NIDA
NATIONAL INSTITUTE ON DRUG ABUSE

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NewsScan
NIDA ADDICTION RESEARCH NEWS

NEWS UPDATE

BACK TO SCHOOL ISSUE

Research News

School-Based Drug Prevention Program May Decrease HIV Risk Behavior in Young Adulthood

New research shows that Life Skills Training (LST), a school-based drug abuse prevention program, may decrease HIV risk behavior in young adulthood. LST combines social and personal skills such as decision-making, assertiveness, and goal-setting with drug resistance skills.

Dr. Kenneth Griffin and colleagues from Cornell University in New York examined long-term follow-up data from a large school-based drug prevention trial to measure its impact on young adult HIV risk behavior. Students randomized to the experimental group completed a 30-session drug prevention program in grades seven through nine. Self-report data were collected at five time points, with a 10-year follow-up.

The researchers found that students who received the drug abuse prevention program during junior high school were less likely to engage in HIV risk behavior as young adults. Moreover, participants that completed 60 percent or more of the prevention program showed significantly less alcohol and marijuana use over the course of adolescence, which, in turn, was associated with reductions in HIV risk behavior in young adulthood.

- **WHAT IT MEANS:** Early onset of substance abuse among adolescents has been found to be associated with later risky sexual behaviors and increased risk for HIV infection. School-based prevention programs such as LST are an effective way to reach youth prior to substance use and sexual behavior initiation. Because programs like LST target risk factors common to both drug abuse and HIV, these programs may not only delay and/or reduce substance abuse among youth, but they may also reduce subsequent HIV risk behavior in young adulthood.

This NIDA-funded study appeared in the March 2006 issue of *Prevention Science*.

Project Towards No Drug Abuse Associated With Long-Term Reduction in Abuse of Certain Drugs

A drug abuse prevention program with a social skills and decision-making curriculum may help reduce the use of cocaine, hallucinogens, stimulants, inhalants, steroids, and heroin 4–5 years later, but its effects on alcohol, cigarettes, and marijuana appear to be inconsequential.

During 1994–1999, almost 1,600 students from 21 alternative high schools (in which students are at particularly high risk for drug abuse) in Southern California participated in *Project Towards No Drug Abuse* (Project TND), a nine-session health motivation/social skills/decision-making course that targets abuse of cigarettes, alcohol, marijuana, and other drugs. The first three sessions motivate and teach effective listening skills; the next three sessions instruct students in drug addiction issues and alternative coping skills; and the final three sessions encourage making no-drug-use choices. One-third of the students acted as controls, one-third received classroom instruction based on the Project TND curriculum, and one-third received classroom instruction and participated in anti-drug activities sponsored by the school but outside the classroom. These activities included attending weekly meetings for six months, job training, sports participation, drug-free parties, and a drug awareness week. Banners proclaiming “Check it out. Drug-free event.” helped students maintain the drug-free focus.

The scientists assessed 30-day substance abuse at years 1–5 after program exposure (the scientists combined data from years 2–3 and from years 4–5 for middle and long-term follow-up, respectively). They observed a significant reduction in the abuse of cocaine, hallucinogens,

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stimulants, inhalants, steroids, and heroin among the program participants at the 1-year mark and at the 4–5 year follow-up, but not at follow-up years 2–3. Researchers are uncertain as to why the middle-term effect was not achieved. At 4–5 years after exposure to the program, participants who received classroom-only intervention had less than half of the 30-day use of cocaine, hallucinogens, stimulants, inhalants, steroids, and heroin compared with the control group, while those who received classroom plus extracurricular involvement showed about one-fifth the 30-day use of these drugs by the control group.

- **WHAT IT MEANS:** The *Project Towards No Drug Abuse* curriculum is associated with significant reductions in the abuse of cocaine, hallucinogens, stimulants, inhalants, steroids, and heroin 4–5 years after program participation. The researchers who conducted the study say it is the first program to demonstrate long-term self-reported behavioral effects on the use of such drugs among high-risk youth by using a school-based, limited session model.

Dr. Steven Sussman and his colleagues at the University of Southern California Keck School of Medicine, published their findings in the January 2006 issue of *Preventive Medicine*.

Risky Behaviors May Indicate Risk of Adolescent Depression

New findings from a NIDA-supported study that incorporates data from almost 19,000 teens show that girls and boys who exhibit high levels of risky behaviors have similar chances of developing symptoms of depression, while girls who engage in low and moderate levels of risky behaviors are significantly more likely than boys who engage in such behaviors to experience symptoms of depression.

