Press Release Title: After a Concussion, Which Teens Will Have Emotional Symptoms?

Abstract Title: Clinical Correlates of Emotional Distress in Adolescents after Sports Concussion

Authors: Lisa M. Koehl, MS; Dong (Dan) Y. Han, PsyD, University of Kentucky in Lexington

Abstract: Sports concussion has become a widely developing area of study, with growing research regarding potential repercussions, symptoms, and treatment. Symptoms following concussion vary widely and include physical, emotional, and/or cognitive difficulties. While most concussed individuals become asymptomatic within one week, a number of factors including preexisting psychological issues, educational factors, cognitive reserve, and severity of injury may affect recovery course.

The literature suggests that age plays an important role in recovery, suggesting increased recovery time in adolescents up to 7-10 days longer than older athletes. Accordingly, identifying risk factors and exacerbating issues is important in adolescent populations.

Thirty-seven concussed adolescents age 12-17 with persisting concussion symptoms were assessed. Athletes were split into two groups: self-reported emotional symptoms (irritability/aggression, anxiety, depression, apathy, and/or labile mood; EMO, n=22) and a control group without emotional symptoms (CON, n=15). Groups were examined for differences between post-concussive symptoms and peri-concussive factors.

No differences between positive LOC, positive amnesia, or post-concussive criteria existed, indicating likely comparable severity. While there were no group differences for number of concussions, headaches, or nausea, those in EMO were significantly more likely to endorse photo-sensitivity (p=.003, F=10.155) and phono-sensitivity (p=.007, F=8.108). Both anxiety and irritability/aggression were significantly (p <.05) correlated with endorsement of attention difficulties (r =.332, r =.474, respectively). Family psychiatric history was not correlated with emotional difficulties post-concussion.

Results indicate that adolescents who self-report emotional difficulties following sports concussion are more likely to endorse some physical symptoms, particularly photo-sensitivity and...
phono-sensitivity. Those experiencing anxiety or irritability are also more likely to experience increased attentional difficulties.

Identifying such factors may assist with appropriate treatment planning, especially with return to play decisions and school accommodations.

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