Making the Connection: Health Risk Behaviors and Academic Grades

Data from the 2015 National Youth Risk Behavior Survey (YRBS) show that students with higher grades are less likely than their peers with lower grades to participate in certain risk behaviors. It is important to remember that these associations do not prove causation. School health professionals, school officials, and other decision makers can use this fact sheet to better understand the associations between grades and these behaviors, and they can use this information to develop and reinforce policies and practices that help those students who are at highest risk.

Key findings

Compared to students with lower grades, students with higher grades are

more likely to:

• Engage in physical activity for at least 60 minutes per day on at least 5 days.

less likely to:

• Currently use electronic vapor products.
• Be currently sexually active.
• Drink alcohol before the age of 13 years.
• Have ever used marijuana.
• Be involved in a physical fight.

Figure 1A Health Risk Behaviors, by type of academic grades earned - United States, Youth Risk Behavior Survey, 2015

Summary

52% of US high school students with mostly A’s were physically active for at least 60 minutes per day on 5 or more days (doing any kind of physical activity that increased their heart rate and made them breathe hard some of the time during the 7 days before the survey), compared to 38% of students with mostly D/F’s.

14% of US high school students with mostly A’s used electronic vapor products (such as e-cigarettes, e-cigars, e-pipes, vape pipes, vaping pens, e-hookahs, and hookah pens) on at least 1 day during the 30 days before the survey, compared to 45% of students with mostly D/F’s.

23% of US high school students with mostly A’s were currently sexually active (had sexual intercourse with at least one person during the 3 months before the survey), compared to 46% of students with mostly D/F’s.

*Figure 1A and Figure 1B illustrate the percentage of students who engaged in each risk behavior, by type of grades mostly earned in school (mostly A’s, B’s, C’s, D’s/F’s) (row proportions). The percentage of students who did not engage in each risk behavior are not shown. However, the percentages of students who did and did not engage in each risk behavior, by type of grades mostly earned in school, sum to 100%. Logistic regression analyses (not shown) controlling for sex, race/ethnicity, and grade in school confirmed a significant association between health risk behaviors and academic grades. You can also view data from other 2015 YRBS health risk variables.
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FIGURE 1B
Health Risk Behaviors, by type of academic grades earned
- United States, Youth Risk Behavior Survey, 2015

Summary

Drank alcohol before age 13 years
- 12% of US high school students with mostly A’s drank alcohol for the first time before the age of 13 years (other than a few sips), compared to 34% of students with mostly D/F’s.

Ever used marijuana
- 24% of US high school students with mostly A’s had used marijuana one or more times during their life, compared to 66% of students with mostly D/F’s.

Were in a physical fight
- 15% of US high school students with mostly A’s reported that they were involved in a physical fight at least once during the 12 months before the survey, compared to 45% of students with mostly D/F’s.

Conclusions

These results from the YRBS provide evidence of a significant association between academic grades and certain risk behaviors. Further research is warranted to determine whether higher grades in school lead to fewer risk behaviors, if fewer risk behaviors lead to higher grades, or if some other factors lead to these behaviors.

There is a close relationship between health and education. By working together, education and health agencies, parents and communities can ensure that students are healthy and ready to learn in school.

About the Data

The National YRBS monitors priority health-risk behaviors that contribute to the leading causes of death, disability, and social problems among youth and adults in the United States. It is conducted every 2 years during the spring and provides data representative of 9th through 12th grade students in public and private schools throughout the nation. In 2015, students completing the YRBS were asked, “During the past 12 months, how would you describe your grades in school?” and given seven response options (Mostly A’s, Mostly B’s, Mostly C’s, Mostly D’s, Mostly F’s, None of these grades, Not sure). In 2015, 32% of students received mostly A’s, 38% received mostly B’s, 20% received mostly C’s, 6% received mostly D’s or F’s, and 4% reported receiving none of these grades or not sure.

For more information, visit the CDC’s Healthy Youth website, or call 800-CDC-INFO (800-232-4636).

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