



The Relationship Between High School Student Athletes and Self Reported Mental Health Problems During COVID-19



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Introduction

- Mental health rates in the US have been rising, especially in Youth populations with 4 in 10 students reporting feelings of persistent sadness (CDC, 2024)
- Student athletes are considered at a high risk of developing certain mental health issues due to selective pressures related to high demand schedules, injuries, and burnout (Journal of Athletic Training, 2023)
- Some past studies suggest sports participation having a positive effect on mental health (Pyle, Rylee 2003) while some argue that athletes have a higher prevalence of eating disorders, sleep disorders, and risk-taking behaviors (Xanthopoulos, Mellisa S 2020)

Research Questions

- Are student athletes at a higher risk of developing mental health issues due to the specific selective pressures they are exposed to?
- Does this relationship change based on a persons Gender?

Methods

Measures

- Mental Health Status was evaluated with the question "During the COVID-19 pandemic, how often was your mental health not good?" Possible responses ranged from 1 (Never) to 5 (Always). This was put in a score, with a higher score indicating worse mental health
- Student athlete status was measured by if the student participated on a sports team or not.

Sample

- High school students grades 9-12 from a random sample of private, catholic, and public schools across 50 states were surveyed in the Adolescent Behaviors and Experiences Survey (ABES)
- 128 total schools were samples and 7,705 students participated

Results

Univariate

- 52% of respondents recorded playing on 0 sports teams
- 63% of students reported struggling with their mental health sometimes, most of the time, or always

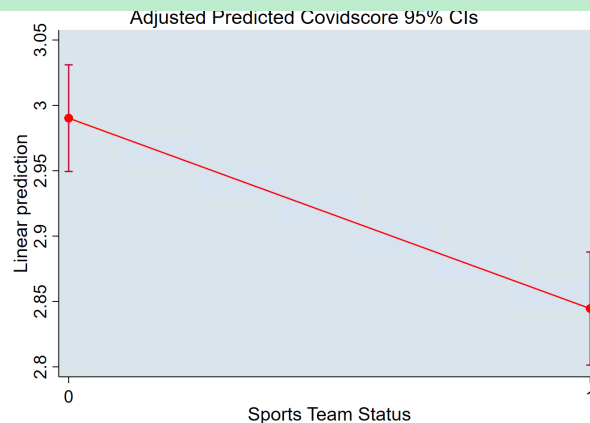


Figure 1: Predicted Mental Health Problem level by Sports Team Status

Bivariate

- The Chi-Square analysis showed a statistically significant relationship between mental health status and participation in sports teams with $\chi^2=28.4$ and $p<0.0$
- Those on sports teams had a higher percentage of people reporting to never, rarely, or sometimes struggle with their mental health while non-student athletes struggled most of the time or always

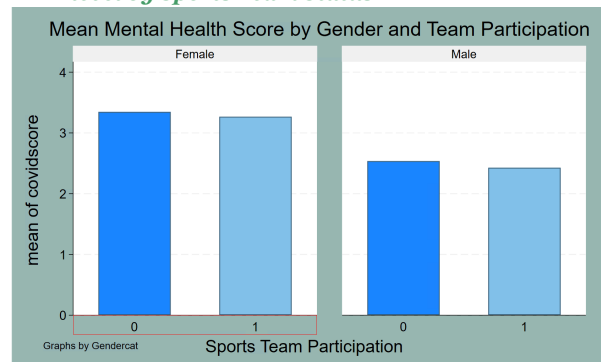


Figure 2: The Average mental health score across each gender and sports team status

Multivariate

- Linear regression showed that students athletes reported lower mental health problems by 0.146 points on average with a p-value<0.0
- When controlling for the third variable gender student athletes still reported lower mental health scores with $p<0.001$. There was also a significant difference between genders with males reporting 0.824 points lower on average (figure 2)

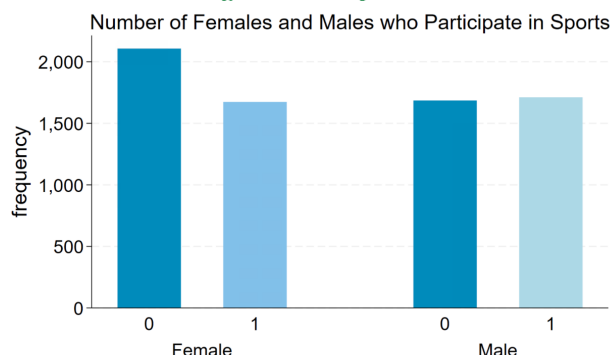


Figure 3: Number of Females and Males in our study who participate in sports

Discussion

- The study showed statistically significant data that High School Sports positively influenced students' mental health over COVID, which helps show us that in future crises it may be critical to allow students to continue their normal activities
- Gender was shown to have a stronger influence than Sports participation on mental health scores which could also be influenced by social/cultural stigma around mental health in males
- In addition there are a variety of other factors that play into mental health levels such as sleep, academics, social life

References

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