Student Substance Use: An Information, Prevention, and Intervention Guide for Middle School and High School Counselors

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Abstract

Substance abuse is one of this country’s most devastating public health problems. In order to reduce its pervasive effects, it is important to focus upon where most addiction problems begin—adolescence. While the majority of substance use prevention and intervention efforts take place in the schools, the professional school counselors who may be in the best position to help students may not always have thorough knowledge in these areas. Substance abuse education is not part of a school counselor’s formal training. While certainly not meant to take the place of such training, this paper is meant to serve as an introductory primer for school counselors. It begins with a detailed picture of current use trends, follows with a summary of various prevention approaches as well as details of how school personnel can implement a comprehensive prevention program within their schools. Finally, school-based interventions for students with moderate substance use are discussed with particular emphasis on brief interventions that utilize motivational enhancement therapy (MET). The position taken throughout is that school counselors have a professional obligation to become leaders in their schools’ prevention and intervention programs as part of their continued goal to serve all students.
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Substance abuse is one of the most serious problems in our nation today. It drains our medical, criminal justice, and social service resources by over half a trillion dollars annually (NIDA, 2009c) and extracts an emotional toll on its victims, both users and non-users, that is immeasurable. In 2007, 1.9 million school-aged children met the DSM-IV criteria for past year abuse or dependence on alcohol or illicit drugs (SAMHSA, 2009b). History shows that these children will grow up to be our next generation of adult addicts.

Schools play a fundamental role in substance abuse prevention and intervention efforts and depend on school counselors to facilitate such activities. Yet, an unsettling number of school counselors feel unprepared for such a role. In a first-of-its-kind national study on training levels and needs for working with student substance abuse problems, Burrow-Sanchez and Lopez (2009) surveyed high school counselors from the American School Counseling Association’s (ASCA) mailing list. While most counselors felt confident in their ability to consult with teachers and parents about students and substance abuse, they felt significantly less confident in their ability to identify students with substance abuse problems, work effectively with such students, or develop or teach curriculum units on the topic. Over half reported not having taken a single course on substance abuse in college or graduate school and almost half indicated that their school or district had not provided any training on the topic in the past three years. Burrow-Sanchez, Lopez, and Slagle (2008) found virtually the same results among middle school counselors as well. The Council for Accreditation of Counseling and Related Educational Programs standards currently does not specify course work in substance abuse for school counseling curriculum (CACREP, 2009). However, adolescent substance use prevalence rates
guarantee that middle school and high school counselors will encounter students who experiment with, regularly use, or are dependent on drugs or alcohol.

Some say that extensive substance abuse work is inappropriate for a school counselor and is best left to a chemical dependency professional. Others argue that school counselors are uniquely qualified to be prevention leaders and intervention specialists in their schools. While each school counselor needs to assess his or her own school’s situation, students’ needs, and current professional obligations, the unfortunate reality is that school counselors may be the only professionals in a school able to do this necessary work.

In 2002-2003, less than 12% of schools employed substance abuse counselors and less than 16% employed mental health counselors. Within that same year, nearly 70% of districts faced an increased need for mental health services (Foster, Rollefson, Doksum, Noonan, & Robinson G, 2005). When school budgets are cut, these mental health professionals are usually the first to be let go to the detriment of students and the school. The professionals whom parents, teachers, and other staff members subsequently turn to for information and advice about substance use are the school counselors. To put it quite simply, most school counselors need to increase their knowledge of adolescent substance use if they are to be useful resources to students and the larger school community. As Burrow-Sanchez and Lopez (2009) state, “Even if the counselor is simply a referral resource for the student, it is still important for him or her to possess a basic level of training to appropriately identify students with substance abuse problems to facilitate appropriate referrals and a continuation of educational services for the student” (p. 77).

While certainly not a substitute for formal training, this paper is intended to be a first step in that direction. Through a summary of the latest prevalence data, the multivariate effects of
substance use during adolescence, information about common substances of abuse, and recognized risk and protective factors, it is hoped that school counselors will gain a greater understanding of student substance use and its impact not only on schools, but society as a whole. A discussion of school-wide prevention programs, the role of the professional school counselor in those programs, and school-based interventions for individual students follows.

**Data and Trends**

Examining adolescent substance use data can be overwhelming at best and unreliable at worst. Literally thousands of studies can give various results based on scores of variables. Hence, it is important to know where to find the most credible data and how substance use is defined before examining actual numbers. The most comprehensive and widely used sources of data within the literature come from the Monitoring the Future studies (MTF) and the National Survey on Drug Use and Health (NSDUH).

MTF is an annual study funded by the National Institute on Drug Abuse (NIDA) and conducted by the University of Michigan. Beginning in 1975, the study surveys twelfth grade students from around the nation. In 1991, eighth grade and tenth grade samples were added in order to examine changes that occur between middle school and high school and to track patterns throughout the years. Currently, approximately 50,000 students from 420 public and private schools are surveyed each year (MTF, 2009).

The NSDUH is also conducted annually through the U.S. government’s Substance Abuse and Mental Health Services Administration (SAMHSA). It surveys approximately 70,000 citizens ages twelve and older from around the nation. When examining data from both of these sources it is important to remember that MFT only surveys adolescents who are currently enrolled in school. NSDUH data for 12-17 year olds includes both adolescents enrolled in school
and some who may have dropped out. When examining general NSDUH survey results, it is important to note age ranges as the sample includes adults as well.

In addition to understanding data sources, individuals must understand how professionals conceptualize adolescent substance use. Instead of measuring whether or not an adolescent ever uses a substance, Winters (2001, as cited in Burrow-Sanchez and Hawken, 2007) reinforces the idea that adolescent substance use should be viewed as a continuum of severity from no use to experimentation to regular use to abuse to dependence. Experimentation is just that, adolescents experimenting or trying a particular substance once or twice and then not using it again. Abuse and dependence, on the other hand, are the result of a more serious disorder and are defined separately in the DSM-IV-TR (2000). The criteria for Substance Abuse are as follows:

A. A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by one (or more) of the following, occurring within a 12-month period:

(1) recurrent substance use resulting in a failure to fulfill major role obligations at work, school, or home (e.g., repeated absences or poor work performance related to substance use; substance-related absences, suspensions, or expulsions from school; neglect of children or household)

(2) recurrent substance use in situations in which it is physically hazardous (e.g., driving an automobile or operating a machine when impaired by substance use)

(3) recurrent substance-related legal problems (e.g., arrests for substance-related disorderly conduct)
(4) continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance (e.g., arguments with spouse about consequences of intoxication, physical fights).

B. The symptoms have never met the criteria for Substance Dependence for this class of substance. (American Psychiatric Association, 2000, p. 199).

The criteria for Substance Dependence are as follows:

A. A maladaptive pattern of substance use, leading to clinically significant impairment or distress, as manifested by three (or more) of the following, occurring at any time in the same 12-month period:

(1) tolerance, as defined by either of the following:

   (a) a need for markedly increased amounts of the substance to achieve intoxication or desired effect

   (b) markedly diminished effect with continued use of the same amount of the substance

(2) withdrawal, as manifested by either of the following:

   (a) the characteristic withdrawal syndrome for the substance (refer to Criteria A and B of the criteria sets for Withdrawal from the specific substances)

   (b) the same (or a closely related) substance is taken to relieve or avoid withdrawal symptoms

(3) the substance is often taken in larger amounts or over a longer period than was intended
(4) there is a persistent desire or unsuccessful efforts to cut down or control substance use
(5) a great deal of time is spent in activities necessary to obtain the substance (e.g., visiting multiple doctors or driving long distances), use the substance (e.g., chain-smoking), or recover from its effects
(6) important social, occupational, or recreational activities are given up or reduced because of substance use
(7) the substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance (e.g., current cocaine use despite recognition of cocaine-induced depression, or continued drinking despite recognition that an ulcer was made worse by alcohol consumption) (American Psychiatric Association, 2000, p. 197).

While it is inappropriate for school counselors to formally diagnosis substance use or dependence, it is important for them to understand and be able to articulate the different levels of substance use in order to most effectively help individual students.

**Drug Use Trends**

Having established how adolescent substance use is measured and conceptualized, we now turn to the latest prevalence rates. According to the 2008 NSDUH, alcohol, tobacco, and marijuana are the three most commonly used substances among adolescents with the nonmedical use of prescription drugs and inhalant use following behind. About 10.1 million persons aged 12 to 20 (26.4 % of this age group) reported drinking alcohol in the past month. Approximately 6.6 million were binge drinkers, and 2.1 million were heavy drinkers. In terms of tobacco use, 2.1 %
of 12 or 13 year olds, 7.6% of 14 or 15 year olds, and 16.8% of 16 or 17 year olds were current cigarette smokers. Finally, 9.3% of youth ages 12 to 17 were illicit drug users and 7.6% of these individuals meet the criteria for a substance abuse or dependence disorder. The illicit drug use for this age group is broken down as follows: 6.7% used marijuana, 2.9% engaged in nonmedical use of prescription-type psychotherapeutics, 1.1% used inhalants, 1.0% used hallucinogens, and 0.4% used cocaine (SAMHSA, 2009b).

The most current MTF data provides another perspective. It reveals that over 72% of high school seniors have consumed alcohol at some point in their lives; over 25% have consumed more than five drinks in one setting within the past two weeks. Almost 39% of tenth graders have been drunk at least once and nearly 37% of eighth graders have had a drink. Over 20% of seniors have smoked in the past month and almost 33% of tenth graders and 20% of eighth graders have smoked within their lifetimes. In terms of marijuana, 42% of seniors have used it by the time they graduate, almost 27% of tenth graders have used it within the past year, and nearly 16% of eighth graders have tried it at some point. The nonmedical use of painkillers is another growing concern in 9.7% of twelfth graders, 8.1% of tenth graders and 2.5% of eighth graders abused Vicodin and 4.9% of twelfth graders, 5.1% of tenth graders, and 2.0% of eight graders abused OxyContin within the past year (NIDA, 2009b). Finally, 9.5% of twelfth graders, 12.3% of tenth graders and 14.9% of eighth graders have used inhalants within the past year (MTF, 2009). In distinguishing general trends of abuse and dependence, Burrow-Sanchez and Hawken (2007) suggest viewing lifetime prevalence rates as indicators of experimentation, use rates within the past year as rough predictors of abuse and use within the past month as signs of dependence.
While the national MTF and NSDUH surveys are the most widely used in the literature, school counselors must also become aware of substance use rates in their own communities. For school counselors in Minnesota, the most current data comes from the Minnesota Student Survey. Given every three years to sixth, ninth, and twelfth grade students in public, charter, and alternative schools, the survey provides schools and state agencies with data they then use to monitor the effectiveness of prevention efforts and intervention services. The latest available data is from 2007 when 142,000 students took the survey. They represent 81% of all 6th grade students, 76% of 9th grade students, and 58% of twelfth grade students in regular public schools statewide. The survey reveals trends in alcohol use, binge drinking, smoking, and marijuana use that are very close to the MTF rates. Additionally, it shows that Minnesota students follow the national trend in the increased non-medical use of prescription pain killers and ADD/ADHD medications (MDH, 2007). In Minnesota, participating districts are able to obtain reports that are specific to their district and region. Most states conduct similar surveys making timely, relevant data accessible to schools and the public. School counselors should avail themselves of whatever data is available for their specific schools, districts, and communities.

