Identifying, Treating, and Referring Traumatized Children

The Role of Pediatric Providers

Judith A. Cohen, MD; Kelly J. Kelleher, MD; Anthony P. Mannarino, PhD

Objectives: To describe practical ways for pediatric providers to screen children for exposure to potentially traumatic events and trauma symptoms, provide brief office-based pediatric interventions for trauma-exposed children, engage families in mental health care referrals, and recognize elements of evidence-based practices for traumatized children.

Main Exposure: Many children exposed to potentially traumatic events develop severe and long-lasting negative somatic and psychological problems. Pediatric providers are often ideally situated to detect children with these symptoms, provide office-based interventions, and make referrals to optimal community treatment providers.

Main Outcome Measures: Several comprehensive literature reviews of evidence-based treatments for traumatized children conducted by other organizations were evaluated and summarized for their relevance to primary care pediatricians.

Results: Optimal pediatric screening and office-based interventions for traumatized children are described. Evidence-based practices for traumatized children are summarized and their common treatment elements extracted. Suggestions for engaging families in mental health care referrals are included.

Conclusions: Pediatric providers can identify and provide office-based interventions for traumatized children as well as play a critical role in referring children for optimal mental health treatments.

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Many children experience or are exposed to potentially traumatic events (PTEs) (those likely to lead to posttraumatic stress disorder [PTSD], ie, potentially threatening to life or physical safety and with responses involving intense fear, horror, or helplessness) such as child abuse, domestic violence, community violence, or deaths of a traumatic nature prior to reaching adulthood. Recent studies have found that up to 68% of all children experience serious PTEs, with more than half of these children experiencing multiple PTEs. At least 1 study documented that more than 90% of youth seen in a pediatric primary care clinic reported trauma exposure; of these, 25% met full or partial criteria for PTSD. The Adverse Childhood Experiences Study demonstrated that child abuse and other traumatic experiences during childhood confer significantly increased risk for many of the leading causes of early death in adulthood. Graham-Bermann and Seng documented the association between child trauma and increased prevalence of many common health problems such as asthma, allergy, headaches, and gastrointestinal tract disturbance. Seng et al also found associations of PTSD and significantly increased odds of a range of adverse health conditions in children from birth to age 18 years. Several other studies have confirmed the association of childhood trauma with negative outcomes, including increased risk for poor school performance, high health care use, substance abuse, suicide attempts, PTSD, and depression. Primary care pediatric providers can serve several critical roles in preventing these negative long-term sequelae.

First, children exposed to traumatic events are often reticent to discuss or disclose these experiences to others, particularly if the events are associated with secrecy or shame (for example, child abuse or domestic violence). Pediatric providers are trusted adults who most typically see children for routine and nonjudgmental reasons and present with calm, reassuring de-
screening for whether the response qualifies as a PTE as defined earlier (eg, the death of an aged pet, while very upsetting, would not usually qualify as traumatic). Because so many children are exposed to PTEs and it is not readily obvious which are at highest risk to develop symptoms, this question should be asked at all well-child care appointments. The pediatrician should use clinical judgment to evaluate whether traumatized children can display a broad array of emotional and behavioral symptoms, for the purpose of this article we focus on the prototypical emotional disorder associated with trauma, ie, PTSD. Screening is the early identification of conditions amenable to intervention. The criteria for screening in primary care are well articulated by the US Preventive Services Task Force and others. They include conditions that are common and cause significant morbidity, screening tests that are practical and accurate, and treatments that are effective and available, especially in the early stages when patients are screened. Exposure to significant trauma in childhood and adolescence meets these criteria. Although validated instruments are available to conduct thorough screens for exposure to PTEs that children encounter, these are too lengthy to administer in busy pediatric settings. Instead, pediatricians can ask a single question to assess such exposure, eg, “Since the last time I saw you, has anything really scary or upsetting happened to you or your family?” For children younger than 8 years, screening optimally relies on parent report, so the analogous question should be asked to parents, ie, “Since the last time I saw your child, has anything really scary or upsetting happened to your child or anyone in your family?” The pediatrician should use clinical judgment to evaluate whether the response qualifies as a PTE as defined earlier (eg, the death of an aged pet, while very upsetting, would not usually qualify as traumatic). Because so many children are exposed to PTEs and it is not readily obvious which are at highest risk to develop symptoms, this question should be asked at all well-child care appointments.

