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School Prevention Program Effective With Youths at High Risk for Substance Use

Research
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By **Robert Mathias**, *NIDA NOTES* Staff Writer

Science-based drug abuse prevention programs designed for all students in the same middle school grade have significantly reduced early use of alcohol, tobacco, and other substances. The benefits of these programs persist through later grades, resulting in reductions in substance use through high school. Originally developed and tested among white students in suburban schools, such universal prevention programs subsequently have been shown to deter racially diverse, multiethnic students in urban schools from initiating substance abuse. Now, a NIDA-supported study has shown that the prevention effects of one such program extend not only to students who are initially at low or moderate risk of early drug abuse, but also to those at higher-than-average risk of initiating substance abuse.

The study found that Life Skills Training (LST), a thoroughly tested, school-based, universal prevention program, significantly reduced initiation of drug use among urban, minority middle school students who were doing poorly academically and had substance-abusing friends. Previous research has linked these academic and social factors to increased risk of subsequent substance abuse. Yet 1 year after the LST program, these high-risk youths reported lower rates of cigarette, alcohol, and inhalant use than a comparable group of nonparticipating students. Moreover, LST participants who reported using these substances used them in lower amounts than nonparticipants.

"This study shows that a school-based universal prevention program, like LST, can have substantial prevention effects for diverse youths, regardless of their level of risk for substance abuse," says Dr. Gilbert J. Botvin, who developed the LST program and directs the Institute of Prevention Research at Weill Medical College of Cornell University in New York City. This finding counters the prevailing notion that while universal programs are effective with broad groups of youths, more targeted and tailored interventions are needed for high-risk youths, Dr. Botvin says.



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In the study, Drs. Botvin and Kenneth W. Griffin, also of Cornell, tested the LST program's effectiveness in a controlled trial with minority, mostly African-American and Hispanic, inner-city students in 29 New York City schools. Schools were randomly assigned to receive either the LST program or the standard New York City substance abuse education curriculum. Regular classroom teachers delivered LST to participating 7th-graders in 15 sessions, each approximately 45 minutes long, that inculcated anti-drug norms and taught drug refusal, personal management, and general social skills.

After determining that the LST program substantially reduced early drug use among participants in the broad student population, the researchers focused on a subgroup of 426 students identified as being at higher-than-average risk of initiating substance abuse. These students had Cs or lower grades and friends who used both alcohol and tobacco. The study also identified and tracked a control group of 331 students with a similar high-risk profile.

Baseline assessments found no significant differences in substance abuse rates between the two groups prior to the intervention. Assessments conducted 1 year later found lower rates of smoking, drinking, and inhalant and polydrug (multiple substance) abuse among participants than were seen in students in the control group. For example, 22.1 percent of control students reported smoking in the past month, compared with 15 percent of students who participated in the LST program--almost a one-third reduction in the rate of smoking. Similarly, compared with controls, program participants had a 20.8 percent lower rate of drinking, a 21.1 percent lower rate of marijuana abuse, a 90.5 percent lower rate of inhalant use, and a 30.5 percent lower rate of polydrug abuse.

Just in from the 2003 Monitoring the Future study:

- Use of any illicit drug declined significantly for 8th- and 10th-graders, for the second year in a row.
- MDMA (ecstasy) use is down significantly among 8th-, 10th-, and 12th-graders.
- Marijuana use declined significantly among 8th-graders.
- Amphetamine and tranquilizer use are down among 10th- and 12th-graders
- Steroid use declined among 10th-graders.
- Heroin and crack use remained mostly stable, with some decline among 10th- graders.
- Lifetime cigarette use dropped in all three grades, and past-month use was down among 12th-graders.
- Alcohol use was unchanged in 2003, after declining in 2002.
- Increases in past-year inhalant use by 8th-graders signal a potential problem.
- Use of Vicodin, the illicit drug most used after marijuana, and Oxycontin are high enough to raise concern.

MTF is an annual survey conducted by the University of Michigan under a NIDA grant. Since its launch in 1975, the study has surveyed high school seniors; 8th- and 10th-graders were added in 1991. The 2003 sample includes 48,467 public and private school students from 392 schools.

Students who participated in the LST program also had lower scores than did

control students in composite measures of the frequency and quantity of smoking, drinking, and inhalant and polydrug abuse in the past month. Significant program impact on marijuana abuse was not found in composite measures or in rate of use 1 year after the program ended.

Additional research is needed to determine whether the initial prevention effects LST achieved in this study will lead to later reductions in more severe levels of drug abuse among high-risk youths, Dr. Botvin says. However, his past research has shown that LST's initial reductions in experimental substance abuse in general populations of students resulted in later reductions in pack-a-day cigarette smoking and polydrug use. A more recent study by Dr. Botvin extended this finding of LST's long-lasting prevention effects to the incidence of binge drinking (three or more drinks per episode) in later years among inner-city minority youths. "The proportion of binge drinkers was more than 50 percent lower in the intervention group than in the control group at both the 1-year (8th grade) and 2-year followup assessments," he notes.

"We are not saying that a universal prevention program eliminates the need for more targeted prevention and treatment programs down the line that meet the specific needs of high-risk kids who already have more severe drug and alcohol abuse problems," Dr. Botvin cautions. "Rather, we are saying that this body of research culminating in our study of high-risk students shows the utility of a universal prevention approach for reducing initial substance use across the board from lower to higher risk white and minority youths in suburban and inner-city schools. By doing that, you'll likely also reduce more severe levels of later drug involvement."

Prevention Program Reduces Substance Abuse Rates Among High-Risk Students

Substance	LST Participants	Control Group
Cigarettes	15%	22.1%
Alcohol	16.4	20.7
Marijuana	11.2	14.2
Inhalants	0.2	2.1
Polydrug*	12.6	19.7

* Past-month use of multiple substances.

One year after participating in the Life Skills Training program, urban minority students at high risk for substance use reported lower rates of past-month substance use than peers who did not participate in the program.

Sources

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[[Abstract](#)]

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