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CHAPTER 2

Explaining Drug Use and Abuse

Did You Know?

- Contrary to public perception, addiction is a complex disease.
- Most drugs of abuse include both physical and psychological addictions.
- Every culture has experienced problems with drug use or abuse. As far back as 2240 BC, Hammurabi, the Babylonian king and lawgiver, addressed the problems associated with excessive use of alcohol.
- Today, there are many more varieties of drugs, and many of these drugs are more potent than they were years ago.
- According to biological theories, drug abuse has an innate physical beginning stemming from physical characteristics that cause certain individuals either to experiment with or to crave drugs to the point of abuse.
- Abuse of drugs by some people may represent an attempt to relieve underlying psychiatric disorders.
- No single theory can explain why most people use drugs.
- People who perceive themselves as drug users are more likely to develop serious drug abuse problems.

Learning Objectives

On completing this chapter you should be able to:

- List three to five major contributing factors responsible for addiction.
- List and briefly explain three models used to describe addiction.
- List six reasons why drug use or abuse is a more serious problem today than it was in the past.
- List and briefly describe the genetic and biophysiological theories that explain how drug use often leads to abuse.
- Explain how drugs of abuse act as positive reinforcers.
- Explain the major differences between substance use disorders and substance-induced disorders (addictive disorders).
- Understand how drug addiction can co-occur with various types of mental disorders.
- Briefly define and explain reinforcement or learning theory and some of its applications to drug use and abuse.
- Briefly explain sensation-seeking individuals and drug use.
- List and briefly describe the four sociological theories broadly known as social influence theories.
- Explain the link between drug use and other types of devious behaviors.
- List and describe three factors in the learning process that Howard Becker believes first-time users go through before they become attached to using illicit psychoactive drugs.
- Define the following concepts as they relate to drug use: *primary deviance, secondary deviance*, *master status*, and *retrospective interpretation*.
- Explain how Reckless's containment theory accounts for the roles of both internal and external controls regarding the attraction to drug use.
- Understand how making low-risk and high-risk drug choices directly affects drug use.

Introduction

In this chapter, we focus on the major explanations of drug use and/or abuse. The questions we explore are: Why would anyone voluntarily consume drugs that are not medically needed or required? Why are some people particularly attracted to altering their minds with drugs? Why are others uneasy and uncomfortable with the euphoric effects of recreational drug use? Why do some people repeatedly subject their bodies and minds to the harmful effects of recreational and nonprescribed drug use and eventual addiction, stop their drug use, and then repeatedly relapse to drug use? What logical reasons could explain such irrational behavior?

Following are four perspectives regarding drug use:

First perspective:

> I have had a long relationship with drug use. With the exception of one drug that I will never do again, I usually end up having a "romance" with drug use. I have tried and still like the use of weed, booze, and coke.... [referring to cocaine] Let's face it, I like the high feeling whenever I have time to myself and when I am off work. Weekends are best at least one night during my weekends off. When I was younger I was worse and did a lot of drugs no matter what day of the week it was. How many times I would go to school high on weed! Many of my school friends knew I was high in school and only one teacher was ever suspicious about my drug use and he was a younger teacher who had heard from a friend of mine who was in the same English class. This guy had a blabbermouth even though he was a good friend. Today, I am 24 and still enjoy smoking weed every now and then. It has tapered off now that I am older, but whether it is alcohol or marijuana it is something I still like. My dad had problems with alcohol all his life and this is probably where my attraction and use of these two drugs comes from. I think a lot of it is inborn like it's genetic or something because I am the type that immediately likes the buzzed feeling. I don't try other drugs because I thoroughly enjoy what I do use and know that there are other drugs out there I could easily like and want to continue using. I even like the buzz I get from some prescribed medicines whenever I am sick and they change my conscious state of mind. Yes, drugs and I get along well—always did. *(From Venturelli's research files, graduate student and part-time waiter in northwest Indiana, age 24, October 9, 2015)*

Second perspective:

> I grew up in a home with no alcohol present. I never saw my mom or dad drink alcohol. I think when they got married both of them had alcoholic parents. I never knew my grandparents since they died before I was born. My older brother remembers my grandfather since he lived until my brother was 7. He remembers that my grandfather would come over to visit and he was usually acting "weird." Later in life, he realized that my grandfather was probably drinking a lot and was probably under the influence. Anyway, before I was born my grandfather died of a stroke and my mom tells me that it was from drinking too much. He also had liver problems and my dad just recently told me his liver was shot from too much drinking. I tried bringing home a bottle of wine once and my mom and dad just watched me sip a glass without saying a word. They refused to have a drink with me and I recall how odd I felt doing this that when I look back on it, I was probably hurting their feelings. Anyway, I went away to college and during my first year, I started drinking a lot, got into all kinds of trouble with my college friends, law enforcement, my RA in a dorm I was living in, and the Dean of Students, and nearly flunked out of college that first year. After experiencing all these newfound problems, I decided that drinking alcohol was not for me. Besides, I was hurting my parents real bad when I was having these problems. Today at 31, I probably have a few drinks several times a year, but I am not really a drinker. One drink and I feel it right away. I can drink a sweet drink like a margarita, but many of my real close friends do not drink alcohol. I am just not around people who drink and actually, except for some college friends when I was attending Ball State who drank, I hardly ever had friends who drank. I had a girlfriend a few years ago but our relationship ended when I got tired of watching her drink while I waited to leave the bars at the end of the night. How drinkers want to keep drinking is very noticeable to a nondrinker. I also had an acquaintance at work who [sic] would call me several nights a week, and I had to listen to his incoherent conversations while he was drinking at home. I got tired of this, and one night I said that I prefer not

to talk to him when he was drinking at home. Shortly after that conversation, he and his girlfriend moved away and I never heard from him again. What attracts people to drinking baffles me, and why they continue drinking when they have had plenty already is even more puzzling. I don't think they realize how stupid they act when intoxicated. Fuzzy thinking, uncoordinated, and [how] loud they become are other things I notice. Today, I am dealing with a stepson who is not only drinking at 16 but has also used other types of drugs and I can say that from dealing with his drug use, I am very much against the use of any drugs that are not necessary. *(From Venturelli's research files, male, age 31, May 18, 2010)*