Demographics

It is a widely-held perception that adolescent males use substances more than females. Surprisingly, however, the 2008 NSDUH reveals that beyond 1.3% difference in male and female marijuana use among 12-17 year olds, the use rates are not significantly different between males and females within this age group in other illicit drug use, current drinking habits, or smoking rates (SAMHSA, 2009b). Analysis of 2009 MTF data is not currently available. 2008 data reveals somewhat higher rates of illicit drug use for males than females but confirms roughly equivalent rates of alcohol and cigarette use. The authors maintain that gender
differences appear to emerge as students grow older and the differences tend to be largest in the historical periods in which overall prevalence rates are highest (Johnston, O’Malley, Bachman, & Schulenberg, 2009).

Both the 2008 NSDUH and MTF show that among adolescents, African Americans have the lowest prevalence rates of use, Caucasians have the highest, and Hispanics are in between. Among 12 to 17 year olds, 10.1 % of black youths, 14.8 % of Hispanic youths, and 16.3 % of white youths were current drinkers in 2008. Smoking rates for this age group were 5.0 %, 7.9 %, and 10.6 % respectively (SAMHSA, 2009b). Johnston et al. (2009) reveal that Hispanic students do have the highest reported rates of use for some drugs in twelfth grade (crack, heroin taken with a needle, and crystal meth-amphetamine) and that in eighth grade, they tend to come out highest of the three racial/ethnic groups on nearly all classes of drugs. The authors attribute the differences between eighth and twelfth grade rates among Hispanic students to the fact that this group is at the highest risk for dropping out of school.

Effects

From an early age while either in school, at home, or through public service announcements, virtually all young people are exposed to the simple, general message that “drugs are bad.” Yet despite hearing this message throughout their lives, most adolescents and adults outside of a drug education classroom cannot specifically name the negative effects. Thus, it is important for the school counselor to be able to articulate to students and colleagues alike exactly what the literature tells us about why drug experimentation and regular use is so dangerous. The following provides a general overview of the long term economic, social, and personal effects adolescent drug abuse has as well as specific physical effects of commonly abused drugs.
Long Term Effects

**Educational/vocational.** Substance abuse during adolescence can establish patterns and consequences that follow teens for the rest of their lives. In the academic domain, Ellickson, Martino, and Collins (2004) found that teens who use substances are more likely to have lower educational attainment. There are various factors which contribute to lower academic achievement among substance users including low interest in school, motivation to achieve, effort expended at school and feelings of bonding with school (Bryant, Schulenberg, O'Malley, Bachman, & Johnston, 2003). Cox, Zhang, Johnson, and Bender (2007) explain that it is unclear whether drug use causes academic failure or if academic problems precede substance use and use becomes a way for students to cope with academic failure. Regardless, a connection between the two exists resulting in lower rates of high school graduation (Zimmerman and Schmeelk-Cone 2003, as cited in Suldo, Mihalas, Powell, & French, 2008) and fewer intentions to seek higher education (Ellickson, Tucker, Klein, & Saner, 2004, as cited in Suldo et al. 2008) among students who use.

Not surprisingly, these deficiencies in formal education often lead to lower wage earnings in adulthood. Ringel, Ellickson, and Collins (2006) found that twelfth graders who used marijuana daily grew up to earn an average of $15,000 a year less than students who did not use or who used only on occasion in high school. What is more surprising is the fact that adult use had only a minimal impact on earnings. The authors conclude that regular use in the adolescent years places teens on a path of lower educational attainment, cognitive functioning, and in fact even minimal, experimental use can put adolescents at a disadvantage compared to their non-using peers. Madras (2007) reports that during high school abstainers [from marijuana] fared better than experimenters and frequent users on the basis of school engagement, deviant
behavior, family and peer relations, and mental health. They were more likely to do homework, get better grades and, when they turned 23, they were twice as likely to graduate from college.

**Personal well-being.** The long term effects of adolescent substance use are not limited to the educational and vocational realm. Krohn, Lizotte, and Perez (1997) found that use of alcohol and drugs in early adolescence not only increases the risk of dropping out of school, but also the risk of becoming pregnant or impregnating someone, becoming a teenage parent, and living independently from parents or guardians prematurely. Teens attempting such life tasks early usually do not have the emotional, social, and cognitive skills necessary to be successful. In their widely-cited precocious development theory, Newcomb and Bentler (1988) explained that “drug users tend to bypass or circumvent the typical natural sequence of school, work, and marriage and become engaged in adult roles of jobs and family prematurely, without the necessary growth and development to enhance success with those roles” (p. 35-36). Through an extensive multivariate study, Bogart, Collins, Ellickson, and Klein (2007) confirmed this theory by showing that substance use at age 18 was associated with lower life satisfaction at age 29 based on factors such as socioeconomic status, physical health, and overall well-being. Trim, Meehan, King, and Chassin (2007) echo these results by isolating adolescent alcohol and drug use as a predictor of higher levels of depression, anxiety and emotional distress in adulthood.

Conversely, an opposing phenomenon can occur in young adulthood known as “amotivational syndrome” in which substance use is thought to contribute to the avoidance of developmentally beneficial experiences related to identity formation (Newcomb & Bentler, 1988). Instead of entering adult roles prematurely, some adolescents who use substances run the risk of delaying appropriate adult roles through a lack of energy and ambition, inability to carry out long-term plans, weak communication skills, and a decline in school/work performance.
**Future addiction.** Substance use in adolescence can increase the likelihood of later addiction. As described below, the literature is resonant on the fact that the earlier one begins use, the greater the likelihood he or she will have substance abuse issues later in life. Chambers, Taylor, and Potenza (2003) explain that the adolescent brain has a heightened biological vulnerability to the development of addiction (as cited in Watkins, Ellickson, Vaiana, and Hiromoto, 2006). Indeed, animal studies suggest that adolescents are less sensitive to alcohol due to their still-developing neurotransmitter receptor systems (“Genetics…” 2004/2005).

The numbers speak for themselves in that the National Longitudinal Alcohol Epidemiological Survey found approximately 40% of youth who begin drinking at age 14 or younger develop alcohol dependence at some point in their lives compared to 10% of those who reported first alcohol use at age 20 or older (Winters, Leitten, Wagner, O’Leary Tevyaw 2007). The 2008 NSDUH shows a similar correlation. Among adults who first tried marijuana at age 14 or younger, 13.5 % were classified with illicit drug dependence or abuse, higher than the 2.2 % of adults who had first used marijuana at age 18 or older. (SAMHSA, 2009b). Understanding this likelihood, it is imperative that education efforts focus on delaying substance use initiation as long as possible.

**Physical Effects of Specific Substances**

While the above long-term social and personal effects have been demonstrated across a variety of substances that adolescents use, the physical effects of drug use are of course unique to the specific drug. Watkins, et al. (2006) reveals that most information about the adverse consequences of drugs teens were able to relate was not drug specific. In fact, “even older teens were unaware of the difference between drugs, and they often groups disparate drugs together” (Results section, para.1). Therefore, the authors argue, it is important for school counselors to
equip themselves with knowledge about specific drugs in order to answer questions and correct misconceptions. Additionally, it is likely parents and teachers will approach school counselors for advice about particular students and possible substance use and therefore, as Lambie and Rokutani (2002) point out, school counselors need to be able to recognize and articulate the warning signs. The following is a compilation of the physical effects of major drugs of abuse based on the work of Burrow-Sanchez and Hawken (2007), Moore, Sales, and Fenstermacher (1991) (as reprinted in Sales, 2004), and the NIDA (2010). A useful table detailing specific drug commercial names, intoxication effects, and administration methods can be found on the NIDA website (http://www.drugabuse.gov/DrugPages/DrugsofAbuse.html).

**Depressants.** Depressants slow down neurochemical activity in the central nervous system (brain and spinal cord) and result in lowered anxiety and suppressed inhibitions. Physically, these types of substances reduce heart, breathing, and metabolic rates and in extreme cases of overdose can cause these systems to shut down. The risk of tolerance to depressants is high and individuals withdrawing from them should be under medical supervision due to potential life threatening consequences. Observable signs of use include: muscle relaxation, calmness, slurred speech, staggering gait, impaired judgment, and slow reflexes.

**Alcohol.** The physical effects of alcohol in a given situation are dependent on an individual’s blood alcohol concentration which is determined by the person’s weight, amount consumed, and presence of food in the stomach. In its smallest doses, alcohol causes the reticular system (fibers in the midbrain, pons, medulla, hypothalamus, and thalamus) to malfunction which in turn affects complex, abstract, or poorly learned behaviors. Moderate doses impair higher mental functions and make it difficult to learn and remember information. Very high doses can cause death through depression of the respiratory system. Long term heavy use can
increase risk of certain cancers, stroke, and liver disease as well as increase the risk for permanent brain damage. Indeed, chronic brain injury caused by alcohol is second only to Alzheimer’s disease as a known cause of mental deterioration in adults. Luckily, mental deterioration can be stopped if drinking stops. Signs of use include: dilation of blood vessels, lowered blood pressure, lack of coordination, reduced reaction time, and confusion.

Barbiturates and Benzodiazepines. Both barbiturates and benzodiazepines are classifications of prescription drugs used for reducing anxiety and aiding sleep. Common benzodiazepines include Valium and Xanax. Barbiturates also have the additional effect of controlling pain and pose a significant risk of coma or death from overdose, especially when combined with other depressants. While benzodiazepines are marginally “safer” then barbiturates, they can have devastating effects. Rohypnol, or the “date rape” drug is technically a benzodiazepine and creates memory loss in addition to the other physical effects of a depressant. Gamma-hydroxybutyrate (GHB) also causes drowsiness and potential loss of consciousness and has been used on victims of sexual assaults.

Stimulants. Direct opposites of depressants, stimulants are used to increase energy levels and fight off feelings of fatigue. They increase blood pressure, respiration, and heart rate. The two most commonly used “legal” stimulants are caffeine and nicotine. Caffeine stimulates nerve tissue in the brain, beginning in the cortex and moving to the brain stem. Excessive amounts can lead to restlessness, depression, increased motor activity, agitation, and hallucinations. Nicotine also increases heart rate, blood pressure, and respiration. However, like a depressant, it decreases appetite. It is highly addictive and can leave users with lifelong cravings even after use has stopped.
Amphetamines/methamphetamines. In addition to the increased feelings of energy and alertness all stimulants provide, amphetamines provide users with feelings of euphoria. Repeated use, however, leads to adverse effects on mood. In experiments with animals, methamphetamines were found to damage the brain in such a way that subjects are left in a state of permanent paranoid psychosis. In humans, similar long-term effects are seen in the form of hallucinations, delusions, paranoia, depression, violent behavior, anxiety, confusion, insomnia. Physical effects include extreme appetite suppression and weight loss, skin disintegration, and severe dental problems.

