

## **Program Summary**

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The results of over a dozen studies consistently show that the Life Skills Training (LST) program dramatically reduces tobacco, alcohol, and marijuana use. These studies further show that the program works with a diverse range of adolescents, produces results that are long-lasting, and is effective when taught by teachers, peer leaders, or health professionals.

### **Program Targets:**

LST is a primary intervention that targets all middle/junior high school students (initial intervention in grades 6 or 7, depending on the school structure, with booster sessions in the two subsequent years).

### **Program Content:**

LST is a three-year intervention designed to prevent or reduce gateway drug use (i.e., tobacco, alcohol, and marijuana), primarily implemented in school classrooms by school teachers. The program is delivered in 15 sessions in year one, 10 sessions in year two, and 5 sessions in year three. Sessions, which last an average of 45 minutes, can be delivered once a week or as an intensive mini-course. The program consists of three major components which teach students (1) general self-management skills, (2) social skills, and (3) information and skills specifically related to drug use. Skills are taught using training techniques such as instruction, demonstration, feedback, reinforcement, and practice.

### **Program Outcomes:**

Using outcomes averaged across more than a dozen studies conducted with LST, it has been found to:

- Cut tobacco, alcohol, and marijuana use 50% - 75%.

Long-term follow-up results observed six years following the intervention show that LST:

- Cuts polydrug use up to 66%;
- Reduces pack-a-day smoking by 25%; and
- Decreases use of inhalants, narcotics, and hallucinogens.

### **Program Costs:**

LST can be implemented at a cost of approximately \$7 per student per year (curriculum materials averaged over the three-year period). This does not

include the cost of training which is a minimum of \$2,000 per day for one or two days.

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## **Program Background**

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The Life Skills Training (LST) program was developed to address the monumental problem of substance abuse in this country. The adverse health, social, and legal consequences of this problem have been well documented. Cigarette smoking is a risk-factor for heart disease, various cancers, and chronic obstructive lung disease and accounts for over 430,000 deaths per year. Alcohol is not only related to chronic diseases such as cirrhosis of the liver, but is also a major factor in auto fatalities and homicides. Beyond this, adolescent drug use predicts a number of other undesirable outcomes such as reducing traditional educational accomplishments and job stability, increasing the likelihood of marrying and having children at younger ages, and increasing the likelihood of engaging in criminal behavior.

Despite considerable public attention and the expenditure of well over a billion dollars in the past few years alone, little if any progress has been made toward reducing drug abuse. At present, drug use among American youth is a problem of enormous proportions and it is getting worse. Since 1991, according to national surveys, drug use has increased by more than 30 percent leading some experts to believe that we are on the verge of a new drug epidemic. Figure 1 illustrates this trend in annual prevalence (proportion of users) of illicit drug use for twelfth grade students since 1975. According to the most recent national survey data, the following proportions of high school students have used alcohol, cigarettes, and illicit drugs at least once (Johnston, O'Malley & Bachman, 1995):

	<b>Alcohol</b>	<b>Cigarettes</b>	<b>Illicit Drugs</b>
8th Graders	56%	46%	26%

10th Graders	71%	57%	37%
12th Graders	80%	62%	46%

Results from the same survey indicated that during the past 30 days, the following proportions of high school students used the following substances one or more times:

	Alcohol	Cigarettes	Illicit Drugs
8th Graders	26%	19%	11%
10th Graders	39%	25%	19%
12th Graders	50%	31%	22%

For some of these teens, use may be discontinued after a brief period of experimentation. However, for many, initiation of cigarette smoking, drinking, or drug-taking may lead to patterns of use which result in both psychological and physical dependence. In general, programs designed to help individuals quit smoking, drinking, or using drugs have only been moderately effective. Quite simply, once any type of substance use habit is acquired it is extremely difficult to break. Scientific evidence now suggests that the development of effective prevention programs may offer the greatest potential for impacting this important health problem.

Unfortunately, reviews of the prevention research literature and meta-analytic studies show that many widely used drug abuse prevention approaches are ineffective. The most common approaches to substance abuse prevention over the past two decades have involved either the presentation of factual information concerning the dangers of substance use or what has been referred to as "affective" education.

Approaches relying on the provision of factual information are based largely on the assumption that increased knowledge about psychoactive substances and their adverse consequences would be an effective deterrent. Affective education approaches are designed to enrich the personal and social development of students through class discussion and experimental classroom activities. Both of these approaches have proven to be largely ineffective because they do not address the factors promoting the initiation and early stages of substance use/abuse.

The LST program is a drug abuse prevention program that is based on an understanding of the causes of smoking, alcohol, and drug use/abuse. The LST intervention has been designed so that it targets the psychosocial factors associated with the onset of drug involvement. With this in mind, the program

impacts on drug-related expectancies (knowledge, attitudes, and norms), drug-related resistance skills, and general competence (personal self-management skills and social skills). Increasing prevention-related drug knowledge and resistance skills can provide adolescents with the information and skills needed to develop anti-drug attitudes and norms, as well as to resist peer and media pressure to use drugs. Teaching effective self-management skills and social skills (improving personal and social competence) offers the potential of producing an impact on a set of psychological factors associated with decreased drug abuse risk (by reducing intrapersonal motivations to use drugs and by reducing vulnerability to pro-drug social influences).

