The *NARCONON*™ drug abuse prevention program: A description of its school-based curriculum for high school students.

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Introduction

Illicit drug and alcohol use is a staggering problem in today's society. The annual *Monitoring the Future* study (Johnston, O'Malley, Bachman, & Schulenberg, 2006b) estimates that 13 million youths aged 12-17 become involved with alcohol, tobacco and other drugs annually. The resulting costs to society include poor and disruptive academic performance; delayed or damaged physical, cognitive, and emotional development, and a variety of other negative consequences. In a study of tenth grade students, Hays and Ellickson (1996) showed strong links between alcohol use and sociability, rebelliousness, and deviant behavior, including drug use other than alcohol.

For many youths, substance abuse precedes academic problems such as lower grades, higher truancy, lower expectations, and drop out decisions. In fact, the more a student uses cigarettes, alcohol, marijuana, cocaine and other drugs, the more likely they are to perform poorly in school, drop out (Dewey, 1999; Ellickson, McGuigan, Adams, Bell, & Hays, 1996) or not continue on to higher education (Johnston, O'Malley, & Bachman, 1999).

Animal studies suggest that teenage consumption of drugs and alcohol can alter normal brain development and associated learning and memory (De Bellis et al., 2000; Hall & Solowij, 1998) a dramatic impact that can occur with as little as two beers (Wuethrich, 2001). The same blood alcohol content of 0.08 percent more greatly impairs learning in individuals under 20 years than their older counterparts.(Acheson, Stein, & Swartzwelder, 1998; Wuethrich, 2001) Ecstasy use has been demonstrated to impair learning and memory for as long as two weeks after last use.(Bolla, McCann, & Ricaurte, 1998)

The remedies employed to address difficulties at school can add to the problem. Prescription drugs given to youths to address disruptive behaviors, which have increasingly been abused, can alter the brain and lead to dependence and addiction.(Boyd, McCabe, Cranford, & Young, 2007; Hertz & Knight, 2006) Volkow, et al., (1995) has demonstrated similar brain distribution and receptor binding sites between cocaine and Ritalin. The National Toxicology Program (NTP)

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Center for the Evaluation of Risks to Human Reproduction (CERHR) (2005) concludes that abuse of methylphenidate has the same physical and mental health risks as the abuse of any other stimulant.

Preventing or delaying initiation of alcohol or other drug use during early adolescence can reduce or prevent substance abuse and other risk behaviors later in adolescence and into adulthood.(Botvin, Baker, Dusenbury, Botvin, & Diaz, 1995; Chou et al., 1998; Hawkins, Catalano, Kosterman, Abbott, & Hill, 1999; Lonczak et al., 2001; Park et al., 2000; Spoth, Redmond, & Lepper, 1999) Therefore, governments, schools and social programs invest substantial resources in school and community based prevention programs.

Despite advancements in the science of effective prevention strategies, and slight declines in youth drug use reported in the most recent *Monitoring the Future* reports (Johnston et al., 2006b), the prevalence of substance use among young people in the U.S. remains high compared with the declining trend seen during the 1980's and ending in 1992 (Office of National Drug Control Policy (ONDCP), 2007). A study by the National Center on Addiction and Substance Abuse (CASA) at Columbia University (2006) indicates that the number of Americans who abuse controlled prescription drugs has nearly doubled from 7.8 million to 15.1 million from 1992 to 2003 and abuse among teens has more than tripled during that time. This underscores the need to make our anti-abuse efforts more effective than they generally are today – including, perhaps, emphasis on historically successful universal prevention actions. It is also important to better understand those factors responsible for the increasing levels of illicit drug use among youth since 1992.

Many experts agree that efforts to combat the myriad influences on youth behavior will be strengthened to the extent these efforts are reinforced across the various domains of the individual, schools, peers, communities, families and workplace.(Hawkins, Catalano, & Arthur, 2002; Spoth, Redmond, Trudeau, & Shin, 2002) The 14 prevention principles published by the National Institute on Drug Abuse (NIDA) (2003) also stress reinforcement across these various domains; specifically identifying work by Chou et al., (1998) and the importance of presenting consistent, community-wide messages.

