- Child psychiatry

Brain injury raises ADHD risk in children — and vice versa

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Children who suffer a traumatic brain injury are at nearly five times higher risk for attention-deficit hyperactivity disorder one year or more later, an analysis published Monday by JAMA Pediatrics found.

Among people age four to 18 who experience a severe brain injury, typically as a result of impact to the head that causes loss of consciousness, 36 percent develop ADHD after one year or more, the data showed.

About 16 percent of children who experience a traumatic brain injury (TBI) were diagnosed with ADHD before their brain injury, the researchers said.

About 11 percent of children are diagnosed with the mental health disorder, which leads to high levels of hyperactive and impulsive behaviors and problems focusing attention on a single task.

Less than 10 percent of children who do not suffer a TBI, develop ADHD later in life.

"TBI and ADHD are both independently associated with risk for unintentional injury, and once a child has had a TBI, they are at increased risk for a recurrence," study co-author Robert F. Asarnow told UPI in an email.

"Parents should review the circumstances under which their child incurred a TBI to identify what could be done to prevent injury in the future, including educating the child about how to avoid injury and wearing the appropriate protective gear," said Asarnow, a professor of psychiatry and biobehavioral science at the University of California-Los Angeles.

About 2.5 percent of children — or 2 million — in the United States will experience a TBI, typically as a result of an injury sustained during play or youth sports activities, based on recent estimates.

TBI is the most common cause of death and neurological disability among children worldwide, research suggests.

For this study, Asarnow and his colleagues reviewed data on TBI and ADHD from 24 studies that collectively included more than 12,000 children ages 4 to 18.

The risk for ADHD among children who experience mild or moderate TBI was not significantly higher than that of children who did not suffer a brain injury.

But children who had a severe TBI were nearly five times as likely to be diagnosed with ADHD less than one year later and up to seven times as likely to develop the disorder more than one year later, the data showed.

"There may be behavioral and psychosocial and medical issues that preceded the traumatic brain injury that need to be addressed to adequately treat a child's ADHD symptoms following a brain injury," Asarnow said.

Still, "ADHD following TBI can be treated with the same behavioral interventions — such as teaching children to pay active attention and to think, plan before they act — and medications that are used to treat ADHD in children without TBI," he said.