Third perspective:

When you ask about drug use, I literally draw a blank. This topic is really unknown to me. In my family, my grandparents on my dad's side were big-time drinkers. I think . . . my dad's experiences and especially . . . the car crash that killed my grandparents when they were in their 50s while coming home from a wedding after drinking heavily affected my dad very much. My mom comes from a Mormon family, so obviously she also does not drink any alcohol. My parents raised me and my three brothers without any examples or experiences regarding drug use. In my family, my wife and I hardly ever use any types of drugs—not even much of over-the-counter drugs. Occasionally, I will have a half a glass of wine several times a year, but I have to admit, I would rather be drinking water or freshly squeezed fruit juice. I just do not like the taste and the mild effect that such a small amount of alcohol has on me. As you can imagine, I am very much against the use of any types of drugs, especially the illicit types of drugs. Drugs are addictive and people should not be doing or taking drugs. Taking drugs for fun does not have any real positive outcomes, and in the end, causes a lot of misery to families, and medical problems. I am quite certain that all of our family friends are nondrinkers and I know for certain that our best friends do not use any of the recreational types of drugs. You could say our lives are really drug free. Everything we do as a family is in the absence of drug use. *(From Venturelli's research files, male graduate university student, age 36, May 19, 2007)*

Fourth perspective:

I am very much a party hog. I really like to party with my friends. I did get some friends in trouble a couple of times by supplying the alcohol and we had a raid by the police in La Porte at my house and got into a lot of trouble with my mom and dad. I just live for weekends when we get together getting high and laughing about all kinds of stupid stuff in the straight world. Last week I overdid it again but this time had to go to the hospital for overdosing. I did Seconal, Xanax, Valium, and Librium, kept passing out and my friends took me to the emergency room where they had to pump my stomach. Will I do that again? Hopefully not because about a half hour later I would probably have been dead as the emergency doctor told me. My mom and dad found out and they warned me that the next time they will call the police. My dad is now convincing me to get help and will pay for it. I will try it but I am not giving up on the parties no matter what the rehab people say. I am only happy when I am buzzed and I think someday that will wear off when I am older. My older brother was the same way but not as bad as me and today he hardly drinks anymore is married and will soon have his first kid, so he had to give it up. I know I will do the same but for now this is my only time to have fun but I will do it more responsibly I guess. *(From Venturelli's research files, male, age 16, high school student, September 23, 2015)*

The preceding excerpts show extensive differences in values and attitudes regarding drug use. The perspective of the first interviewee represents a type of drug user who is not only strongly attracted to drug use but also markedly enjoys the drug experience of altering his consciousness. He includes the rationalized belief that his attraction to drugs has a biological basis. He also mentions that at a young age he was convincingly affected by his drug-using peers. The second interview shows how the emphasis on not using drugs in the interviewee's family was intergenerationally transmitted and persisted across two generations. After having some preliminary experiences with drug use, the interviewee in this second interview matures into a person shunning any recreational chemical alteration of his reality. The perspective of the third interviewee shows that if a person's early environment is drug free, then drug use is not an option. Finally, the perspective of the fourth interviewee represents a type of drug user

who is largely unaware of the pitfalls of drug addiction and is recklessly involved with substance abuse. These four views represent a diverse range of motivations and reasons that influence people to either use or not use drugs.

Why such differences in drug use? In this chapter, we offer plausible substantive explanations why people use drugs recreationally and examine the underlying motivations regarding drug use. We will draw from major theoretical explanations in order to determine and explain probable causes *why* people use recreational drugs, over-the-counter drugs, and prescription drugs that more often than not leads to drug abuse and addiction.

To accomplish these goals, this chapter will explain the use and abuse of drugs from literally dozens of other perspectives within the major biological, psychological, and sociological perspectives. Moreover, as we attempt to offer major theoretical and scientific explanations for drug use, you should develop an advanced understanding of the following:

- How and why drugs are so seductive
- The process of becoming drug addicted
- How attachment and/or addiction to drugs results in self-selected physical and psychological damage on the drug users and others as they become "hijacked" by drug use
- Why so many people succumb to nonmedical and recreational drug use

Finally, the problem of drug use is not only alarmingly widespread in the United States, but also extensive throughout the world.

Drug Use: A Timeless Affliction

Historical records document drug use as far back as 2240 BC, when Hammurabi, the Babylonian king and lawgiver, addressed the problems associated with drinking alcohol. Even before then, the Sumerian people of Asia Minor, who created the cuneiform (wedge-shaped) alphabet, included references to a "joy plant" that dates from about 5000 BC. Experts indicate that the plant was an opium poppy used as a sedative (International Network of People Who Use Drugs [INPUD] n.d.; O'Brien et al. 1992).