The Center for Substance Abuse Prevention (CSAP) utilizes a prevention classification strategy based on six strategies described by Fisher and Harrison (2000) as: 1. Information Dissemination – characterized by one-way communication between and source and an audience, including audiovisual materials, displays, and publications as examples; 2. Education – which is based on knowledge-developing activities and interactions with the information and skills of a subject, such as decision making, refusal skills, assertiveness and making friends; 3. Alternatives – a strategy that develops youth activities, often with positive role models or to provide opportunities during after school hours; 4. Problem Identification and Referral – generally targeted to individuals engaged in risk behaviors; 5. Community-Based Processes – particularly the development of collaborations between different agencies and community groups; and 6. Environmental Approaches – the written and unwritten standards and codes of conduct of society, including laws as well as communicated values.

Hawkins and colleagues(Hawkins, Catalano, & Miller, 1992; Hawkins et al., 1997) have identified a series of risk factors and protective factors that are associated with increased probability of substance use and other antisocial behaviors. Bernat and Resnick (2006), analyzing data from the National Longitudinal Study of Adolescent Health (Add Health), a

nationally representative study launched in 1994 to explore the causes of health-related behaviors of adolescents in grades 7 through 12 and their outcomes in young adulthood, make a strong case that effective prevention increases youth competency and ability; increases youth connectedness to families, school, and communities; and provides roles for parents and caring adults in not only decreasing risk factors but also enhancing youth development and opportunities.

The hours and budget available for classroom-based universal programs are limited; therefore, prevention efforts must be efficient and effective in a number of areas. Generally speaking, classroom-based prevention programs can be expected to impart understanding of the materials and skills taught and reinforce anti-drug attitudes by accurately presenting substances, their risks, and sources of pro-drug influences in a way that consults each student's sense of reality. Such programs should increase students' ability to utilize what they have learned to make personal, informed decisions regarding their use of substances. Further, classroom-based programs should improve skills that will protect youths. Programs for adolescents should be mindful of behaviors marking the transition to adulthood including gaining peer acceptance, emulating adult behaviors, and the seeking of additional sensations and life experiences.

Taking these factors into account, classroom-based programs can help youths develop skills to accurately understand and communicate on the subject of addiction and drug use. This would include the ability to spot the negative affects drugs have on others, thereby potentially strengthening abstinence decisions; improving the ability to accurately recognize and resist pro-drug messages from many societal sources; and encouraging alternative activities based on personal interests – especially those appropriate in the school setting.

Historical context of the Narconon drug abuse prevention program

The Narconon drug abuse prevention curriculum described in detail in the following sections is a stand-alone, classroom-based, universal program designed for high school age students. Consistent with current theories on effective prevention, curriculum elements address a number of risk and protective factors in the etiology of substance abuse and addiction.

The current curriculum evolved during a 30-year history of interaction between Narconon drug prevention specialists and students, educators, scientists, former users who effectively addressed their addictions, and professionals trained in drug rehabilitation technologies including the Narconon drug rehabilitation methodologies based on the research and writings of L. Ron Hubbard.

In its early decades, the Narconon drug abuse prevention program was intended to supplement existing anti-abuse efforts by further illustrating materials covered in school curricula. Motivational speakers utilized a communication persuasion model that included the five component processes described by McGuire (1969): attention, comprehension, yielding, retention, and action. Narconon program developers also created interactive teaching strategies and incorporated activities into each presentation in line with details of the persuasion model described by Evans who stressed that individuals exposed to a message must be paying attention if communication is even to begin. Comprehension of the contents of the message is equally important.(Evans, Henderson, & Raines, 1979)

During this time, the Narconon network developed a series of age group-specific presentations, addressing changing drug use patterns and social influences. To create a consistent community message, the network also developed programs to train school peer leaders, teachers and parents.

It also developed after-school programs, programs for youth groups, programs for high risk youth, and a variety of multi-media teaching resources. According to program executives, Narconon staff have educated over 1.5 million school children.

