

# Race, ethnicity, sex influence role of concussion in suicide risk

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When examining the role of sport- or recreation-related concussion on

suicide risk among youth, race, ethnicity, and sex should be considered, according to a study published online July 1 in *JAMA Network Open*.

Shawn R. Eagle, Ph.D., from the University of Pittsburgh, and colleagues examined the associations of concussion history, [race](#) and ethnicity, and sex with reported suicide attempts among adolescents in a population-based cross-sectional study using data from U.S. Youth Risk Behavior Surveillance System survey respondents between 2017 and 2019. Data were included for 28,442 survey respondents. Two Chi-Square Automatic Interaction Detection (CHAID) decision tree models were built: suicide attempt with depression history (SA-DEP) and [suicide attempt](#) without depression history (SA-NO DEP).

The researchers identified a complex interaction between race, sex, and concussion history for attempting suicide using the CHAID decision trees, which differed by history of depression. Depression history was the variable most strongly associated with SA (adjusted odds ratio, 11.24); the variable most strongly associated with SA-DEP was concussion (risk ratio, 1.31). An increased risk for SA-DEP was seen for Black, Hispanic/Latino, or multiracial race and ethnicity compared with other races (risk ratio, 1.59). An increased risk for SA-NO DEP was seen for American Indian or Alaska Native, Black, and Hispanic/Latino race and ethnicity compared with the remaining population (risk ratio, 1.89).

"Clinicians should consider how concussion and depression may uniquely influence [suicide attempts](#) based on race and ethnicity and biological sex," the authors write.

**More information:** [Abstract/Full Text](#)

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