Virtually every culture has experienced problems with drug use or abuse. Today's drug use problems are part of a very long and rich tradition:

> These [intoxicating] substances have formed a bond of union between men of opposite hemispheres, the uncivilized and the civilized; they have forced passages which, once open, proved of use for other purposes; they produced in ancient races characteristics which have endured to the present day, evidencing the marvelous degree of intercourse that existed between different peoples just as certainly and exactly as a chemist can judge the relations of two substances by their reactions. (Louis Lewin, *Phantasica*, in Rudgley 1993, p. 3)

The quest for explaining drug use is more important than ever as the problem continues to evolve. There are many reasons why drug use and abuse are even more serious issues now than they were in the past:

- From 1960 to the present, drug use has become a widespread phenomenon.
- Today, drugs are much more potent than they were years ago. "For comparison, the national average of marijuana's THC [tetrahydrocannabinol] content in 1978 was 1.37%, in 1988 it was 3.59%, in 1998 4.43%, and in 2008 8.49%. . . ." (ProCon.org 2012).
  THC, or tetrahydrocannabinol—marijuana's main psychoactive ingredient—in the marijuana samples rose from about 4%in 1995 to about 12 percent in 2014" (Blaszczak-Boxe 2016, p. 1)
- The highest tested sample ever tested between 1975 and 2009 had 33.12% THC (domestic) and 37.20% THC (nondomestic). Another recent study indicated that the most potent strains of marijuana contain 25% THC (Hellerman 2013).
- Whether they are legal or not, drugs are extremely popular. Their sale is a multibillion-dollar-a-year business, with a major influence on many national economies.
- More so today than years ago, both licit and illicit drugs are introduced and experimented with by youths at a younger age. Older siblings, friends, and acquaintances often supply these drugs.
- Through the media, people in today's society are more affected by direct television and radio advertising, especially by drug companies that are "pushing" their newest drugs. Similarly, advertisements and sales promotions

(coupons) for alcohol, coffee, tea, and vitamins are targeted to receptive consumer audiences, as identified through sophisticated market research.

- Today, there is greater availability and wider dissemination of drug information. Literally thousands of websites provide information on drug usage, chat rooms devoted to drug enthusiasts, and instructions on how to make drugs (mainly for recreational purposes) or purchase them on the Internet. On a daily basis, hundreds of thousands of spam emails are automatically sent regarding information on purchasing over-the-counter (OTC) drugs and prescription drugs without medical authorization (medical prescription). "The percentage of spam in email traffic averaged 85.2% in 2009" (Bondarenko et al. 2010).
- Approximately 18.9% of spam mail consists of medications and health-related goods and services (Bondarenko et al. 2010).
- Crack and other manufactured drugs offer potent effects at low cost, vastly multiplying the damage potential of drug abuse (Clatts et al. 2008; Inciardi, Lockwood, and Pottieger 1993; Office of National Drug Control Policy [ONDCP] 2003).
- Drug use endangers the future of a society by harming its youth and potentially destroying the lives of many young men and women. When gateway drugs, such as alcohol and tobacco, are used at an early age, a strong probability exists that the use will progress to other drugs, such as marijuana, cocaine, and amphetamines. Early drug use will likely lead to a lifelong habit, which usually has serious implications for the future.
- Drug use and especially drug dealing are becoming major factors in the growth of crime rates among the young. Membership in violent delinquent gangs is growing at an alarming rate. Violent shootings, drive-by killings, carjacking, and "wilding" occur frequently in cities (and increasingly in small towns).
- Seven in 10 drug users work full time (*Capitol Times* 1999). More recent findings indicate that of 2.9 million adults ages 18 to 64 employed full time who had co-occurring **substance use disorder** and serious psychological distress, nearly 60% were not treated for either problem, and less than 5% were treated for both problems (Substance Abuse and Mental Health Services Administration [SAMHSA] 2008b). Further, most binge and heavy alcohol users were employed in 2011. Among 56.5 million adult binge drinkers, 42.1 million (74.4%) were employed either full or part time. Among 15.5 million heavy drinkers, 11.6 million (74.9%) were employed (SAMHSA 2012). Such startling findings regarding employment and drug use suggest not only decreased productivity, absenteeism, job turnover, and medical costs but also near or serious accidents and mistakes caused by workers.
- Another related problem is that drug use is especially serious today because we have become highly dependent on the expertise of others and highly dependent on technology. For example, the operation of sophisticated machines and electronic equipment requires that workers and professionals be free of the intoxicating effects of mind-altering drugs. Imagine the chilling fact that on a daily basis a certain percentage of pilots, surgeons, and heavy-equipment operators are under the influence of mind-altering drugs while working or that a certain percentage of school-bus drivers are under the effects of, say, marijuana and/or cocaine.

With remarkable and unsurpassed excellence in scientific, technological, and electronic accomplishments, one might think that in the United States drug use and abuse would be considered irrational behavior. One might also think that the allure of drugs would diminish on the basis of the statistically high proportions of accidents, crimes, domestic violence and other relationship problems, and early deaths that result from the use and abuse of both licit and illicit drugs. Yet, as the latest drug use figures show, knowledge of these effects does not deter drug use.

Considering these costs, what explains the continuing use and abuse of drugs? What could possibly sustain and feed the attraction to use mind-altering drugs? Why are drugs used when the consequences are so well documented and predictable?

KEY TERM

substance use disorder
the American Psychiatric Association's *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM-5*; 2013), used by clinicians and psychiatrists for diagnosing mental disorders, combines substance abuse and substance dependence into a single condition called *substance use disorder*

In answering these questions, we need to list some basic reasons why people take drugs:

- People may be searching for pleasure.
- Drugs may relieve stress or tension or provide a temporary escape for people with excessive anxieties or severe depression.
- Peer pressure is a strong influence, especially for young people.
- In some cases, drugs may enhance religious or mystical experiences.
- Drugs are used to enhance recreational pursuits, such as the popular use of Ecstasy at raves and music festivals.
- Some believe that illicit use of drugs can enhance work performance, such as the use of cocaine by stockbrokers, office workers, and lawyers.
- Drugs (primarily performance-enhancing drugs) can be used to improve athletic performance.
- Drugs can relieve pain and the symptoms of an illness.

