Levels of Risk, Protection and Drug Use in Schools Predict Students’ WASL Scores

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OVERVIEW

Research on youth development has identified risk factors (e.g., availability of drugs, lack of parental supervision, friends who use drugs) that increase the likelihood that young people will engage in drug use, and protective factors (e.g., supportive adult relationships, social skills, opportunities for involvement in organized activities in school and the community) that reduce the likelihood of drug use.

This study investigated relationships between the levels of risk and protective factors and drug use reported by students in middle and high schools in Washington State, and the academic achievement of students within those schools as measured by Washington Assessment of Student Learning (WASL) tests.

RESULTS

Substance Use:
Seventh and tenth grade students in schools with higher rates of alcohol, tobacco, and marijuana use are less likely to meet the standards on the mathematics, reading, and writing sections of the WASL (Figure 1).

Protective Factors:
Seventh and tenth grade students in schools where students report experiencing more protective factors are more likely to meet the standards on the mathematics, reading, and writing sections of the WASL (Figure 2).

Figure 1: Relationship between Prevalence of Past Month Alcohol Use in a School and the Probability a 10th Grader in that School Will Meet WASL Standards

Figure 2: Relationship between Average Number of Protective Factors Reported by 10th Graders in a School and the Probability a 10th Grader in that School Will Meet WASL Standards
RESULTS CONTINUED

Risk Factors:
Seventh and tenth grade students in schools where students report experiencing more risk factors are less likely to meet the standards on the mathematics, reading, and writing sections of the WASL (Figure 3).

We found that the levels of drug use, risk, and protection in a school building influenced WASL success above and beyond the influence of demographic and economic variables including students’ gender and race/ethnicity\(^1\), students’ special education status, the percentage of students in each building enrolled in the free and reduced lunch program, and district level total student enrollment and per pupil expenditures.

Figure 3: Relationship between Average Number of Risk Factors Reported by 10th Graders in a School and the Probability a 10th Grader in that School Will Meet WASL Standards

<table>
<thead>
<tr>
<th>Average Number of Risk Factors Reported</th>
<th>Probability of Meeting Standard</th>
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<tbody>
<tr>
<td>3</td>
<td>1.0</td>
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<tr>
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IMPLICATIONS FOR POLICY AND PRACTICE

The findings reported here suggest that:

- Reducing the prevalence of drug use in school populations will increase students' academic success.

- Reducing the levels of risk factors and increasing the levels of protective factors in school populations will increase students' academic success.

- Schools should implement tested, effective curricula for reducing risk and enhancing protection among their students.

- Schools should monitor levels of risk and protective factors experienced by their students, and work with community partners to reduce risk and enhance protection in all domains of students’ lives.

Data Notes

Linking student-level WASL data with school-level Healthy Youth Survey (HYS) data and district-level data resulted in analysis samples of N = 50,112, N = 50,116, and N = 50,108 7th grade students for mathematics, reading, and writing outcomes, respectively. This comprised the analysis samples for unconditional models. Inclusion of school characteristics reduced the analysis samples to N = 40,632, N = 40,638, and N = 40,637 7th grade students in 222 schools and 150 districts, for the three respective outcomes. These comprised the analysis samples for conditional models.

Linking student-level WASL data with school-level Healthy Youth Survey data and district-level data resulted in analysis samples of N = 46,887, N = 46,713, and N = 46,743 10th grade students for mathematics, reading, and writing outcomes, respectively. These comprised the analysis samples for unconditional models. Inclusion of school characteristics reduced the analysis samples to N = 41,556, N = 41,393, and N = 41,424, 10th grade students nested within 201 schools and 156 districts, respectively. These comprised the analysis samples for conditional models.

Data Notes

Linking student-level WASL data with school-level Healthy Youth Survey (HYS) data and district-level data resulted in analysis samples of N = 46,887, N = 46,713, and N = 46,743 10th grade students for mathematics, reading, and writing outcomes, respectively. These comprised the analysis samples for unconditional models. Inclusion of school characteristics reduced the analysis samples to N = 41,556, N = 41,393, and N = 41,424, 10th grade students nested within 201 schools and 156 districts, respectively. These comprised the analysis samples for conditional models.

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The full report is available on DASA’s web site Reports page located at: http://www1.dshs.wa.gov/dasa/services/research/reports.shtml.
More information on evidence-based practices can be found on the WestCAPT web site located at: http://captus.samhsa.gov/western/western.cfm.

\(^1\)Due to small samples in many schools, these controls were limited to White versus Nonwhite and Hispanic versus Non-Hispanic