

Addiction Medicine and the Primary Care Physician

Addiction in Adolescents

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Some symptoms seen in adolescents with the disease of chemical dependence are similar to those seen in adults. Because of their age, lack of personality development, dependent family role, immaturity, and acting out of age-related behavioral tendencies, however, symptoms specific to this population occur. These may become exacerbated and telescope—intensify and shorten—the progression of the disease. A plan to solve the problem of adolescent chemical dependence must focus on education, demonstration, cooperation, prevention, intervention, habilitation, treatment, and recovery. The phenomenon of denial in a chemically dependent adolescent yields a more complex delusional system that dictates age-specific intervention approaches. Habilitation is necessary for successful adolescent treatment and recovery because what is needed is an initial process of learning, not relearning or rehabilitation. If specific adolescent issues are addressed through comprehensive, multimodality treatment approaches, then treatment and recovery outcomes for chemically dependent adolescents and their families are substantially improved. Primary care physicians must be alert to the possibility of drug use in their young patients and aware of treatment options.

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Adolescence is a confusing and complex period in life, a time of questioning, exploring, and risk taking. Drug experimentation is becoming an increasingly prevalent part of an adolescent's rite of passage. Young people are responding en masse to the alluring promise of today's chemical culture, which seems to promise quick relief and instant gratification, popularity, and an attractive peer group, not to mention sexual prowess and financial success. All of these offerings, which represent primary adolescent issues and desires, are enhanced further through television, one of the primary reference sources for the adolescent population.

Progression of Drug Use in Adolescents

Research indicates several reasons for adolescent drug experimentation: drugs are often readily available; they provide a quick, easy, and cheap way to feel good. They offer a means to gain acceptance in peer relationships and to modify unpleasant feelings, reduce disturbing emotions, alleviate depression, reduce tension, and aid in coping with life pressures. Most adolescents, however, probably ingest drugs to feel powerful, to be "cool," and to be in with a group.¹

The effects of drug abuse include difficulty with concentration, mood, coordination, and judgment. Drugs may cause paranoia, hallucinations, and agitation. Problems with memory, impaired attention span, and delayed maturation may lead to school dysfunction.¹

The leading causes of death among young Americans between the ages of 15 and 24 stem from violent events—homicides, suicides, and accidents. A significant number of these can be attributed to using alcohol and drugs.²

In 1986, 65% of high school seniors reported using alcohol on a monthly basis, 30% used cigarettes, 23% marijuana, and 6% cocaine. Most high school seniors have tried

illicit drugs.³ Overall, 61% of seniors in 1985 admitted to such use, and 40% admitted using an illicit drug other than marijuana. According to MacDonald, 54% of high school seniors have tried marijuana at some time, 17% have tried cocaine, and 26% have tried amphetamines.²

Adolescents who use one drug are likely to use another. They usually begin with legal drugs—alcohol or tobacco—progress to marijuana, and may eventually go on to other drugs or combinations of drugs. About half of adolescents who try marijuana will eventually progress to more potent drugs. Conversely, the use of drugs such as cocaine or heroin is unusual in young people who have not previously used alcohol, tobacco, or marijuana.⁴ Alcohol and tobacco, particularly, and sometimes marijuana are thus known as "gateway" drugs; their use greatly increases the probability of later use of other substances.

With certain variations, adolescents biologically and genetically predisposed to chemical dependence follow a fairly well-marked path to addiction when exposed to mood-altering substances. They spend time using and abusing substances before exhibiting early, then advanced, symptoms of addiction.⁵ This journey is considerably more rapid in adolescents than in adults^{1,5-7} and appears to be related to age, sex, ethnic origin, and drug of choice. This increased progression and rapidity of the disease process and increased morbidity and mortality of juvenile or adolescent chemical dependence appear similar to other adolescent medical illness, such as juvenile diabetes mellitus or juvenile rheumatoid arthritis.

