

# ***Implementing a Comprehensive Drug Abuse Prevention Strategy***

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Schools can play a powerful role in preventing drug abuse. Research clearly shows that attachment to school and student participation in conventional activities and institutions (such as school or religious institutions) help protect young people, and reduce tobacco, alcohol and other drug use (Hawkins, Catalano Morrison, O'Donnell, Abbott, & Day, 1992). Research also shows that certain types of classroom-based prevention programs can produce at least modest reductions in student alcohol, tobacco and other drug use and abuse (Dusenbury & Falco, 1995).

Yet it is neither realistic nor fair to expect schools to prevent drug use all by themselves, and experts in prevention agree that prevention strategies should be comprehensive (Dusenbury, in press; Dusenbury & Falco, 1995). Prevention strategies that take place in a single setting (such as the school) are less likely to result in behaviors that apply to many different settings (like home). Drug use usually takes place away from school, though students may come to school intoxicated (Bosworth, personal communication, 1999). It is important, therefore, to equip students with a broad range of skills that can help them resist the influences of drugs in a variety of settings. Families and communities must be involved in a partnership with schools to optimize program effects, so that norms and skills learned in school are developed and reinforced at home and in other community settings. Ideally, prevention strategies should affect all of the settings in which young people spend their time.

Research suggests that some of the most effective drug abuse prevention programs take a broad-based, comprehensive approach (Hawkins, Catalano & Kent, 1991; Pentz, et al., 1989; 1990; Perry, et al., 1992; 1993) that include family, community and media interventions. Flynn and his colleagues (1994) report that media interventions presented in conjunction with a school-based curriculum had a stronger impact on smoking behavior than a school program in isolation. In addition, O'Donnell, Hawkins, Catalano, Abbott and Day (1995) argue that comprehensive programs are not only more likely to succeed, they are also likely to have multiple impacts. For example, studies by Hawkins and his colleagues al. (1991) and Zavela and her colleagues (1997) showed that a comprehensive program involving school and parent components reduced drug use over time and improved academic success.

The purpose of this chapter is to review what research has shown about the effectiveness of comprehensive drug abuse prevention strategies, and to propose steps teachers can take to make their prevention programs more comprehensive. Many effective prevention strategies such as Life Skills Training (see Chapter 4) depend on the development of personal and social competencies. Therefore, experts believe that programs should begin early in childhood, when competencies such as decision making, problem solving, goal setting, and communication skills are being established, and should continue across the life span, with programming in high school and beyond to provide follow-up and reinforcement (Dusenbury & Falco, 1995).

## **The Nature of Comprehensive Programs**

Prevention strategies should also be comprehensive in terms of outcomes. Research has shown that risk behaviors such as drug use, violence, premature sexual behavior, school failure and dropping out of school are strongly interrelated, and are also associated with many of the same underlying psychological and social risk factors (Botvin & Botvin, 1997). Comprehensive strategies which address many of these problem behaviors in the same program improve the efficiency of prevention programming by eliminating redundancy. Ultimately, improving the efficiency of a program increases the likelihood that schools facing competing demands for their time will be able to implement and institutionalize the program.

However, while comprehensive programming may be ideal, the reality in practice is that most school-based prevention programs focus primarily or exclusively on the classroom environment. Little or no effort is given to reinforce material outside the classroom (Drug Strategies, 1999). In addition, programs often focus exclusively on drug abuse, ignoring related risk behaviors such as academic failure or violence.

Further, prevention does not work in isolated doses. It must begin early and be repeated regularly. Yet most promising programs target middle school students, the group at highest risk in terms of initiation of alcohol and tobacco use; very few well-evaluated programs exist for preschool, kindergarten and elementary school children (Hall & Zigler, 1997). Most programs do not provide booster sessions to reinforce important prevention skills during high school or in college, when parental supervision diminishes and peer pressure greatly intensifies.

Many drug abuse prevention programs tend to be short, with fewer than 10 sessions in the first year, and fewer than five in the second year. Dr. Brian Flay (personal communication, 1994) observed, "Realistically, the interventions we are doing are puny compared to the myriad of other influences kids are exposed to that are ongoing." The brevity of drug abuse prevention interventions may help to explain recent findings that prevention effects decay over time (e.g., Bell, Ellickson & Harrison, 1993). Given the brevity of interventions, experts are not surprised that effects would decay (e.g., Flay, personal communication, 1994; Moskowitz, personal communication, 1994).