Although these reasons may indicate some underlying causes of excessive or abusive drug use, they also suggest that the variety and complexity of explanations and motivations are almost infinite. For any one individual, it is seldom clear when the drug use shifts from nondestructive use to abuse and addiction. When we consider the wide use of such licit drugs as alcohol, nicotine, and caffeine, we make the following discoveries: (1) more than 88% of the U.S. population use different types of drugs on a daily basis (SAMHSA 2012), (2) nearly half (49%) have tried an illicit drug by the time they finish high school (Johnston et al. 2013), and (3) three out of four students (75%) have consumed alcohol (more than just a few sips) by the end of high school, and nearly half (47%) have done so by 8th grade (Johnston et al. 2013).

Further, some drugs can mimic many of the hundreds of moods people can experience. We can, therefore, begin to understand why the explanations for drug use and abuse are multiple and depend on both socialization experiences and biological differences. As a result of these two factors, which imply hundreds of variations, explanations for drug use cannot be forced into one or two theories.

Researchers have tackled the drug use and abuse question from three major theoretical positions: biological, psychological, and sociological perspectives. Although the remainder of this chapter discusses these three major types of theoretical explanations, before delving into them we begin with a discussion of the motivation or "engine" responsible for the consistent attraction to recreational and/or nonmedical use of drugs—namely, addiction.

The Origin and Nature of Addiction

Humans can develop a very intense relationship with chemicals. Most people have chemically altered their mood at some point in their lives, if only by consuming a cup of coffee or a glass of white wine, and a majority do so occasionally. Yet for some individuals chemicals become the center of their lives, driving their behavior and determining their priorities, even to the point at which catastrophic consequences to their health and social well-being ensue. Although the word *addiction* is an agreed-upon term referring to such behavior, little agreement exists as to the origin, nature, or boundaries of the concept of addiction. It has been classified as a very bad habit, a failure of will or morality, a symptom of other problems, or a chronic disease in its own right.

Although public perception of drug abuse and addiction as a major social problem has waxed and waned over the past 20 years, the social costs of addiction have not: the total criminal justice, health, insurance, and other costs in the United States are roughly estimated at $90 billion to $185 billion annually, depending on the source. Despite numerous prevention efforts, the "War on Drugs," and a decline in the heavy drug use of the 1960s and 1970s, lessons learned in one decade seem to quickly pass out of awareness.

For example, the rate of annual use of marijuana among 12th graders in 1992 was approximately 22%; in 2014, it had increased to approximately 35% (Johnston et al. 2015). Alcohol and cigarettes also create problems when used by the very young:

> Alcohol and cigarettes are the two major licit drugs included in the Monitoring the Future Studies (MTF) surveys, though even these are legally prohibited for purchase by those the age of most of our respondents. Alcohol use is more widespread than use of illicit drugs. About seven out of ten 12th-grade students (69%) have at least tried alcohol, and approximately four out of ten (42%) are current drinkers—that is, they reported consuming some alcohol in the 30 days prior to the survey. Even

among 8th graders, the proportion of students reporting any alcohol use in their lifetime is nearly one third (30%), and about one ninth (11%) are current (past 30-day) drinkers.

Of greater concern than just any use of alcohol is "binge" drinking—having five or more drinking a row at least once in the prior two weeks.

"Among 12th graders, binge drinking peaked in 1979 along with overall illicit drug use. The prevalence of binge drinking then declined substantially from 41% in 1983 to 28% in 1992, a drop of almost one third (also the low point of any illicit drug use). Although illicit drug use rose sharply in the 1990s, binge drinking rose by only a small fraction, and that rise was followed by some decline at all three grades. By 2014, proportional declines since the recent peaks reached in the 1990s were 69%, 48%, and 38% for grades 8, 10, and 12, respectively" (Johnston et al. 2015, p. 38).

Further, the very large numbers of 8th graders who have already begun using the so-called gateway drugs (tobacco, alcohol, inhalants, and marijuana) suggest that a substantial number are also at risk of proceeding further to such drugs as LSD, cocaine, amphetamines, and heroin. Government officials and researchers believe that *decreases* in perceived and believed harmfulness of using a drug are often leading indicators of future increases in actual use of that drug. "The authors of this study suggest that these trends may reflect 'generational forgetting' of the dangers of these drugs, leaving the newer cohorts vulnerable to a resurgence of use" (Center for Substance Abuse Research [CESAR] 2007, p. 7). From these major studies, it is apparent that both licit and illicit types of drugs continue to penetrate into increasingly younger age groups.

Defining Addiction

Addiction is described as a complex disease. In 1964, the World Health Organization (WHO) of the United Nations defined it as "a state of periodic or chronic intoxication detrimental to the individual and society, which is characterized by an overwhelming desire to continue taking the drug and to obtain it by any means" (pp. 9–10). Accordingly, addiction is characterized as compulsive, at times uncontrollable, drug craving, seeking, and use that persist even in the face of extremely negative consequences (National Institute on Drug Abuse [NIDA] 1999). This relentless pursuit of a drug of choice occurs despite the fact that the drug is usually harmful and injurious to bodily and mental functions.

The word *addiction*, derived from the Latin verb *addicere*, refers to the process of binding to things. Today, the word largely refers to a chronic adherence to drugs. This can include both physical and psychological dependence. *Physical dependence* is the body's need to constantly have the drug or drugs; *psychological dependence* is the mental inability to stop using the drug or drugs.

