

Chapter 1

Drug Use: An Overview

Chapter Objectives

After reading this chapter, students should be able to accomplish the following objectives:

- Develop an analytical framework for understanding any specific drug-use issue.
- Apply five general principles of psychoactive drug use to any specific drug-use issue.
- Explain the differences between misuse, and substance use disorder.
- Describe the general trends of increases and decreases in drug use in the United States since 1975.
- Remember several correlates and antecedents of adolescent drug use.
- Describe correlates and antecedents of drug use in the terminology of risk factors and protective factors.
- Discuss motives that people may have for using psychoactive drugs, even those illegal drugs.

Chapter Vocabulary

- ADHD
- Analgesics
- Anecdotal
- Antecedent (ant eh *see* dent)
- Correlate
- Empirical
- Gateway
- Protective factors
- Reinforcement
- Risk factors

Chapter Outline

I. “The Drug Problem”

Drug use is an issue that affects individuals, families, communities, and all levels of government, not just in the United States, but around the world. The simple term *drug use* represents a complex mix of behaviors, scientific questions, legal issues, moral dilemmas, and more. As the topics are being discussed, the aim is to report evidence that is based on **empirical** data, derived from scientific studies. This stands in contrast to **anecdotal** evidence, which is typically based on one person's casual observation or perception.

A. Use Is Not Abuse

Most users of any given substance do not use it in ways that can be defined as addiction or a substance use disorder. The single most common type of illicit drug use is marijuana smoking, and the vast majority of those users are what some have called “recreational” or “social” or “casual” users.

A small fraction of marijuana users seek treatment because they want to quit and have not been able to do so without help. Even for drugs such as heroin, crack cocaine, and methamphetamine, which the media consistently portray as producing “instant addiction,” the actual experiences of most users of those substances do not support such claims.

B. Every Drug Has Multiple Effects

Although a user might be seeking only one effect (relaxation, or alertness, or feeling “high”), every psychoactive drug acts at multiple sites, both in the brain and on other organs. So relaxation might be accompanied by constipation, euphoria, and increased heart rate.

C. Amount Matters

This may seem obvious, but it's important to point out that large doses, frequent doses, or taking the drug by a method that results in a lot of the drug getting to the brain quickly can produce more intense—and sometimes different—effects, and generally more problems, than taking the same drug in a single lower dose.

D. Psychoactive Drug Effects Are Powerfully Influenced by the User's History and Expectations

Experienced users may react differently than new users, for example, showing less disruption in a driving simulator test after drinking alcohol (the same happens with marijuana). Experienced users may also report more of the positive effects of a drug, partly because of associations from their prior use.

E. Drugs, Per Se, Are Not Good or Bad

There are no “bad drugs.” When drug addiction and deviant drug use are talked about, it is the behavior, the way the drug is being used, that is being referred to. The truth is that any drug can produce either beneficial or harmful effects, depending on how the drug is used. For example, heroin is a perfectly good painkiller, as effective as any of the widely prescribed opioid **analgesics**, and it is used medically in multiple countries. Methamphetamine is available as a prescription drug in the United States, approved to treat symptoms of attention-deficit/hyperactivity disorder (ADHD) and obesity.

Drugs in Depth: Important Terms—and a Caution!

The word **drug** will be defined as “any substance, natural or artificial, other than food, that by its chemical nature alters structure or function in the living organism.” **Illicit drug** is a term used to refer to a drug that is unlawful to possess or use. Many of these drugs are available by prescription, but when they are manufactured or sold illegally they are illicit.

Deviant drug use is drug use that is not common within a social group *and* that is disapproved of by the majority, causing members of the group to take corrective action when it occurs. The corrective action may be informal (making fun of the behavior or criticizing the behavior) or formal (incarceration or treatment).

Drug misuse generally refers to the use of prescribed drugs in greater amounts than, or for purposes other than, those prescribed by a health care professional such as a physician. For nonprescription drugs or chemicals such as paints, glues, or solvents, misuse might mean any use other than the use intended by the manufacturer.

