

Literature Review: School-based Substance Abuse Interventions

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Definition: School-based substance abuse interventions include classroom-based activities and substance abuse counseling, designed for education, prevention, and treatment by focusing on environmental, community, and developmental factors.

Target Population: The target population for school-based interventions is adolescents, aged 12-18, in middle and high schools.

Description: The Bernalillo County Behavioral Health Business Plan (CPI, 2015) outlines the need to “expand school-based substance abuse intervention services in the high schools to ensure each school has at least one dedicated substance abuse therapist who works with students and parents/guardian’s providing treatment, education and prevention strategies for reducing the student’s substance use,” (Pg.4).

According to the CPI, Albuquerque Public Schools (APS) currently provide counseling services in 105 schools throughout the County, and 13 high-school drug-use prevention and intervention specific programs. Such programs require that students caught with drugs or using drugs on campus participate, along with a parent, in drug and alcohol education with an emphasis on family relationships.

Research Summary: This research summary focuses on school based substance abuse interventions, specifically in regards to best practices and evidence based models.

Of utmost importance is the recognition that no two schools are the same, and most likely have different needs and different resources. Intervention models have been found to be much more successful when being tailored to the given population. It is highly recommended that the needs of a given population be assessed prior to the selection of a model or program (Strein, 2012). Based upon the needs of the population, an appropriate model/program can be selected and implemented properly. Moreover, research suggests that utilizing several modalities of intervention conjunctively produce more successful outcomes (Das, 2016). The next several sections will outline some components of two evidence based modalities of interventions, including class-room based programs and substance abuse therapeutic approaches.

The National Institute on Drug Abuse (NIDA) outlines three core elements of school-based substance abuse interventions, they include structure, content and delivery.

Structure addresses program type, audience, and setting. Several program types have been shown to be effective in preventing drug abuse. School-based programs, the first to be fully developed and tested, have become the primary approach for reaching all children. Family-based programs have proven effective in reaching both children and their parents in a variety of settings. Media and computer technology programs are beginning to demonstrate effectiveness in reaching people at both community and individual levels.

Content is composed of information, skills development, methods, and services. Information can include facts about drugs and their effects, as well as drug laws and policies. For instance, in a family intervention, parents can receive drug education and information that reinforces what their children are learning about the harmful effects of drugs in their school prevention program. This opens opportunities for family discussions about the abuse of legal and illegal drugs. Drug information alone, however, has not been found to be effective in deterring drug abuse. Combining information with skills, methods, and services produces more effective results. Methods are geared toward change, such as establishing and enforcing rules on drug abuse in the schools, at home, and within the community. Services could include school counseling and assistance, peer counseling, family therapy, and health care. Parental monitoring and supervision can be enhanced with training on rule-setting; methods for monitoring child activities; praise for appropriate behavior; and moderate, consistent discipline that enforces family rules.

Delivery includes program selection or adaptation and implementation. During the selection process, communities try to match effective research-based programs to their community needs. Conducting a structured review of existing programs can help determine what gaps remain. This information can then be incorporated into the community plan, which guides the selection of new research-based programs. Adaptation involves shaping a program to fit the needs of a specific population in various settings. To meet community needs, scientists have adapted many research-based programs. For programs that have not yet been adapted in a research study, it is best to run the program as designed or include the core elements to ensure the most effective outcomes.

Additionally, NIDA outlines a total of 15 research-based prevention principles, three of which specifically speak to school-based programs. They include:

Principle 6: Prevention programs can be designed to intervene as early as preschool to address risk factors for drug abuse, such as aggressive behavior, poor social skills, and academic difficulties (Webster-Stratton 1998; Webster-Stratton et al. 2001).

