Drug Use, Multiple Drug Use, and Other Risk Behaviors Among Middle School Students

1997 North Carolina Youth Risk Behavior Survey

The biennial Youth Risk Behavior Survey (YRBS) was developed by the Centers for Disease Control to monitor the prevalence of behaviors that contribute to the leading causes of morbidity, mortality, and social problems among youth in the United States (Kann et al., 1997). This report is based on self-report data from a sample of 2,384 public middle school students from across North Carolina who participated in the 1997 YRBS.

Drug Use

One of the purposes of the YRBS is to evaluate youth drug use. Several questions on the survey ask students about the use of various drugs including tobacco, alcohol, inhalants, marijuana, and cocaine. The table below reports the percentage of middle school students who reported trying each of those drugs. Overall, 36% of middle school students said they had never tried any of those drugs. Students who had tried drugs were most likely to have tried either alcohol or cigarettes. Within the 30 days prior to the survey, alcohol and cigarettes were also the most commonly used drugs.

<table>
<thead>
<tr>
<th>Drug</th>
<th>Students Who Have Ever Tried</th>
<th>Students Who Used In the Last 30 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alcohol</td>
<td>50%</td>
<td>24%</td>
</tr>
<tr>
<td>Cigarettes</td>
<td>42%</td>
<td>23%</td>
</tr>
<tr>
<td>Marijuana</td>
<td>20%</td>
<td>18%</td>
</tr>
<tr>
<td>Inhalants (glue, paint or spray cans)</td>
<td>18%</td>
<td>*</td>
</tr>
<tr>
<td>Smokeless tobacco</td>
<td>17%</td>
<td>*</td>
</tr>
<tr>
<td>Cocaine</td>
<td>6%</td>
<td>*</td>
</tr>
<tr>
<td>None of the above</td>
<td>36%</td>
<td>*</td>
</tr>
</tbody>
</table>

* For drug use in the last 30 days, students were only asked about alcohol, cigarettes, and marijuana.
Age at Which Students First Use Various Drugs

A common concern with drug use among young children is whether certain substances might serve as “gateway drugs”, leading to the use of other substances (Ellickson, Hays, & Bell, 1992; Lindsay & Rainey, 1997; Torabi, Bailey, & Majd-Jabbari, 1993). The 1997 YRBS middle school data suggest that first instances of smoking and alcohol use tend to occur at about the same time. Both smoking and alcohol use, however, tend to precede the onset of marijuana use. It is important to note that the data below do not show that smoking or alcohol use cause marijuana use; the data merely show that among students who use multiple drugs, the first incidences of smoking and alcohol use tend to occur earlier in students’ lives than the first incidence of marijuana use.

Age of Onset of Drug Use

Average (median) age when a student first:
- tries a cigarette: 11
- tries alcohol: 11
- tries marijuana: 12

Cigarettes and Alcohol

Among middle school students who reported that they had tried both cigarettes and alcohol:
- 34% tried alcohol first before trying cigarettes
- 30% tried cigarettes first before trying alcohol

Cigarettes and Marijuana

Among middle school students who reported that they had tried both cigarettes and marijuana:
- 53% tried cigarettes first before trying marijuana
- 14% tried marijuana first before trying cigarettes

Alcohol and Marijuana

Among middle school students who reported that they had tried both alcohol and marijuana:
- 53% tried alcohol first before trying marijuana
- 15% tried marijuana first before trying alcohol
Patterns of Multiple Drug Use

Research has shown that youth who abuse one drug are more likely to also abuse other drugs (Block & Goodman, 1978; Kaufman, 1976; Martin, Arria, Mezzich, & Bukstein, 1993). The YRBS also provides information that addresses this issue. The table below reports the percentage of middle school students who reported using multiple drugs (alcohol, cigarettes, and/or marijuana) within the past 30 days. Two-thirds of students reported that they did not use alcohol, cigarettes or marijuana in the past month. Over half (55%) of the students who reported having used any of those drugs, however, used more than one.

