Post-traumatic Stress Disorder in a Child Following an Automobile Accident

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A 3-year-old girl was diagnosed with post-traumatic stress disorder (PTSD) following a minor automobile accident. The child presented with nightmares, violent play, and trauma-specific fears. The common symptoms of PTSD in childhood are reviewed, and the importance of careful history-taking and prompt referral to a mental health professional are discussed.

Key words. Stress disorders, post-traumatic; child psychology; accidents, traffic.
J Fam Pract 1993; 63:223-225.

Post-traumatic stress disorder (PTSD) first appeared as a classification in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III-R).[1] The diagnostic criteria include: (1) the person has experienced an event that is outside the range of usual human experience and that would be markedly distressing to almost anyone, (2) the traumatic event is persistently reexperienced, (3) there is persistent avoidance of stimuli associated with the trauma or numbing of general responsiveness, (4) there are persistent symptoms of increased arousal, and (5) symptoms have been present for at least 1 month.[1]

Although PTSD is more commonly associated with Vietnam War veterans or kidnap victims, Pynoos[2] has identified several life stressors that can produce the disorder, as indicated in the table. A psychological assessment following trauma is seldom considered unless the trauma is very unusual or life-threatening, or unless psychological symptoms are very obvious or debilitating. The following report suggests that minor traumas in children can result in PTSD.

Case Report

The 3-year-old daughter of a recently immigrated Spanish-speaking family was riding with her father in their car and was buckled into her car seat in the right rear seat. As the father drove through a residential intersection, the car was struck on the left side by a large truck. The child was the first to see the truck approaching and screamed to her father, "Watch out!" but the father did not see the truck until impact. The left side of the car was destroyed, and the father sustained bruised ribs and a dislocated vertebra. The child was covered with shattered glass and debris but sustained no physical injuries and was therefore not evaluated medically at the time of the accident.

After the accident, the child experienced nightmares every 3 or 4 nights and would repeatedly scream "Watch out!" until she was awakened and consoled. In an awake state, the child would cry and tremble whenever she saw large trucks, cars, or motorcycles. She demonstrated reluctance to get into a car, especially when required to sit in the right rear seat. She would often tell her father to drive carefully. When a television program contained car chases or violence, the child would immediately ask her parents to change the channel. The parents also noted that the child's play was more violent: she would occasionally run at her 5-year-old sister and hit her repeatedly. She had never exhibited these behaviors prior to the accident. These symptoms had persisted for 28 days before the parents sought help. While reporting the patient's history, the child's father revealed that he too had nightmares and felt anxiety when driving.

It was explained to the family that the following symptoms are common in traumatized children: (1) strongly visualized or otherwise repeatedly perceived memories; (2) repetitive behaviors; (3) trauma-specific fears; and (4) changed attitudes about people, aspects of life, and the future.[3] To relieve these symptoms, the parents were advised to encourage the child to draw, talk about, or reenact the accident. With small trucks, cars,

Submitted, revised, October 16, 1992.

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ISSN 0094-3509

Stressors Resulting in Post-traumatic Stress Disorder in Children

- Kidnapping and hostage situations
- Exposure to violence, including terrorism, gang violence, sniper attacks, and war atrocities
- Witnessing rape, murder, and suicidal behavior
- Sexual or physical abuse
- Severe accidental injury, including burns and hit-and-run accidents
- Life-threatening illnesses and life-endangering medical procedures
- Train, airplane, ship, and automobile accidents
- Major disasters

From Pynoos.[2] Reprinted with permission.

and dolls, the child was first asked to re-create the accident as it happened, and then in the way she would have liked for it to have happened. After allowing the truck to hit the car a few times, she was encouraged to stop the truck before it hit the car, thus preventing the accident in play. The reenactment was to be repeated several times a day for 1 month. Because children at this age often believe that inanimate objects can take actions, the child was encouraged to hit, yell at, and blame the truck for the accident. The entire family, including the older sister, was asked to allow the child to express anger, but to redirect it toward inanimate objects.