#### Theoretical Rationale/Conceptual Framework

Many theories have been advanced to explain drug abuse. The most prominent among these focus on social learning, problem behaviors, self-derogation, persuasive communications, peer clusters, and sensation-seeking. However, the etiology of drug abuse involves a dynamic process which unfolds over many years. A common limitation of most theoretical models is that they are essentially snap-shots of the etiology of drug abuse and do not adequately capture the complexity of the problem.

We now know that the initiation of drug use is the result of the complex combination of many diverse factors. There is no single pathway or single variable which serves as a necessary and sufficient condition for the development of either drug use or drug abuse. With this in mind, the LST approach to drug abuse prevention is based on a person-environment interactionist model of drug abuse. Like other types of human behavior, drug abuse is conceptualized as being the result of a dynamic interaction of an individual and his/her environment. Social influences to use drugs (along with the availability of drugs) interact with individual vulnerability. Some individuals may be influenced to use drugs by the media (TV shows and movies glamorizing drug use or suggesting that drug use is normal or socially acceptable as well as advertising efforts to promote the sale of alcohol and tobacco products), by family members who use drugs or convey pro-drug attitudes, and/or by friends and acquaintances who use drugs or hold attitudes and beliefs supportive of drug use. Others may be propelled toward drug use or a drug-using peer group because of intrapersonal factors such as low self-esteem, high anxiety or other dysphoric feelings, or the need for excitement.

Since there are multiple pathways leading initially to drug use and later to drug abuse, a more useful way of conceptualizing drug abuse is from a risk-factor perspective similar to that used in the epidemiology of chronic diseases such as cancer and heart disease. From this perspective, the presence of specific risk factors is less important than their accumulation. As more risk factors accumulate so does the likelihood that an individual will become a drug user and eventually a

drug abuser. Thus, the presence of multiple risk factors is associated with both initial drug use and the severity of drug involvement.

It has also been well established that the prevalence of drug use generally increases with age and progresses in a well-defined sequence. Drug use typically begins with the use of alcohol and tobacco first, progressing later to the use of marijuana, and, for some, to the use of stimulants, opiates, hallucinogens, and other illicit substances. Not surprisingly, this progression corresponds exactly to the prevalence and availability of these substances with alcohol being the most prevalent form of drug use and the most widely available, followed by tobacco (cigarettes) and marijuana. Because alcohol, tobacco, and marijuana are among the first substances used, they have been referred to as "gateway" substances. The use of these "gateway" substances significantly increases the risk of using illicit drugs other than marijuana.

Taking this into account, the LST prevention program targets those "gateway" substances (tobacco, alcohol, and marijuana) that occur at the beginning of the developmental progression. Thus, LST offers the potential for interrupting the normal developmental progression from use of these substances to other forms of drug use/abuse. A second reason for targeting this type of drug use is that the use of these substances accounts for the largest portion of drug-related annual mortality and morbidity.

## **Brief Description of Intervention**

### **Overview**

The LST prevention program is a three-year intervention designed to be conducted in school classrooms. Based on the theoretical framework discussed earlier, the LST program was developed to impact on drug-related knowledge, attitudes and norms; teach skills for resisting social influences to use drugs; and promote the development of general personal self-management skills and social skills. Consistent with this, the LST prevention program can best be conceptualized as consisting of three major components. The first component is designed to teach students a set of general self-management skills. The second component focuses on teaching general social skills. The third component includes information and skills that are specifically related to the problem of drug abuse. The first two components are designed to enhance overall personal competence and decrease both the motivations to use drugs and vulnerability to drug use social influences. The problem-specific component is designed to provide students with material relating directly to drug abuse (drug resistance skills, anti-drug attitudes, and anti-drug norms). A complete description of each LST component may be found in the section labeled "Program as Designed and Implemented."

### Program Structure

The LST program consists of fifteen class periods (roughly 45 minutes each) and is intended for middle or junior high school students, depending upon the structure of the school. A booster intervention has also been developed which consists of ten class periods in the second year and five class periods in the third year. This means for school districts with a middle school structure, the LST program can be implemented with students in the sixth grade, followed by booster sessions in the seventh and eighth grades. If the LST program is implemented in a junior high school setting, students receive the program in the seventh grade, and the booster sessions in the eighth and ninth grade, respectively. The rationale for implementing the LST program at this point concerns a variety of factors concerning the developmental progression of drug use, normal cognitive and psychosocial changes occurring at this time, the increasing prominence of the peer group, and issues related to the transition from primary to secondary school.

