Global Assessment Scale scores. This study concluded that although starting treatment with combined sertraline and TF-CBT might be beneficial for some children, it is generally preferable to begin with TF-CBT alone, and add an SSRI only if the child's symptom severity or lack of response suggests a need for additional interventions.

Children with comorbid MDD, GAD, OCD or other disorders known to respond to an SSRI may benefit from the addition of an SSRI earlier in treatment. More than 60% of the participants in the TF-CBT + sertraline study<sup>99</sup> had comorbid MDD yet the results did not indicate a clear benefit of adding sertraline with regard to improvement in PTSD or depression scores.

Recent findings suggest that some risks may be associated with SSRI medications.<sup>100,101</sup> Additionally, SSRIs may be overly activating in some children, and lead to irritability, poor sleep or inattention; because these are symptoms of PTSD hyperarousal, SSRIs may not be optimal medications for these children. In these situations alternative psychotropic medication options may need to be considered. On the basis of the above information, there are insufficient data to support the use of SSRI medication alone (i.e., in the absence of psychotherapy) for the treatment of childhood PTSD.

### **Recommendation 8. Medications other than SSRIs may be considered for children and adolescents with PTSD [OP].**

Algorithms and guidelines for treatment of adults with PTSD suggest the following: SSRIs can be recommended for the treatment of adult PTSD as a medication monotherapy; antiadrenergic agents such as clonidine and propranolol may be useful in decreasing hyperarousal and reexperiencing symptoms; anticonvulsants may show promise for treating PTSD symptoms other than avoidance; and benzodiazepines have not been found to be beneficial in treating PTSD-specific symptoms.<sup>102,103</sup>

Some evidence from open clinical trials suggests that medications other than SSRIs may be helpful for youth with PTSD symptoms. These include alpha- and beta-adrenergic blocking agents, novel antipsychotic agents, non-SSRI antidepressants, mood stabilizing agents and opiates. Robert et al.<sup>104[rct]</sup> randomly assigned hospitalized children with ASD secondary to burns to receive either imipramine or chloral hydrate. This study demonstrated that at 6 months, children receiving imipramine were significantly less likely to have developed PTSD than those receiving chloral hydrate. However, due to concern about rare but serious cardiac side effects, tricyclic antidepressants are not recommended as a first line preventive intervention for PTSD in children. Saxe et al.<sup>105[ut]</sup> conducted a naturalistic study of the relationship between morphine dosage and subsequent development of PTSD in acutely burned hospitalized children and found that controlling for subjective experience of pain, there was a significant linear association between mean morphine dosage (mg/kg/day) and 6 month reduction in PTSD symptoms.

There is some evidence of increased dopamine presence in children and adults with PTSD,<sup>16</sup> which is believed to contribute to the persistent and overgeneralized fear characteristic of PTSD. Dopamine blocking agents such as neuroleptics may therefore decrease some PTSD

symptoms. One open study of risperidone resulted in 13 out of 18 boys experiencing remission from severe PTSD symptoms.<sup>106[ut]</sup> These children had high rates of comorbid symptoms which could be expected to respond positively to risperidone; for example, 85% had coexisting ADHD and 35% had bipolar disorder.

There is also evidence of increased adrenergic tone and responsiveness in children with PTSD.<sup>15</sup> Both alpha and beta adrenergic blocking agents have been used with some success in children with PTSD symptoms. Clonidine has been found in two open studies to decrease basal heart rate, anxiety, impulsivity and PTSD hyperarousal symptoms in children with PTSD.<sup>107[ut],108[ut]</sup> In a case study, clonidine treatment resulted in improved sleep and increased neural integrity of the anterior cingulate.<sup>109[cs]</sup> Propranolol was found in an open study to decrease reexperiencing and hyperarousal symptoms in children with PTSD symptoms.<sup>110[ut]</sup>

The hypothalamic-pituitary-adrenal (HPA) axis is also dysregulated in children with PTSD, in ways that are complex. This suggests a potential mechanism for future pharmacological intervention, for example through the use of corticotrophin release factor (CRF) antagonists.<sup>103(p97)</sup> However no trials of these medications have been conducted in children to date.

**Recommendation 9. *Treatment planning may consider school-based accommodations* [CG].**

As noted above children with significant PTSD symptoms may have impaired academic functioning. This is often due to hypervigilance to real or perceived threats in the environment, and may be a particular issue if trauma reminders are present in the school setting. One example of a school-based trauma reminder would be if sexual assault or bullying occurred at school, particularly if the perpetrator still attended the same school. Another example of a school-based trauma reminder was demonstrated by a school in New Orleans overlooking a levee that was breached and houses destroyed by the flooding following Hurricane Katrina. Children attending this school were faced with unavoidable daily reminders of the original trauma.