Cocaine. Cocaine gives its users a 15 to 30 minute “high” feeling of euphoria by stimulating the “reward centers” of the brain. “Crack” is less expensive and provides a briefer high. Low doses of cocaine increase alertness, talkativeness, and energy while decreasing appetite and desire for sleep. Larger doses impair judgment and cause insomnia, irritability, anxiety, and tremors. Regular users risk heart attacks, respiratory failure, strokes, seizures, and periods of psychosis and paranoia. In rare cases, sudden death can occur on the first use of cocaine. Additionally, regular use of cocaine blocks the body’s reuptake of neurotransmitters and can lead to permanently lower levels. Signs of use include: dilated pupils, sweating, constricted blood vessels, heart palpitations, increased respiration, higher body temperature, and increased blood pressure.

Ritalin. Ritalin is a popular prescription drug used to treat attention-deficit/hyperactivity disorder (ADHD). While researchers are still debating whether or not individuals with ADHD are at risk for abusing the drug, it is certainly a drug of abuse among students who do not have ADHD. Similar to other stimulants, Ritalin and the amphetamine Adderall increase energy and alertness and decrease fatigue.
**Opioids (narcotics).** Opioids are derived from the opium poppy and have been used medically for centuries. Similar to depressants, opioids produce euphoria, feelings of drowsiness, confusion, and an inability to concentrate. They are most often used after surgery or to treat chronic pain. Because they slow down respiration, they should not be mixed with alcohol or other depressants. Tolerance can develop easily and withdrawal should be supervised by a medical professional. Signs of use include: constricted pupils, lack of responsiveness to pain, nausea, lethargy, slow breathing, and nodding off.

**Codeine, Morphine.** Codeine and morphine are found in many prescription pain relievers, particularly those prescribed after surgery. Additionally, codeine is found in many prescription cough syrups. Common prescriptions that include opioids that are similar but not identical to codeine include OxyCotin, Vicodin, and Percocet. Similarly, most over-the-counter cough suppressants have Dextromethorphan (DXM) in them which produce similar effects in high doses. Teens have access to most of these drugs in their home medicine cabinets or perhaps their local pharmacy.

**Heroin.** Heroin is a derivative of morphine which can be injected, snorted, or smoked. It usually produces a “rush” of euphoria followed by two hours of alternating wakefulness and drowsiness. An individual’s mental functioning is usually impaired during this period. Long term use leads to heart infections, collapsed veins, and liver disease. Tolerance develops quickly and withdrawal symptoms are similar to a severe case of the flu.

**Club drugs.** Drugs in this category are usually used in nightclubs or parties where drugs are used (raves). Each drug in this category has individual effects, but in general they create feelings of euphoria and distort perceptions of reality through heightened senses of sight and sound.
**LSD and PCP.** LSD stimulates the Central Nervous System (CNS) and disrupts the ability for it to regulate sensory information. Usually hallucinations and illusions result. A “trip” can last up to 12 hours or longer. Physical effects include increased body temperature, heart rate, and blood pressure; sleeplessness; and loss of appetite. Often unpleasant experiences occur including confusion, dissociation, and panic attacks. While tolerance to LSD can occur, users who stop usually do not experience withdrawal symptoms.

PCP blocks pain receptors in the brain and affects the neo-cortex which controls instincts. Self-inflicted injuries can occur when one is under the influence of the drug. Observable effects of use include: poor muscle coordination, dulled senses, incoherent speech, rapid, involuntary eye movements, and exaggerated gait. Additionally, users can experience several unpleasant psychological effects such as delusions, hallucinations, disordered thinking, and extreme anxiety. Long-term use can result in prolonged memory problems, speech difficulties, and emotional problems.

**MDMA (Ecstasy).** Producing both stimulant and hallucinogenic effects, MDMA users experience mental stimulation, emotional warmth, enhanced sensory perception, and increased physical energy. Adverse health effects can include nausea, chills, sweating, teeth clenching, muscle cramping, and blurred vision. Long-term use can lead to learning and memory problems as well as depression. In rare cases, large doses can lead to hyperthermia and a failure of kidneys, liver, and cardiovascular system resulting in death. Like LCD, MDMA users can develop a tolerance to the drug, but usually do not experience withdrawal symptoms.

**Inhalants.** There are over 1,000 products that can be inhaled through the nose and mouth to produce a short high. The vapors pass directly to the bloodstream and brain from the lungs with short term effects that are similar to alcohol intoxication. Negative effects of even minimal
use include headaches, nausea, and problems with speech and coordination. Long term effects include hearing loss, limb spasms, brain damage, bone marrow damage, liver damage, and depression, or paranoia. Most inhalants are solvents found around the home such as nail polish remover, paint thinner, degreasers, gasoline, and glue. Gases used as inhalants include butane, propane, and the aerosol dispensers in whipped cream cans and spray paints. A final category includes nitrites, but these are less commonly abused as they are illegal to sell in the United States. However, they can be purchased over the internet and disguised as other types of cleaning products.

**Marijuana.** Individuals smoke marijuana to experience euphoria and a feeling of relaxation which comes from the chemical delta-9-tetrahydrocannabinol (THC). The effects are almost immediate and last two to six hours. High doses or long term use can result in panic, loss of motivation, and distorted body image. With any amount, changes in perception, reduced memory and concentration, and impaired judgment can linger up to twenty four hours. It can take up to thirty days for the body to rid itself of the THC after a single dose and some can remain bound to proteins in the blood indefinitely. There is some evidence that chronic THC exposure damages nerve cells and leads to premature memory disorders. It has also been found to have long-term impacts on learning and social development in adolescents. Tolerance can develop easily and while there are no physical withdrawal symptoms, it can produce psychological withdrawal symptoms.

**Risk and Protective Factors**

Beyond being knowledgeable about the various social, psychological, and physical effects of specific drugs, a school counselor should have an understanding of the various factors that put a student at risk for use. Unfortunately, such a task is much easier said than done.
Despite decades of research, understanding why some adolescents begin using drugs and some do not and why some of those adolescent users go on to have significant substance abuse problems is far from an exact science. Regardless, teacher/school counselor educator, Dr. Amos Sales (2004) maintains:

> It is important for the school counselor to develop through a review of various causation models [risk factors], a conceptual position that attempts to explain substance abuse and related addictive disorders. From this review he/she can develop a position upon which to make consistent therapeutic assumptions and decisions. (p.35)

In 1986, the federal government’s Anti-Drug Abuse Act defined various factors that put adolescents under the age of 18 at risk for illegally using drugs and alcohol. Since that time, numerous researchers have edited, expanded, and otherwise modified the list of factors based on their own work. While no “official” list of risk factors exists, a review of the literature reveals the same factors being repeatedly highlighted. One of the most respected and often cited compilations comes from Hawkins, Catalano, and Miller (1992). School counselors who are interested in a more in-depth discussion of risk factors than is provided here are encouraged to read their work.

Before exploring the various risk factors, some basic definitions and conceptual frameworks are necessary. As defined by Clayton (1992):

> A risk factor is an individual attribute, individual characteristic, situational condition, or environmental context that increases the probability of drug use or abuse or a transition in level of involvement with drugs. A protective factor is an individual attribute, individual characteristic, situational condition, or environmental context that inhibits, reduces, or
buffers the probability of drug use or abuse or a transition in level of involvement with drugs. (p. 15-16)

While appearing as simple opposites, the interplay between risk and protective factors within an individual is as unique and complex as that individual. Clayton stresses that the presence of identified risk or protective factors is by no means a guarantee drug abuse will or will not occur. The more risk factors one has certainly increases his or her risk for drug abuse, but as Weinberg (2001) explains, the factors must be viewed quantitatively and qualitatively as well as within the context of the protective factors an individual may possess. Each risk and protective factor is more than a static element on a list and while school counselors are wise to increase their understanding of these factors, especially in light of a school’s prevention and intervention efforts, they must remember to view individual students in light of their unique circumstances.

A final point to consider in the incredibly complicated attempt to understand substance abuse and the factors that predict or prevent it is the simple fact that there is a difference between adolescent substance use and abuse. Debate within the literature exists as to where our efforts and focus should lie. Baumrind (1987) argues that understanding why some adolescents cross the line into harmful abuse takes precedence over understanding what causes adolescents to start using in the first place.

After decades of being “thwarted by political demands” (Newcomb, 1995, p.14), research is now focusing on what causes adolescent use to turn into abuse. Such distinction may seem like unnecessary hair splitting, but it is important for school counselors and other professionals to understand that in the absence of universal definitions and agreement, particular attention must be paid to an author’s scope and focus when reading individual studies and conclusions. Moreover, such a shift in focus has the potential to minimize concern about adolescent substance
use experimentation—a minimization that perhaps can be justified when public health policy makers need to prioritize focus and resources, but that seems irresponsible in a school setting. For example, Schullenberg, Maggs, and O’Malley (2003) conclude that:

When substance use is limited in intensity and time, when it occurs in conjunction with otherwise healthy exploration and experimentation, and when rare but acute negative consequences are avoided, young people typically move safely into young adulthood where they take on new developmentally appropriate tasks such as occupational exploration and commitment and family formation. (p. 427)

Pragmatically and politically, school counselors are probably best served by adopting Clayton’s (1992) opposing viewpoint that any use is abuse and duly focusing on preventing both experimentation and escalation. Fortunately, the overall risk factors that have been identified in both realms do not vary significantly.

Various studies produce slightly different lists of risk and protective factors as well as different ways to conceptualize them. The following synthesis utilizes Burrow-Sanchez and Hawken’s (2007) and Robertson, David, and Rao’s (2003) organization of placing the factors into the following domains: individual, peer, family, school, and community.

**Individual factors**

**Genetic/prenatal/biological.** Within the research there is the general consensus that children who have parents with substance abuse problems are more likely to develop substance abuse problems (Chassin, Pitts, DeLucia, & Todd, 1999; Merikangas, Dierkerr & Szamari, 1998). Exactly what causes this increase in risk and how much the risk increases is still not known. Researchers estimate that children with alcoholic parents are three to nine times more likely to develop problems with alcohol than those with non-alcoholic parents (Sher, 1991;
Windle, 1999, as cited in Burrow-Sanchez and Hawken, 2007). Expanding to substance abuse at large, genetic factors are thought to explain approximately 50% of the reasons why individuals have such problems (O’Brien et al. 2005, as cited in Burrow-Sanchez and Hawken, 2007) which means at least 50% comes from other personal and environmental factors. Rose and Dick (2004/2005) distinguish further by attributing the initiation of use to environmental influences and assigning greater importance to genetic factors in the subsequent patterns of use or abuse that may follow. However, post-experimentation use and/or abuse is also moderated by personal and environmental factors. Like any single risk factor, it is important not to view genetics in isolation but rather as one piece of a complex puzzle.

