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Suggested reading:

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Teen Substance Use

Research highlights components of effective school-based prevention programs

A review of research on school-based substance-abuse prevention programs suggests that interactive programs based on the social influence model are most effective, according to findings published in the journal *Addictive Behaviors*.

Pim Cuijpers of the Netherlands Institute of Mental Health and Addiction in Utrecht looked at three different types of studies of universal school-based prevention programs: 1) meta-analyses; 2) studies examining mediating variables; and 3) studies comparing prevention programs. From the results, Cuijpers compiled a set of characteristics of effective drug prevention programs.

Cuijpers reviewed three meta-analyses conducted since 1995 that examined a total of 289 studies of school-based drug prevention programs. The first study, by Tobler et al. (2000) analyzed 144 studies and found that the most effective programs employed interactive methods. Interactive programs provide contact and communications, opportunities for participants to exchange ideas and learn drug-refusal skills in a nonthreatening atmosphere. Most programs using interactive methods are based on the social influence approach to drug prevention which tries to prevent substance abuse by "inoculating" participants against social pressure to use drugs.

Less effective programs employed noninteractive approaches that focused on knowledge of substances, insight into personal feelings or problem-solving skills regarding drug use. Cuijpers reports that the mean standard effect size of interactive programs that use the social influence approach was 0.16, compared to an effect size of 0.03 for noninteractive programs.

A second meta-analysis by Rooney and Murray (1996) examined 90 tobacco use prevention programs. This analysis determined that programs with 10 or fewer sessions, programs that used an untrained same-aged peer as a leader, those distributed over a longer period of time, and those that focused on other substances and health issues in addition to tobacco were most effective. The third meta-analysis, of 55 programs by White and Pitts (1998), identified programs with booster sessions and those that were most intensive (10+ sessions) as effective; however, differences were not examined statistically.

Cuijpers also examined studies that evaluated the active ingredients of prevention programs, or mediators. Seven studies evaluating mediators were included. One of the most important mediators identified is the focus on a normative approach, including social prevalence knowledge, social acceptability knowledge, normative expectations, and friends' reactions to drug use. Other mediators that were found to be associated with effects of prevention progress included commitment not to use substance, intentions not to use, and increasing parent-child communication.

Resistance skills training, social skills training, improved self-esteem, and psychological well-being were not found to be significant mediators.

Cuijpers next looked at studies that compared program characteristics. Three components that were examined in three or more studies were included: type of leader (peer vs. adult), inclusion of booster sessions, and whether community intervention was included. Studies of booster sessions had mixed results, peer-led programs were found to be somewhat more effective than adult-led programs, and school-based programs were found to be significantly improved by the addition of community components, such as media campaigns, task forces, and parent interventions.

Author's conclusions

From reviewing the literature, Cuijpers concludes that effective school-based drug prevention programs:

1. Are based on well-designed scientific research.
2. Utilize interactive delivery methods instead of noninteractive methods.
3. Are based on the social influence model.
4. Focus on norms, commitment not to use, and intention not to use.
5. Include community interventions.
6. Employ peer leaders instead of or in combination with adult leaders.
7. May include life-skills training (although there is insufficient evidence that social skills training, self-esteem enhancement, or focus on psychological well-being make programs more effective).

Cuijpers P: Effective ingredients of school-based drug prevention programs: A systematic review. *Addictive Behaviors* 2002; 27:1009–1023, 2002. Correspondence to: Pim Cuijpers, Netherlands Institute of Mental Health and Addiction, Trimbos Institute, PO Box 725, 3500 AS Utrecht, The Netherlands.

Suggested reading:

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