As a quality management activity and for ongoing program development, Narconon drug education staff have routinely administered post-presentation student response surveys at the end of each session. Every student is surveyed, along with educators and other attendees. This practice has been in place since program inception and continues today. An evaluation of these post-program surveys, published in 1995, found that the supplemental format was engaging and that the information communicated was received and appreciated, and resulted in heightened perceptions of risk – including a shift in attitude among the borderline group of students who held the view that they might use drugs in the future. Eighty six percent of the students in this category stated that the session they had attended changed their mind; most stating that they were now more concerned about the effects of drugs or that they had not realized that drugs were so damaging.(Beckmann S & Chapman S, 1995)

In 2004, the Narconon network consulted its compiled survey data, in combination with best-practices data on school-based programs, some of which are described in the following sections. The network developed its supplemental sessions into an eight-module high school curriculum, with the opportunity for booster sessions in subsequent years.

An analysis of the Narconon drug education curriculum for high school grades

The Narconon prevention program's goal – to prevent and ultimately eliminate drug abuse in society – aligns with Office of National Drug Control Policy (ONDCP) (2007) goals and public health agenda. To meet these objectives, the Narconon drug prevention program utilizes a unique combination of prevention strategies. Primarily an education model based on social influence theory, its classroom-based curriculum has the objective of giving youth vital information and tools they will need to make their own decision to keep away from drugs.

Research on the etiology of drug abuse has lead to the recognition that social factors play a major role in the initiation and early stages of drug use. This suggests that to be effective, prevention programs targeting children and adolescents must influence social factors.(Botvin, 1996; Hawkins et al., 2002) The original research in this area was conducted by Evans and colleagues (1976; 1978) and focused on adolescent cigarette smoking. A major departure from previous approaches to tobacco, alcohol, and other drug abuse prevention, Evan's was the first approach to produce an impact on behavior. Although the centerpiece of Evan's approach – increased awareness of the various social pressures to smoke aimed at psychologically preparing (inoculating) students to resist these influences – has received less emphasis in today's prevention programs, it forms a core component of the Narconon approach. Several of Evans' other components have also been adapted and incorporated in current best-practice drug abuse prevention approaches, including techniques for effectively resisting social pressures; correcting the misconception that alcohol, tobacco and other drug use is a socially normative behavior; and information about the immediate physiological effects of substances.

According to Botvin and Botvin (1992; 1995), inclusion of information is a necessary component of substance abuse prevention, although information alone is not sufficient to reduce or prevent use. Paglia and Room (1998) recommend that programs intended for youth audiences emphasize short-term rather than long-term effects of drugs. The Narconon prevention program communicates science-based information regarding the nature, extent, and effect of substance

use, abuse, and addiction on individuals, families, and communities. The curriculum enables students to develop an understanding of the wide range of immediate and lasting effects drugs can have on the body and the relationship between physical health and mental health.

It is the aim of Narconon program developers to purposefully encourage students to arrive at their own conclusions regarding the data presented. This approach necessitates a reliance on realistic and unexaggerated information. This unique approach allows for a clear appraisal of the conflicting and often false drug messages youth are bombarded by, such as "alcohol and marijuana are 'soft' drugs whereas cocaine and heroin are 'hard drugs,'" or "prescribed medications are 'good' drugs whereas illicit drugs are 'bad.'" Jonas and others have argued that such illogical statements lead youth to feel that there are 'double standards' being applied throughout society.(Goodstadt, 1989; Jonas, 1992; Petosa, 1992) Jonas points out that student perception of such double standards can be a barrier to effective drug abuse prevention programming.

Recognizing from Narconon survey responses as well as scientific evidence (Bergeret, 1983; Goldberg, Bents, Bosworth, Trevisan, & Elliot, 1991) that unrealistic scare tactics are not appreciated by youth and often lead to mistrust of the facilitator, Narconon curriculum developers devised a means to address the fact that students may have previously heard false information. This is accomplished through an interactive (and often humorous) discussion about just how false information about drugs can get; a discussion intending to encourage youth reliance on data that can be observed to be true. The curriculum also alerts students to additional opportunities to observe both the effects of drugs and the nature of statements made about them (e.g., changed personality resulting from drug use, messages in the media, etc.).