Addiction is a controversial and complex term that has **different** meanings for different people. Some people want to reserve the term only for those whose lives have been completely taken over by substance use, whereas others will apply the term broadly to anyone who is especially interested in watching television, reading, running, skiing, or any other activity.

II. How Did We Get Here?

Drug use is not new. Humans have been using alcohol and plant-derived drugs for thousands of years—as far as we know, since *Homo sapiens* first appeared on the planet. Psychoactive drugs were used in rituals that one could today classify as religious in nature. In early cultures the use of drugs to treat illness likely was intertwined with spiritual use so that the roles of the “priest”

and that of the “shaman” (medicine man) often were not separate.

Psychoactive drugs have also played significant roles in the economies of societies in the past. Wine was a significant trade item among Greek, Turkish, Egyptian, and Italian people via the Mediterranean Sea over 2,000 years ago.

One area in which enormous change has occurred over the past 100-plus years is in the development and marketing of legal pharmaceuticals. Another significant development in the past 100-plus years has been government efforts to limit access to certain kinds of drugs that are deemed too dangerous or too likely to produce addiction to allow them to be used in an unregulated fashion.

With both of these developments, the proportion of the economy devoted to psychoactive drugs, both legal and illegal, and to their regulation, has also expanded considerably. Drug problems and attempts to solve them have in turn had major influences on people and their perceptions of appropriate roles for government, education, and health care.

III. Drugs and Drug Use Today

A. Extent of Drug Use

A large number of survey questionnaire studies have been conducted in middle and high schools, as well as in colleges. This is one of the easiest ways to get a lot of information with minimum effort in a relatively small amount of time. Researchers have always been most interested in drug use by adolescents and young adults, because drug use usually begins and reaches its highest levels in this age group.

This type of research has a couple of drawbacks. The first is that this technique can only be used on the students who are in classrooms. That causes a bias, because those who skip school or have dropped out are more likely to use drugs. A second limitation is that some students may not answer questions honestly, despite our assumption that most do. There is no way of checking to see if someone really did smoke marijuana last week, as they claimed on the questionnaire.

Table 1.1 of the text presents data from one of the best and most complete research programs of this type, the Monitoring the Future Project at the University of Michigan. Data are collected each year from more than 15,000 high school seniors in schools across the United States, so that nationwide trends can be assessed.

B. Populations of Users

One very important thing to remember about the people who use a particular substance is that there is a wide range of rates and amounts of use, even within the using population. The range of drug use behaviors has important implications for one's ability to evaluate and respond to so-called drug crises.

C. Trends in Drug Use

The Monitoring the Future study, which has now been conducted annually for more than 40 years, allows one to see changes over time in the rates of drug use. Figure 1.1 displays data on marijuana use among 12th-graders. In 1975, just under 30 percent of high school seniors reported that they had used marijuana in the past 30 days (an indication of “current use”). This proportion rose each year until 1978, when 37 percent of 12th-graders reported current marijuana use. Over the next 14 years, from 1979 to 1992, marijuana use declined steadily so that by 1992 only 12 percent of 12th-graders reported current use (about one-third as many as in 1978). Then the trend reversed, with rates of current use climbing back to 24 percent of 12th-graders by 1997. Changes over the past two decades have been small, with the 2019 rate at 22 percent. Because marijuana is by far the most commonly used illicit drug, one can use this graph to make a broader statement: Illicit drug use among high school seniors has not changed a great deal in the past 20 years. Currently, marijuana use is about half as common among 12th-graders as it was in 1978, but it is more common than it was at its lowest point 27 years ago in 1992.