Comprehensive programs that are intensive and address multiple problem behaviors and/or affect multiple settings are needed. Rigorous evaluations of comprehensive drug abuse prevention strategies have been rare because it is difficult to conduct research on interventions that have many components and are conducted in many settings. However, three rigorous studies of comprehensive prevention approaches are reviewed below. These programs had promising outcomes in terms of reducing adolescent drug use. The findings from these studies would highlight the importance of a variety of intervention strategies for use in many settings.

### ***Project Northland***

Project Northland (Perry, et al., 1993) is a comprehensive prevention program designed to address both supply and demand issues related to alcohol use. Twenty communities in Northeastern Minnesota were randomly assigned to receive the prevention program or to a delayed intervention condition. Most schools in the delayed intervention condition were using DARE. The 10 school districts in the experimental condition received three years of a school-based intervention involving parents and the community. Sixth graders in the 1991-92 school year were the primary cohort of this study. However, students, parents, community leaders and merchants who sell alcohol were all targets of the study.

The primary intervention consisted of a classroom program with a strong peer leadership component as well as activities students completed at home with their parents. Home study guides were mailed directly to parents (Williams, et al., 1994). To facilitate effective communication between parents and children about alcohol, materials containing humorous characters were organized into booklets. Classroom projects helped students integrate the information covered in the family intervention.

Close to 100% (94-98%) of intervention students reported that they had participated in the home-based intervention. This was across risk groups, and is strikingly high in comparison to other studies with parent education programs.

A community-wide task force also was established. It included members from a cross-section of the community B local government and law enforcement, school and business representatives, health professionals, parents, clergy, concerned citizens, and teens. The task force successfully lobbied for the passage of a variety of alcohol-related ordinances and resolutions. For instance, this task force lobbied for an ordinance to improve responsible beverage service training in order to prevent sales to minors. The task force also instituted a gold card program that provided discounts at local businesses for those students who pledged to remain drug free.

Results at 3-year follow-up of 1,901 students who began the program in the 6th grade showed a reduction in tobacco and alcohol use of 27% compared to the control group. Tobacco use alone was reduced 37%, and marijuana use was reduced 50%. There was also a significant impact on perceived norms among students who did not drink at the beginning of the program (Perry et al., 1996).

### ***Seattle Social Development Project***

The Seattle Social Development Program was designed to prevent drug use and delinquency by promoting protective factors such as students' bonding to school and family. Bonding to positive institutions is associated with lower risk for problem behaviors. In addition, this program was designed to reduce risk factors such as early conduct disorders and rejection by peers.

In the first grade, children involved in the research study received the Interpersonal Cognitive Problem Solving curriculum developed by Shure and Spivack (1988). This program is designed to promote social competence by providing training in communication skills, decision-making, conflict resolution and negotiation.

Teachers also received training to promote the use of positive classroom management techniques, interactive teaching strategies, and cooperative learning techniques. In addition, parent education workshops were offered to promote positive family interaction as well as the development of positive habits in children. Parent workshops were voluntary, and 43% of parents attended at least one workshop. The parent component of this program is nationally available, and is called Preparing for the Drug Free Years.

The intervention was effective at reducing discipline problems among 2nd grade children who were low-achievers (Hawkins, Doueck & Lishner, 1988), as well as reducing aggression (Hawkins, Von Cleve & Catalano, 1991). By fifth grade, students who received the program had improved school success and demonstrated less failure, less aggressive behaviors, less delinquency, and less initiation of alcohol use (Hawkins, Catalano, Morrison, O'Donnell, Abbott, & Day, 1992).

### ***Project STAR***

Project STAR was a two-year program for sixth and seventh grade students that included a 10-session classroom curriculum with 10 homework assignments to involve parents and families. It also incorporated media strategies such as newspaper articles and television news stories about the project. Community agency leaders as well as school and local government administrators were involved in the intervention to institute policy changes.