Key psychosocial risk factors linked with initiating substance abuse include peer influences, family influences and media influences. According to the University of Michigan's *Monitoring the Future* study (Johnston et al., 2006b), two critical drug-related attitudes – perception of risk (how risky consumers view a particular drug) and perception of social disapproval (consumer appeal and acceptance of a particular drug) – move in correlation with consumption.

Considerable research now exists regarding the powerful influence media exerts on adolescent drug-taking behavior and its contribution to reduced perception of risk.(Brown & Witherspoon, 2002; McCool, Cameron, & Petrie, 2003; Strasburger, 2002) Sargent et al., (2006) has shown an association between exposure to movie alcohol use and early-onset teen drinking. Teens in the U.S. view an average of 2,000 beer and wine ads per year. In addition, television shows, movies, and music videos depict considerable amounts of alcohol consumption. The American Public Health Association (APHA) (1989) has made strong statements regarding the relationship between the perceptions created by media and marketing and the broad acceptance of alcohol and other drugs in our society. The Narconon program includes strategies to facilitate youth awareness of even subtle pro-alcohol, tobacco and other drug advertising and marketing, including demonstrations of positioning/product placement and hidden messages aimed directly at creating interest and reducing perception of risk among youths.

Recent work by Martino et al., (2006) shows that perceived approval or use of alcohol by parents, other important adults, and peers increased youth decisions to drink or get drunk. Oetting and Donnermeyer (1998) promote that norms for social behaviors and perception of risk, including drug use, are learned predominantly in the context of interactions with the primary socialization sources such as important adults, older youths and peers; important implications for

prevention programs. Rather than utilizing a traditional refusal skills component, the Narconon prevention program developers instead chose to address peer influences by fostering social competencies such as student communication and parental communication, and by correcting perception of norms.

The inclusion of participatory demonstrations and group discussions improve student communication skills and social bonding, also providing an environment where youth can clarify peer agreements regarding pro-social anti-social behaviors. Classroom discussions are aimed at correcting prevalence estimates, evaluative judgments, and perceived standards.

Parenting practices known to reduce the risk of teen drug use include parent-child discussions about drug use.(Hawkins et al., 2002; Stephenson, Quick, Atkinson, & Tschida, 2005) Intriguing work by Spoth et al., (2002), evaluating the combined effects of classroom-based and family prevention methods, shows that such combinations may result in greater reductions in drug use than class-room based alone. Narconon program developers included a take-home module that fosters communication with parents on the subject of drugs. The at-home activity is followed by a classroom discussion. Students are also encouraged to communicate with the facilitator on their achievements and any questions.

Results from Botvin's research (1996) has shown that the progression of drug use conformed exactly to the prevalence of each substance in society. Therefore, the Narconon curriculum emphasizes substances widely used in our society with particular attention to those available to youth. Thus, alcohol, tobacco, marijuana and club drugs are used throughout the curriculum to demonstrate various program concepts.

A final curriculum section employs a strategic review of emotions and sensation seeking. It addresses the fact that while drug use can create a false sense of positive emotion and excitement for a short period, over the long term it can leave the individual emotionally low and not as interested in personal goals. This provides a backdrop for examining the ways in which achieving one's goals creates positive emotions and happiness. At the end of this section, students work out doable steps that they can take over the next few months to work toward their real life goals and personal interests.

At the high school level, the program is delivered as a series of five to eight weekly lessons. Professional facilitators (or trained teachers) present a codified core curriculum that utilizes various presentations and media, student participation demonstrations, practicum sections, group discussion sections, work to be done with family members and intermittent review quizzes and essays that require reflection on the previous lessons. Using a lively and interactive format designed to increase students' ability to apply the information they receive, facilitators are trained to create an environment in which students may ask questions, discuss personal situations and actively participate. The presented curriculum is supported by teaching materials and a series of drug education videos or DVDs. All content is presented with age-appropriate vocabulary and style.

The Narconon network has created training materials to help the facilitator develop the ability to implement the program according to specific standards and maintain the fidelity of the program. These materials combine audiovisual support and lesson plans with quality management tools such as anonymous student questionnaires for each session and a facilitator's log sheet at the end of each session where the presenter can list any problems that occurred and the responses the

class gave. The Narconon network provides support and ongoing training based on feedback from these quality management tools.