Although every reasonable effort should be made to assist children in overcoming avoidance of *innocuous* trauma reminders (that is, people, places or situations that are inherently innocuous or safe, which only seem frightening to the child because of generalized fear), children should also be protected from *realistic* ongoing threats or danger whenever possible. Children who are experiencing significant functional impairment related to trauma reminders may benefit from school accommodations up to and including placement at an alternative school where reminders are not present. This is especially true if safety is an issue, for example, if the perpetrator(s) of interpersonal violence and/or their peers are harassing the victimized child on an ongoing basis.

**Recommendation 10. *The use of restrictive “rebirthing” therapies and other techniques which bind, restrict, withhold food or water or are otherwise coercive, are not endorsed* [NE].**

Restrictive “rebirthing” or “holding” therapies that forcibly bind, restrict, withhold food or water or are otherwise coercive have been used for children who have experienced severe early childhood trauma or losses. Often these children have been diagnosed with a more severe disorder, reactive attachment disorder, rather than PTSD. There is no empirical evidence to support the efficacy of these treatments, and in some cases these interventions have led to severe injury or death.<sup>111</sup> These interventions are therefore not endorsed.

## PREVENTION AND EARLY SCREENING

**Recommendation 11.** *School- or other community-based screening for PTSD symptoms and risk factors should be conducted following traumatic events which affect significant numbers of children [CG].*

Following community-level events which have the potential to traumatize large numbers of children, conducting screening for PTSD in schools or other settings where children commonly gather is important for secondary prevention and early identification. Typically such screening efforts do not occur in the immediate aftermath (i.e., first four weeks) following a community level trauma due to a variety of factors including that usual services are often disrupted following such events; adults (including teachers and school administrators) have also been displaced, bereaved and/or traumatized; and schools are usually not proactively prepared for such screening efforts.<sup>112</sup> Screening ought to ideally begin after approximately one month based on the consensus from empirical findings that the vast majority of enduring PTSD symptoms begin immediately, and those who will experience natural recovery will do so within about one month. Models exist for successful universal school-based screening following community level disasters<sup>39</sup> and for providing school-based treatment.<sup>113</sup> Because symptoms may not develop immediately and PTSD is not the only disorder that children develop after trauma exposure it makes sense to also screen children for known risk factors for developing later mental health difficulties and to provide follow-up for children at greatest risk for developing negative mental health sequelae.

Group interventions in school or other community settings can provide effective early treatment for children with PTSD symptoms. Adaptation of protocol-based CBT interventions to fit diverse populations and taking into account the limitations of community resources, including those of inner-city minority youth, can make evidence-supported treatments feasible. This was accomplished after the September 11<sup>th</sup> terrorist attacks through Project Liberty. TF-CBT and the UCLA TGCT were provided to over 500 mostly multiply traumatized children from highly diverse ethnic backgrounds, provided in English and Spanish in a variety of community, school, university-affiliated settings in group, and in family and individual formats. Results indicated that this approach was effective in improving children's PTSD symptoms, and that clinicians were able to use evidence supported treatments with fidelity. Programs that foster resiliency in youth are being tested internationally to proactively "immunize" children against the potentially adverse affects of traumatic events.<sup>114</sup>

## PARAMETER LIMITATIONS

AACAP practice parameters are developed to assist clinicians in psychiatric decision-making. These parameters are not intended to define the standard of care; nor should they be deemed inclusive of all proper methods of care or exclusive of other methods of care directed at obtaining the desired results. The ultimate judgment regarding the care of a particular patient must be made by the clinician in light of all the circumstances presented by the patient and his/her family, the diagnostic and treatment options available, and available resources.

---

*Disclosures: Judith Cohen, M.D. receives funding from the National Institute of Mental Health, the Substance Abuse and Mental Health Services Administration and book royalties from Guilford Press. Oscar Bukstein, M.D., M.P.H., co-chair, receives or has received research support, acted as a consultant and/or served on a speaker's bureau for McNeil Pediatrics, and*