If a child has experienced any type of trauma exposure since the previous visit, a brief screen for PTSD symptoms can then be administered. For children older than 8 years, self-report on brief screening tests like the UCLA PTSD Reaction Index are reliable and easy to administer. A score of 20 on the 9-item UCLA PTSD Reaction Index can screen for whether PTSD is contributing to functional impairments in these domains. Third, pediatricians can provide office-based interventions such as education about the effect of trauma, the natural course of recovery, and information about optimal self-care for recovery. Fourth, pediatricians can provide ongoing monitoring of children with known trauma exposure to provide early detection of serious psychiatric symptoms and education about the benefits of mental health treatment. Finally, because only a very small percentage of traumatized children with significant psychiatric symptoms receive specialized care, pediatric providers are in a unique position to bridge the gap in needed services by impressing on parents the importance of seeking services for their children and by facilitating referrals to appropriate mental health care providers. This article describes the following: (1) practical steps for primary pediatric providers to quickly screen children for trauma exposure and symptoms; (2) office-based interventions that pediatricians can provide to educate families about the effect of trauma on children and to monitor for and mitigate the potentially negative sequelae of traumatic exposure; (3) a review of the research literature with regard to evidence-based treatments (EBTs) for traumatized children; and (4) common elements EBTs share that can assist pediatric providers and parents in selecting optimal mental health treatments and providers for traumatized children in their communities.

SCREENING CHILDREN FOR PTES AND PTSD

SYMPTOMS IN PEDIATRIC SETTINGS

Although traumatized children can display a broad array of emotional and behavioral symptoms, for the purpose of this article we focus on the prototypical emotional disorder associated with trauma, ie, PTSD. Screening is the early identification of conditions amenable to intervention. The criteria for screening in primary care are well articulated by the US Preventive Services Task Force and others. They include conditions that are common and cause significant morbidity, screening tests that are practical and accurate, and treatments that are effective and available, especially in the early stages when patients are screened. Exposure to significant trauma in childhood and adolescence meets these criteria. Although validated instruments are available to conduct thorough screens for exposure to PTEs that children encounter, these are too lengthy to administer in busy pediatric settings. Instead, pediatricians can ask a single question to assess such exposure, eg, “Since the last time I saw you, has anything really scary or upsetting happened to you or your family?” For children younger than 8 years, screening optimally relies on parent report, so the analogous question should be asked to parents, ie, “Since the last time I saw your child, has anything really scary or upsetting happened to your child or anyone in your family?” The pediatrician should use clinical judgment to evaluate whether the response qualifies as a PTE as defined earlier (eg, the death of an aged pet, while very upsetting, would not usually qualify as traumatic). Because so many children are exposed to PTEs and it is not readily obvious which are at highest risk to develop symptoms, this question should be asked at all well-child care appointments.

If a child has experienced any type of trauma exposure since the previous visit, a brief screen for PTSD symptoms can then be administered. For children older than 8 years, self-report on brief screening tests like the UCLA PTSD Reaction Index are reliable and easy to administer. A score of 20 on the 9-item UCLA PTSD Reaction Index (Figure 1) has a sensitivity of 0.93 and a specificity of 0.87 for detecting PTSD diagnosis. However, children with a score of 10 or higher should be considered to have clinically significant PTSD symptoms and offered a mental health care referral. For children younger than 8 years whose parents report that the children have experienced a PTE, the parents should be asked to complete the attached parent report form (Figure 2). For children who do not endorse symptoms at this time, pediatricians may monitor symptoms through the following question at subsequent visits: “Does (PTE) ever bother or upset you (your child) these days?” If the child or parent responds yes, the child or parent instrument can be administered again at that time. For additional information related to instruments that assess traumatized children, see the works by Carlson and Steinberg et al.

Figure 1. The abbreviated UCLA PTSD Reaction Index for the Diagnostic and Statistical Manual of Mental Disorders (Fourth Edition). Copyright Robert S. Pynoos, MD, and Alan M. Steinberg, PhD, 2001.

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

Disclosure of a PTE can be a crucial event for many children; the pediatrician’s response may have a large effect on how children and parents perceive the PTE and families’ responses to it, their hope for recovery, and whether families seek further intervention. Pediatricians can optimize children’s and parents’ responses and recovery trajectories in the following ways.