Drug experts have established that early adolescence is a time of increased risk for experimenting with one or more psychoactive substances. Children first typically experiment with alcohol during the sixth and seventh grades. The greatest proportional change in cigarette smoking occurs between the seventh and eighth grades. Correspondingly, the greatest change in marijuana use takes place between the eighth and ninth grades. Adolescence is also a time of increased reliance on the peer group, separation from parents as they develop a sense of independence and autonomy, and changes in the way individuals think. For example, during this time, individuals begin to shift from a concrete style of thinking that includes a clear sense of right and wrong or absolute rules of behavior to one that is more relative and hypothetical. This enables the adolescent to accept deviation from established rules and to recognize the frequently irrational and inconsistent nature of adult behavior. In addition, it has been noted that the transition from primary to secondary school can be a source of stress that increases risk from problem behaviors such as tobacco, alcohol, and illicit drug use. Finally, the strongest evidence concerning the effectiveness of drug abuse prevention programs is based on evaluation research with programs implemented with individuals during this period.

While the program is effective with just the one year of primary intervention, research also has shown that prevention effects are greatly enhanced when booster sessions are included. For example, two studies have shown that one year of the primary intervention of LST produced reductions of 56-67 percent in smoking without any additional booster sessions; but for those students receiving booster sessions, these reductions were as high as 87 percent. In addition, the booster sessions enhance the durability of prevention effects, so that they do not decay as much over time. LST has been shown to be effective using a variety of service providers including outside health professionals, regular

classroom teachers, and peer leaders. Peer counselors are often slightly older (high school) and almost always work in conjunction with a trained adult provider.

## **Evidence of Program Effectiveness**

### Overview

Considerable prevention research has been conducted over the past twenty years. Despite the best efforts of educators, health professionals, and drug abuse prevention specialists, a large number of evaluation studies have failed to demonstrate that the prevention approach being utilized was able to produce a measurable impact on drug use behavior. Some studies have demonstrated reductions in attitudes toward drugs and drug use. Others have demonstrated increases in knowledge about drugs or the consequences of using drugs. But, efforts to demonstrate that prevention programs could impact on actual drug use have been disappointing.

### Research with the Life Skills Training Program

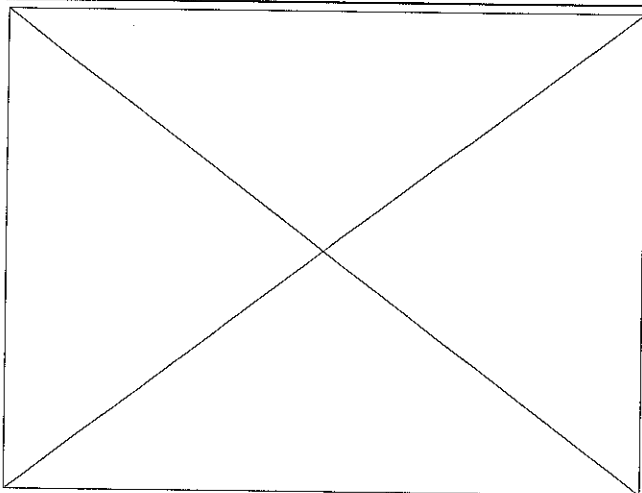
More than one and a half decades of research with the LST program have consistently shown that participation in the program can cut drug use in half. These reductions (relative to controls) in both the prevalence (i.e., proportion of persons in a population who have reported some involvement in a particular offense) and incidence (i.e., the number of offenses which occur in a given population during a specified time interval) of drug use have primarily been with respect to tobacco, alcohol, and marijuana use. These studies have demonstrated that this prevention approach can produce reductions in drug use that are long-lasting and clinically meaningful. For example, long-term follow-up data indicate that reductions in drug use produced with seventh graders can last up to the end of high school. Evaluation research has demonstrated that this prevention approach is effective with a broad range of students including White, middle-class youth and poor inner-city minority (African American and Hispanic/Latino) youth. It has not only demonstrated reductions in the use of tobacco, alcohol, or marijuana use of up to 80 percent, but evaluation studies show that it also can reduce more serious forms of drug involvement such as the weekly use of multiple drugs or reductions in the prevalence of pack-a-day smoking, heavy drinking, or episodes of drunkenness.

The bar chart on page 12 shows the results from four published studies testing the LST program. The first three focus on either tobacco, alcohol, or marijuana use. Results are presented for students who received the LST program during the 7th and 8th grades when compared with control students who did not receive the program. The last set of bars presents long-term follow-up data for students at the end of the 12th grade who received LST during junior high school in grades 7 through 9 when compared with controls in terms of polydrug

use (here defined as tobacco, alcohol, and marijuana) one or more times per week. In all four studies, drug use among the LST students was at least half that of the control group.

The information for this fact sheet was excerpted from Botvin, G.J., Mihalic, S.F., & Grotzinger, J.K. (1998). Blueprints for Violence Prevention, Book Five: Life Skills Training. Boulder, CO: Center for the Study and Prevention of Violence.

### **Video Segment**



### **Contact LST**

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