Three evaluation studies of Project STAR have reported findings from the Midwestern Prevention project or “Kansas City Study” which took place in 15 Kansas City communities (Johnson et al., 1990; Pentz et al., 1989; 1990). In the first two years of the project, over 22,000 adolescents received the program. Results of the evaluation studies showed a significant reduction (at least 30% reduction) in drug use (including smoking, drinking and marijuana use) for the intervention students compared with the control at the one-year follow-up (Pentz et al., 1989). At three year follow-up differences for smoking and marijuana use were maintained, but not for alcohol (Pentz et al., 1990).

Johnson et al. (1990) were interested in whether the prevention program was more effective for high or low risk youth. They examined one panel of students from eight schools (n=1,607) who were tracked over a three-year period. Results showed a significant reduction in tobacco and marijuana use (not alcohol) across youth at different levels of risk.

Unpublished data indicate that reductions in drug use are maintained through high school and up to three years beyond high school. In addition, prevention programs appear to affect the use of other illicit drugs besides marijuana, particularly stimulants and cocaine. Most significantly, youth in the experimental condition are less likely to require treatment for drug abuse problems (Pentz, personal communication, 1994).

### **What Teachers Can Do to Make Prevention Strategies More Comprehensive**

Results of the three research projects described above suggest that there are a variety of strategies to be considered in developing a comprehensive prevention strategy – school curricula and classroom management techniques, as well as other school climate activities, family-based activities to increase positive parent-child communication, and community interventions, including task forces and media campaigns to change the larger environmental influences relative to alcohol, tobacco and other drugs.

Virtually no one would dispute the potential value of comprehensive prevention strategies. Nonetheless, it is reasonable to ask how a teacher can be expected to have an impact beyond the classroom. There are things schools and teachers can do to broaden the focus and impact of prevention interventions. The remainder of this chapter explores strategies teachers can use to provide the most comprehensive prevention strategy possible. These strategies include involving the family in prevention efforts and reinforcing material in the home, as well as affecting and involving the community. There are two general steps teachers can take: (1) implement the most promising comprehensive prevention strategies available and infuse important concepts and skills across subject areas and school settings, and (2) extend classroom concepts and activities to the home and community. Each of these steps is discussed below.

#### ***Step 1: Implement the most promising prevention strategy available and reinforce it across the school environment***

The field of drug abuse prevention is based on extensive research. It is not advisable for teachers and other school personnel to try to develop prevention curricula without extensive study and training. Anyone who develops a prevention curriculum should have a thorough

understanding of the critical ingredients of effective prevention programming. Specifically, the most effective drug abuse prevention curricula usually are based on normative expectance theory and social resistance theory (e.g., Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995; Hansen & Graham, 1991; Pentz, 1990; Perry et al., 1996). Programs based on normative expectancy theory promote anti-drug use norms. They teach students that most of the people they admire, including their peers, do not use drugs and do not think drug use is “cool.” They accomplish this by giving students accurate information about how many students use alcohol, tobacco or other drugs, emphasizing statistics that show that drug use is rare. These curricula provide teachers with training, so that they feel comfortable directing discussions about the acceptability of drug use, and eliciting information from students to show that most young people do not approve of drug use. They also use a variety of demonstration techniques, such as having students move to one side of the room or the other depending on whether they agree or disagree to various opinion statements about drugs, to show in a very concrete and public way where they “stand” on an issue. This serves to show young people that drug use is not approved of by most of their peers.

The most promising curricula also teach students how to effectively resist social influences by media and peers. This is done in a concrete, systematic way. Students learn about the kinds of influences and pressures they are likely to be exposed to, including media influences, and the subtle messages in advertising. They also learn skills for resisting peer pressure. In particular, they learn how to question messages they hear and say no to peers without losing friends. To do this effectively they learn explicit, step-by-step instructions and are given ample time to develop and practice this new skill inside and outside of class.

Some curricula (e.g., Botvin et al., 1995) go beyond normative education and social resistance skills training and also teach young people a variety of personal and social skills. Research with middle school students suggests that these curricula can enhance program effects (Botvin & Botvin, 1997). Curricula that provide students with effective training in decision-making, problem solving, stress management and social skills training in communication and assertiveness, can enhance program effects.

Normative education, social resistance skills training and personal and social skills training are best accomplished using interactive teaching techniques such as brainstorming, discussions, cooperative learning, games, role plays and behavioral rehearsal (Dusenbury & Falco, 1995). It is important that teachers receive training and are comfortable using these techniques and implementing the lessons as program developers intended.