<table>
<thead>
<tr>
<th>Number Of Drugs</th>
<th>Students Who Used In The Last 30 Days</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of these drugs</td>
<td>67%</td>
</tr>
<tr>
<td>1</td>
<td>15%</td>
</tr>
<tr>
<td>2</td>
<td>10%</td>
</tr>
<tr>
<td>3</td>
<td>8%</td>
</tr>
</tbody>
</table>

The following data provide some information on the use of multiple specific drugs.

Cigarettes and Other Drugs

Compared to nonsmokers, middle school students who smoke cigarettes:
- are 13 times more likely to use marijuana
- are 9 times more likely to have tried cocaine
- are 6 times more likely to use alcohol
- are 3 times more likely to have tried inhalants

Alcohol and Other Drugs

Compared to nondrinkers, middle school students who drink alcohol:
- are 8 times more likely to use marijuana
- are 8 times more likely to have tried cocaine
- are 3 times more likely to have tried inhalants

Marijuana and Other Drugs

Compared to students who do not use marijuana, middle school students who do use marijuana:
- are 9 times more likely to have tried cocaine
- are 3 times more likely to have tried inhalants

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1 These co-occurrence data were calculated by dividing the percentage of smokers (or drinkers or marijuana users) who used a second drug by the percentage of non-smokers (or non-drinkers or non-marijuana users) who used that same drug. “Use” is defined as having used a particular drug at least once within the last 30 days.
Multiple Drug Use and Other Risk Behaviors

Previous studies have shown that the use of multiple drugs is associated with other undesirable factors, such as delinquency, suicidal thoughts, and general “risk-taking” personality traits (Adlaf & Smart, 1983; Smith, Schwartz, & Martin, 1989; Wright, 1985). The following charts based on YRBS data provide a descriptive look at some potential relationships between multiple drug use (alcohol, cigarettes, and/or marijuana within the last 30 days) and the prevalence of other risk behaviors among middle school students.

Vehicle Safety

Percentage of middle school students who reported “never” or “rarely” wearing a helmet while riding a bike or riding a skateboard/rollerblading:

Percentage of middle school students who reported that they “never” or “rarely” wear a seatbelt in a car, and percentage who reported that they had ridden in a car with a drinking driver:
Violence

Percentage of middle school students who have ever been in a fight, or been hurt in a fight:

Suicidal Behavior

Percentage of middle school students who have ever considered, planned, or attempted suicide:
Carrying Weapons

Percentage of middle school students who reported ever carrying a gun (other than for hunting) or other weapon, the percentage of students who have ever carried a gun to school, and the percentage of students who carried any type of weapon to school in the past month:

Self-Reported Achievement

Percentage of students who reported that they performed below the “C” level overall on their most recent report card:
Summary

Data from the 1997 Youth Risk Behavior Survey help to shed light on the nature of drug use among North Carolina middle school students. Specifically:

- For middle school students who have tried drugs, initiation of drug use occurred, on average, at about 11 years of age.

- Approximately 33% of middle school students used some drug at least once in the past month.

- Of those students who had used selected drugs in the past month, 55% reported using multiple drugs during that period.

- Multiple drug use appears to be associated with a variety of other risk behaviors, including less frequent use of helmets and seatbelts, fighting, riding with drinking drivers, suicidal behavior, carrying weapons, and low academic achievement.

Schools need to be aware that a student who uses drugs may also be engaging in a variety of other behaviors that may be detrimental to her/his health and development. Therefore, comprehensive intervention approaches may be needed for these students which focus not just on drug abuse, but on a range of behaviors in order to lessen their risk of becoming involved in dangerous and even life-threatening events.

This information on drug use among middle school students helps to quantify and reiterate an important point: Preventing drug use is a critical step in ensuring the health and well-being of children. The prevalence of multiple drug use among middle school students, the potential associations between multiple drug use and other risk behaviors, and the lower academic achievement seen among multiple drug users further reinforce the long-standing need for risk behavior prevention and intervention efforts targeting young children and adolescents.
References