Many factors differentiate adult and adolescent chemical dependence. Polydrug use is much more prevalent among teens. The teens themselves are often unaware of the quantities and types of drugs they have been using, which makes

medical assessment and a differentiation between chemical abuse and addiction more difficult. The reasons for chemical use in adolescents are also different from those usually seen in adults. Adolescent drug use is more internally motivated rather than due to outside stressors or external motivation. Most adolescents use drugs to feel better or to cover up unpleasant feelings, to increase their confidence and self-esteem, and often just to experience the “high” the drugs give them.

Recognition and Intervention

The progression of the disease makes early recognition and intervention all the more crucial. The more entrenched denial—that is, delusional—system in adolescents is another factor that affects the identification and recognition of symptoms. Most adolescents do not experience the more dramatic withdrawal symptoms seen in adults or the dramatic long-term consequences of adult drug use, such as loss of job, home, spouse, and family. Adolescents are usually protected by a larger system of enablers—teachers, peers, and, most profoundly, parents—all making it difficult to admit that a problem exists.

Keeping in mind the need to address all of the specific clinical needs of this age group, it is also imperative to recognize that the disease of addiction manifests itself in all realms of an adolescent’s life—physical, psychological, sociologic, spiritual—just as it does with their adult counterparts.⁶ The manifestations, however, are simply emotionally, behaviorally, attitudinally, and chronologically more developmentally specific.

Although the American Medical Association recognized alcoholism as a disease in 1954, it has only been in the past decade that health care professionals have begun to realize that the disease of chemical dependence manifests itself in the adolescent population because most adolescents did not have physical dependence or well-defined withdrawal symptoms, nor did they exhibit the physiologic deterioration so commonly seen in adult alcoholics and addicts. The open drug culture of the 1960s and early 1970s did much to shed light on the extent of the drug problem in the adolescent population.² As emergency departments became flooded with adolescent drug overdoses and complications, it became apparent that some teenagers were more than socially involved. Many of these adolescents showed the same social deterioration that was being seen in adult addiction or alcoholism—they dropped out of school, out of family, and, all too frequently, out of life.⁸

Early Addiction

Addiction may begin with experimental use of substances at a young age. The average age of first use is between 11 and 12 years.⁹ Many teens begin use as a result of peer pressure. More recently there has been an increasing number of adolescents whose first encounter with mood-altering substances occurs within the home. Parents are the most powerful role models children have. Adolescents are likely to emulate their parents’ drinking or drug use patterns. More teens in treatment today are reporting that their first use of alcohol or other drugs occurred with parental supervision. This experience translates to a belief that the use and abuse of chemicals are permissible. Coupled with the emotional immaturity of the adolescent, the potential danger of this message is obvious. Use in the early stages of addiction becomes

more regular, with the teen putting more mental and physical energy into obtaining and ingesting drugs and alcohol. As use begins to increase and become more regular, teens begin to depend on chemicals as a coping mechanism. They report increased feelings of self-assurance, security, and belonging.

Intermediate Addiction

Intermediate addiction is characterized by the accumulation of adverse consequences in an adolescent’s life. As the disease begins to progress, teens experience a shift in priorities, a change in attitude, and an increase in denial. They begin to have problems in school, at work, and at home, with family and friends, legally, emotionally, and physically. The phenomenon of denial becomes increasingly entrenched, precluding the realization of the connection between adverse consequences and chemical use. Denial does not allow adolescents to see themselves or their situation as it really is, and thus permits them to believe the lie of control over chemical use.

Advanced Addiction

As a chemically dependent adolescent’s use continues, the disease escalates to advanced addiction. Because of an abundance of enablers and the ability to con, hide, and lie about drug use, it is not uncommon for parents not to recognize that their teen is even involved in drugs until the disease has progressed to an advanced level. During advanced addiction, consequences compound, becoming more noticeable externally, while the emotional pain, low self-esteem, and loneliness increase internally. The adolescent perpetuates a cycle of compulsive use, negative physical, emotional, and social consequences, negative feelings about self, and increased chemical use to escape these feelings. Unless intervention takes place, a chemically dependent adolescent’s disease will continue to progress to imprisonment, institutionalization, or premature death.

Prevention and Treatment

Adolescents appear more vulnerable or susceptible to the addiction process. Young people are at risk of exposure to chemicals in today’s society, and those who are genetically or biologically predisposed to addiction will clearly manifest this chronic, progressive, potentially fatal disease if untreated.^{5,10,11} Chemical abuse and progression are preventable, however, and chemical dependence when present is treatable.