The National Survey on Drug Use and Health is a face-to-face, computer-assisted interview done with more than 68,000 individuals in carefully sampled households across the United States. This study shows the same pattern as the Monitoring the Future study of 12th-graders: Marijuana use apparently grew throughout the 1970s, reaching a peak in about 1980, and then declining until the early 1990s, when it increased again. The 18–25 age group does show a slow but steady increase in use over the past 25 years, whereas the 12–17 age group has been more stable. Finding such a similar pattern in two different studies using different sampling techniques provides additional confidence that these trends have been real and probably reflect broad changes in American society over this time.

Changes in rates of drug use probably reflect changes over time in a broad range of attitudes and behaviors among Americans—what can be referred to as “social trends.”

IV. Correlates of Drug Use

Much of the research on **correlates** of drug use has used marijuana smoking as an indicator, partly because marijuana use has been a matter of some concern and partly because enough people have tried it so that meaningful correlations can be done. Other studies focus on early drinking or early cigarette smoking.

A. Risk and Protective Factors

Increasingly, researchers are analyzing the correlates of drug use in terms of **risk factors** and **protective factors**. Risk factors are correlated with an increased likelihood of drug use, while protective factors are correlated with a decreased likelihood of drug use. A study based on data obtained from the National Survey on Drug Use and Health examined risk and protective factors regarding use of marijuana among adolescents (ages 12–17). This large-scale study provides some of the best information about the correlates of marijuana use among American adolescents.

In some ways, the results confirm what most people probably assume: The kids who live in rough neighborhoods, whose parents don't seem to care what they do, who have drug-using friends, who steal and get into fights, who aren't involved in religious activities, and who don't do well in school are the most likely to smoke marijuana. The same study analyzed cigarette smoking and alcohol use, with overall similar results.

There are some surprising results, however. Those adolescents who reported that their parents frequently monitored their behavior (e.g., checking homework, limiting TV watching, and requiring chores) were actually a little more likely to report using marijuana than adolescents who reported less parental monitoring. This finding points out the main problem with a correlational study: It is uncertain whether excessive parental monitoring makes adolescents more likely to smoke marijuana, or if adolescents' smoking marijuana and getting in fights makes their parents more likely to monitor them (the latter seems more likely).

The association between low academic performance and cigarette smoking was even stronger than the association between low academic performance and marijuana smoking. This leads most people to conclude that it's the kids who are getting low grades anyway who are more likely to be cigarette smokers, and the same conclusion can probably be reached about marijuana smoking.

B. Deviant Drug Use

The overall picture that emerges from studies of risk and protective factors is that the same adolescents who are likely to smoke cigarettes, drink heavily, and smoke marijuana are also

likely to engage in other deviant behaviors, such as vandalism, stealing, fighting, and early sexual behaviors, and to not do well in school. It can be useful to simply consider adolescent drug use as one of a cluster of deviant behaviors.

C. Race, Gender, and Level of Education

The first thing to notice is something that has been a consistent finding over many kinds of studies for many years: Males are more likely to use tobacco and cocaine and smoke marijuana than are females.

Expectations regarding ethnic and racial influences on drug use are more likely to clash with the data from the National Survey on Drug Use and Health. For example, overall, whites are more likely to drink alcohol and use tobacco or cocaine than are African Americans and Hispanics, and these three groups are about equally likely to use marijuana.

Education level is powerfully related to two common behaviors: Young adults with college degrees (compared to those who completed only high school) are much more likely to drink alcohol and much less likely to use tobacco.

D. Personality Variables

The relationships between substance use and various indicators of individual differences in personality variables have been studied extensively over the years. In general, large-scale survey studies of substance use in the general population have yielded weak or inconsistent correlations with most traditional personality traits as measured by questionnaires.

More recently, several studies have found that various ways of measuring a factor called *impulsivity* can be correlated with rates of substance use in the general population. Personality factors may play a small role in whether someone decides to try alcohol or marijuana but a larger role in whether that use develops into a serious problem.

E. Genetics

Genetic factors probably play a small role in whether someone tries alcohol or marijuana but a larger role in whether that use develops into a serious problem. Studies of genetic variability in impulsivity and related traits are beginning to show clear association with substance use disorders.