Another feature of effective drug abuse prevention curricula is that they are developmentally appropriate. Developmental appropriateness is a complex issue, since students at the same grade level may or may not be ready for complicated interactions and complex reading material. Teachers need to make judgements about the types of activities that will be most appropriate for their particular class of students. In general, though, there are some important transitions during development that relate to the content of drug abuse prevention. For example, it is important that curricula designed for young adolescents recognize that students tend to be less concerned with the long term dangers of drug use, and more concerned with immediate consequences of their behavior, particularly the social consequences, since acceptance by peers is so important during young adolescence. The most promising curricula emphasize the short-term, negative, social consequences of use. For example, a curriculum might teach students that drinking alcohol or smoking marijuana can make a person act stupid and clumsy, and will give them bad breath and blood shot eyes, and that cigarettes make smokers’ clothes stink and gives them bad breath.

Unfortunately, rigorous research with elementary and high school students has been limited in the drug abuse prevention field, leaving many questions unanswered about which strategies are most effective for these populations. In the meantime, researchers believe that programs for elementary school students should focus on the basic skills they will need to make competent decisions and communicate effectively. In addition, in terms of information about drugs, curricula should teach young children about the dangers of drugs, including poison, and the importance of only taking medicine from an adult.

In the same way that curricula must be developmentally appropriate to be relevant and interesting to their target, they must also be culturally relevant. This raises a special challenge in our heterogeneous culture. While curricula can provide teachers with general guidelines and suggestions for how to tailor a curriculum to a specific geographical population (rural, urban, suburban) or ethnic group, the reality is that most classrooms are made up of a mix of ethnic backgrounds, and teachers must exercise their own judgment about how to make the curriculum relevant for their students. One of the best ways for teachers to do this may be to elicit as much information as they can from the class itself, and then use that information as the basis for discussion and skills training. A teacher might ask, "What are some situations in which you feel pressured to do things you don't want to do?" After eliciting a number of responses, ask, "What are some ways you think might help you resist doing these things?" In this way students help make the material and skills training personally relevant.

In the past five years, two major consumer guides to drug abuse prevention curricula have been published to help schools identify the most promising curricula (Drug Strategies, 1999; NIDA, 1997). These guides identify the most promising prevention programs available, based on their content as well as their evaluation results, and teachers should use these tools to identify the most promising programs. Even with these tools, however, teachers should preview curriculum materials carefully to judge for themselves how appropriate they are for their students, and whether they provide guidance that would be useful for their particular school on how to engage the family and the community.

There are approximately 50 packaged curricula available to schools (for purchase), to prevent drug use, but close to three-quarters of these have not been rigorously evaluated (Drug Strategies, 1999). The first question schools should ask before purchasing any of these nationally available curricula is whether the program has been shown in rigorous evaluation studies to reduce alcohol, tobacco and other drug use. Schools should insist on evaluations that used pretest-posttest, control group design studies with outcome measures of drug use behavior. Strong evaluation studies can be published in peer-reviewed, professional journals. Schools should be skeptical about a program when the program developer or distributor can only provide unpublished reports or summaries of evaluations.

The second question teachers or school administrators should ask before purchasing a program is whether it is sufficiently comprehensive. Programs vary in terms of the extra components they use to involve families and communities, and in terms of the problem behaviors addressed. For example, many packaged curricula provide suggestions for how to reinforce concepts or skills in other subject areas and settings, or are designed to address a combination of problem behaviors, including drug use as well as academic success, violence and teen pregnancy.

Some curricula also provide administrative guidance on how to coordinate prevention activities across subject areas and settings. Teachers or administrators might organize faculty meetings in which teachers work together to develop and implement an infusion plan. For example, if a curriculum used a structured, decision-making formula, teachers in various

subject areas could be encouraged to adopt that particular formula whenever they ask students to make a decision.

To create a general school climate that reinforces drug prevention concepts or skills, posters and artwork can be displayed to remind students about important points of a curriculum. Students also might perform skits or make presentations during assemblies to communicate important curriculum concepts.