The *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM-5*), published by the American Psychiatric Association (APA 2013), differentiates between substance use disorders and **substance-induced disorders (addictive disorders)**. Substance-related and addictive disorders largely stem from activation of the reward pathways in the brain (which provide the pleasurable feeling from the high that a drug produces); also, those with

> lower levels of self control, which may reflect impairments of the brain inhibitory mechanisms, may be particularly predisposed to develop substance use disorders.... The following conditions may be classified as substance-induced: intoxication, withdrawal, and other substance/medication-induced mental disorder (psychotic disorder, bipolar and related disorder, depressive disorders, anxiety disorders, obsessive-compulsive and related disorders, sleep disorder, sexual dysfunctions, delirium, and neurocognitive disorders). (APA 2013, p. 481)

The diagnosis of substance use disorder[1] includes the following:

- *Pharmacological*: The diagnosed individual may take the substance in larger amounts or over a longer period of time than was originally intended.

[1]In the *DSM-5*, substance abuse and substance dependence have been combined into a single condition called *substance use disorder*.

KEY TERM

substance use disorders and substance-induced disorders (addictive disorders) differentiations for substance dependence in the *Diagnostic and Statistical Manual of Mental Disorders,* fifth edition (*DSM-5*), published by the American Psychiatric Association in 2013

- *Excessive time spent obtaining the substance*: The individual may spend an excessive amount of time obtaining and/or recovering from the drug(s) and its effects; in severe cases, nearly all of the individual's daily activities revolve around the substance.
- *Craving*: The user has an intense desire or urge for the drug (cannot think of anything other than securing and using the drug).
- *Social impairment*: The individual fails to fulfill major role obligations at work, school, or home despite having persistent or recurrent social or interpersonal problems caused by the effects of the substance; this includes withdrawal from personal and/or family obligations and/or hobbies and interests.
- *Risky use of the substance*: The individual may continue substance use despite knowledge of having a persistent or recurrent physical or psychological problem. He or she is unable to abstain from using the substance despite difficulties in using.
- *Tolerance*: The individual needs increased amounts or else experiences a diminished effect when using the same amount of the substance.
- *Withdrawal*: "Withdrawal . . . is a syndrome that occurs when blood or tissue concentrations of a substance decline in an individual who had maintained prolonged heavy use of substance" (APA 2013, p. 484). (Often after developing withdrawal symptoms, "the individual is likely to [resume consuming] the substance to relieve the symptoms . . . of withdrawal" [APA 2013, p. 484].)

KEY TERMS

moral model
the belief that people abuse alcohol because they choose to do so

disease model
the belief that people abuse alcohol because of some biologically caused condition

characterological or personality predisposition model
the view of chemical dependency as a symptom of problems in the development or operation of the system of needs, motives, and attitudes within the individual

personality disorders
a broad category of psychiatric disorders, formerly called "character disorders," that includes the antisocial personality disorder, borderline personality disorder, schizoid personality disorder, and others; these serious, ongoing impairments are difficult to treat

Finally, an additional definition of addiction is also noteworthy. The National Institute on Drug Abuse (NIDA) defines addiction as

> a chronic, relapsing brain disease that is characterized by compulsive drug-seeking and use, despite harmful consequences. It is considered a brain disease because drugs change the brain—they change its structure and how it works. These brain changes can be long lasting and can lead to the harmful behaviors seen in people who abuse drugs. (NIDA 2008a, p. 5)

Models of Addiction

Various models attempt to describe the essential nature of drug addiction. Newspaper accounts of "inebriety" in the 19th and early 20th centuries contain an editorializing undertone that looks askance at the poor morals and lifestyle choices followed by the inebriate. This view has been termed the **moral model**, and although it may seem outdated from a modern scientific standpoint, it still characterizes an attitude among many traditional North Americans and members of many ethnic groups.

The prevailing concept or model of addiction in the United States is the **disease model**. Most proponents of this concept specify addiction to be a chronic and progressive disease, over which the sufferer has no control. This model originated in part from research among members of Alcoholics Anonymous (AA) performed by Jellinek (1960), one of the founders of addiction studies. He observed a seemingly inevitable progression in his subjects, during which they made many failed attempts to stop drinking. This philosophy is currently espoused by the recovery fellowships of AA and Narcotics Anonymous (NA) and, to a large extent, the treatment field in general. It has even permeated the psychiatric and medical establishments' standard definitions of addiction. There are many variations within the broad rubric of the disease model. This model has been bitterly debated: viewpoints range from fierce adherence to equally fierce opposition, with intermediate views casting the disease concept as a convenient myth (Smith, Milkman, and Sunderworth 1985).

Those who view addiction as another manifestation of something gone awry with the personality system adhere to the **characterological or personality predisposition model**. Every school of psychoanalytic, neopsychoanalytic, and psychodynamic psychotherapy has its specific "take" on the subject of addiction (Frosch 1985). Tangentially, many addicts are also diagnosed with **personality disorders** (formerly known as "character

disorders"), such as impulse control disorders and sociopathy. Although few addicts are treated by **psychoanalysis** or psychoanalytic psychotherapy, a characterological type of model was a formative influence on the drug-free, addict-run "therapeutic community" model, which uses harsh confrontation and time-extended, sleep-depriving group encounters. People who follow the therapeutic community model conclude that addicts must have withdrawn behind a **"double wall" of encapsulation**, where they failed to grow, making such techniques necessary.

