

Acute Stress Disorder After Car Crash Often Overlooked

PHILADELPHIA, Nov. 7 - Acute stress disorder is a relatively common problem after a car accident involving children that is rarely addressed, investigators here reported.

They reported that for every 1,000 children involved in a traffic accident, 13 children and 35 parent drivers will have acute stress disorder symptoms, yet the problem often goes undiagnosed.

Reporting in the November issue of *Archives of Pediatrics and Adolescent Medicine*, the researchers found that an injury and receiving medical care for it were the two top significant independent predictors of acute stress disorder for children involved in a crash.

For parents, an injured child, medical care for the child, higher crash severity, Hispanic ethnicity, and an annual household income of less than \$40,000 were all significant independent predictors of acute stress disorder.

However, the investigators also found symptoms of acute stress disorder among children who had not sought medical treatment or had not been injured. Among the children who had acute stress disorder symptoms, 32% had not sought any medical care and 26.3% had not had any injuries.

"Until now, research on traumatic stress after crashes had only examined patient populations in hospitals or clinics," said Flaura Winston, M.D., Ph.D., a pediatrician at the Children's Hospital of Philadelphia. "In this study, we found that, although it's less common, traumatic stress can occur in children and their parents even if a child wasn't injured in a crash."

Given how common vehicle accidents are -- there are more than 1.5 million involving children in the U.S. every year -- there may be thousands of children and their parents struggling to cope with the aftermath of a vehicle accident, yet their symptoms go undetected, she said.

"The majority of these children, and their parents, are not diagnosed properly and do not receive the psychological care they need," Dr. Winston said.

Dr. Winston and her team conducted a cross-sectional telephone survey of parent drivers insured by State Farm and also asked about their children, who were between ages five and 15.

The sample used in the analysis included data on 1,091 crashes involving 1,482 children weighted to represent 24,376 children in 18,422 vehicle accidents. The data were collected in 2001 and 2002. The

vehicles involved were newer than the model year 1990. The median length of time between the date of the crash and the interview was six days.

To assess the presence of acute stress disorder symptoms, the parents were asked five questions to determine whether they or their children were experiencing symptoms of dissociation, re-experiencing the traumatic event, avoidance, restlessness, and impairment.

The children and parents were classified as having acute stress disorder if they responded "sometimes," or "often" to four of the five questions, a protocol based on the DSM-IV criteria. The questions ranged from "Since the accident do you feel spacey?" to "Since the accident, how often have you felt more restless, on edge, jumpy or easily started?"

Acute stress disorder was detected in 1.6% of the children (95% confidence interval, 0.9%-2.3%) and in 4.7% of the parents (95% CI, 4.0%-5.5%). More than 81% of the affected children and 75.5% of the parents reported that their symptoms were significant enough to interfere with their daily lives.

Children who had serious injuries had nearly a seven times greater risk for acute stress disorder than children without injuries (Odds ratio: 6.95; 95% CI, 0.93-52.14) .whereas children with minor injuries had almost a three times greater risk for the disorder (odds ratio: 2.92; 95% CI, 0.42-20.54). Medical care raised the risk to four times greater for children.

But a child didn't have to be injured or treated to be at psychological risk. "One in three symptomatic children did not seek medical care as a result of the crash and one in four symptomatic children did not sustain any injuries," the authors wrote. Because of this, it may be more difficult to screen and treat patients at psychological risk, the researchers added.

Among the parents, an injured child raised the risk for acute stress disorder by about four times (OR: 4.18, 95% CI: 1.37-12.77), medical care for the child increased the risk by 3.72 times (OR: 3.72; 95% CI: 1.41-9.76) , being Hispanic raised the risk by 3.8 times (OR: 3.80; 95% CI:1.38-10.44), an annual household income below \$40,000 was associated with a 5.68 times increased risk (OR: 5.68; 95% CI: 2.38-13.56) and having a non-drivable vehicle after the crash was associated with almost a four times greater risk (OR: 3.97; 95% CI: 1.54-10.26), the researchers reported.

This study did not look at uninsured drivers who may be expected to have a higher prevalence of lower

income, so the problem could be even greater, the investigators said. Other limitations include the use of a brief parent-reported assessment of acute traumatic stress reactions without child self-report, they said.

Action Points

Consider asking parents who have been in a traffic accident involving their children about any psychological traumatic stress reaction, for themselves or their children.

Note that acute stress disorder symptoms can persist in patients who did not suffer any injuries or require any medical treatment after the accident..

By Katrina Woznicki, MedPage Today Staff Writer
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