Description of Individual Modules

Session 1: "Drugs and The Body"

The objective of this session is to relay the message that drugs and their metabolites are among the many lipophilic compounds that move from the bloodstream into a number of body tissues. Drugs and their metabolites can be retained for a period of time contributing to the accumulated body stores of toxins and causing unwanted health effects.

Although the phenomenon of drug disposition has been observed and characterized for half a century, starting with Axelrod's observations regarding LSD (1957). Less is known about exactly how long drugs store and subsequent effects on health.(Cecchini & LoPresti, 2007) The Narconon program emphasizes that misinformation exists in two key areas: 1. That elimination rates measured by drug urine testing often misrepresent drug metabolism and storage (Abernethy, Greenblatt, Divoll, & Shader, 1983); and 2. Compounds stored in tissues do not necessarily remain isolated, using the example that a release of low levels of drugs from body tissues into the bloodstream can cause a "flashback" experience (Niveau, 2002). The endocrine functions of adipose tissue regulate many bodily functions including emotional state, cravings and hunger, energy level and body metabolism, inflammatory response, and also modulate immune function. Not surprisingly, substance abusers exhibit disruption to these systems.(Crinnion, 2000; Miller, 2001)

This module uses marijuana as an example and illustrates work by Nahas(2001) and others showing rapid disposition of THC into lipid-rich tissues and subsequent re-release into the blood stream. Johansson et al., (1989) has measured THC residues in adipose for up to 4 weeks after last use, and sensitive assays can detect THC in blood and urine up to two months following discontinued use(Dackis, Pottash, Annitto, & Gold, 1982; Harvey, Leuschner, & Paton, 1982). Research by DeLaurentis et al., (1982), shows that THC accumulation in adipose of chronic users results in more-extended re-release kinetics by comparison with that following single use. Nahas' research indicates that very low blood THC levels – typically one percent of the ingested amount – correlates with the "pleasant sensory phenomenon" described by users, making possible the flashback phenomenon described by Niveau (2002).

The program developers believe that youths who value their health and mental acuity will avoid substances if they understand that it may require a much longer period for drugs or their metabolites to be fully cleared from the body than previously supposed, with consequent residual physical and psychological effects.

Take Home Assignment

A study by the Partnership for a Drug Free America (2004) reveals that the number of parents who report never talking with their child about drugs has doubled from 6 percent in 1998 to 12 percent in 2004. An assignment is sent home with students containing five questions regarding someone they know who has taken drugs. To encourage discussion of this assignment with their parents, students receive a take-home questionnaire with space where parents are asked to write their comments. This assignment is discussed as a group in Session 3.

Session 2: "What is a Drug?"

The objective of this session is to provide a definition of a drug and begin discussion of the physical effects of drugs. By the end of this session students should understand several generalizable adverse effects.

The presentation begins by examining the fact that it is human nature to become curious about things that aren't well known, especially when they are the topic of conversation, and is intended to address emerging curiosity about drugs. It provides a definition of "drug" as essentially a poison, further describing drug actions generalized to their biphasic, dose-related responses ranging from stimulation to depression to death.(Calabrese & Blain, 2005; Kaiser, 2003)

This module uses alcohol consumption to illustrate the biphasic dose-response common to many drugs and toxins (Calabrese & Baldwin, 2003) This session also discusses how medications, both licit and illicit, can affect nutrient status and lead to vitamin and/or mineral deficiencies (Brin & Roe, 1979; Hermann, 2007; Trovato, Nuhlicek, & Midtling, 1991), deficiencies that can exacerbate withdrawal symptoms (Cook, Hallwood, & Thomson, 1998) and adversely affect mood(Bourre, 2006). Using visual representation, the session describes the phenomenon of lowered emotional state as drugs wear off – that drugs may make you feel good for a short time but when they wear off the user crashes to a new low and introduces the concept of tolerance. Continued drug use furthers this dwindling spiral.

Session 3: Review

Session three is an assessment/review session including group discussion and practical activities to reinforce and clarify the previous two sessions. Student participation demonstrations cover topics including how drugs impede the electrical conductivity of the nerves and how drugs slow the person down permanently, changing their quality of life. The discussion period of this session involves a group discussion led by the presenter on the topic of the homework assignment that was assigned in session one. After this section there is a review quiz that is related to the information that was given in the first two sessions.