Dr. Martha Waller, of the Pacific Institute for Research and Evaluation, and her colleagues provided new findings from teen interviews conducted as part of the National Longitudinal Study of Adolescent Health in 1995. The researchers clustered the teens into 16 groups according to their behaviors and correlated these behaviors with symptoms of depression. Groups included abstainers, who refrained from engaging in sexual activity and from using alcohol, tobacco, or other drugs; teens who engaged in low and moderate risk behaviors, such as experimenting with substance abuse or sex; and teens who engaged in high-risk behaviors, such as exchanging sex for drugs or money or abuse of intravenous drugs.

When abstaining girls were compared with risk-taking girls, the researchers observed that any risk activity, no matter how modest in degree, was associated with an increased risk of symptoms of depression. For example, girls who experimented with drugs and girls who experimented with tobacco and alcohol were more than twice as likely to have symptoms of depression as girls who abstained completely from substance abuse. Girls who experimented with sex were almost four times more likely to have such symptoms, while girls who used intravenous drugs were almost 18 times as likely to have symptoms of depression as girls who abstained completely. Among boys, most, but not all, risk profiles were associated with a greater likelihood of such symptoms, compared with abstainers. Boys who drank alcohol and boys who were binge drinkers were about two and one-half times more likely to experience symptoms of depression, while those who abused intravenous drugs were about six times as likely to have symptoms of depression as boys who abstained completely.

- **WHAT IT MEANS:** At high levels of substance abuse and sexual activity, teenage boys and girls show similar levels of depressive symptoms. However, at low and moderate levels of risky behavior, girls were more likely to become depressed than boys. If girls and boys abstain from such behaviors, their risk for depression does not significantly differ. These findings provide information for healthcare providers to consider as they screen, evaluate, and treat their young patients.

The study was published in the May 15, 2006 issue of the *Archives of Women's Mental Health*.

ADHD With Specific Co-Occurring Disorders Increases Risk for Drug Abuse in Adolescence

Some studies have suggested that childhood attention-deficit/hyperactivity disorder (ADHD) increases the risk of substance abuse in teenage and young adult years. Discrepancies among such studies prompted scientists to question which aspects of ADHD were actually predictive of later drug abuse. Now, results of a new study propose that children who have ADHD and a co-occurring condition, such as conduct disorder (CD) or oppositional defiant disorder (ODD), rather than ADHD alone are at increased risk of drug abuse during adolescence and early adulthood. CD is characterized by disruptive behaviors in children, marked by repetitive and persistent violations of the rights of others (i.e., physical aggression, verbal abuse, and destruction of property); ODD is characterized by disruptive behavior marked by a recurrent pattern of defiant, hostile, and disobedient behavior directed toward those in authority.

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In the new study, scientists reassessed a sample of children who had originally been screened from a community population of more than 7,000 children between the ages of seven and nine. At the time of the initial assessment 318 of these children screened positive for disruptive behavior and 205 were diagnosed with ADHD. These children, along with an age-matched group of controls, were re-assessed when they were between 11 and 15 years, and when they were between 12 and 16 years. The final assessment, when the children were between 17 and 19, consisted of 27 children who had ADHD only, 82 who had ADHD and another behavioral condition such as ODD, and 91 who served as controls. Some children had dropped out of the study during the intervening years and 30 were not considered for the analysis because they had internalizing disorders (e.g., depression or anxiety) that accompanied their ADHD.

The scientists found that increased rates of drug use (consisting of abuse or dependence) were found only in children where ADHD was present in conjunction with ODD or CD. Children with ADHD and ODD were more than three times as likely as their ADHD-only counterparts to have alcohol, marijuana, and multiple substance use disorders. Children with ADHD only had comparable rates of a drug use disorder compared with controls.

- **WHAT IT MEANS:** When ADHD co-occurs with a disorder such as ODD or CD, there appears to be an increased risk of substance abuse later in life. The early detection of such co-occurring disorders may be a useful indicator for identifying children who may benefit from targeted preventive interventions.

Dr. Gerald August and his colleagues at the University of Minnesota published their findings in the July 2006 issue of the *Journal of the American Academy of Child & Adolescent Psychiatry*.

Anti-drug Messages May Be More Effective When Delivered In Tandem with Classroom-Based Prevention Curriculums

According to new NIDA-funded research, antidrug messages and school-based drug prevention curriculums may yield optimal effects when delivered in tandem.

