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Acute Stress Disorder Common in Children and Parents After Traffic Accident

Philadelphia -- In 90 percent of families with children injured in a traffic crash, the child or a parent will suffer at least one significant acute stress symptom, according to a study at The Children's Hospital of Philadelphia. And 25 percent of children and parents experience more pervasive symptoms that warrant clinical attention. Nancy Kassam-Adams, Ph.D. and Flaura K. Winston, M.D., Ph.D., co-authors of the study in the June 2002 issue of *Pediatrics*, offer guidelines for assessing acute stress symptoms in children and parents.

"The study investigated the range of acute stress symptoms in children and their parents to enable pediatricians to better identify and address the psychological impact of injury," said Dr. Kassam-Adams, associate director of behavioral research, TraumaLink at Children's Hospital. "Evidence about the prevalence of these symptoms in injured children can help physicians distinguish between normal reactions to trauma and reactions that require further care and follow-up."

The study population included 97 children who were admitted to The Children's Hospital of Philadelphia for traffic related injuries between July 1999 and May 2000. The children had been injured in a traffic crash in which the child was a passenger, a pedestrian, or a bicyclist.

"A key component to assessing acute stress is that pediatricians understand how both parents and children respond to a child's injury," states Dr. Winston, director of TraumaLink. "It is normal for parents to be very distressed in the aftermath of a child's injury, yet parents' own acute stress symptoms may influence a child's response to the traumatic event."

Acute stress disorder is a group of symptoms and reactions that may occur within the first month after a traumatic experience. ASD symptoms include re-experiencing the trauma (unwanted and upsetting thoughts or memories), avoiding reminders of the trauma, hyperarousal (jumpiness), and dissociation (numbing, feelings of unreality).

Post-traumatic stress disorder (PTSD) is diagnosed when these symptoms persist for a long time (at least one month) and begin to impair the individual's everyday functioning. Prior research indicates that even children with minor injuries from a traffic crash are at risk for developing PTSD, say Dr. Kassam-Adams and Dr. Winston. For adults, ASD symptoms soon after a traumatic event are a warning sign for developing PTSD. However, there has been little research available for pediatricians about ASD symptoms and later PTSD in injured children.

The Children's Hospital researchers found that acute stress symptoms were common within the first month after injury. Among injured children and their parents, more than four-fifths experienced at least one significant acute stress symptom. About one quarter of children and parents experienced broad acute distress, reporting symptoms of dissociation, re-experiencing, avoidance, and hyper-arousal. Forty percent of the families were affected by these more pervasive acute stress symptoms, with the injured child, the parent, or both reporting broad distress. Symptoms did not always co-occur in both parent and child.

"We need to identify effective ways for health care providers to support distressed parents, so that parents in turn can most effectively help their child to cope with a traumatic injury," stated Dr. Kassam-Adams.

The research outlined in the *Pediatrics* article has immediate implications for clinical practice, particularly

regarding parent education and supportive care for families. The researchers offer these recommendations for pediatricians and other primary care providers treating a child who is injured in a traffic crash:

1. Routinely call the family several days and one to two weeks following the injury to ask about behavioral symptoms and family function.
2. Make use of the ongoing physician-patient relationship to explore acute stress symptoms and any functional impairment in the injured child. A brief office visit with the child and parents could serve this purpose.
3. Explore the effect of the child's injury on the family. Remember that parents can experience acute stress symptoms following pediatric traffic injuries and these symptoms may limit the parent's ability to support the child.
4. Provide supportive care and encourage families to discuss the crash and their current feelings.
5. Provide a referral for further assessment and psychological care when a child's (or parent's) acute stress symptoms last for more than one month or impair everyday functioning.

The study, funded by the Maternal and Child Health Bureau, is part of the Child and Adolescent Reactions to Injury and Trauma Research Program at TraumaLink, an interdisciplinary pediatric trauma research center at The Children's Hospital of Philadelphia.

The full study is at: <http://www.pediatrics.org/cgi/content/abstract/109/6/e90>

About The Children's Hospital of Philadelphia

Founded in 1855 as the nation's first pediatric hospital, The Children's Hospital is recognized today as one of the leading treatment and research facilities for children in the world. Through its longstanding commitment to providing exceptional patient care, training new generations of pediatric healthcare professionals and pioneering major research initiatives, Children's Hospital has fostered medical discoveries, innovations and breakthroughs that have benefited children worldwide.