Additionally, Baer, Barr, Bookstein, Sampson and Streissguth (1998, as cited in Weinberg, 2001) and Yates, Cadoret, Troughton, Stewart, and Giunta (1998, as cited in Weinberg, 2001) provide evidence that prenatal exposure to substances may lead to a higher risk for substance abuse in adolescence. Additionally, Giancola & Tarter (1999, as cited in Weinberg, 2001) found lower executive cognitive functioning in some adults and adolescents who develop substance abuse problems. Essentially, the pre-frontal lobe is damaged, resulting in impaired capacity for abstract thinking, cognitive flexibility, attention, working memory, and goal persistence. This brain damage may be a biological contributor to abuse.

Temperament. Numerous behavioral and personality traits, some of which can be observed in childhood, have been linked to an increased likelihood for substance abuse in adolescence. For example, sensation seeking and low harm avoidance in adolescence, as well as poor impulse control in childhood, have been identified as risk factors (Hawkins et al. 1992). Additionally, early and persistent behavior problems are a warning sign. The greater the variety, frequency, and seriousness of the behavior, the greater the risk. While behavior problems and
aggressiveness is common in many children, aggressive behavior that continues into early adolescents (age 13) is a strong predictor of continued aggression and subsequent alcoholism (Loeber, 1988; McCord, 1981, as cited in Hawkins et al. 1992). Behavior problems, aggressiveness, and poor impulse control are all symptoms of an overall deficiency in self-regulation (Giancola, Martin, Tarter, Pelham & Moss, 1996; Giancola, Mezzich, & Tarter, 1998, as cited in Weinberg, 2001) which can be linked back to biological problems with executive cognitive functioning. Such a link reinforces the interconnected nature of the various risk factors and how they manifest themselves in individuals.

**Social interactions.** In addition to temperament, how individuals view themselves within and interact with society can have an impact on future drug use and abuse. Weinberg (2001) points out that research still needs to be conducted to see exactly how various social skills deficits manifest into risk factors. However, both peer rejection and poor self-esteem have been linked to substance abuse disorders. Not surprisingly, alienation has also been identified through various studies as a primary risk factor (Hawkins et al., 1992). Specifically, Jessor and Jessor, (1977, as cited in Baumrind, 1985) found that while alienation generally decreases as one progresses through high school, higher rates of alienation predict marijuana initiation.

Another primary risk factor identified by Hawkins et al. (1992) is rebelliousness. While rebelliousness can be manifested in a variety of ways, it is seen as a risk factor for substance abuse when it is linked to an overall attitude of deviance from social expectations. Newcomb (1995) explains that drug use and abuse should not be viewed as isolated events, but as one aspect of a deviance-prone lifestyle. Other symptoms of this lifestyle include precocious sexual involvement, academic problems, frequent sexual activities, deviant attitudes, and delinquent behavior. Kandel and Davies (1991) also link early and frequent sexual activity among
adolescents as a predictor of not only marijuana use, but progression to cocaine use. Academic problems, also related to deviant behavior, will be explored in the discussion of school-related risk factors.

Finally, while Newcomb’s (1995) exploration of delinquency certainly identifies proven factors that predict substance abuse, it can also further the stereotype that only “bad kids” use and abuse drugs. Influential developmental psychologist Diana Baumrind (1985) pointed out that numerous studies and her own work demonstrate that within non-delinquent adolescent populations, experimental or light marijuana use is associated with traits such as independence, friendliness, self-confidence, and intelligence. Simply put, even the “good kids” are at risk for drug use. This is not to say, of course, that the identified risk factors are not helpful, but rather illustrates that the school counselor who is concerned with addressing both experimentation and escalation needs to take all students into account and not just those who demonstrate observable cause for concern.

**Co-morbidity.** A significant number of adolescents who abuse substances have co-occurring mental disorders. Riggs (2003) provides the prevalence rates of adolescents with a substance abuse disorder and a co-morbid disorder as follows: conduct disorders (60-80%), ADHD (30-50%), depressive disorders (15-25%), anxiety disorders (15-25%), and bipolar disorder (10-15%) (p. 27). Additionally, Burrow-Sanchez and Hawken (2007) cite Karacostas and Fisher (1993) and Maag et al. (1994) as demonstrating students with learning disabilities being at higher risk for substance use and abuse than those without them. Hollar and Moore (2004) explain that in addition to the risk factors all teens encounter, adolescents with disabilities also face isolation, discrimination, lack of personal adjustment to disability, health difficulties,
lack of social access, easier access to prescription drugs, and perceived entitlement to substance use based upon their disability.

The question of whether or not prescription drugs used to treat disabilities lead to future substance abuse is a controversial one, especially in ADHD research. In a twenty-eight year longitudinal study of individuals with ADHD, Lambert (2005) found being treated by stimulants (the most common treatment for ADHD), was associated with adult daily smoking and lifetime use of amphetamine and cocaine/amphetamines. Molina and Pelham (2003) offer a different explanation for the correlation between the disorder and substance abuse rates. They attribute it to the common ADHD symptom of inattention and believe “executive functions associated with inattention and not impulsivity-hyperactivity may be at the root of the progression to substance use” (p.504). These are just two perspectives within a debate that is sure to be ongoing.

Overall, co-morbidity can be viewed as a manifestation of and potential contributor to the genetic, temperamental and social risk factors discussed above. Like any single risk factor, the presence of a disability should be viewed within the context of the whole person. Bender (2004) as cited in McNamara, Vervaeke, and Willoughy (2008) recommends helping children and adolescents with disabilities foster a healthy self-determination by recognizing their strengths and weaknesses, setting appropriate goals, and making good choices when faced with difficult decisions. Caring adults who are able to offer such support will certainly buffer some of the challenges the disorder brings.

**Early use.** Having already discussed the well-established link between early substance use and subsequent addiction, only a brief elaboration will be provided here. While studies disproving the “gateway effect” of various individual substances exist, overwhelmingly the literature proves that substance abuse is a progression. Newcomb (1995) cites an early study by
Kandel (1975) which demonstrates that teenagers initiate drug use with beer, wine, or cigarettes, progress to the use of hard liquor, may then transition to marijuana, and finally may proceed to the use of other illicit drugs. In a later study, Kandel and Davies (1991) report that that those who subsequently experimented with cocaine in addition to illicit drugs other than marijuana had initiated marijuana two to three years earlier on the average than those who experimented with marijuana exclusively. Regardless of the substances one initiates use with, the earlier the age of onset, the higher the likelihood the use will turn into abuse of either that substance or another one. Thus, for the school counselor, the earlier the identification and intervention, the better chance of stopping the progression.

**Protective factors.** Many of the protective factors at the individual level are indicators of good mental health and social competence. Wills (2008) explored the buffering effect self-control had on three substance use risk factors (family life, adolescent life events, and peer use) and found that the impact of these factors was reduced in individuals with high levels of self-control. Additional individual protective factors summarized by Burrow-Sanchez and Hawken (2007, p. 34) include: “good social skills, good problem solving skills, emotional stability, positive sense of self, flexibility, and resiliency.”

**Family and Peer Factors**

The two most significant impacts on adolescent substance use and abuse are family and peer influences. Researchers disagree about which influence is greater and perhaps an adequate compromise would be to recognize that the two have differing levels of influence at different stages of adolescent development. That said, it is best to discuss the two together to emphasize their linked impact on adolescent substance use.
**Family influences.** Numerous factors within the family system have been shown to have an impact on adolescent substance use including family attitudes toward alcohol and drug behavior, family bonding, and level of family conflict. Adolescents coming from homes in which parents and siblings abuse drugs are more likely to abuse them. Additionally, teen perception that their parents have permissive attitudes toward drug use was found to be of equal or greater importance than actual parental drug use (McDermott, 1984, as cited in Hawkins et al. 1992). Low levels of family bonding have been shown to be a risk factor with the converse being true and high levels of bonding acting as a protective factor. Guo and Hill (2002) as cited by NIDA contributing writer Mann (2003) reveal that family bonding is particularly influential before the age of 18. The authors also found that youths with low family bonding at age 15 were three times more likely to initiate illicit drugs than those with high family bonding (Mann 2003). Finally, much has been written and speculated on the impact of divorce on adolescent substance abuse. Hawkins et al. (1992) summarizes the research by distinguishing that children raised in families high in conflict were at greater risk for delinquency and drug use and therefore family structure was not necessarily a predictor. Guo and Hill (2002, as cited in Mann, 2003) echo the importance of family harmony by finding those with high family conflict at age 18 were over twice as likely to initiate illicit drugs as those with low family conflict.

One of most studied areas of familial influence on substance use is family management and parenting styles. As Hawkins et al. (1992) summarize: “The risk of drug abuse appears to be increased by family management practices characterized by unclear expectations for behavior, poor monitoring of behavior, few and inconsistent rewards for positive behavior and excessively severe punishment for unwanted behavior” (p. 83). In her classification of parenting styles, Baumrind (1985) defines three types: authoritative, authoritarian, and permissive. Authoritative
has largely been recognized as the most effective style in helping foster healthy development in all areas, including a lower risk for substance use in adolescence. Suldo et al. (2008) describes authoritative parenting as characterized by high levels of supervision and support as well as developmentally appropriate opportunities to display autonomy in decision making. Similarly, in a study of family influence on teen substance use, Curran (2007) found that parental rules and expectations were the strongest deterrent of substance use. A family’s engagement in school and education was second and family climate third. Guo and Hill (2002), as cited in Mann (2003), echo these results by demonstrating youths with low levels of family monitoring and rules at age 18 were twice as likely to initiate illicit drugs as those with high family monitoring. Finally, parental consistency is key. In a study of adolescent substance use and parental practices, Simons-Morton (2007) found that maintenance of positive parenting behavior over time, not just initial parenting behavior, protects against substance use.

Peer influences. Peers undoubtedly have a significant influence on adolescent behavior and attitudes. In an analysis of this influence, Simons-Morton (2007) articulates the two factors that work reciprocally upon teens as they form friendships: selection and socialization. Selection is the process in which adolescents develop or retain friends based on their similarity of beliefs, attitudes, behavior. Socialization occurs when adolescents adjust their beliefs, attitudes, and behavior to conform to that of their friends. Friendships with deviant peers put adolescents at especially high risk for substance use. Guo and Hill (2002), as cited by Mann (2003), found that high levels of peer antisocial activity made youths nearly four times as likely to initiate illicit drugs.

Parents can and do have a significant impact on their children’s friend selection. On the risk factor side, Brody et al. (2001) found that affiliations with deviant peers co-occur with and
are predicted by harsh and inconsistent parenting, parent-child conflict, and low maternal emotional responsiveness. Conversely, Simons-Morton (2007) found that parents who were aware of their impact and specifically employed efforts to influence friendship formation and continuity were able to protect their children from premature growth in substance use. However, it is important for parents to understand when their influence is most effective. Throughout adolescent development the influence of peers generally becomes stronger and parental influence weakens as teens struggle to form their individual identities. Suldo et al. (2008) warns that attempts to intervene following the formation of deviant peer groups may be ineffectual. Thus, the positive, protective family factors discussed above become even more important when they are understood as buffers for not only substance use, but negative peer relationships as well. Yet they must be consistently employed throughout childhood and early adolescence to have this positive effect. Finally, in an analysis of family and peer influences on various levels of drug use, Svensson (2000) reveals that both family factors (especially poor parental monitoring) and peer factors can be linked to initiation of alcohol and tobacco. However, peer factors were much more influential on the transition to regular use and family factors alone were correlated with substance abuse. His study reinforces the complex, intertwined nature family, peer, and all risk factors have on substance use.