### ***Step 2: Extend Prevention Activities to the Home and Community***

Teachers may have more direct access to parents than they do to the community at large. The research literature has identified the key elements of effective programs for families. Specifically, effective parent programs are based to varying degrees on Social Learning Theory (Bandura, 1977) which recognizes the importance of role models in shaping behavior, and Social Control Theory (Hirschi, 1969) which suggests that bonding or attachment to positive social groups or institutions (such as school) protects young people against drug abuse and delinquency (Kosterman, Hawkins, Spoth, Haggerty, & Zhu, 1997). They also are consistent with Bronfenbrenner's (1979) Human Ecology Theory (Olds, 1997) which stresses the role of social contexts (like the family) in determining behavior.

Consistent with an understanding of risk and protective factors, the most effective programs for families strive to promote positive relationships between parents and children (Bry & Slechta, in press) and help parents develop positive (anti-drug use) family norms. Increasing attachments to parents and bonding to the family is important. Young people will not care about the norms of the family if they do not have positive attachments to family members.

Some promising programs help parents teach their children how to resist influences to use drugs. They help parents develop communication and listening skills that are helpful when interacting with children or adolescents. Such skills can ultimately help parents create positive bonds with their children by reducing or resolving conflicts that commonly occur in families. They also train parents to use positive, consistent discipline techniques, and to monitor and supervise their children (Bry, personal communication, 1998; Catalano, personal communication, 1998). Many of these programs (e.g., St. Pierre et al. 1997) also create opportunities for families to be involved in positive alternative activities. However, during adolescence communication skills training may replace involvement because children become less interested in "hanging out" with their parents (Catalano, personal communication, 1998).

How can a teacher use this information? Teachers should assess the potential value of the programs they choose based on an understanding of the effective ingredients of parent programs. Classroom-based programs that include homework exercises to be completed with parents should address the following questions: Does this homework assignment promote parent-child communication? Does it help develop positive family norms? Are parents given information about how to reduce the risk that their children will use drugs, including tips on how to monitor and supervise their children?

There are a variety of ways prevention programs can be generalized to the home. For example, many curricula have students interview parents or other adults to learn about their attitudes and opinions about drug use. Other curricula ask parents to practice particular skills with students at home.

Some programs provide videos for parents, or provide materials for conducting training workshops or presentations with parents. These materials and activities should also be assessed for their potential value. The two guides to drug abuse prevention programs

mentioned above (Drug Strategies, 1999; NIDA, 1996) are also helpful in identifying promising school-based programs that include family components.

There are other ways to involve parents in effective drug prevention. While homework assignments may be one of the easiest ways, teachers also can ask parents to assist in the classroom or may decide to organize a workshop for parents. One of the greatest challenges with family based interventions is getting parents to participate. Research, however, has begun to identify effective strategies for maximizing parent participation (St. Pierre & Kaltreider, 1997; St. Pierre et al., 1997). Obviously, meetings should be scheduled at a time and place convenient to parents, and ideally refreshments and childcare should be provided. Meetings organized around student presentations or performances also appear to increase parent attendance.

There are also strategies teachers can use to extend prevention activities to the community, including community service projects conducted by whole classrooms or in small groups. These projects can reinforce personal and social skills training. Students practice decision-making, goal setting, problem solving, communication and social skills in conducting their projects. At the same time, they allow students to target needs in the community. For example, students might design a poster campaign to increase awareness in the community about the dangers of underage drinking. Teachers can also invite representatives of the community, such as police officers, health professionals, and local officials, to speak to the class about local issues related to drug use. These forums could be used as opportunities to develop a partnership between the school and the community. While launching the type of community task force described in the Project Northland study is probably beyond a teacher's call of duty, even a community task force may become a feasible objective when done as part of a class project.

## **Conclusion**

Research and common sense suggest that comprehensive approaches to drug abuse prevention are likely to be more effective than discrete programs that target a single setting and/or problem behavior. There are a variety of strategies teachers can use to make their prevention efforts as comprehensive as possible, and to extend their prevention strategies to settings outside of school. The first step is to use the most promising, comprehensive strategy appropriate for a particular school. The second step is to use homework assignments, community service projects and other strategies to reinforce skills developed in the classroom, at home, and in the community. Generalization of skills learned in school across all the settings where young people spend their time is critical if prevention is to be successful. Teachers increase the likelihood that prevention programs will be effective when they engage families and communities in their efforts.

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