Others view addiction as a "career," a series of steps or phases with distinguishable characteristics. One career pattern of addiction includes six phases (Clinard and Meier 2011; Waldorf 1983):

1. Experimentation or initiation
2. Escalation (increasing use)
3. Maintenance or "taking care of business" (optimistic use of drugs coupled with successful job performance)
4. Dysfunction or "going through changes" (problems with constant use and unsuccessful attempts to quit)
5. Recovery or "getting out of the life" (arriving at a successful view about quitting and receiving drug treatment)
6. Ex-addict (having successfully quit)

Finally, after examining countless theories that attempt to list and/or predict the stages of addiction to alcohol, tobacco, and/or illicit drug use, the following set of stages appears to be the most salient regarding addiction to drug use: (1) initial initiation and use of the drug, (2) patterned continuation into using the drug, (3) transition to drug abuse, (4) attempts at cessation (stopping the use), and (5) relapse (a return to abusive usage).

Factors Contributing to Addiction

Many, perhaps millions, of individuals use or even occasionally abuse drugs without compromising their basic health, legal, and occupational status and social relationships. Why do a significant minority become caught up in abuse and addictive behavior? The answer stems from the fact that many factors (not a single one) generally contribute to an individual becoming addicted (Syvertsen 2008). **Table 2.1** represents a compilation of factors identified as complicit in the origin or etiology of addiction, taken from the fields of psychology, sociology, and addiction studies.

In addition to the social and cultural factors listed in Table 2.1, other "cultural" risk factors for development of alcohol abuse include the following:

- Drinking at times other than at meals
- Drinking alone
- Drinking perceived as a reliever of stress and/or anxiety
- Patterns of solitary drinking (immediately drinking, smoking marijuana, or using other drugs after work; weekend drinking; late night drinking)
- Drinking defined as a rite of passage into an adult role
- Recent introduction of a chemical into a social group with insufficient time to develop informal social control over its use (Marshall 1979)

It is important to recall that the mix of risk factors differs for each person. It varies according to individual, peer, family, age, social, and cultural idiosyncrasies. Most addiction treatment professionals believe that it is difficult, if not impossible, to tease out these factors before treatment, when the user is still "talking to a chemical," or during early treatment, when the brain and body are still recuperating from the effects of long-term abuse. Once a stable sobriety is established, one can begin to address any underlying problems. An exception is the mentally ill chemical abuser, whose treatment requires special considerations from the outset.

In addition to the factors just listed, a number of age-dependent stressors and conflicts sometimes promote drug misuse. Risk factors that apply especially to adolescents include the following:

- Peer norms favoring use
- Misperception of peer norms (users set the tone)
- Power of age group (peer norms vs. other social influences)
- Conflicts that generate anxiety or guilt, such as dependence versus independence, adult maturational tasks versus fear, new types of roles versus familiar safe roles

KEY TERMS

psychoanalysis
a theory of personality and method of psychotherapy originated by Sigmund Freud, focused on unconscious forces and conflicts and a series of psychosexual stages

"double wall" of encapsulation
an adaptation to pain and avoidance of reality, in which the individual withdraws emotionally and further anesthetizes himself or herself by chemical means

TABLE 2.1 Risk Factors for Addiction

Risk Factor	Leading to This Effect
Biologically Based Factors (genetic, neurological, biochemical, and so on)	
A less subjective feeling of intoxication	More use to achieve intoxication (warning signs of abuse absent)
Easier development of tolerance; liver enzymes adapt to increased use	Easier to reach the addictive level
Lack of resilience or fragility of higher (cerebral) brain functions	Easy deterioration of cerebral functioning, impaired judgment, and social deterioration
Difficulty in screening out unwanted or bothersome outside stimuli (low stimulus barrier)	Feeling overwhelmed or stressed
Tendency to amplify outside or internal stimuli (stimulus augmentation)	Feeling attacked or panicked; need to avoid emotion
Attention deficit hyperactivity disorder and other learning disabilities	Failure, low self-esteem, or isolation
Biologically based mood disorders (depression and bipolar disorders)	Need to self-medicate against loss of control or pain of depression; inability to calm down when manic or to sleep when agitated
Psychosocial/Developmental "Personality" Factors	
Low self-esteem	Need to block out pain; gravitation to outsider groups
Depression rooted in learned helplessness and passivity	Use of a stimulant as an antidepressant
Conflicts	Anxiety and guilt
Repressed and unresolved grief and rage	Chronic depression, anxiety, or pain
Posttraumatic stress syndrome (as in veterans and abuse victims)	Nightmares or panic attacks
Social and Cultural Environment	
Availability of drugs	Easy frequent use
Chemical-abusing parental model	Sanction; no conflict over use
Abusive, neglectful parents; other dysfunctional family patterns	Pervasive sense of abandonment, distrust, and pain; difficulty in maintaining attachments
Group norms favoring heavy use and abuse	Reinforced, hidden abusive behavior that can progress without interference
Misperception of peer norms	Belief that most people use or favor use or think it's cool to use
Severe or chronic stressors, as from noise, poverty, racism, or occupational stress	Need to alleviate or escape from stress via chemical means
Alienation factors: isolation, emptiness	Painful sense of aloneness, normlessness, rootlessness, boredom, monotony, or hopelessness
Difficult migration/acculturation with social disorganization, gender/generation gaps, or loss of role	Stress without buffering support system

- Teenage risk taking, sense of omnipotence or invulnerability
- Use defined as a rite of passage into adulthood
- Use perceived as cool, glamorous, sexy, facilitating intimacy, fun, and so on

Risk factors that apply especially to middle-aged individuals include the following:

- Loss of meaningful role or occupational identity due to retirement
- Loss, grief, or isolation due to loss of parents, divorce, or departure of children ("empty nest syndrome")
- Loss of positive body image
- Dealing with a newly diagnosed illness (e.g., diabetes, heart problems, cancer)
- Disappointment when life's expectations are not met

Even in each of these age groups a combination of factors is at play. The adolescent abuser might have risk factors that were primarily neurological vulnerabilities, such as undiagnosed attention deficit hyperactivity disorder (ADHD). Alternatively, he or she may experience failure and rejection at school, disappoint his or her parents, or be labeled odd, lazy, or unintelligent (Kelly and Ramundo 2006).