**School factors**

Low academic achievement has already been discussed as an effect of adolescent substance abuse. It, along with other school factors, can also contribute to substance use. It is not clear when academic failure exactly becomes a predictor, but Hawkins et al. (1992) suggest that it is more of a concern in late elementary grades than earlier ones. Other school related risk factors that have been reported in the literature include school misbehavior, attitude toward
school and personnel, and college planning. For example, Bryant et al. (2003) report that school misbehavior and peer encouragement of misbehavior were positively associated with substance use at age 14 and with increased use over time. School bonding, school interest, school effort, academic achievement, and parental help with school were negatively associated [hence, protective]. Additionally they found when adolescents reported higher levels of school interest, school effort, school bonding, and college plans, they were less likely to report concurrent cigarette and alcohol use. It is interesting to note, however, is that the protective factors were not universally effective. The team reports that positive school attitudes and perceptions of high status connected to academics were stronger protective factors for low-achieving teens compared to high-achieving ones. Moreover, college plans and bonding to school were protective in terms of concurrent alcohol use for adolescents reporting low grades yet became a risk factor, even in eighth grade, for concurrent alcohol use for students with higher grades. These differences highlight once again that risk and protective factors can give concerned adults general guidance, but each student’s situation is unique.

A final vital protective factor in adolescent substance use is student relationships with teachers and school personnel. Van de Bree and Pickworth (2005, as cited in Suldo et al. 2008) reveal that students who report troubled relationships with school personnel are more likely to use tobacco, marijuana, and other substances. Conversely, Suldo et al. (2008) found that students who perceive higher levels of social support from their teachers and/or greater levels of authoritative parenting are less likely to associate with rule-breaking and/or drug using peers and, in turn, less likely to use illicit substances. The author also links teacher supportiveness and high teacher expectations with infrequent use of substances in adolescents. Based on these correlations, school counselors could help educate teachers about their important role in student
substance use and provide strategies to help them increase their level of support for students if necessary.

**Community factors**

The final area which impacts adolescents is the larger communities in which they live. Burrow-Sanchez and Hawken (2007) list community risk factors for adolescent substance abuse as: adult and community norms that favor drug use, lax drug laws, and high availability of drugs. Hawkins et al. (1992) also include neighborhood disorganization which contributes to and reinforces high crime rates, lack of safety, poverty, lack of maintenance of buildings and homes, and an overall lack of feeling of “community” among the residents. While these factors in and of themselves have not been directly linked to drug use, they have been shown to contribute to other risk factors within the individual, family, peer, and school domains.

That said, Hawkins et al. point out that currently, there is no proven direct link between socioeconomic status and adolescent drug use. Socioeconomic status has been negatively linked to delinquency which is of course a risk factor. However, poverty in and of itself is not. It is also easy to associate neighborhood disorganization with urban areas. Sullivan, Kung, and Farrell (2004) challenge such an assumption with their study that links witnessing community violence with earlier substance use initiation. The study also reinforces the protective nature of strong family bonding and parental monitoring. Yet what is interesting is that it was conducted in various rural areas, thus illustrating that disorganization can be a risk factor in multiple types of neighborhoods.

Communities can also provide numerous protective factors which are important to acknowledge. Burrow-Sanchez and Hawken (2007) reveal them to be safe and supportive communities, high standards and expectations for youth, positive community-based activities
readily available, community-sponsored special activities, and education about positive and negative media influence. Similar to what is observed in the school domain, in general adolescents who feel a positive connection to their communities are at a lower risk for substance use.

**Conclusions and Implications**

In examining the incredibly complex, interwoven factors that lead an individual to begin substance use and perhaps progress to abuse, it is dangerous to draw too many general conclusions for fear of overlooking the uniqueness of each individual situation. That said, professionals who work with adolescents, including school counselors, need guiding principles especially when developing prevention and intervention strategies. To that end, the following broad strokes are offered.

First, direct intervention is simply not possible for all risk factors. The overall goal of those who work with adolescents should be to buffer the effects of as many risk factors as possible (Clayton, 1992). Secondly, as Newcomb (1995) so eloquently states,

> Adolescent drug use cannot be prevented or treated without consideration of and attention to the other types of deviance and problems of adolescence. They form an interwoven net of attitudes and behavior that must not be addressed by focusing on single strands without including the total fabric. (p. 29)

Simply put, prevention and intervention efforts cannot be limited to the act of using drugs, but address the vulnerabilities that lead students to such a choice. Hawkins et al. (1992) state it best in that “Current knowledge about the risk factors for drug abuse does not provide a formula for prevention, but it does point to potential targets for preventive intervention” (p. 65). It is those best practices for prevention and intervention to which we now turn.
Perhaps the current state of substance prevention activities within schools is best summed up by Sales (2004), when he says, “Some type of prevention activity is going on within every public school in the US; however, it is obvious from the prevalence data that more comprehensive and impactful efforts need to be implemented” (p. 43). The past thirty years of prevention research has been filled with controversy among theorists, researchers, public health officials, and politicians (Jonas, 1992, as cited in Skiba, Monroe, & Wodarski, 2004). Combine such disagreement with inadequate funding and a society at large that presents contradictory messages about use and it is no surprise that most school-based prevention efforts have been found to be marginally effective at best. As leaders in their schools, it is important for school counselors to keep current with the latest prevention research, be able to evaluate their schools’ practices, and help implement change if needed. In order to do so it is necessary to understand where we have been, what we now know about prevention in the schools, and exactly what the school counselor’s role should be in those efforts.

**Historical Approaches to Prevention**

Like most practices in education, substance prevention has gone through various movements throughout the last three to four decades. The earliest programs in the 1960’s and 70’s focused mostly on providing students with information about drugs and alcohol. Today those approaches are almost universally acknowledged to be ineffective and may even increase consumption. Botvin, Botvin, and Ruchlin (1998) explain some of the reasons for their failings as a faulty conceptualization of the causes of use and abuse, an overly optimistic belief in adolescent ability to weigh the pros and cons of use, heightening curiosity, and the unintentional effect of teaching students more about using drugs than not using them. This is not to say of
course that schools should not provide education about drugs. Information dissemination simply cannot be the sole prevention effort.

The next prevention wave came in the form of affective education during the 1970’s and 80’s. Recognizing that individuals with certain character traits were at greater risk for using drugs, efforts were made to focus on personal and social development in order to overcome those traits. Additionally, traits associated with decreased use such as high self-esteem, personal insight, and self-awareness were emphasized (Botvin et al. 1998). While certainly demonstrating a more comprehensive understanding of substance use than information-giving, the affective education movement was simply not comprehensive enough. It was shown to affect the targeted character traits, but did not really decrease substance use. In fact, Werch and Owen (2002) characterize both information dissemination and affective education as increasing knowledge, decreasing perceived risk, and increasing consumption.

The third generation of prevention efforts came in the 1980’s and 90’s with social influence approaches. As Kumpfer (2008) summarizes in her literature review, this type of curriculum usually includes three approaches: social resistance skills, psychological inoculation, and normative education. Some programs also include a public commitment not to use drugs. Social resistance skills or refusal skills involve students recognizing high-risk situations in which they might use drugs and role play how to resist. Psychological inoculation exposes students to messages through films, media, and advertising and helps them become more critical viewers. Normative education helps counter the idea that “everyone uses” by providing students with actual prevalence rates. Botvin et al. (1998) also add that many resistance skills programs also utilize peer leaders as assistant teachers (high school students in middle school classrooms for example). As the author states,
To the extent that peer leaders are viewed by students as being credible sources of information and influential role models who do not regard drug use as being socially acceptable, peer-led prevention programs may have an important impact on normative beliefs supportive of nondrug use. (p. 66)

Unlike the previous two movements, it is difficult to deem the social influence approach as effective or ineffective on the whole, partially due to the fact of the number of different programs and methods that have come out of it. Both the popular “Just Say No” campaign of the 80’s as well as the currently popular DARE program are examples of social influence prevention programs that have failed to target the causal factors of substance use and have not been shown to reduce use. Additionally, Werch and Owen (2002) maintain that resistance skills training is effective only among adolescents whose beliefs about the acceptability and prevalence of use are conservative and can even be harmful when not provided in conjunction with normative education. Botvin and Griffin (2007) also cite numerous studies that show social resistance skills programs are effective for preventing cigarette smoking for three years, but not beyond that time.

Contemporary Approaches and Adlerian Psychology

Despite their mixed results, social influence approaches are still used in prevention programs today. While the literature makes no distinction, perhaps it is best to conceptualize today’s efforts as “social influence phase two” along with a more comprehensive, skills based focus known as competence enhancement or, in some of the literature, social skills training. The competence enhancement approach was developed by Dr. Gilbert Botvin and is the basis for his widely respected LifeSkills Training program. Hill (2008) summarizes that competence enhancement is based on Bandura’s social learning theory and Jessor’s problem behavior theory and views problem behaviors as helping people cope with negative emotions and achieve
personal goals. From this viewpoint, substance use is learned and functional behavior and teens use in particular use because they do not have adequate personal, social, and coping skills. Botvin and Griffin (2007) explain that such programs teach generic social and personal skills like decision making, communication skills, assertiveness, and coping with anxiety and anger. They assert that competence enhancement approaches combined with resistance skills training are among the most effective approaches to prevention and some programs have had long-term effects until the end of high school.

It is interesting to note that many of the contemporary prevention approaches utilize tenets of Alfred Adler’s Individual Psychology. While such a coincidence may be just that, the use of Adlerian Psychology in school settings has grown in popularity throughout the twentieth century thanks to the work of Rudolf Dreikurs, Don Dinkmeyer, Amy Lew, Betty Lou Bettner, Jane Nelsen, and Lynn Lott among others. A fundamental precept in this framework is that all behavior is purposeful or goal-directed. In the words of Adler himself,

A person would not know what to do with himself were he not oriented toward some goal. We cannot think, feel, will, or act without the perception of some goal. All the causalities in the world do not enable the living organism to conquer the chaos of the future and the planlessness of which we should be the victims. All activity would persist in the stage of an indiscriminate grouping, and the economy in our psychological life would remain unattained. (Ansbacher and Ansbacher, 1956, p. 96).

Thus, when competence enhancement deems substance use a “functional” behavior that adolescents engage in in lieu of adequate personal, social, and coping skills, it is recognizing the link between behavior and the meeting of a goal. A key to intervention then lies in uncovering the true goal behind the substance use and helping the individual meet that goal in a healthier
way. Ideas for doing so will be discussed in the individual interventions section. Larger prevention efforts, on the other hand, can be understood as helping children and adolescents build the necessary skills so substance use will never need to become a functional device. It is to those prevention efforts where we now return.