One of the most important ways to solve the problem of substance abuse is to change perceptions and attitudes about chemical abuse and dependence. Education begins this process. Facts about alcohol and drug abuse can be taught so that substance abuse can be perceived as an unacceptable means of coping with everyday life. Accurate information regarding addictive disease allows an understanding that precludes moral and ethical stigmas often associated with alcoholism and drug addiction. True understanding is then demonstrated by actions. Demonstration, therefore, simply implies responsible and effective role modeling. Furthermore, the cooperation of school and community programs with churches, youth services, and parental organizations assists adolescents in achieving full emotional and social growth and improving interpersonal interactions.

The prevention of chemical dependence may be the result of education, demonstration, and cooperation. The best

teaching is, of course, by example and can occur most effectively in the home environment early in a teenager's life. A distinct change in attitude, as well as in the way Americans perceive substance use, abuse, and addiction, is crucial for the primary prevention of this disease. Learning about the problem and altering the way the problem is perceived can impart the knowledge necessary to prevent it.

Because of denial and a false sense of invulnerability, adolescents tend to have an angry, rebellious, and resistant attitude towards changing their life-style and getting help. They less frequently ask for or openly accept help than do adults.¹ Treatment is commonly precipitated by legal, parental, school, or peer intervention in which a teen is faced with alternatives such as jail, expulsion from school, or leaving home versus receiving help. The phenomenon of denial dictates the need for intervention that allows the adolescent the opportunity for motivation. Intervention implies caring about someone enough to risk that person's anger and hostility temporarily as a result of the confrontation and intervention process.

Habilitation can then be seen as necessary for adolescents because what is required is an initial process of learning, not relearning or rehabilitation. Habilitation is generally defined as providing conditions that allow an adolescent to mature emotionally while acquiring nonchemical coping skills. Both peers and healthy adults are necessary to this process—in the treatment facility and in the home, school, and community. Improving interpersonal interactions, an increased sense of responsibility, honest and open communication abilities, self-respect, self-confidence, and an increased sense of security must be obtained and developed during this process.

External controls and structure are essential for adolescents to develop internal controls. It is normal for adolescents to test limits and to manipulate the external structure that is provided. It is imperative that the parent or health professional enforce these limits consistently, thereby promoting discipline and a sense of responsibility. It is necessary for parents, authority figures, and health professionals to set good examples because adolescents are extremely impressionable. What they see and hear becomes a part of them. Teenagers simply mirror adult attitudes and behavior. It is important to remember that scars are easier to prevent than to erase.

The effective chemical dependence treatment program for an adolescent must not be concerned only with the biogenetic or physiologic aspect of the disease but must also address and compensate for the emotional problems and needs that underlie the initial experimentation and usage. In addition, because of the arrest of emotional developmental due to substantial drug use, coping and developmental skills must be learned for the first time—that is, habilitation versus rehabilitation.

For successful treatment and recovery to occur, certain factors and differences must be understood and adequately addressed. Some of these factors include a treatment approach to chemical dependence as a psychosocial, biogenetic disease, recognizing the more entrenched denial and accelerated progression of the disease in this age group, the prevalence of dual diagnoses and polydrug involvement, the challenge of habilitation as opposed to rehabilitation, and the need to provide a comprehensive, individualized, adaptable, and multidisciplinary continuum of care that includes inpatient and outpatient treatment and ongoing continuing care.

Appropriate treatment approaches must include the recognition that chemical dependence in an adolescent manifests itself in a unique fashion when compared with that in an adult. That a young person may have other diagnoses which are psychiatric in nature must also be recognized. The overall goal of treatment should be to assist these young people in living chemically free and growing along healthier, more adaptive channels. With the proper treatment of an addictive disease and the concurrent emotional and behavioral problems, the chemically abusing or dependent adolescent can resume a productive life free of all mood-altering chemicals. An effective treatment philosophy is based on the idea that successful recovery and successful living can be achieved and maintained through active participation in the 12-step programs. All successful treatment services appear to be based on this approach.