In response to the information presented in Table 2.1, a student who was a recovering alcoholic commented, "You're an alcoholic because you drink!" He had a good point: the mere presence of one, two, or more risk factors does not create addiction. Drugs must be available, they must be used, and they must become a pattern of adaptation to any of the many painful, threatening, uncomfortable, or unwanted sensations or stimuli that occur in the presence of genetic, psychosocial, or environmental risk factors. Prevention workers often note the presence of multiple messages encouraging use: the medical use of minor tranquilizers to offset any type of psychic discomfort; the marketing of alcohol as sexy, glamorous, adult, and facilitative of social interaction; and so forth.

The Vicious Cycle of Drug Addiction

> First, the man takes a drink, then the drink takes a drink, then the drink takes the man.
>
> —*Traditional Chinese proverb*

Drug addiction develops as a process; it is not a sudden occurrence. The body makes a series of physiological adaptations to the presence of alcohol and other drugs. For instance, brain cell tolerance and increased metabolic efficiency of the liver can develop, necessitating consumption of more of the chemical to achieve the desired effect. Physical dependence can also develop, in which cell adaptations cause withdrawal syndromes to occur in the absence of the chemical.

Other factors can promote the cycle of addiction. For instance, drug abuse impairs cerebral functioning, including memory, judgment, behavioral organization, ability to plan, ability to solve problems, and motor coordination. Thus, poor decision making, impaired and deviant behavior, and overall dysfunction result in adverse social consequences, such as accidents, loss of earning power and relationships, and impaired health. Such adverse social and health consequences cause pain, depression, and lowered self-esteem, which may result in further use of the drug as an emotional and physical anesthetic. The addict often adapts to this chronically painful situation by erecting a defense system of denial, minimization, and rationalization; the chemical blunting of reality may exacerbate this denial of reality. It is unlikely, at this point, that the addict or developing addict will feel compelled to cease or cut back on drug use on his or her own (Tarter, Alterman, and Edwards 1983).

Family, friends, and colleagues often unwittingly "enable" the maintenance and progression of addiction. Examples include making excuses for addicts, literally and figuratively bailing them out, taking up the slack, denying and minimizing their problems, and otherwise making it possible for addicts to avoid facing the reality and consequences of what they are doing to themselves and others. Although these friends and family members may be motivated by simple naïveté, embarrassment, or misguided protectiveness, there are often hidden gains in taking up this role, known popularly as *codependency* (Beattie 1987; Mental Health America [MHA] 2010). Varieties of cultural and organizational factors also operate in the workplace or school that allow denial of the existence or severity of abuse or dependency. This triad of personal denial, peer and kin denial and codependency, and institutional denial represents a formidable impediment to successful intervention and recovery (Miller 1995; Myers 1990).

Other Nondrug Addictions

The addictive disease model and the 12-step recovery model followed by AA and NA have appeared

Like drug use, gambling can become addictive.

so successful for many addicts and their families and friends that other unwanted syndromes have been added to the list of "addictions." The degree to which the concept of addiction fits these syndromes varies. Gambling, for example, shows progressive worsening, loss of control, relief of tension from the activity, and continuance despite negative (often disastrous) consequences experienced by the addicted gambler. Recovering gamblers claim to experience a form of withdrawal. Gamblers Anonymous is a fellowship that has formed to assist its members. Clearly, gambling as an activity has much in common with chemical addictions, but it was debated as to whether it belonged in the category of addiction. However, for the first time in its publishing history, the most recent edition of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*) includes dependence on gambling as a mental disorder.

Many other groups have followed in the footsteps of Gamblers Anonymous, including those related to eating (Overeaters Anonymous) and sexual relationships (The Augustine Fellowship, Sex and Love Addicts Anonymous). In recent years, any excessive or unwanted behaviors, including excess shopping, hoarding, chocolate consumption, and even Internet use, have been labeled "addictions," which has led to satirical reporting in the press. Addiction professionals lament the overdefinition, which they believe trivializes the seriousness and suffering of rigorously defined addictions.

KEY TERM

genetic and biophysiological theories
explanations of addiction in terms of genetic brain dysfunction and biochemical patterns

Major Theoretical Explanations: Biological

Biological explanations have tended to use genetic theories and the disease model to explain drug addiction. The view that alcoholism is a sickness dates back approximately 200 years (Conrad and Schneider 1980; Heitzeg 1996). The disease perspective is upheld by Jellinek's (1960) view that alcoholism largely involves a loss of control over drinking and that the drinker experiences clearly distinguishable phases in his or her drinking patterns. For example, concerning alcoholism, the illness affects the abuser to the point of loss of control. Thus, the disease model views drug abuse as an illness in need of treatment or therapy.

According to biological theories, drug abuse has a beginning stemming from physical characteristics that cause certain individuals either to experiment with or to crave drugs to the point of abusive use. **Genetic and biophysiological theories** explain addiction in terms of genetics, brain dysfunction, and biochemical patterns.