Principle 7: Prevention programs for elementary school children should target improving academic and social-emotional learning to address risk factors for drug abuse, such as early aggression, academic failure, and school dropout. Education should focus on the following skills (Lalongo et al. 2001; Conduct Problems Prevention Work Group 2002b):

- Self-control;
- Emotional awareness;
- Communication;
- Social problem-solving; and
- Academic support, especially in reading

Principle 8: Prevention programs for middle or junior high and high school students should increase academic and social competence with the following skills (Botvin et al. 1995; Scheier et al. 1999):

- Study habits and academic support;
- Communication;
- Peer relationships;
- Self-efficacy and assertiveness;
- Drug resistance skills;
- Reinforcement of antidrug attitudes; and
- Strengthening of personal commitments against drug abuse

Listed below are several examples of school-based substance abuse programs that are on SAMHSA's National Registry of Evidence-based Programs and Practices (NREPP):

- All Stars (Middle-school)—All Stars is a curriculum designed to prevent/delay high-risk behaviors such as premature sexual activity, violence and drug use.
- Too Good for Drugs and Violence (TGFD & V) (High-School)—TGFD & V is designed to promote positive character traits, violence and drug-free norms, and pro-social skills.
- Botvin LifeSkills Training (LST) Program (Middle/High-School)—Developed by Dr. Gilbert J. Botvin, the program focuses on decreasing student risk factors and increasing protective factors in order to produce proximal outcomes (short term) and distal outcomes (long term). Clinical studies on middle school outcomes include cutting tobacco use by 87%, cutting alcohol use by 60%, cutting marijuana use by 75%, cutting methamphetamine use by 68%, and cutting polydrug use by 66%.
- Project ALERT (Middle/High-School)—Developed by the RAND Corporation, the program is a two-year core curriculum designed for 7th and 8th graders, consisting of 11 lessons to be taught once a week, plus 3 booster lessons to be delivered the following year. Demonstrated outcomes include a 60% decrease in current marijuana use, 20% reduction of highest-risk early drinkers, and a 24% lower alcohol misuse score.

- The Strengthening Families Program: For Parents and Youth (Middle/High-School)—Formerly known as the Iowa Strengthening Families Program, the program is delivered in 7 two hour sessions, attended by youth and their parents.
- Project Towards No Drug Abuse (Project TND) (High-School)—Designed to prevent the transition from drug use to drug abuse through considering the developmental issues faced by older teens.

In addition to class-room based programs, research suggests the utilization of substance abuse therapies as an effective tool for substance abuse interventions. Evidence-based approaches to substance abuse interventions include Cognitive-Behavioral Therapy (CBT), Contingency Management Interventions/Motivational Incentives (CM), Motivational Enhancement Therapy (MET), and Multidimensional Family Therapy (MDFT) (SAMHSA, NREPP)..

CBT focuses on changing one’s thinking in order to change one’s behavior. This includes developing coping strategies for cravings and avoiding high risk situations, and thinking about the consequences of continued drug use (SAMHSA, NREPP).

CM focuses on providing tangible rewards to reinforce positive behavior, such as abstinence. Incentive-based interventions are shown to be highly effective, especially with adolescents. Incentives can include something with monetary value, or be the removal of an implemented punishment, such as detention (SAMHSA, NREPP).

MET has been found to be especially useful for adolescents because it’s brief duration and targeting of motivation and readiness to change. Additionally, the counseling avoids direct persuasion and authoritarian/student roles, and is more like a partnership. The style is eliciting and draws on strategies to build commitment and behavioral change (SAMHSA, NREPP).

MDFT is primarily for adolescents and focuses on environmental and network influences, including the individual, community, family, and peers. Treatment sessions include family and individual sessions held in community locations, school, and/or at home. Individual sessions focus on developmental and vocal skills, like communication, decision-making, and problem solving (SAMHSA, NREPP).

Importantly, any intervention should be monitored and evaluated after implementation for quality improvement and for outcome measures. Evidence-based curricula often include validated and reliable instruments to assist in measuring outcomes. Similarly, substance abuse therapist and/or counselors should have means to measure the progress of the students during individual sessions. Schools also have standard operating procedures in measuring teacher and staff competencies and this should be tracked as well (Whitehurst, 2003).

In conclusion research has shown school-based substance abuse interventions to be an effective approach in preventing and treating substance abuse in the adolescent populations. Classroom-based programs and substance abuse therapies have both demonstrated positive outcomes and are both recommended in best practices literature. When used together, or in combination with an additional evidence-based treatment, research has found very positive outcomes. Research suggests this is due to the widening of the net and ability to target more students, while delivering a higher “dosage” of intervention.

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SAMHSA National Registry of Evidence-based Programs and Practices (NREPP)

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