Providing education about PTEs (eg, the common nature of these events, that the pediatrician has seen many other children who have experienced this and recovered, common physical and emotional reactions) can help to normalize children’s and parents’ distress. Written information about common traumatic experiences is available at http://www.aap.org and http://www.aacap.org (Facts for Families). Educating families about PTSD or other symptoms children are experiencing is also helpful in this regard; detailed information about children’s trauma reactions is available at http://www.nctsn.org.14

Self-care is often overlooked in helping children and parents regain a sense of control after trauma exposure. Encouraging families to engage in healthy sleeping and eating patterns, recreation, and exercise and to obtain help from natural support systems (eg, extended family, faith and cultural communities) are all important strategies for reversing the negative effects of trauma. Children with PTSD symptoms have increased physiological and psychological arousal. Teaching children and parents to use simple relaxation techniques (eg, focused breathing and muscle relaxation provided in age-appropriate ways) is often very effective in reversing these symptoms.

Some children may not show initial symptoms or may have symptoms but be reticent to accept an initial referral to mental health services. Pediatricians serve a critical role in providing ongoing monitoring of PTSD symptoms over time as described earlier and providing education to families over time about the benefits of mental health treatment. Engaging families in such treatment may be a process rather than a single action of providing a referral. In these cases, the pediatrician’s ongoing monitoring and encouragement may be the deciding factor of whether a child receives effective treatment.

EFFECTIVE TREATMENTS FOR TRAUMATIZED CHILDREN

Not all treatments provided in community settings are equally effective in addressing the negative sequelae of childhood trauma. Evidence-based treatments are available to treat childhood PTSD and other trauma symptoms, and community health care providers are increasingly seeking training in these treatments. For example, 1 EBT for traumatized children recently offered free online training with continuing education credits; within the first 24 months of availability, more than 20 000 mental health care professionals registered to take this course (http://www.musc.edu/tfcbt).15

Several organizations have conducted systematic reviews of the empirical child trauma treatment literature, including the American Academy of Child and Adolescent Psychiatry,16 the Department of Justice,17 the International Society for Traumatic Stress Studies,18 the Substance Abuse and Mental Health Services Administration, and the Cochrane Collaboration.19 Based on the most recent reviews,16,18 the following section briefly describes treatment models with demonstrated efficacy in decreasing children’s PTSD symptoms in at least 1 randomized controlled treatment trial (RCT).

CHILD-PARENT PSYCHOTHERAPY

Child-Parent Psychotherapy20 is based on healing the effect of trauma in very young children through the parent-child relationship. It is designed for very young children (infancy through age 6 years) exposed to marital violence and their parents who were the direct victims. It focuses on decreasing maladaptive behaviors, supporting developmentally appropriate interactions, and assisting the child and parent in developing a joint trauma narrative. The child-parent interactions guide the Child-Parent Psychotherapy; the therapist actively interprets these interactions and assists in directing them in more positive, adaptative ways. Through child-parent interactions, the therapist helps the parent and child understand each other better, develop a more positive relationship, regulate affect and behavior, and readjust maladaptive interactions, beliefs, and behaviors. Child-Parent Psychotherapy addresses disruption of biological rhythms, fearfulness, dangerous behaviors, aggression, punitive and critical parenting, and the relationship with the perpetrator of the violence and/or absent parent. It is typically provided in home settings but may also be used in clinic settings. It is provided in Spanish and English, typically over 40 to 50 sessions. It has also been adapted for young children experiencing traumatic death. One RCT has been conducted with young children aged...
3 to 5 years whose mothers had experienced domestic violence. The population was primarily Latino and African American; mothers had also experienced a variety of other traumatic events. Children receiving Child-Parent Psychotherapy experienced greater improvement in PTSD and behavior symptoms than children receiving case management and individual therapy. Mothers in the Child-Parent Psychotherapy group also experienced significantly greater improvement in their personal PTSD avoidance symptoms.