## American Academy of Child and Adolescent Psychiatry

*Novartis Pharmaceuticals Corporation. Heather Walter, M.D., M.P.H., co-chair, has no financial relationships to disclose. Expert Reviewers: Lisa Amaya-Jackson receives or has received research support from the Substance Abuse and Mental Health Services Administration (SAMHSA). Michael De Bellis receives or has received research support from the National Institutes of Health (NIH). Anthony Mannarino receives or has received research support from the National Institutes of Health (NIH) and the Substance Abuse and Mental Health Services Administration (SAMHSA). He has a book published with Guilford Press. He is a Section President of the American Psychological Association. Frank Putnam serves as a Trustee of the Ohio Children's' Trust Fund. He has no financial relationships to disclose. Robert Pynoos has no financial relationships to disclose. Michael Scheeringa has no financial relationships to disclose.*

REFERENCES

1. American Academy of Child and Adolescent Psychiatry. Practice parameters for the assessment and treatment of children and adolescents with posttraumatic stress disorder. *J Am Acad Child Adolesc Psychiatry*. 1998;37(Suppl):4S-26S.
2. Costello EJ, Erkanli A, Fairbank JA, Angold A. The prevalence of potentially traumatic events in childhood and adolescence. *J Trauma Stress*. 2002;15(2):99-112.
3. Aaron J, Zaglu H, Emery R. Posttraumatic stress in children following acute physical injury. *J Pediatr Psychol*. 1999;24(4):335-343.
4. Rothbaum B, Foa E, Riggs D. A prospective examination of posttraumatic stress disorder in rape victims. *J Trauma Stress*. 1992;5(3):455-475.
5. Kessler R, Sonnega A, Bromet E, Hughes M, Nelson C. Posttraumatic stress disorder in the National Comorbidity Survey. *Arch Gen Psychiatry*. 1995;52(12):1048-1060.
6. Sinclair E, Salmon K, Bryant R. The role of panic attacks in acute stress disorder in children. *J Trauma Stress*. 2007;20(6):1069-1073.
7. Pfefferbaum B, Stuber J, Galea S, Fairbrother G. Panic reaction to terrorist attacks and probable posttraumatic stress disorder in adolescents. *J Trauma Stress*. 2006;19(2):217-228.
8. Litz BT, Gray MJ. Early intervention for trauma in adults: a framework for first aid and secondary prevention. In: Litz BT, ed. *Early Intervention for Trauma and Traumatic Loss*. New York: Guilford Press; 2004:87-111.
9. Stallard P, Velleman R, Salter E, Howse I, Yule W, Taylor G. A randomised controlled trial to determine the effectiveness of an early psychological intervention with children involved in road traffic accidents. *J Child Psychol Psychiatry*. 2006;47(2):127-134.
10. Briere J, Spinazzola J. Phenomenology and psychological assessment of complex posttraumatic states. *J Trauma Stress*. 2005;18(5):401-412.
11. Kilpatrick DG. A special section on complex trauma and a few thoughts about the need for more rigorous research on treatment efficacy, effectiveness, and safety. *J Trauma Stress*. 2005;18(5):379-384.
12. Scheeringa MS, Peebles CD, Cook CA, Zeanah CH. Toward establishing procedural criterion and discriminant validity for PTSD in early childhood. *J Am Acad Child Adolesc Psychiatry*. 2004;40(1):52-60.
13. Bryant B, Mayou R, Wiggs L, Ehlers A, Stores G. Psychological consequences of road traffic accidents for children and their mothers. *Psychol Med*. 2004;34(2):335-346.
14. Scheeringa MS, Wright MJ, Hunt JP, Zeanah CH. Factors affecting the diagnosis and prediction of PTSD symptoms in children and adolescents. *Am J Psychiatry*. 2006;163(4):644-651.
15. Meiser-Stedman R, Smith P, Glucksman E, Yule W, Dalgleish T. The PTSD diagnosis in preschool- and elementary school-age children exposed to motor vehicle accidents. *Am J Psychiatry*. 2008;165(10):1326-1337.
16. De Bellis MD, Keshevan MS, Clark DB, et al. Developmental traumatology, part II: brain development. *Biol Psychiatry*. 1999;45(10):1271-1284.
17. Saigh PA, Mroveh M, Bremner JD. Scholastic impairments among traumatized adolescents. *Behav Res Ther*. 1997;35(5):429-436.
18. Diamond T, Muller RT, Rondeau LA, Rich JB. Relationships among PTSD symptomatology and cognitive functioning in adult survivors of child maltreatment. In:

## American Academy of Child and Adolescent Psychiatry

- Columbus FH, ed. *Advances in Psychology Research*. Volume 5. Huntington, NY: Nova Science Publishers;2001:253-279.
19. Fergusson DM, Horwood J, Lynskey MT. Childhood sexual abuse and psychiatric disorder in young adulthood; II: Psychiatric outcomes of childhood sexual abuse. *J Am Acad Child Adolesc Psychiatry*. 1996;35(10):1365-1374.
  20. Brent DA, Oquendo M, Birmaher B, et al. Familial pathways to early-onset suicide attempt: risk for suicidal behavior in offspring of mood-disordered suicide attempters. *Arch Gen Psychiatry*. 2002;59(9):801-807.
  21. Brown J, Cohen P, Johnson JG, Smailes EM. Childhood abuse and neglect: specificity of effects on adolescent and young adult depression and suicidality. *J Am Acad Child Adolesc Psychiatry*. 1999;38(12):1490-1496.
  22. Stiffman AR, Dore P, Earls FJ, Cunningham R. The influence of mental health problems on AIDS-related risk behaviors in young adults. *J Nerv Ment Dis*. 1992;180(5):314-320.
  23. Warshaw MG, Fierman E, Pratt L, et al. Quality of life and dissociation in anxiety disordered patients with histories of trauma or PTSD. *Am J Psychiatry*. 1992;150(10):1512-1516.
  24. Breslau N, Davis GC, Andreski P, Peterson E. Traumatic events and posttraumatic stress disorder in an urban population of young adults. *Arch Gen Psychiatry*. 1991;48(3):216-222.
  25. Kilpatrick DG, Ruggiero KJ, Acierno R, Saunders BE, Resnick HS, Best CL. Violence and risk of PTSD, major depression, substance abuse/dependence, and comorbidity: results from the National Survey of Adolescents. *J Consult Clin Psychol*. 2003;71(4):692-700.
  26. Essau CA, Conradt J, Peterman F. Frequency, comorbidity, and psychosocial impairment of anxiety disorders in German adolescents. *J Anxiety Disord*. 2000;14(3):263-279.
  27. Carrion VG, Weems CF, Ray R, Reiss AL. Toward an empirical definition of pediatric PTSD: the phenomenology of PTSD in youth. *J Am Acad Child Adolesc Psychiatry*. 2002;41(2):166-173.
  28. Koplewicz HS, Vogel JM, Solanto MV, et al. Child and parent response to the 1993 World Trade Center bombing. *J Trauma Stress*. 2002;15(1):77-85.
  29. Kuterovic-Jagodić G. Posttraumatic stress symptoms in Croatian children exposed to war: a prospective study. *J Clin Psychol*. 2003;59(1):9-25.
  30. La Greca A, Silverman WK, Vernberg EM, Prinstein MJ. Symptoms of posttraumatic stress in children after Hurricane Andrew: a prospective study. *J Consul Clin Psychol*. 1996;64(4):712-723.
  31. Vila G, Porche LM, Mouren-Simeoni MC. An 18-month longitudinal study of posttraumatic disorders in children who were taken hostage in their school. *Psychosom Med*. 1999;61(6):746-754.
  32. McFarlane A. Posttraumatic phenomena in a longitudinal study of children following a natural disaster. *J Am Acad Child Adolesc Psychiatry*. 1987;26(5):764-769.
  33. Scheeringa M, Zeanah C, Myers L, Putnam F. Predictive validity in a prospective follow-up of PTSD in preschool children. *J Am Acad Child Adolesc Psychiatry*. 2005;44(9):899-906.
  34. Shalev A, Freeman S, Adessky R, Watson P. Who needs care, who wants care, who is helped by early intervention: 5600 trauma survivors' results. Paper presented at: 22<sup>nd</sup>