Other contemporary prevention approaches include youth involvement, school climate change, community partnership, and family-focused programs. Youth involvement programs elicit student leaders and sometimes at-risk students for training in leadership, planning, and decision making in community prevention efforts. Youth councils and youth government organizations are examples of such programs. As Kumpfer (2008) states, “the underlying assumption appears to be that at-risk youth will respond more favorably to substance abuse prevention programs if other young people from the same community play substantial and meaningful roles in the management and operation of such programs” (Youth-Led or Youth Involvement Approaches section, para. 1.). Because youth-led strategies vary so much in execution, they are difficult to study and thus little research exists to attest to their effectiveness as a whole.

School climate change approaches seek to create school environments that are more overtly supportive of nonuse and address protective factors such as school bonding and a supportive school climate. They employ various interventions, most of which can be seen at any school on any given day. A list provided by Kumpfer (2008) includes: school-wide interventions (school pride days, assemblies, theater performances, school policy changes, curriculum changes) interventions for high-risk students (children of alcoholics groups, theater troupes for high-risk youth, peer leadership classes, new student welcome programs, buddy programs for
freshmen, and mentoring programs) and indicated interventions (peer counseling, teen hotlines for in-crisis youth, and support groups for recovering students).

Finally, the community partnership approach brings together various areas of a community to create infrastructures to support prevention work. Kumpfer (2008) explains that family-focused strategies are based on the recognition that more risk and protective factors can be addressed when family members are involved in drug prevention approaches. Thus, some youth-based and school-based programs are adding family components. While logically sound, little research is available to speak to the effectiveness of these approaches.

Despite the fact that research is still needed within these socially-focused prevention programs, as a whole they are quite Adlerian in approach. Adler believed that all people, including children, have the overall goal of belonging and contributing to their homes, schools, and society in general. However, most individuals become discouraged for various reasons and display different forms of maladaptive behavior—adolescent substance use would be one. Again, because all behavior is goal-driven, the original goal of belonging has been replaced with what Rudolf Dreikurs (1964), a child psychiatrist and colleague of Adler’s, deemed a “mistaken” goal. While specific interventions for specific mistaken goals will be discussed later, efforts such youth involvement, school climate change, community partnership, and family-focused programs appear to be a step in the right direction in terms of an increased focus on belonging and contributing.

Where Do We Go From Here?

In examining the varying approaches to drug prevention and encountering the differing opinions within the literature, it can be both overwhelming and frustrating for well-intentioned school personnel with limited resources to make decisions that are in the best interests of
students. That said, decades of debate as well as trial and error have led to some conclusions which are shaping contemporary practice.

**Prevention focus.** In the past there was disagreement about where time and energy should be spent considering only a percentage of adolescents become adult addicts and contribute to the larger societal costs. Today, as Botvin and Griffin (2007) state, most effective contemporary approaches pay attention to the risk and protective factors for initiation and early stages of use. Thus, a comprehensive prevention program should address mediating the recognized risk factors and strengthening the protective factors in each domain: individual, family, peer, school, and community. Moreover, today it is widely acknowledged within the literature and recommended by the NIDA (2003) that prevention should take place on a three-tiered model consisting of universal, selective, and indicated interventions. A universal prevention program is delivered school-wide and targets the entire student body. Selected prevention programs are targeted at a smaller percentage of students who are at greater risk for developing an abuse problem or who have even begun mild use. Indicated programs are for an even smaller percentage of students who show signs of substance abuse or dependence. While this model certainly accounts for the varying needs within a school, challenges still exist in finding the right approaches for each level. Thankfully, the research has led to some basic prevention principles that can aid schools in these decisions.

**Guiding principles.** In 2003, the NIDA produced a prevention guide designed for parents, educators, and community leaders entitled *Preventing Drug Use among Children and Adolescents*. Within it are sixteen principles to help leaders conceptualize, plan, select, and deliver prevention programming. While a summary of the principles will not be provided here, school counselors are encouraged to download this free resource from the NIDA website (see
Robertson et al. 2003). Wagner, Tubman & Gil (2004) developed a more focused list of ten key components specifically for school-based intervention and in 2007, Winters, et al. condensed the list to seven which are summarized below.

First, effectiveness of any program is dependent upon timing, duration, frequency, and intensity of exposure. The literature has determined that prevention efforts are more effective if implemented before the onset of significant drug problems which again highlights the need to focus on initiation and early stages of use. Moreover, in a list of what does not work in substance prevention, the Minnesota Prevention Resource Center (2010) notes “single shot” assemblies and presentations. Despite the competing demands for classroom time, especially in an era of standardized testing, prevention curriculum must be given adequate attention.

Secondly, the delivery techniques need to be standardized and the staff who implement the program need to be monitored. School-wide prevention programs will be delivered by staff with varying backgrounds, levels of training, and experience in such curriculum. Therefore, standardizing and monitoring implementation can help assure quality delivery is consistent. Related to standardization, schools must understand the need for sufficient orientation and training opportunities for all staff involved with the program. The authors suggest being sensitive to the fact that teachers may feel overloaded or that intervention efforts go beyond their scope of responsibility. To help increase “buy in,” it can be helpful to have staff participate in the design and implementation of the program as long as it remains true to the overall program’s intent. School counselors can play a large role in both training staff in the effective delivery techniques as well as helping lead orientation efforts.

Another vital component to success is organization-wide recognition of the extent and nature of the problem behavior and potential benefits of implementing an intervention program.
Implementers must be proactive in engaging students, staff, and administration in the program. Administrators and teachers need to view it as effective and efficient and students need to view the content as relevant. School counselors are a natural choice for educating the staff on the various educational, personal, and social impacts of substance use and conveying why prevention efforts within the school are necessary.

Also contributing to a program’s success is a written policy of the school to support substance abuse prevention and intervention programs. It is even better when this policy is proactively shared with parents and community prevention efforts to spread the messages beyond the walls of the school. Additionally, a written policy regarding substance use and its behavioral consequences is fundamental in setting school expectations. In a study of eleven urban and suburban public high schools in New York, Finn (2006) found that most students would acknowledge that drug use is harmful to their school work and that it is against school policy, yet many students did not appear to know what specific actions were taken in their schools to punish drug use. She also discovered that schools with high levels of drug problems are less likely to expel students for drug activity than schools with fewer drug problems. Her study serves as a reminder of how important clear expectations and consistent, meaningful consequences are to shaping the culture of a school and the attitudes of the students.

The final two factors for success stress that school-based prevention programs should be bridged with other influences in students’ lives and provide students with the opportunity to practice and assimilate changes within their natural environments. The authors note that stand alone efforts often produce short term behavior change and thus the content needs to be linked to students’ “real life” including friends, family, and the larger community. Parent education nights at the school are just one example of how to bridge this gap. Moreover, the “engagement factor”
is key. As Scott (1997) points out, adolescents typically view the negative consequences of substance abuse the same way they view old age or mortality—an abstraction that is not relevant to them in the here and now. Program materials based on highly traditional models of classroom instruction or taken from adult-based interventions are less effective and thus the most successful programs utilize a variety of materials and approaches that are relevant to students.

**Implementing a Program within a School**

While the vast majority of schools are engaged in some sort of prevention activity, there is a need to continually assess the effectiveness of those activities. Moreover, administrators and other school personnel are continually bombarded by publishers offering new curriculum resources, including pre-packaged prevention curricula. Schools need a clear method for assessing their individual needs as well as choosing appropriate programs. Burrow-Sanchez and Hawken (2007) modify information provided by Robertson et al. (2003) and outline the four crucial steps schools must take in planning to implement a substance abuse prevention program. They are described below.

**Steps toward implementation.** First, school personnel need to know the actual severity of the problem within their school. Instead of relying on observations in the hallways and principal’s office, they need to collect original data through surveys and use existing data. As Scott (1997) rightly points out, the development of programs and policies about alcohol and other drugs without a thorough investigation of the unique attitudes and patterns of use among students can lead to program failure and an enormous waste of human and financial resources. Burrow-Sanchez and Hawken (2007) caution against school personnel creating their own surveys without consulting with experts and offer the Communities That Care Youth Survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002, as cited in Burrow-Sanchez and
Hawken, 2007) as a standardized survey option that is available free of charge through the National Clearinghouse for Alcohol and Drug Information (http://ncadi.samhsa.gov). Existing data is available in the form of previous surveys as well as records of discipline referrals and referrals to outside substance abuse treatment agencies. School counselors in Minnesota are also reminded of the Minnesota Student Survey as a valuable data source (MDH, 2007).

Next, school personnel need to determine whether the school is ready to implement a school-wide substance abuse prevention program. Nothing is more frustrating than having the extensive time and energy put into implementing a successful program destroyed by eroding enthusiasm or even active staff resistance. The nine-stage community readiness model developed by Plested, Oetting, and Swanson (2000) as cited in Burrow-Sanchez and Hawken (2007) and Robertson et al. (2003) can provide schools with a way to assess where they are as a staff and where they need to go in order to establish a viable program. The nine stages are: no awareness (of a substance use problem within the student body), denial, vague awareness, preplanning, preparation, initiation, stabilization, confirmation and expansion, and professionalization.

Burrow-Sanchez and Hawken (2007) also point out that schools need to review existing programs in their schools and communities to determine specific needs that are not being addressed. Obviously, it makes no sense to go through the process of implementing a new comprehensive prevention program if current, effective services are in place. For example, a school may have an effective universal program in place but discover it needs to add selective and indicated programming.

Finally, school personnel should make connections with community organizations that can provide resources and support for long-term implementation of the program. These connections are especially important for selected and indicated programs which may require
additional staffing which is not in a school’s budget. The authors suggest collaboration with psychology graduate programs with intern students as well as local mental health organizations as ways to help deliver the programming.

**Selecting resources and the challenge of “evidence-based” programs.** In their September 2009 newsletter, the NIDA ran the following headline: “Few U.S. High Schools Use Evidence-Based Drug Prevention Curricula.” The short article summarized the work of Ringwalt et al. (2009) who found that “Out of 1,392 nationally representative school districts participating in the survey, only 10.3% used one of the six evidence-based curricula” (NIDA, 2009a, p.3). While certainly a shocking statistic, what lay people and practitioners need to understand is the challenge of finding a program that is universally agreed upon as effective. Any number of articles and studies within the literature highlight different programs for endorsement, criticism, or sometimes both. Additionally, various publishers are eager to sell their “proven” programs to schools. Wagner et al. (2004) attribute the lack of research and clear conclusions for school-based interventions to an overall reluctance on the part of school administrators to participate in such studies and especially in acknowledging that their school may have a substance use problem.