Session 4: "Ecstasy – The Real Story"

The objective of this session is increased awareness of the many ways drugs are promoted to youths, exposing sources that stand to gain financially from promotional messages and replacing those messages with pro-survival social norms. The session also provides information about the effects of drugs on the mind, using Ecstasy as an example.

A ten-year review of research literature by Villani (2001) shows a strong relationship regarding the impact of media exposure among children on the behaviors they learn and their value systems. This session begins by explaining the use of positioning and product placement to increase product sales. Dartmouth College business researchers Keller, Sternthal, and Tybout (2002) describe the need to communicate to consumers a goal they want and can expect to achieve by using a brand as a key necessity of brand positioning and effective promotion. According to an analysis of tobacco industry market research by Anderson et al., (2005) cigarette advertising campaigns were explicitly designed to position cigarettes as capable of satisfying various psychosocial needs; needs that changed with age from camaraderie, self confidence, freedom, and independence; to needs for pleasure, relaxation, social acceptability, and escape from daily stresses. Such associations form a common marketing approach to creating "want" for a specific product.

In this module, group discussion identifies recent examples where alcohol, tobacco, and other drugs were advertised in movies using the strategy of positioning. Using Ecstasy as an example, the balance of the session discusses media glamorization and the rise in club drugs while covering certain adverse effects that are unique to these substances, including immediate toxic reactions and severe sequelae, common emotional and cognitive after effects, and potential for long term nervous system damage of depression.(Baylen & Rosenberg, 2006; Schifano, 2000; Teter & Guthrie, 2001)

Session 5: "Alcohol, Drugs and the Media"

This objective of this session is to further explore how drugs are promoted to youth, particularly the volume of alcohol and cigarette advertisements – often subtly placed – and strengthen pro-survival social norms regarding these substances. This session also reviews how alcohol is made and the adverse effects resulting from its use.

The session begins by pointing out that tobacco and alcohol are the most popular drugs, and reviews the positioning strategy explained in the previous session. Again, students are solicited for multiple, current examples of such positioning in a way that increases their reality of the prevalence of alcohol and tobacco advertising aimed at youth.(Dalton et al., 2003; Dalton et al., 2006; Sargent et al., 2005) The session includes examples of alcohol advertising where people are portrayed as having a great time while drinking, becoming more outgoing, or even becoming a girl or guy "magnet." This is contrasted with how people actually look, act and perform when they consume alcohol.

Take Home Assignment

One study by Ellickson et al., (2005) showed a relationship between various advertising practices and initiation of adolescent drinking that could be reduced by counteractive prevention programming. An assignment is sent home with students asks them to find examples of the types of advertising discussed in the previous presentations intending to counteract subtle uses of positioning and product placement in common areas including in-store displays, magazines, movies, sporting and music events.

Session 6: Review

Session six is an assessment/review session including group discussion and hands-on activities to further explore the use of positioning by the media and other influential groups to increase a favorable perception of drugs. This session also reviews how the mind does and does not work when drugs are introduced to their systems. The facilitator asks questions that cause students to reflect on the information they were provided in the previous two sessions, followed by an activity that involves getting the students to talk and think about the positioning of drugs in the media and what drugs they feel are being pushed the most. This session includes class participation demonstration that explores how drugs and alcohol slow down the thinking process. This session, like Session 3, also contains a review quiz on the information of the previous two sessions.

Session 7 "Goals and the Emotional Scale"

The main objective of this session is to show how drugs affect a person's emotions. While drugs may provide a short-term means of sensation seeking, setting and achieving personal goals results in stable long-term satisfaction.