F. Antecedents of Drug Use

Do adolescents first become involved with a deviant peer group and then use drugs, or do they first use drugs and then begin to hang around with others who do the same? Does drug use cause them to become poor students and to fight and steal? To answer such questions, one might interview the same individuals at different times and look for **antecedents**, characteristics that predict later initiation of drug use. Data from multiple studies show that the development of substance use disorders can be predicted by several of the same risk factors we have already discussed: aggressiveness, conduct problems, poor academic performance, “attachment to bad company,” and parent and community norms more supportive of drug use.

G. Gateway Substances

One very important study from the 1970s pointed out a typical sequence of involvement with drugs. Most of the high-school students in that group started their drug involvement with beer or wine; the second stage involved hard liquor, cigarettes, or both; the third stage was marijuana use; and only after going through those stages did the students try other illicit substances. Not everyone followed the same pattern, but only 1 percent of the students began their substance use with marijuana or another illicit drug. It is as though they first had to go through the **gateway** of using alcohol and, in many cases, cigarettes.

A large cross-cultural study compared patterns of drug initiation across 17 countries and reported many differences in the most common order of drugs used, implying that the gateway phenomenon is not due to a direct chemical effect but instead is heavily influenced by social and cultural factors.

H. Motives for Drug Use

Humans do not live by logic alone; people are social animals who like to impress each other, and they are pleasure-seeking animals. These factors help explain why people do some of the things they shouldn't, including using drugs. The research on correlates and antecedents points to a variety of personal and social variables that influence drug taking, and many psychological and sociological theorists have proposed models for explaining illegal or excessive drug use.

Rebellious behavior, especially among young people, serves important functions not only for the developing individual but also for the evolving society. An adolescent who is unable to gain respect from people or who is frustrated in efforts to “go his or her own way” might engage in a particularly dangerous or disgusting behavior as a way of demanding that people

be impressed or at least pay attention.

One source of excessive drug use may be found within the drugs themselves. Many of these drugs are capable of *reinforcing* the behavior that gets the drug into the system.

Reinforcement means that, everything else being equal, each time an individual takes the drug they increase slightly the probability that they will take it again.

Most drug users are seeking an altered state of consciousness, a different perception of the world than is provided by normal, day-to-day activities. Many of the high-school students in the nationwide surveys report that they take drugs “to see what it’s like,” or “to get high,” or “because of boredom.” In other words, they are looking for a change, for something new and different in their lives.

Another thing seems clear: Although societal, community, and family factors play an important role in determining whether an individual will first *try* a drug, with increasing use the individual’s own experiences with the drug become increasingly important.

Key Points

- The general principles of psychoactive drugs are as follows:
 - The use of drugs is not abuse.
 - Every drug has multiple effects.
 - The amount of drug matters.
 - Psychoactive drug effects are powerfully influenced by the user’s history and expectations.
 - Drugs, per se, are not good or bad.
- Data indicate that if the perception of risk of drug use is low, then rates of use are higher and vice versa. Perception of risk differs from the perception of availability.
- Drug use is influenced by several factors including race, gender, and level of education.
- Drug use in early adolescence may be indicative of a larger pattern of deviant behaviors.
- There is increasing interest in genetic influences on drug use.
- Rebellious behavior, especially among young people, serves important functions not only for the developing individual but also for the evolving society.

Chapter Discussion Questions and Activities

1. Discuss the general principles of psychoactive drugs in the class. What are some examples

of each? Ask students to come up with examples using both illicit and over-the-counter drugs.

2. What factors make it difficult to determine the extent of drug use? What information might be missing in surveys that are used to collect data on drug use? How would you try to get information? Why might people not be honest while taking the surveys? What can be done to improve the accuracy of information about drug use?
3. Why might some seemingly causal relationships between drug use factors be misleading? How are other problem behaviors related to drug use?