Physical activity generally predicts good physical and psychological health in adolescents; however, some types of physical activity may not be entirely beneficial. Research shows that sports team participation can increase adolescents’ risk for alcohol and smokeless tobacco use, while other exercise may be protective against alcohol, smoking, and smokeless tobacco use. Considering that adolescent substance use significantly increases the risk of adult lifetime substance use, studying substance use risk factors is an important area of research, particularly around a seemingly healthy activity like physical activity. Data derived from the 2010 Maryland Youth Tobacco Survey, conducted in middle and high school classrooms, were used to perform binary logistic regression analyses to explore predictors of substance use among a subsample of high school youth. Specifically, this study examined whether past year team sports participation, exercising for 60 minutes three or more days/week, sex, and socioeconomic status were predictors of current substance use by high school grade level. Results showed that both sports participation and exercise were associated with increased risk for binge drinking and smokeless tobacco use, whereas both activities were protective for smoking cigarettes. This study did not support previous findings of a differential effect between exercise and sports team participation.

**INTRODUCTION**

- Sports team participation and general exercise have been shown to affect adolescents’ substance use.
- Research has demonstrated that physical activity can be protective against substance use.
- General exercise and sports team participation are protective against cigarette smoking for both males and females in high school (Australind McGovern et al., 2012; Simantov et al., 2000; Terry-McElrath et al., 2011).
- High school students engaging in physical activity also tend to exhibit decreased levels of alcohol use and smokeless tobacco use (Terry-McElrath et al., 2011).
- However, other studies have found that exercise within organized sports teams does not always demonstrate the same protective effect for high school students.
- High school participating in athletic sports teams generally have reported increased levels of alcohol use, binge drinking, and smokeless tobacco use (Terry-McElrath et al., 2011).
- To help explicate the differential effects of exercise and sports team participation, the current study examined how exercise, sports team participation, sex, and socioeconomic status predicted current cigarette use, binge drinking, and smokeless tobacco use across high school grade levels.

**SAMPLE SELECTION**

**RESULTS**

**Table 1. Predictors of any smokeless tobacco use in the last 30 days**

| Table 2 | Predictors of any smoking in the last 30 days | Table 3 | Predictors of any smokeless tobacco use in the last 30 days |

**DISCUSSION**

- In general, sports team participation and exercise outside of team sports showed similar trends, as they were both associated with increased odds of drinking and smokeless tobacco use, but appeared protective for cigarette smoking.
- For 9th graders in particular, exercise was not associated with increased risk for substance use, and was protective for cigarette smoking.
- However, most of the effect sizes for these associations were negligible (.00 - .01) or weak (.10 - .20). The sample size was very large, so results should be interpreted with caution.

**REFERENCES**

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