Recovery

The equation of recovery is as follows:

$$\text{Sobriety} = \text{Abstinence} + \text{Tools of Recovery}$$

Both the initial and the long-term goal of recovery is the maintenance of sobriety. With adolescents the equation is modified:

$$\text{Recovery-Sobriety} = \text{Abstinence} + \text{Habilitation} + \text{Tools of Recovery} + \text{Extended Care}$$

Drug abstinence is a prerequisite for using the tools made available through Alcoholics Anonymous or Narcotics Anonymous, or both, and the treatment facility regimen. The spiritual program that is offered by these groups consists of 12 steps, each of which is "worked" until the adolescent understands it and applies it to daily living situations. As with other special groups, adolescents are thought to need an extended period of support and supervision—called aftercare, extended care, continuing care, or recovery maintenance—during which they adjust to conditions related to reentering life outside the structured treatment program. Continued follow-up through individual and group contact is necessary for one to two years.

Extended care is a necessary condition for recovery in most adolescents because of their age, immaturity, general lack of nonchemical coping skills, and the emotional and developmental lag that occurs owing to prolonged drug use during a time of supposed emotional maturation.

Diagnosis and Symptoms

The symptoms of drug abuse and addiction are recognizable, diagnosable, and treatable. Adolescent drug use, abuse, and dependence are parts of a continuum, the progression of which is preventable. As with other diseases, results are better if intervention occurs early. It is realistic to expect recovery from drug dependence, particularly in adolescents. Physicians can do much to help at all stages.

Before physicians can become involved in prevention and intervention, awareness of the frequency of drug use among teens is crucial. Because there are more than 23 million teenagers in the 12- to 17-year range—of whom, currently, 3.5 million smoke cigarettes, 2.8 million use marijuana, and 6.2 million use alcohol—it is highly likely that most physicians see many drug users, more than a few abusers, and some who are dependent. Drug abuse is a problem that affects children all across the country, in all socioeconomic classes.² Physicians should also be aware that all mood-altering substances can be highly addictive and that even an

initial experimentation with tobacco and alcohol can lead to more serious dependence.

All too often, drug abuse or addiction goes unrecognized by physicians. Accidents and injuries suffered by teenagers should suggest the possibility of alcohol or other drug abuse. Physicians who are alert and informed will consider drug abuse in the adolescent who comes to the office with symptoms such as cough, sore throat, conjunctivitis, chronic infections, or respiratory complaints. A drop in grades, a loss of interest in school, and behavioral and emotional problems are common symptoms of advancing drug abuse but usually are not recognized by parents as being drug-related. Psychoactive drug use by adolescents must always be considered in the differential diagnosis of general health or emotional problems, poor appetite, insomnia, depression, or loss of energy and motivation.

Health professionals must understand chemical dependence not only as a chronic and progressive disease but, more important, as a treatable disease. An early and accurate diagnosis leads to an increased chance for success of intervention and treatment. Many symptoms of certain drugs in adolescents can be easily misdiagnosed for psychiatric illness. Treating the observed symptom may be different from treating the drug abuse. Polydrug abuse in an adolescent further complicates the clinical picture, especially when the treating physician is unaware of the drug abuse of the patient. In addition, the younger the age that a person has exposure to a chemical, the more susceptible that person is to a psychiatric reaction.¹² The early stages of adolescent drug use may also be missed because behavioral changes may be attributed incorrectly to the normal maturation process that occurs during adolescence.¹³ For these reasons, drug abuse testing, such as urine drug screening, is essential to provide the proper treatment for the diagnosed condition.¹⁴

Pediatricians and other primary health care providers are particularly in a position to address substance abuse and

dependence prevention from a developmental perspective. They can play a notable role in informing and educating the family and the community about alcohol and drug problems. Parents, students, schools, law enforcement officials, and others may turn to physicians for assistance. Physicians must be aware of the community resources such as substance abuse prevention and treatment programs, parent action groups, self-help groups, and community-mobilized efforts to combat chemical abuse and dependence.

Early diagnosis and intervention with youth can result in enormous benefits to them, their families, and to society.

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