The parents were also asked to avoid driving close to large or noisy vehicles. If vehicles startled the child, they were to cover her face and console her to diminish anxiety. The child's car seat was to be placed in the left rear seat to change stimulus conditions, and she was to be given a new doll or toy to help distract her while in the car. Her father was asked to drive slowly and carefully. At home, loud or violent television programs were to be avoided.

Follow-up telephone contacts were conducted 2 weeks and 7 weeks after the initial visit. The parents had been following the recommendations. After 2 weeks the child's symptoms had begun to diminish; by 7 weeks the parents considered the child to be almost fully recovered. The child's nightmares had decreased in frequency to less than once a week. She showed no noticeable violence toward her older sister. The parents noted that the child was much more calm while driving since moving her car seat to the left side of the rear seat. If symptoms were to recur, the parents were advised to reestablish the prescribed protocol and contact the consulting therapist.

Discussion

Physicians should be aware that PTSD can occur at any age and can result from a broad spectrum of traumatic experiences. What most physicians would regard as "relatively minor" trauma, such as an eye injury,[4] a single episode of sexual abuse,[5] or the aforementioned automobile accident, can produce emotional sequelae that may be just as disabling as those produced by experiencing wartime atrocities[6] or being buried alive in a school bus.[5]

Although a family physician may not be involved in the immediate treatment of one who has had a traumatic experience, he may be the first to detect emotional trauma. The most common symptoms of PTSD are described in an article by Terr.[3] According to Terr, children most often "re-see" their trauma during leisure times, when they are resting, daydreaming, or trying to fall asleep, rather than in nightmares or the characteristic "flashback" of adult PTSD. Furthermore, children engage in repetitive post-traumatic play that can consist of reenacting a specific aspect of the traumatic event or simply reenacting the violence they experienced, as in this case.

Children exhibit specific fears that are easier to identify if the traumatic event is known. However, when a child presents with intense fear toward specific objects, individuals, or situations, the physician should carefully obtain a thorough history, even if emotional trauma is not suspected initially. Even fear of mundane things such as the dark, strangers, being alone, being outside, food, animals, and vehicles should be investigated. Traumatic experiences can also change a child's attitudes about people, life, and the future. Most children possess a great deal of trust and optimism. Phrases such as "Mommy gets mad when I'm bad" or "Daddy can't always protect me" should alert physicians to the possibility of emotional trauma.

A study by Sharp et al[7] demonstrated that, although most family practice and pediatric residents provide opportunities for parents or children to voice their psychosocial concerns, the residents responded with information, reassurance, guidance, or referral only about 40% of the time. The parents in the case reported herein had never heard of PTSD, yet a simple intervention reduced the parents' anxiety regarding their daughter's condition and also helped the parents begin to abate the child's symptoms. Because the family spoke only Spanish, communication with the family presented a challenge to the interviewers, despite the senior author's fluency in Spanish. Without the advantage of this language experience, it is conceivable that poor communication may have delayed the resolution of the child's PTSD symptomatology.

The foregoing delineation of PTSD symptomatology in children provides a framework for physicians to organize their thinking about childhood trauma, and can help them avoid overlooking the condition. Studies have shown that the optimal time for intervention is during the first few weeks following the trauma.[8] The effects of emotional trauma in children can last for decades,[5] influencing the child's development of trust, initiative, interpersonal relations, self-esteem, and impulse control.[2] The symptoms can be effectively treated; and developmental difficulties can be avoided, if the child is promptly referred for appropriate therapy.

Conclusions

PTSD is more common in children than most physicians believe; therefore, the diagnosis often can be missed. Children being treated for "behavioral problems" may actually be suffering from PTSD. Physicians can prevent more serious sequelae that might otherwise interfere with psychosocial development if they are mindful of PTSD in children, elicit a careful history, take time to explain the disorder, refer the patient to an appropriate mental health professional as soon as possible, and take steps to ensure that the appointment with the mental health professional is kept.

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