## American Academy of Child and Adolescent Psychiatry

- Annual Meeting of the International Society for Traumatic Stress Studies; November 2006; Hollywood, CA.
35. Pine DS, Cohen JA. Trauma in children and adolescents: risk and treatment of psychiatric sequelae. *Biol Psychiatry*. 2002;51(7):519-531.
  36. Cohen JA, Mannarino AP. Factors that mediate treatment outcome in sexually abused preschool children. *J Am Acad Child Adolesc Psychiatry*. 1996;35(10):1402-1410.
  37. Laor N, Wolmer L, Mayes LC, Gershon A, Weitzman, R, Cohen DJ. Israeli preschool children under SCUDs: a 30-month follow-up. *J Am Acad Child Adolesc Psychiatry*. 1997;36(3):349-356.
  38. Hoven CW, Duarte CS, Lucas CP, et al. Psychopathology among New York City public school children 6 months after September 11. *Arch Gen Psychiatry*. 2005;62(5):545-552.
  39. Pfefferbaum B, Nixon SJ, Krug RS, et al. Clinical needs assessment of middle and high school students following the 1995 Oklahoma City bombing. *Am J Psychiatry*. 1999;156(7):1069-1074.
  40. Thienkrua W, Cardozo BL, Chakkraband MLS, et al. Symptoms of posttraumatic stress disorder and depression among children in tsunami-affected areas in Southern Thailand. *JAMA*. 2006;296(5):549-559.
  41. Caspi A, McClay J, Moffitt TE, et al. Role of genotype in the cycle of violence in maltreated children. *Science*. 2002;297(5582):851-854.
  42. Finkelhor D, Hamby SL, Ormrod R, Turner H. The Juvenile Victimization Questionnaire: reliability, validity, and national norms. *Child Abuse Negl*. 2005;29(4):383-412.
  43. Steinberg AM, Brymer MJ, Decker KB, Pynoos RS. The UCLA PTSD Reaction Index. *Curr Psychiatry Rep*. 2004;6(2):96-100.
  44. Foa EB, Treadwell K, Johnson K, Feeny NC. The Child PTSD Symptom Scale: a preliminary examination of its psychometric properties. *J Clin Child Psychol*. 2001;30(3):376-384.
  45. Levendosky A, Huth-Bocks A, Semel M, Shapiro D. Trauma symptoms in preschool-age children exposed to domestic violence. *J Interpers Violence*. 2002;17(2):150-164.
  46. Dehon C, Scheeringa M. Screening for preschool posttraumatic stress disorder with the Child Behavior Checklist. *J Pediatr Psychol*. 2005;31(4):431-435.
  47. Briere J. *Trauma Symptom Checklist for Children (TSCC)*. Odessa, FL: Psychological Assessment Resources; 1996.
  48. Gilbert A. *Psychometric properties of the Trauma Symptom Checklist for Young Children (TSC-YC)* [unpublished dissertation]. California School of Professional Psychology, Alliant University; 2003.
  49. Nader KO, Kriegler JA, Blake DD, Pynoos RS, Newman E, Weathers FW. *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; 1996.
  50. Kaufman J, Birmaher B, Brent D, et al. Schedule for Affective Disorders and Schizophrenia for School-Age Children-Present and Lifetime Version (K-SADS-PL): initial reliability and validity data. *J Am Acad Child Adolesc Psychiatry*. 1997;36(7):980-988.
  51. Scheeringa M, Zeanah C, Myers L, Putnam F. New findings on alternative criteria for PTSD in preschool children. *J Am Acad Child Adolesc Psychiatry*. 2003;42(5):561-570.

## American Academy of Child and Adolescent Psychiatry

52. Axelson D, Birmaher B, Strober M, et al. Phenomenology of children and adolescents with bipolar spectrum disorders. *Arch Gen Psychiatry*. 2006;63(10):1139-1148.
53. De Bellis MD, Burke L, Trickett PK, Putnam FW. Antinuclear antibodies and thyroid function in sexually abused girls. *J Trauma Stress*. 1996;9(2):369-378.
54. March JS. Combining medication and psychosocial treatments: an evidence based medicine approach. *Int Rev Psychiatry*. 2002;14(2):155-163.
55. Deblinger E, Lippmann J, Steer R. Sexually abused children suffering posttraumatic stress symptoms: initial treatment outcome findings. *Child Maltreat*. 1996;1(4):310-321.
56. Cohen JA, Mannarino AP. Interventions for sexually abused children: initial treatment findings. *Child Maltreat*. 1998;3(1):17-26.
57. Cohen JA, Mannarino AP. Predictors of treatment outcome in sexually abused children. *Child Abuse Negl*. 2000;24(7):983-994.
58. Dixon A, Howie P, Starling J. Trauma exposure, posttraumatic stress, and psychiatric comorbidity in female juvenile offenders. *J Am Acad Child Adolesc Psychiatry*. 2005;44(8):798-806.
59. Ford JD, Racusin R, Ellis CG, et al. Child maltreatment, other trauma exposure and posttraumatic symptomatology among children with oppositional disorder and attention deficit-hyperactivity disorders. *Child Maltreat*. 2000;5(3):205-217.
60. Lipschiz D, Rasmussen AM, Anyan W, et al. Posttraumatic stress disorder and substance use in inner city girls. *J Nervous Mental Disease*. 2003;191(11):714-721.
61. Najavits LM. *Seeking Safety: A Treatment Manual for PTSD and Substance Abuse*. New York: Guilford Press; 2002.
62. Najavits LM, Gallop RJ, Weiss RD. Seeking Safety therapy for adolescent girls with PTSD and substance use disorders: a randomized clinical trial. *J Behav Health Serv Res*. 2006;33(4):453-463.
63. Cohen JA, Deblinger E, Mannarino AP, Steer R. A multisite, randomized controlled trial for children with sexual abuse-related PTSD symptoms. *J Am Acad Child Adolesc Psychiatry*. 2004;43(4):393-402.
64. Lieberman AF, Van Horn P, Ippen CG. Toward evidence-based treatment: Child Parent Psychotherapy with preschoolers exposed to marital violence. *J Am Acad Child Adolesc Psychiatry*. 2005;44(12):1241-1248.
65. Trowell J, Kolvin I, Weeranamthri T, et al. Psychotherapy for sexually abused girls: psychopathological outcome findings and patterns of change. *Br J Psychiatry*. March 2002;160:234-247.
66. Cohen JA, Mannarino AP, Deblinger E. *Treating Trauma and Traumatic Grief in Children and Adolescents*. New York: Guilford Press; 2006.
67. Stein BD, Jaycox LH, Kataoka SH, et al. A mental health intervention for school children exposed to violence: a randomized controlled trial. *JAMA*. 2003;290(5):603-611.
68. Lieberman AF, Van Horn P. *Don't Hit My Mommy! A Manual for Child-Parent Psychotherapy with Young Witnesses of Family Violence*. Washington, DC: Zero To Three Press; 2005.
69. Deblinger E, Heflin AH. *Treating Sexually Abused Children and Their Nonoffending Parents: A Cognitive Behavioral Approach*. Thousand Oaks, CA: Sage Publications; 1996.
70. Saunders BE, Berliner L, Hanson RF, eds. Child physical and sexual abuse: guidelines for treatment. Revised Report: April 26, 2004. National Crime Victims Research and