This session describes in detail a scale of nine emotions ranging from apathy to anger to boredom to enthusiasm, defining each and having the students role play what each one looks like ending with enthusiasm as the highest emotion in this scale. Elaborating on what was covered in session 2, this session explains how drugs can temporarily raise a person to a higher emotional level but when the drug wears off, he crashes to a new low.(Rey, Martin, & Krabman, 2004; Williamson et al., 1997) Seeking a return to an artificial "enthusiasm," a person may repeat drug use but after repeated use patterns can result in lowered emotional states and depression.(Degenhardt, Hall, & Lynskey, 2003) This roller coaster ride is a vicious cycle that contributes to addiction. This is contrasted with the importance of making and achieving challenging goals for personal satisfaction and happiness. The program encourages personal goals and argues they should be sufficiently challenging to maintain interest. It also touches on the concept of drug-induced psychosis described by Thirthalli & Benegal (2006) as framed in a lack of awareness of reality.

Session 8: "Setting and Achieving Goals"

The main objective of this session is to further help students see the importance of setting goals in their lives, and a recap on the entire prevention program.

The session begins with a review of all of the previous presentations, employing questions and group discussion. The next two parts of the session are practical. The first practical is a class discussion and drill about what students want to be in life and how they plan to get there. The next practical is an emotional scale drill that asks the students to communicate the mood and attitude of each place on the scale using a single word. This session then asks students to complete an essay describing what they can actually do over the summer to work toward their goals. The facilitator invites discussion on this topic and is available for questions. A final program survey is completed by every student as a quality management measure.

Conclusions

Current data indicate that majority of youths will experiment with drugs. Large national surveys since 1975 have shown that the two most prevalent drugs among youths are alcohol and tobacco.(Johnston, O'Malley, Bachman, & Schulenberg, 2006a) Nearly one-third of youth begin drinking before the age of 13. Of those students who try alcohol, even once, over 90 percent are still drinking in the twelfth grade, and 28 percent of youth report engaging in binge drinking. These national studies also show that of those youths who ever tried cigarettes over 85 percent are still smoking in twelfth grade. Similar patterns exist for other drugs: Three out of four youth who have experimented with marijuana still use marijuana in twelfth grade, two-thirds of cocaine and LSD experimenters are still using those drugs in twelfth grade.(Johnston et al., 2006b)

Much more remains to be learned regarding effective drug abuse prevention. While programs intended to simply minimize the harm caused by drug taking may reflect today's moral climate, it can be argued that society can best protect future generations and productivity by striving toward youth abstinence. Successful programs will draw from the strengths of existing prevention theories and principles. They will effect change to the extent that they send a message that is very real to youths and delivered in a way that students respect and can appreciate.

Popular approaches to address the issue of youth substance use do not always communicate a consistent message and what works best is still under discussion. Approaches to promote abstinence contrast with other common messages including one that everyone will experiment,

therefore emphasis should be placed on reducing harm.(Duncan, Nicholson, Clifford, Hawkins, & Petosa, 1994) Legal definitions that certain recreational drug use is licit for adults but illicit for adolescents may encourage use of those drugs to demonstrate transitioning to adulthood (Petosa, 1992); dichotomies of drugs as licit versus illicit, or simply the good versus the bad can result in ambiguities and problems (Goodstadt, 1989). Broad marketing of prescription medications in the media sends another powerful message (Frosch, Krueger, Hornik, Cronholm, & Barg, 2007) and commonly prescribed medications are used in ways substantially inconsistent with current diagnostic guidelines (Angold, Erkanli, Egger, & Costello, 2000; Leshner, 1999).

Evolving out of the social influences model and utilizing interactive teaching strategies, the Narconon drug prevention curriculum provides an opportunity for youth to inspect these conflicting messages regarding drugs and their abuse and draw their own conclusions. This is important in the context of improving social competencies while empowering youths and respecting their reach for greater independence. Science-based information regarding the nature of drugs is provided to assist students in developing judgment.

Opportunities for communication with peers, family and community members are built into the curriculum to enhance protective factors and increase social competencies. Finally, by reviewing and exposing the often subtle pro-drug advertising and other messages that are aimed at increasing tobacco, alcohol and other drug consumption, the Narconon program affords a forum for youth to work out what are correct and pro-survival norms.

As an intensive, eight-module, educational curriculum, the Narconon program has a thorough grounding in theory and substance abuse etiology to predict that participants in this classroom-based program could achieve the stated goals of the Narconon program: prevent and ultimately eliminate drug abuse in society.

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