Researchers from RAND examined the effects of the National Youth Anti-Drug Media Campaign—a campaign designed to combat illegal drug use among American youth—and ALERT Plus, a classroom-based drug prevention curriculum for middle and high school students. A total of 4,015 middle and high school students were randomly assigned to one of three conditions—Project ALERT, a basic drug prevention curriculum for seventh and eighth graders; Project ALERT and ALERT Plus (booster lessons in the ninth and tenth grades); and a control group that received a preexisting curriculum and was not exposed to any part of the ALERT curriculum. All students completed a baseline and follow-up survey to measure marijuana use and exposure to the campaign message.

The scientists found that marijuana abuse in the past month was significantly less likely among ninth grade students receiving both the ALERT Plus curriculum and weekly exposure to the campaign's anti-drug messages. Neither ALERT Plus nor the campaign was found to have a substantial effect on marijuana abuse in the absence of the other. However, preliminary findings suggest that ALERT Plus alone may decrease marijuana abuse among high-risk ninth grade girls.

- **WHAT IT MEANS:** According to this study, antidrug messages may be most effective when delivered in tandem with classroom-based prevention lessons. Additional research is needed to better understand the synergistic effect between antidrug messages and classroom-based prevention curriculums.

Dr. Douglas Longshore and colleagues published these findings in the March 2006 issue of *Addictive Behaviors*.

Successful Youth Anti-Drug Media Campaign Focuses on Positive Messages

A NIDA-supported study has shown that a communications campaign that elicits positive attitudes about being independent and in control can significantly cut marijuana and alcohol abuse among adolescents when it is presented in school and in the community.

The study assessed data compiled over two years from 1,908 students from 32 middle schools in 16 communities nationwide (two schools per community). In half of the communities, students were exposed to a research-based prevention communications campaign in their schools titled "Be Under Your Own Influence." Students in these communities also were exposed to an area-wide communication effort (including posters, anti-drug events, and antidrug messages from local media). In the other eight communities (and 16 schools) there were no media programs of any kind. Half of all participating schools (both those with and without the media campaign) also offered students "All Stars," a substance abuse prevention curriculum.

Results showed that in the communities with the media program, only about half as many teens reported taking up alcohol or marijuana compared with teens that were not exposed to the program. Substance abuse was lowest in schools in which both the curriculum and the local media programs were in place.

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- **WHAT IT MEANS:** Despite some encouraging downward trends, substance abuse remains widespread among American adolescents. Messages that emphasize not using drugs as an expression of personal identity—such as the program theme "Be Under Your Own Influence"—delivered through a communications campaign that targets youth in school and in the community, appear to effectively influence substance abuse among adolescents.

The study, led by Dr. Michael Slater of Ohio State University, was published in the February 2006 issue of *Health Education Research*.

Meetings/Events of Interest

Latino Behavioral Health Institute
12th Annual Conference
September 19–21, 2006
Universal City Hilton & Towers
555 Universal Terrace Parkway
Universal City, CA
(*Visit NIDA's exhibit booth at the meeting.*)

American Academy of Family Physicians
Scientific Assembly
September 27–October 1, 2006
Washington Convention Center
801 Mount Vernon Place, NW
Washington, DC
(*Visit NIDA's exhibit booth at the meeting.*)

Seattle Blending Conference Scheduled

The Blending Conference—Blending Addiction Science & Practice: Bridges to the Future—will take place October 16–17 at the Washington State Convention & Trade Center in Seattle.

The two-day conference will bring together clinicians and researchers to examine cutting-edge scientific findings about drug abuse and addiction and their applications to clinical practice. It is designed to bridge the gap that exists between scientific research and clinical practice.

Conference topics will include:

- adolescent treatment;
- treatment of criminal justice populations;
- relevance of neuroscience and genetics to understanding and treating addiction; and
- cultural and gender issues in addiction treatment.

NIDA and the Washington and Oregon/Hawaii Nodes of the National Drug Abuse Treatment Clinical Trials Network (CTN) are among the meeting's many co-sponsors.

More information about the conference is available on NIDA's Web site at **www.drugabuse.gov**.

For more information about any item in this *NewsScan*:

- **Reporters**, call **Sara Rosario Wilson** at 301-443-6245.
- **Congressional staffers**, call **Geoffrey Laredo** at 301-594-6852.

The National Institute on Drug Abuse (NIDA) is a component of the National Institutes of Health, U.S. Department of Health and Human Services. NIDA supports most of the world's research on the health aspects of drug abuse and addiction. The Institute carries out a large variety of programs to ensure the rapid dissemination of research information and its implementation in policy and practice. Fact sheets on the health effects of drugs of abuse and other topics are available in English and Spanish. These fact sheets and further information on NIDA research and other activities can be found on the NIDA home page at **www.drugabuse.gov**.

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