In 1997, SAMHSA began providing a list of approved programs through its National Registry of Effective Programs (NREEP). In 2007, the name changed to the National Registry of Evidence-Based Programs and Practices and with the name change came a small but significant change in focus. Instead of designating specific programs as models, “The purpose of this registry is to assist the public in identifying approaches to preventing and treating mental and/or substance use disorders that have been scientifically tested and that can be readily disseminated to the field” (NREEP, 2010, About section, para, 2). The searchable database currently contains
159 interventions with new summaries continually being added. A report by the Maine Office of Substance Abuse (2007) explains the website’s intention is to allow more room for innovation and focus more attention on specific behavioral outcomes of certain interventions. The revised registry also recognizes the limits strict adherence to “evidence based” practices can place on individual situations. As the website states, “By providing a range of objective information about the research that has been conducted on each particular intervention, SAMHSA hopes users will make their own judgments about which interventions are best suited to particular needs” (NREEP, 2010, What is Evidence-Based? section, para. 3). Beyond NREEP, Robertson et al. (2003) also provide examples of universal, selected, and indicated programs that are approved by the NIDA for various grade levels. The list is not meant to be exhaustive. While acknowledgement of the need for flexibility is certainly beneficial to schools, Brounstein, Gardner, and Backer (2007) maintain that the current view in the literature is that already-developed, evidence-based programs are preferred. They further warn against a school trying to create its own program from a list of prevention principles or being too liberal in their adaptations of set programs based on their specific school populations. Overall, like any curricular area, schools focusing on prevention must take time to determine their own needs, educate themselves on best practices, and then find the best available resources to meet those needs.

**Final thoughts on implementation.** A perhaps obvious, but easily forgotten point to reiterate when thinking about implementing prevention programming is that it is truly meant to be comprehensive. That is, it targets all levels of adolescent substance use from experimentation to abuse. Often it is easy to equate universal efforts with an entire program and the process of implementation can be seen as simple as selecting packaged curriculum. A prevention program
that is truly comprehensive goes beyond classroom curriculum that is delivered to all students in a required health class. It involves all staff members and establishes multi-level interventions as well as processes for identifying students in need of those interventions. The amount of dedication, patience, and stamina needed on the part of school prevention leaders cannot be overstated.

In a case study of two schools implementing prevention programs, Callahan, Benton, & Bradley (2001) summarize what the school personnel learned in the course of their experience:

1) A solid knowledge base in substance abuse prevention is key. Individuals need to know how to recognize resistance and denial (selves and others) and how to deal with it.

2) Successful prevention efforts will take significant resources in terms of time, energy, and finances.

3) Support from administration and other decision makers is imperative.

4) Before initiating the program, a thorough understanding of the students, school, and community is vital.

5) Distrust and denial from parents and the community may need to be overcome.

6) The process of implementing a program is labor and emotionally intensive. (Findings and Discussion and Implications sections)

Highlighting the substantial, school-altering efforts that are necessary in implementing and maintaining a program is not meant to discourage school personnel, but rather reinforce the idea that if true change is to come to adolescent substance use and abuse rates, then true change needs to come to our prevention approaches in the schools. School counselors are fundamental in leading this movement.
The Role of School Counselors in Prevention Programs

The school counseling profession has a history of adaptation and redefinition as the needs of students, schools, and society have changed throughout the twentieth and now twenty-first centuries. The ASCA National Model for School Counseling Programs strives to illustrate the vital role school counselors play in the academic, career, and social/personal development of all students and conceptualizes professional school counselors as school leaders and educational advocates who collaborate with stakeholders and bring about systemic change when necessary (ASCA, 2005). Unfortunately, too many school counselors are unable to live out this vision due to unmanageable caseloads, the assigning of inappropriate duties within the school, and a general misunderstanding of their role on the part of administrators, teachers, and sometimes even the counselors themselves. Adolescent substance use and abuse prevention is the ideal venue for school counselors to use their training to truly impact a school. Sales (2004) laments, “The vast majority of teacher-educators do not see substance abuse as ‘their’ problem. Educators in psychology, school psychology, school counseling, mental health counseling and rehabilitation counseling do not either” (p.10) and passionately conveys that school counselors are in the best position to serve in leadership roles as initiators, coordinators, and directors in implementing and sustaining a school’s comprehensive prevention program. Substance use is one of the most significant barriers to student academic achievement and personal development. Simply put, school counselors have the skills necessary to lead a school through comprehensive prevention programming implementation as well as an ethical obligation to their student to do so.

One small, but important, ASCA recommended way school counselors can contribute to prevention efforts is to collaborate with teachers to provide guidance curriculum lessons (Watkins, et al. 2006). Indeed, actually having school counselors deliver lessons can positively
impact their effectiveness. A study by Ringwalt et al. (2009) revealed that individuals other than the regular classroom teacher (other teachers, school counselors) who presented material to a class were consistently more successful than those who were with the students every day. That said, it is important that a school counselor’s role in prevention is not limited to teaching guidance curriculum. Sales (2004) recommends school counselors not only assist teachers in delivery of K-12 prevention curriculum, but also help teachers develop more supportive interaction skills with students, ensure the anti-drug environment of the school, and obtain family and community support. These activities all fall under the ASCA definition of Systems Support (ASCA, 2005).

Finally, it is important to note that school counselor leadership in school prevention efforts not only benefits students, but can benefit the profession as well. As Sales (2004) maintains, such a shift in professional duties heightens the visibility of school counselors within the school and moves school counseling from the periphery of education to the center. For this shift to take place, however, school counselors need to increase their knowledge of adolescent substance use, abuse, and its effect on schools. Moreover, they need to be willing to reduce time spent on activities such as scheduling classes with students or addressing remediation or problems through one-on-one counseling. Such activities have become associated with school counseling and may have become comfortable for counselors despite ASCA guidelines. In a final statement Sales candidly declares:

In all aspects of prevention programming, school counselors are challenged to get out of their offices and into the school community where their skills in interpersonal communication, problem solving, dispute resolution, and listening can be utilized to
promote climates of support and nurturance that mitigate risk and reinforce individual and community resiliency. (p. 87)

Student substance prevention may very well become the basis for solidifying the professional identity of the twenty-first century school counselor.

**Intervention**

While school counselors can and should serve as leaders and consultants in establishing universal prevention efforts, they undoubtedly play a more direct role in selected and indicated level prevention. Prevention efforts at these levels usually come through individual and group interventions. Thus, school counselors need to be able to assess a student’s level of use, determine which interventions are most appropriate, and help facilitate those interventions within or outside of the school.

**Assessment**

Most school counselors do not feel qualified to perform substance abuse assessments. This is not surprising due to their lack of formal training in substance abuse issues. Nevertheless, they may very well be the only professionals in the school with any mental health training and become the natural resource parents and teachers turn to when they are concerned about a student. Numerous brief screening tools exist within the public domain and do not require formal substance abuse training, thus making them appropriate choices for school counselors and other school mental health professionals. A list of such screening tools is provided in the Appendix.

**Consent and confidentiality.** Before assessing for a substance abuse problem, it is important for school counselors to review relevant laws and policies regarding consent and confidentiality. According to Burrow-Sanchez (2007), some schools may require parental consent before meeting with a student regarding substance abuse. Other schools require consent
after one initial meeting with a student. However, in Minnesota, parents do not need to give consent for pregnancy tests, venereal disease tests, or alcohol or drug abuse assessment or treatment (Minnesota Office of the Revisor of Statues, 2009). That said, it is of course prudent for school counselors to clarify school and district policy before proceeding. Moreover, since it is inappropriate for school counselors to formally assess chemical dependency or abuse, it is best to get consent before screening.

**Steps in the screening process.** Burrow-Sanchez and Hawken (2007) outline four steps in the screening process. The first is determining whether or not screening is even necessary. When a school counselor receives direct information about a student’s substance use at school, a screening is warranted. Information can come through the student being caught in possession of drugs at school, coming to school under the influence, or a parent, teacher, or peer providing information about suspected use. The authors also suggest screening individual students in which multiple risk factors are present. However, as Catalano, Haggerty, Gainey, Hoppe, and Brewer (1998) remind us that whenever high-risk individuals are targeted, care must be taken to avoid potential harm from labeling. School counselors should take care to examine the risk and protective factors an individual faces and establish true cause before screening.

The next step is to conduct the actual screening through a brief interview and self-report screening tool. School counselors should obtain information about the drug(s) the student is using, age of onset, frequency of use, as well as the relevant risk factors in the student’s life. They may also want to ask about the reasons why the student uses and any negative consequences substance use has brought thus far. It is important to note the benefits of a positive working relationship between the school counselor and student at this point in the process. Maintaining a non-confrontational attitude is important as students who are being referred to the
School counselor for substance use are likely to already be resistant. Miller and Rollnick (2002) as cited in Burrow-Sanchez and Hawken (2007) state that working with this resistance instead of against it is vital. Explaining how drug-use information will and will not be used, reviewing confidentiality policies, and avoiding directly telling the student to stop using are strategies that can help build the relationship.

Once the screening is complete, it is necessary to decide whether or not a more extensive assessment by a clinical professional is needed. While brief screenings can detect substance use, more comprehensive assessments can specify the severity of substance abuse. They include a clinical interview, gathering information on family history, and screening for other disorders. Sometimes such assessments can be given at school by qualified individuals such as school psychologists, but usually students need to be referred to a professional in the community to receive them. In any case, the final step is for a school counselor to follow up after the larger assessment and serve as a resource for the student, outside agency, and family in terms of helping coordinate the student’s treatment and academic needs. In situations where the initial screening comes back negative, school counselors should still monitor the student and keep him or her in mind for other selected level prevention activities.

Screenings performed by school counselors can certainly aid in determining if a student needs a referral for treatment outside of the school. However, sometimes the substance use problem is such that interventions within the school are appropriate. We now turn to a discussion of both options to make the distinction clearer.

**Referrals and the School Counselor Role in Outside Treatment**

Obviously one of the most important responsibilities school counselors have is referring students with high needs to appropriate resources within the community such as mental health
agencies and treatment centers. In terms of substance prevention, referrals to inpatient or outpatient treatment would be considered prevention at the indicated level and are reserved for individual students who demonstrate clear signs of substance abuse or dependence. It should be noted here that too often it is assumed that higher level preventative interventions are only appropriate at the high school level. Terry-McElrath, Johnston, O’Malley, and Yamaguchi (2005) point out that given the significant number of eighth-grade students who report substance use, it may be important to ensure treatment access availability at the middle school level, at least via external referral options.

When students are in formal treatment outside of school, school counselors play a significant role both during and after the process. Burrow-Sanchez and Hawken (2007) summarize some of the tasks school counselors must perform during such times with the primary one being serving as a liaison between the treatment agency, school, and family. After obtaining appropriate consents to release information, counselors may need to provide the agency with academic records, communicate with teachers within the school, arrange homebound instruction or credit recovery, and, most importantly, help develop a reintegration plan for when the student returns to school.