## American Academy of Child and Adolescent Psychiatry

Treatment Center. [http://colleges.musc.edu/ncvc/resources\\_prof/OVC\\_guidelines04-26-04.pdf](http://colleges.musc.edu/ncvc/resources_prof/OVC_guidelines04-26-04.pdf). Accessed March 19, 2008.

71. Cohen JA, Mannarino AP. A treatment outcome study for sexually abused preschool children: initial findings. *J Am Acad Child Adolesc Psychiatry*. 1996;35(1):42-50.
72. King NJ, Tonge BJ, Mullen P, et al. Treating sexually abused children with posttraumatic stress symptoms: a randomized clinical trial. *J Am Acad Child Adolesc Psychiatry*. 2000;39(11):1347-1355.
73. Cohen JA, Mannarino AP. A treatment study of sexually abused preschool children: outcome during one year follow-up. *J Am Acad Child Adolesc Psychiatry*. 1997;36(9):1228-1235.
74. Cohen JA, Mannarino AP, Knudsen K. Treating sexually abused children: one year follow-up of a randomized controlled trial. *Child Abuse Negl*. 2005;29(2):135-145.
75. Deblinger E, Steer RA, Lippmann J. Two year follow up study of cognitive behavioral therapy for sexually abused children suffering post-traumatic stress symptoms. *Child Abuse Negl*. 1999;23(12):1371-1378.
76. Deblinger E, Mannarino AP, Cohen, JA, Steer RA. A follow-up study of a multisite, randomized, controlled trial for children with sexual abuse-related PTSD symptoms. *J Am Acad Child Adolesc Psychiatry*. 2006;45(12):1474-1484.
77. DeArellano MA, Waldrop AE, Deblinger E, Cohen JA, Danielson CK, Mannarino AP. Community outreach program for child victims of traumatic events: a community-based project for underserved populations. *Behav Modif*. 2005;29(1):130-155.
78. Bigfoot D. Indian Country Child Trauma Center, University of Oklahoma Health Sciences Center description. National Child Traumatic Stress Network Web site. [http://www.ncetsnet.org/nccts/nav.do?pid=abt\\_ntwk#36](http://www.ncetsnet.org/nccts/nav.do?pid=abt_ntwk#36). Accessed March 18, 2008.
79. Hoagwood KE, CATS Consortium. Impact of CBT for traumatized children and adolescents affected by the World Trade center disaster. *J Clin Child Psychol*. In press.
80. Cohen JA, Mannarino AP, Knudsen K. Treating childhood traumatic grief: a pilot study. *J Am Acad Child Adolesc Psychiatry*. 2004;43(10):1225-1233.
81. Cohen JA, Mannarino AP, Staron V. Modified cognitive behavioral therapy for childhood traumatic grief (CBT-CTG): a pilot study. *J Am Acad Child Adolesc Psychiatry*. 2006;45(12):1465-1473.
82. Kataoka SH, Stein BD, Jaycox LH, et al. A school-based mental health program for traumatized Latino immigrant children. *J Am Acad Child Adolesc Psychiatry*. 2003;42(3):311-318.
83. Layne CM, Pynoos RS, Saltzman WR, et al. Trauma/grief-focused group psychotherapy: school-based post-war intervention with traumatized Bosnian youth. *Group Dynamics: Theory, Research, and Practice*. 2001;5(4):277-290.
84. Saltzman WR, Pynoos RS, Layne CM, Steinberg AM, Aisenberg E. Trauma-and grief-focused intervention for adolescents exposed to community violence: results of a school-based screening and group treatment protocol. *Group Dynamics: Theory, Research, and Practice* 2001;5(4):291-303.
85. Smith P, Yule W, Perrin S, Tranah T, Dalgleish T, Clark D. Cognitive behavior therapy for PTSD in children and adolescents: a preliminary randomized controlled trial. *J Am Acad Child Adolesc Psychiatry*. 2007;46(8):1051-1061.