**TRAUMA-FOCUSED COGNITIVE BEHAVIORAL THERAPY**

The core components of Trauma-Focused Cognitive Behavioral Therapy (TF-CBT) are summarized by the acronym PRACTICE. Psychoeducation is provided about the child’s trauma, the effect this event has on children and families, and the nature of the child’s symptoms. Parenting skills are provided to manage the child’s symptoms; parallel interventions for parents are included in all of the other components as well. Individualized relaxation skills are provided. Affective expression and modulation skills are provided to help the child with emotional dysregulation. Cognitive coping skills include recognizing the relationship among thoughts, feelings, and behaviors related to everyday upsetting events and to traumatic experiences. After children complete these early components, they develop a trauma narrative and cognitively process what happened during the traumatic experiences. In vivo mastery of trauma reminders includes differentiating between innocuous reminders and dangerous cues in the environment. Conjoint child-parent sessions are included, during which children and parents share the child’s trauma narrative and the focus is on improving family communication. Enhancing safety and future developmental trajectory focuses on safety planning and resilience.

Trauma-Focused Cognitive Behavioral Therapy is provided primarily in outpatient clinic settings but has also been provided in homes and foster homes, residential treatment facilities, and inpatient hospital settings. It is provided for children aged 3 through 17 years with adaptations for children of different developmental levels. Translations of TF-CBT treatment materials are available in Spanish, Dutch, and German; the model is being culturally adapted for African children affected by human immunodeficiency virus. Trauma-Focused Cognitive Behavioral Therapy is typically provided in 12 to 16 sessions.

Trauma-Focused Cognitive Behavioral Therapy has been tested in 6 RCTs for sexually abused and multiply traumatized children aged 3 through 17 years, in ongoing RCTs for children exposed to domestic violence and traumatic grief, in quasi-controlled studies for terrorism and disaster, and in open studies for traumatic grief. The completed studies have found that TF-CBT was superior to other active treatments for improving PTSD, depressive, shame, and behavioral problems in children and improving parenting skills, depression, and trauma-related distress in participating parents.

**COGNITIVE BEHAVIORAL INTERVENTIONS FOR TRAUMA IN SCHOOLS**

Cognitive behavioral interventions for trauma in schools (CBITS) uses PRACTICE components similar to TF-CBT, with the following differences: (1) CBITS is provided in a group format in schools so that all of the components other than the trauma narrative are provided in group sessions, and the trauma narrative is developed in an individual breakout session; (2) parents rarely participate in CBITS; (3) in groups, children gain the benefits of peer support, but there is little ability to adapt the CBITS model for the needs of an individual child; and (3) a teacher educational component is also provided. Cognitive behavioral interventions for trauma in schools is typically provided in 10 group sessions, with an additional individual breakout session for trauma narrative development. Because CBITS is provided in school settings, there are fewer barriers and less stigma associated with accessing this treatment than a clinic- or home-based treatment model. As a result, many children who would not otherwise receive any form of trauma-focused treatment can receive group-based CBITS in school settings. School-based screening (for example, after a communitywide traumatic event such as a disaster) further decreases the stigma associated with seeking treatment. This has been the experience of school-based trauma treatment providers after community disasters such as Hurricane Katrina, when both parents and schools gradually became more open to school-based mental health services such as CBITS being provided in their settings.

Cognitive behavioral interventions for trauma in schools has been tested in 1 RCT and 1 quasi-randomized trial for children experiencing community violence. The RCT demonstrated that sixth graders receiving CBITS experienced significantly greater improvement in PTSD and depressive symptoms than children in the waiting list condition. In the quasi-controlled study, Latino immigrant children in third through eighth grades receiving CBITS experienced significantly greater improvement in PTSD and depressive symptoms than children in a delayed start condition. Currently, CBITS and TF-CBT are being tested for children exposed to Hurricane Katrina to develop an algorithm for assigning children to the needed level of services after exposure to disaster.

**COGNITIVE-BASED COGNITIVE BEHAVIORAL THERAPY**

Cognitive-based cognitive behavioral therapy is similar to TF-CBT with the exception that it does not include a relaxation component or other specific anxiety management techniques. The affective modulation component is focused on activity scheduling and reclaiming life. There are specific focuses on integrating cognitive restructurings with relieving the trauma and on stimulus discrimination (differentiating dangerous from innocuous cues in the environment and mastering trauma reminders). This model was tested in a pilot RCT comparing cognitive-based cognitive behavioral therapy with a waiting list control condition for children exposed to...
single-incident traumas (motor vehicle crashes, assaults, or witnessing violence). Children receiving cognitive-based cognitive behavioral therapy experienced significantly greater improvement in PTSD, depression, anxiety, and adaptive functioning.27