Returning to school after treatment is a critical time for students. The NIDA estimates an individual’s chance of relapse after drug treatment is 40-60% (2009c). Furthermore, Burrow-Sanchez and Hawken (2007) point out that many treatment agencies develop a detailed aftercare plan but provide no follow-up to ensure that the plan is successfully implemented. While it is unrealistic to expect school counselors to be solely responsible for a student’s post-treatment success, they are in the best position to provide support at school. Beyond the somewhat obvious recommendation that school counselors communicate with the treatment facility upon a student’s
discharge, Wood, Drolet, Detro, Synovitz, and Wood (2002) maintain that they should also continue to assess for substance use behaviors, formulate additional treatment needs, and provide counseling as appropriate.

Fisher and Harrison (1993) offer insight into some of the counseling needs students may have upon return. They report that the majority of relapses can be attributed to negative emotional states, interpersonal conflict, and social pressure. School counselors can check for these and other potential stressors. The authors suggest helping students create a list of high risk situations and coping strategies, examining the cognitive factors that perpetuate negative emotional states, working on conflict resolution to help with interpersonal conflict, and addressing any social skill deficits which may present barriers to forming friendships. Another way school counselors can help such students is by providing a balanced perspective as they can easily feel overwhelmed trying to juggle sobriety, academics, and social relationships Overall, it is important for school counselors to remain a constant source of support and encouragement. As Burrow-Sanchez and Hawken (2007) rightly state, “If the students see you as someone who will not judge them for behavior choices, the likelihood that they will seek out assistance when faced with vulnerability to a slip or relapse is much greater” (p. 110).

**Individual Interventions within the School Setting**

Unfortunately, a referral from a school counselor does not guarantee treatment. In 2007, of the 1.9 million school-aged children who met the criteria for past year substance abuse or dependence, less than 134,000 were admitted to outpatient or inpatient treatment (SAMHSA, 2009a). While there are numerous reasons students who need treatment do not get it, Winters et al. (2007) suggest that one factor is cost containment pressures in the health care service delivery system which result in a narrower criteria for admission into treatment. Simply put, treatment
facilities are focusing on the more severe cases of substance abuse. The question then becomes what to do with students who engage in less serious drug use—those whose use is experimental or perhaps moderate but without physical dependence.

Burrow-Sanchez and Hawken (2007) suggest it is appropriate for school mental health professionals to consider administering interventions with such students. The American Society of Addiction Medicine (ASAM) also notes that schools can provide direct one-to-one counseling with at-risk individuals at the early intervention stage (Terry-McElrath et al. 2005). To be clear, school counselors should not attempt to provide therapeutic intervention with students whose substance use has escalated to abuse or who have other significant co-morbid disorders. Nor should school counselors provide interventions for which they are not qualified. However, for those students “in the middle” of initiation and abuse, brief one-on-one interventions may be an appropriate selected level prevention activity.

Motivational enhancement therapy. Brief interventions vary in length and approach, but Winters, et al. (2007) suggest two to four 1-hour sessions are average. Overall, the literature endorses the use of brief interventions that utilize aspects of motivational enhancement therapy (MET) when working with adolescents with mild to moderate substance use. MET is “a client-centered approach that helps patients resolve ambivalence about engaging in treatment and strengthen their motivation to build a plan for change” (Riggs, 2003, p. 21). One of its main theoretical tenets is that motivation is a state that can be altered. It is also characterized by placing the responsibility for change on the client and an empathetic, encouraging, non-confrontational therapy style. For example, in describing a MET-based intervention for teens who use marijuana, Walker, Roffman, Stephens, Wakana, and Berghuis (2006) explain that ambivalence about marijuana use is viewed as normal, adolescents are not labeled as having a
substance problem, and they are treated as experts and decision makers regarding their use. Finally, MET utilizes motivational interviewing which is characterized by five traits: expressing empathy, avoiding argumentation (especially about denial), rolling with resistance, developing discrepancy (how present behavior conflicts with future goals), and supporting self-efficacy (Miller and Rollnick, 1991, 2002, as cited in Winters, et al. 2007).

**Adlerian approach.** Adding an Adlerian lens to MET-based brief interventions can also serve school counselors and students well. As introduced earlier, Adlerian Psychology maintains that virtually all individuals have a desire to belong, but become discouraged for various reasons and replace that original goal with a mistaken one that leads to less adaptive behavior. Dreikurs (1964) maintained that there are four main “mistaken goals” most often seen in children: the goals of attention, power, revenge, and inadequacy. While an adolescent’s substance use can certainly function to fulfill one of these goals, there are numerous possibilities from social acceptance to perceived maturity to emotional anesthesia. By using Adlerian insight to uncover the goal behind the substance use, school counselors can not only help students find healthier ways to meet their needs, but have a clearer discussion about how the present mistaken goal-driven behavior is conflicting with long-term life goals.

**Advantages and challenges.** Brief interventions lend themselves well to a school setting. Their accessibility and concise nature minimize academic disruption and the non-confrontational approach may increase buy-in from students who are used to being lectured about substance use. More importantly, the techniques are consistent with school counselors’ current levels of training. Obviously school counselors need to familiarize themselves with the specific interventions they choose to use and should never use tools or techniques for which they are not
qualified. That said, most brief interventions are appropriate for professional school counselors and offer promise in helping reduce student substance use.

While the advantages are many, school counselors must be aware of potential challenges in using brief interventions as described here. First, counselors may encounter resistance from school administrators. As Winters et al. (2007) states, “No school administrator wants to place a spotlight on a student health problem that can easily be misinterpreted by the community as a sign that the school has a drug problem” (p. 202). It must be remembered, however, that ideally brief interventions are a small part in a comprehensive school based prevention program that has been implemented in a manner conducive to gathering administrative and community support. If that has unfortunately not happened, school counselors will need to provide education and justification.

A second challenge comes in the fact that some school counselors may feel ethically challenged by not openly disapproving of a student’s substance use in light of school policies and laws. Yet, it must be remembered that a non-confrontational style is not necessarily synonymous with endorsement. Winters et al. suggests actively acknowledging such regulations and continually reminding students it is ultimately their choice and responsibility in regard to continued and future substance use. While such a concern is valid, school counselors should take comfort in the fact that a non-confrontational style will lead to greater disclosure, more students feeling comfortable utilizing the counseling office, and ultimately, more students receiving help.

**Resources.** There are numerous ways to structure MET-based brief interventions within a school. School counselors are encouraged to educate themselves further and explore the available resources. A suggested place to start is the chapter on individual interventions in Burrow-Sanchez and Hawken’s (2007) *Helping Students Overcome Substance Abuse: Effective*
Practices for Prevention and Intervention. They outline a nine-session intervention model that goes through the phases of building and strengthening motivation to change as well as developing and practicing skills for maintaining changes. In addition, they provide ready-to-use worksheets for the intervention. Another option is the official website of motivational interviewing which contains links to additional information as well as training resources (http://www.motivationalinterview.org). Finally, SAMHSA’s NREPP website has scores of interventions related to MET, motivational interviewing, or brief interventions (http://www.nrepp.samhsa.gov/index.asp). These and other resources will provide school counselors with the tools, knowledge, and strategies to integrate school-based interventions into their prevention program.

**Conclusion**

Without doubt, substance abuse is one of the most important issues our nation faces. The logic could not be clearer: if we are to significantly change adult addiction in this country, we need to focus on preventing substance abuse during adolescence. Through comprehensive prevention programming, schools can help not only prevent initiation of substance use, but intervene in ways that circumvents the escalation to abuse. While there are certainly no easy answers and while future research will continue to reveal what does and does not work in prevention practices, one fact is abundantly clear: school counselors have a professional and moral obligation to lead schools in their efforts.

There are few barriers as devastating to academic, career, and personal/social development as a substance abuse problem. By strengthening their focus on adolescent substance use, advocating for effective prevention programming, and directly intervening when use begins, school counselors can help lower that barrier. It will take passionate commitment, a dedication to
remaining current in the research, and perhaps a willingness to redefine their roles within a school. Yet, as leaders in substance prevention, school counselors will be able to not only change their schools, but change—and perhaps save—lives.
References


Pregnancy, venereal disease, alcohol, or drug abuse, abortion. Retrieved from https://www.revisor.mn.gov/statutes/?id=144.343


National Institute on Drug Abuse (NIDA). (2010). Drugs of Abuse Information. Rockville, MD


### Appendix

#### Brief Screening Tools

<table>
<thead>
<tr>
<th>Screening Tool</th>
<th>Length</th>
<th>Areas Covered</th>
<th>Specialized Training Required?</th>
<th>Cost</th>
<th>Reference</th>
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<tbody>
<tr>
<td>Adolescent Alcohol Involvement Scale (AAIS)</td>
<td>14 items</td>
<td>Alcohol problems</td>
<td>No</td>
<td>Contact author</td>
<td>Mayer and Filstead (1979)</td>
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<td>Adolescent Alcohol and Drug Involvement Scale (AADIS)</td>
<td>14 items</td>
<td>Alcohol and other drug problems</td>
<td>No</td>
<td>No</td>
<td>Moberg (2000)</td>
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<td>Adolescent Drug Involvement Scale (ADIS)</td>
<td>13 items</td>
<td>Drug problems other than alcohol</td>
<td>No</td>
<td>No</td>
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<td>Adolescent Drinking Index (ADI)</td>
<td>24 items</td>
<td>Alcohol problems</td>
<td>Minimal</td>
<td>Yes—contact Psychological Assessment Resources</td>
<td>Harrell and Wirtz (1989)</td>
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<td>CRAFFT</td>
<td>6 items</td>
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<td>Drug Abuse Screening Test-Adolescents (DAST-A)</td>
<td>27 items</td>
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<td>Drug and Alcohol Problem Quick Screen (DAP)</td>
<td>30 items</td>
<td>Alcohol and other drug problems</td>
<td>No</td>
<td>No</td>
<td>Schwartz and Wirtz (1990)</td>
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<td>Screening Tool</td>
<td>Length</td>
<td>Areas Covered</td>
<td>Specialized Training Required?</td>
<td>Cost</td>
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<tr>
<td>Drug Use Screening Inventory-Revised (DUSI-R)</td>
<td>159 items</td>
<td>10 areas (substance abuse, behavior problems, peer relations, etc.)</td>
<td>No</td>
<td>Yes—contact Ralph Tarter, Department of Pharmaceutical Sciences, University of Pittsburgh School of Pharmacy</td>
<td>Tarter et al. (1992)</td>
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<td>Personal Experience Screening Questionnaire (PESQ)</td>
<td>40 items</td>
<td>Alcohol and other drug problems</td>
<td>No</td>
<td>Yes—contact Western Psychological Services</td>
<td>Winters (1992)</td>
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<td>Problem-Oriented Screening Instrument for Teenagers (POSIT)</td>
<td>139 items</td>
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<td>No</td>
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<td>Rutgers Alcohol Problem Index (RAPI)</td>
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<td>Substance Abuse Subtle Screening Inventory-Adolescents (SASSI-A2)</td>
<td>81 items</td>
<td>Probability of substance use disorder</td>
<td>No</td>
<td>Yes—contact the SASSI Institute</td>
<td>Miller (1985)</td>
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Note: Information on this table is based on the following sources: Burrow-Sanchez and Hawken (2007) and Winters, Leitten, Wagner, & O’Leary Tevyaw (2007)