## American Academy of Child and Adolescent Psychiatry

86. Kazak AE, Alderfer MA, Streisand R, et al. Treatment of posttraumatic stress symptoms in adolescent survivors of childhood cancer and their families: a randomized clinical trial. *J Fam Psychol*. 2004;18(3):493-504.
87. Ahmad A, Sundelin-Wahlsten V. Applying EMDR on children with PTSD. *Eur Child Adolesc Psychiatry*. 2007. doi:10.1007/s00787-007-0646-8.
88. Lieberman AF, Ippen CG, Marans S. Psychodynamic treatment of child trauma. In: Foa EB, Friedman MJ, Keane T, Cohen JA, eds. *Effective Treatments for PTSD*. Second Edition. New York: Guilford Press; in press.
89. Lieberman AF, Ippen CG, Van Horn P. Child-parent psychotherapy: 6-month follow-up of a randomized controlled trial. *J Am Acad Child Adolesc Psychiatry*. 2006;45(8):913-918.
90. Lieberman AF, Compton NC, Van Horn P, Ippen CG. *Losing a Parent to Death in the Early Years: Guidelines for the Treatment of Traumatic Bereavement in Infancy and Early Childhood*. Washington, DC: Zero To Three Press; 2003.
91. Brady KT, Pearlstein T, Asnis GM, et al. Double-blind placebo-controlled study of the efficacy and safety of sertraline treatment of posttraumatic stress disorder. *JAMA*. 2000;283(14):545-554.
92. Davidson JRT, Malik ML, Sutherland SM. Response characteristics to antidepressants and placebo in posttraumatic stress disorder. *Int Clin Psychopharmacol*. 1996;12(6):291-296.
93. van der Kolk B, Dreyfuss D, Michaels M, et al. Fluoxetine in posttraumatic stress disorder. *J Clin Psychiatry*. 1994;55(12):517-522.
94. Cohen JA. Pharmacologic treatment of children. *Trauma Violence Abuse*. 2001;2(2):155-171.
95. Birmaher B, Ryan ND, Brent DA, Williamson DE, Kaufman J. Child and adolescent depression: a review of the last 10 years. Part II. *J Amer Acad Child Adolesc Psychiatry*. 1996;35(12):1575-1583.
96. Seedat S, Stein DJ, Ziervogel C, et al. Comparison of response to selective serotonin reuptake inhibitor in children, adolescents, and adults with PTSD. *J Child Adolesc Psychopharmacol*. 2002;12(1):37-46.
97. Yorbik O, Dikkatli S, Cansever A, Sohmen T. The efficacy of fluoxetine treatment in children and adolescents with posttraumatic stress disorder symptoms (Turkish). *Klinik Psikofarmakoloji Bulteni*. 2001;11:251-256.
98. Robb A, Cueva J, Sporn J, Yang R, Vanderburg D. Efficacy of sertraline in childhood posttraumatic stress disorder. In: *Scientific Proceedings*. Chicago, IL: American Academy of Child and Adolescent Psychiatry, 2008. Abstract P3.8.
99. Cohen JA, Mannarino AP, Perel JM, Staron V. A pilot randomized trial of combined trauma-focused CBT and sertraline for childhood PTSD symptoms. *J Am Acad Child Adolesc Psychiatry*. 2007;46(7):811-819.
100. Hammad TA. Results of the analysis of suicidality in pediatric trials of newer antidepressants. Presented at the U.S. Food and Drugs Administration Psychopharmacologic Drugs Advisory Committee and the Pediatric Advisory Committee; September 2004; Rockville, MD.
101. Mitka M. FDA alert on antidepressants for youth. *JAMA*. 2003;290(19):2534.