BRIEF PSYCHOANALYTIC PSYCHOTHERAPY

Brief psychoanalytic psychotherapy was described in general terms in an article as individual therapy during which children were provided with play materials; sexual abuse–related topics to be addressed during therapy were listed in the brief psychoanalytic psychotherapy treatment manual. Topics arose as they occurred to the child, but the therapists and supervisors ensured that over the 30 sessions all of the topics were raised. The early sessions (typically the first 5) were the engagement phase; the next 15 sessions focused on issues identified as being relevant to the individual child; the final 10 sessions were focused on reworking of key topics as well as separation and treatment closure.28 Parents or other caregivers were also included in this model to address issues related to the child's sexual abuse, child protection, and/or the child's behavioral issues. This model was tested in 1 RCT. Children receiving up to 30 sessions of brief psychoanalytic psychotherapy experienced significantly greater improvement in PTSD symptoms than children receiving an average of 18 sessions of a group psychoeducation model.29

TREATMENTS THAT ARE LESS EFFECTIVE OR NOT RECOMMENDED

Most treatments that are provided to traumatized children have not yet been tested. However, some interventions have been found to be less effective, not effective, or harmful, including the following. Psychological debriefing encourages children to talk about the facts of what happened as well as their thoughts and feelings in this regard and then to reenter into the present. One RCT of psychological debriefing in children showed that it resulted in neither benefit nor harm.29 Nondirective play and other forms of nonstructured therapy that allow the child to predominantly direct the content of the session have been found to be less effective than trauma-focused treatments. Restrictive rebirthing or holding techniques that forcibly bind, restrict, coerce, or withhold food or water from children have resulted in some cases of death and are not recommended.30

REFERRING CHILDREN TO MENTAL HEALTH TREATMENT

Pediatric providers interested in referring a child to mental health treatment for trauma symptoms will note that the EBTs described earlier are diverse in terms of the developmental level of their target population, sites of delivery, duration, and conceptual basis. Despite these differences, these models and a number of other promising practices for traumatized children (described at http://www.nctsn.org) share several core components or features. Recognition of these common features, listed here, can provide guidance in selecting an optimal treatment or mental health care provider for a traumatized child. These elements can be remembered by the acronym DROPS, and optimal treatments for traumatized children have the following commonalities:

1. Developmentally and culturally sensitive, whereby treatments are adapted to be appropriate for the developmental level of children for whom the model is designed and adaptable for use with culturally diverse families.
2. Resilience based rather than deficit based.
3. Overcoming avoidance and mastering trauma reminders by encouraging children to talk directly about their traumatic experiences in therapy rather than waiting for the child to be ready to talk about trauma in treatment.
4. Parent inclusive, in recognition of the central role that parents have in children's development and recovery from adversity.
5. Skills and safety focused, to manage and regulate upsetting emotional states, help children regain adaptive functioning in important areas such as sleep and schoolwork if these are problematic, and plan for safety in the present and future.

In providing these interventions, optimal treatments provide a balance between focusing only on current observable symptoms (behavioral model) and focusing only on past or internal emotional experiences (psychodynamic model).

Choosing a particular treatment is the first step of the referral process. As noted earlier, engaging families and youth in the referral process is often a process rather than a single action; this process is critical because so few referrals to specialty mental health care are successful. Referral completion can be enhanced through prior communication with specialists about expectations and communication, case coordination to overcome transportation and other barriers for high-risk families, and tracking of participation jointly by primary care and specialty care clinicians. When possible, colocation of services in multispecialty settings may be ideal.

Screening and referral management both require office organization and preparation prior to patient visits. Offices that map out local resources with appropriate treatment, train office staff on tools and work flow around screening, education, monitoring, and referral, and provide materials that patients and families can see to encourage communication around these sensitive issues are more likely to successfully manage pediatric patients who have been exposed to trauma.

CONCLUSIONS

Pediatricians are ideally situated to manage the newly appreciated endemic of trauma-exposed children and adolescents with emotional and behavioral symptoms. However, their ability to do so will require careful planning and coordination with mental health specialists on- or off-site before the visits, knowledge of the rapidly growing evidence base about effective therapies, and careful use of screening, primary care interventions (eg, education about traumatic effect, the nature and course of PTSD symptoms, self-care strategies, relaxation techniques,
monitoring, engagement with mental health services), and referral processes.

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REFERENCES