



'Concussion' underplays severity of injury: doctors

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Parents and doctors often underestimate the severity of concussions among children, Canadian researchers contend, and they think the best solution is to scrap the word and replace it with "mild traumatic brain injury."

CTV.ca News Staff

Carol DeMatteo, an occupational therapist and associate clinical professor in the School of Rehabilitation Science at **McMaster University** in Hamilton, Ont., says children diagnosed with concussions are treated differently from kids with other mild brain injuries.

In a study to be published in the February issue of the journal *Pediatrics*, she found that kids with concussions spend fewer days in hospital, and return to school sooner than kids with head injuries not diagnosed as concussion.

"Even children with quite serious injuries can be labelled as having a concussion," DeMatteo said in a news release.

"Concussion seems to be less alarming than 'mild brain injury' so it may be used to convey an injury that should have a good outcome, does not have structural brain damage and symptoms that will pass."

Despite the perception that concussions are benign, they are actually an injury to the brain that can leave patients with a severe headache, amnesia and sometimes a loss of consciousness. While most patients recover, concussions can have lasting effects. Some patients develop "post-concussion syndrome," a poorly understood complication that causes symptoms to last for weeks and sometimes months.

There also is evidence that people who've had multiple concussions, such as boxers and football players, can experience cumulative neurological damage. Some have even suggested that repeated concussion increases the risk of Alzheimer's disease and other dementias.

And yet, many patients, their parents, and even their doctors think of concussions as benign, found **DeMatteo, an associate member of the CanChild Centre for Childhood Disability Research at McMaster**. - see link on the BIAAC website for more information on CanChild Centre.

She decided to launch her research after hearing a parent say: "My child doesn't have a brain injury; he only has a concussion." The remark so struck her, she used the phrase to title her study.

For the research, DeMatteo and a team analyzed medical records for 341 children admitted over two years to McMaster Children's Hospital with traumatic brain injuries. Among the group, 300 children had a severity score recorded and, of that group, 32 per cent received a concussion diagnosis.

The researchers found that despite the severity of the injury, children with the concussion label were discharged earlier from hospital. They were also more than twice as likely to return to school sooner following hospital discharge.

"Our study suggests that if a child is given a diagnosis of a concussion, the family is less likely to consider it an actual injury to the brain," DeMatteo said.

"These children may be sent back to school or allowed to return to activity sooner, and maybe before they should. This puts them at greater risk for a second injury, poor school performance and wondering what is wrong with them."

DeMatteo points out that the other problem with the term "concussion" is that it can be vague. Concussions are usually diagnosed through symptoms since they are an "invisible injury"; a CT scan of the brain will typically find no abnormalities.

DeMatteo believes that using the term "mild traumatic brain injury" instead of "concussion" would help people understand that a concussion is an injury to the brain, not just the head.

She also thinks "concussion" should be scrapped for more specific descriptors of the injury, so that patients can better understand their injuries and doctors could accurately describe them.