## American Academy of Child and Adolescent Psychiatry

102. Alarcón RD, Glover S, Boyer W, Balon R. Proposing an algorithm for the pharmacological management of posttraumatic stress disorder. *Ann Clin Psychiatry*. 2000;12(4):239-246.
103. Friedman MJ, Davidson JRT, Mellman TA, Southwick SM. Pharmacotherapy. In: EB Foa, TM Keane, MJ Friedman, eds. *Effective Treatment for PTSD*. New York, NY: Guilford; 2000:84-105.
104. Robert R, Blakeney PE, Villarreal C, Rosenberg L, Meyer WJ 3<sup>rd</sup>. Imipramine treatment in pediatric burn patients with symptoms of acute stress disorder: a pilot study. *J Am Acad Child Adolesc Psychiatry*. 1999;38(7):873-880.
105. Saxe G, Stoddard F, Courtney D, et al. Relationship between acute morphine and the course of PTSD in children with burns. *J Am Acad Child Adolesc Psychiatry*. 2001;40(10):915-921.
106. Horrigan JP, Barnhill LJ. Risperidone and PTSD in boys. *J Neuropsychiatry Clin Neurosci*. 1999;11:126-127.
107. Harmon RJ, Riggs PD. Clinical perspectives: clonidine for posttraumatic stress disorder in preschool children. *J Am Acad Child Adolesc Psychiatry*. 1996;35(9):1247-1249.
108. Perry BD. Neurobiological sequelae of childhood trauma: PTSD in children. In: MM Murburg ed. *Catecholamine Function in Posttraumatic Stress Disorder: Emerging Concepts*. Washington, DC: American Psychiatric Press; 1994:223-255.
109. De Bellis MD, Keshevan MS, Harenski KA. Case study: anterior cingulate N-acetylaspartate concentrations during treatment of a maltreated child with PTSD. *J Child Adolesc Psychopharmacol*. 2001;11:311-316.
110. Famularo R, Kinscherff R, Fenton T. Propranolol treatment for childhood posttraumatic stress disorder, acute type: a pilot study. *Am J Dis Child*. 1988;142(11):1244-1247.
111. American Academy of Child and Adolescent Psychiatry. Practice parameter for the assessment and treatment of children and adolescents with reactive attachment disorder of infancy and early childhood. *J Am Acad Child Adolesc Psychiatry*. 2005;44(11):1206-1219.
112. Cohen JA. Early mental health interventions for trauma and traumatic loss in children and adolescents. In: Litz BT, ed. *Early Interventions for Trauma and Traumatic Loss*. New York, NY: Guilford Press; 2004:131-146.
113. Chemtob CM, Nakashima JP, Hamada RS. Psychosocial intervention for postdisaster trauma symptoms in elementary school children: a controlled community field study. *Arch Pediatr Adolesc Med*. 2002;156(3):211-216.
114. Macy RD, Macy DJ, Gross S, Brighton P. *Save the Children Basic Training for the 9-Session CBI: A psychosocial trauma informed structured intervention for youth facing life threat and other extreme traumatic stress exposures*. Boston, MA: The Center for Trauma Psychology; 1999.

Abbreviated UCLA PTSD Reaction Index for DSM IV

Here is a list of 9 problems people sometimes have after very bad things happen. Think about your traumatic experience and circle one of the numbers (0, 1, 2, 3 or 4) that tells how often the problem happened to you **DURING THE PAST MONTH**. For example, 0 means not at all and 4 means almost every day.

1.	I get upset, afraid or sad when something makes me think about what happened.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
2.	I have upsetting thoughts or pictures of what happened come into my mind when I do not want them to.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
3.	I feel grouchy, or I am easily angered.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
4.	I try not to talk about, think about, or have feelings about what happened.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
5.	I have trouble going to sleep, or wake up often during the night.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
6.	I have trouble concentrating or paying attention.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
7.	I try to stay away from people, places, or things that make me remember what happened.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
8.	I have bad dreams, including dreams about what happened.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4
9.	I feel alone inside and not close to other people.	None <input type="checkbox"/> 0	Little <input type="checkbox"/> 1	Some <input type="checkbox"/> 2	Much <input type="checkbox"/> 3	Most <input type="checkbox"/> 4

© 2001 Robert S. Pynoos and Alan M. Steinberg