

RESEARCH MATTERS

SUICIDAL IDEATION IN YOUTH WITH PERSISTENT POST CONCUSSIVE SYNDROME

INTRODUCTION

Adolescence is associated with higher rates of mental health challenges. The authors of this study reference research indicating that as many as 20% of adolescents will experience an episode of depression or anxiety by the age of 18. Adolescents who sustain a concussion are at even higher risk. When concussion symptoms last longer than one month (persistent post concussive syndrome (PPCS), youth are more likely to experience depression, anxiety, and thoughts of suicide.

Chrisman and colleagues (2021) describe a range of contributing factors to mental health challenges in youth with PPCS. One is related to the injury itself: the emotional processing center of the brain may have been affected. Other factors involve the youth's reaction to effects of their injury—for example, they may experience significant changes (e.g., not perform academically to their previous standard, become isolated from their peers; not be able to play their preferred sports) or may become anxious about suffering permanent brain injury. Some youth have pre-injury mental health concerns that are exacerbated by concussion.

STUDY OVERVIEW

Chrisman and colleagues evaluated the prevalence of and risk factors for depression, anxiety, thoughts of self-harm and suicidal ideation among 200 youth with PPCS and their parents. The adolescents averaged 14.7 years and were primarily white, female, from households with annual incomes greater than \$100,000. Approximately half had experienced more than one concussion. The parents were mostly mothers.

The pairs completed several questionnaires targeting: (1) demographics; (2) concussion history; (3) mental health, chronic pain history; (4) sleep quality; (5) youth trauma history; (6) parental trauma history; (7) depression; (8) anxiety; (9) thoughts of death/self-harm; (10) suicidal ideation.

STUDY FINDINGS – HIGHLIGHTS

- Adolescents with PPCS reported relatively high levels of emotional distress (i.e., depression, anxiety, thoughts of death/self-harm, suicidal ideation).
- A history of depression was the strongest predictor of emotional distress. Risk factors included female sex, older age, history of headache, nonwhite race, and Hispanic ethnicity.
- Better quality sleep was associated with lower risk of emotional distress.
- A history of multiple concussions was not significantly related to any type of emotional distress, contrary to findings from previous research

Next Steps – Authors Recommend:

- Mental health screening of youth with PPCS, particularly suicidality, creating a safety plan to address this concern
- Future research exploring in greater depth racial and ethnic differences among youth with PPCS
- Future research to better understand the role sleep plays in concussion recovery, with improved sleep quality as a potential intervention approach

REFERENCE

Chrisman, S. P., Whelan, B. M., Zatzick, D. F., Hilt, R. J., Wang, J., Marcynyszyn, L. A., ... & McCarty, C. A. (2021). Prevalence and risk factors for depression, anxiety and suicidal ideation in youth with persistent post-concussive symptoms (PPCS). *Brain injury*, 35(12-13), 1637-1644. <https://doi.org/10.1080/02699052.2021.2008490>