Biological explanations emphasize that the central nervous system (CNS) reward sensors in some people are more sensitive to drugs, making the drug experience more pleasant and more rewarding for these individuals (Khantzian 1998; Mathias 1995; NIDA 2014). In contrast, others find the effects of drugs of abuse very unpleasant; such people are not likely to be attracted to these drugs (Farrar and Kearns 1989; Grant 2013; National Health Service [NHS] 2015).

Most experts acknowledge that biological factors play an essential role in drug abuse. These factors likely determine how the brain responds to these drugs and why such substances are addictive. It is thought that by identifying the nature of the biological systems that contribute to drug abuse problems, improved prevention and treatment methods can be developed (Koob 2000; Kuehn 2010; NIDA 2008b).

All the major biological explanations related to drug abuse assume that these substances exert

their **psychoactive effects** by altering brain chemistry or neuronal activity (in the basic functional cells of the brain). Specifically, the drugs of abuse interfere with the functioning of **neurotransmitters**—chemical messengers used for communication between brain regions.

The following sections detail three principal biological theories that help explain why some drugs are abused and why certain people are more likely to become addicted when using these substances.

Abused Drugs as Positive Reinforcers

Biological research has shown that stimulating some brain regions with an electrode causes very pleasurable sensations. In fact, laboratory animals would rather self-administer stimulation to these brain areas than eat or engage in sex. It has been demonstrated that drugs of abuse also activate these same pleasure centers of the brain (NIDA 2008b; Weiss 1999).

It is generally believed that most drugs with abuse potential enhance pleasure centers by causing the release of specific brain neurotransmitters such as **dopamine** (Bespalov et al. 1999; NIDA 2008b). How do drugs work in the brain?

> All drugs of abuse directly or indirectly target the brain's reward system by flooding the circuit with dopamine. Dopamine is a neurotransmitter present in regions of the brain that regulates movement, emotion, cognition, motivation, and feelings of pleasure. The overstimulation of this system, which rewards our natural behavior, produces the euphoric effects sought by people who abuse drugs and teaches them to repeat the behavior. (NIDA 2008b, p. 17)

Brain cells become accustomed to the presence of these neurotransmitters and crave them when they are absent, leading the person to seek more drugs (NIDA 2008b; Spanagel and Weiss 1999). In addition, it has been proposed that overstimulation of these brain regions by continual drug use "exhausts" these dopamine systems and leads to depression and an inability to experience normal pleasure (Volkow 1999).

Drug Abuse and Psychiatric Disorders

Biological explanations are thought to be responsible for the substantial overlap that exists between drug addiction and mental illness (NIDA 2007) (see "Do Genes Matter? What Is the Relationship Between Addiction and Levels of Mental Disorders?").

Genetic Explanations

> Why does one person become dependent on drugs while another, exposed to the same environment and experiences, does not?
>
> —*Schaffer Library of Drug Policy (1994, p. 1)*

One biological theory receiving scrutiny suggests that inherited traits can predispose some individuals to drug addiction (Lemonick with Park 2007; MacPherson 2010). Such theories have been supported by the observation that increased frequency of alcoholism and drug abuse exists among children of alcoholics and drug abusers (APA 2000; Uhl et al. 1993, 2002). Using adoption records of some 3000 individuals from Sweden, researchers Cloninger, Gohman, and Sigvardsson conducted one of the most extensive research studies examining genetics and alcoholism. They found that "children of alcoholic parents were likely to grow up to be alcoholics themselves, even in cases where the children were reared by nonalcoholic adoptive parents almost from birth" (Doweiko 2015, p. 37). Such studies estimate that drug vulnerability due to genetic influences accounts for approximately 38% of all cases, whereas environmental and social factors account for the balance (Uhl et al. 1993).

Other studies attempting to identify the specific genes that may predispose the carrier to drug abuse problems have suggested that a brain target site (called a receptor) for dopamine is altered in a manner that increases the drug abuse vulnerability (Genetic Science Learning Center 2015; Radowitz 2003; Wyman 1997). Studies that test for genetic factors in complex behaviors such as drug abuse are very difficult to conduct and interpret. It is sometimes impossible to design experiments that distinguish among genetic, social, environmental, and psychological influences in human populations. For example, inherited traits are

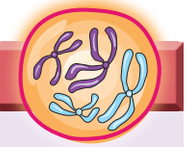
KEY TERMS

psychoactive effects
how drug substances alter and affect the brain's mental functions

neurotransmitters
the chemical messengers released by nervous (nerve) cells for communication with other cells

dopamine
a neurotransmitter present in regions of the brain that regulate movement, emotion, cognition, motivation, and feelings of pleasure; it mediates the rewarding aspects of most drugs of abuse

DO GENES MATTER?



What Is the Relationship Between Addiction and Other Mental Disorders?

There is some good evidence that a comorbid relationship exists between addiction and other mental disorders (Center for Behavioral Health Statistics and Quality [CBHSQ] 2015; NIDA 2008a, 2010).

What Is Comorbidity?

Comorbidity is a term used to describe two or more disorders or illnesses occurring in the same person. They can occur at the same time or one after the other. Comorbidity also implies interactions between the illnesses that can worsen the course of both.

Is Drug Addiction a Mental Illness?

Yes, addiction changes the brain in fundamental ways, disturbing a person's normal hierarchy of needs and desires and substituting new priorities connected with procuring and using the drug. The resulting compulsive behaviors that weaken the ability to control impulses, despite the consequences, are similar to hallmarks of other mental illnesses.

How Common Are Comorbid Drug Addiction and Other Mental Illnesses?

Many people who are addicted to drugs are also diagnosed with other mental disorders, and vice versa. For example, compared with the general population, people addicted to drugs are roughly twice as likely to suffer from mood and anxiety disorders, with the reverse also true.*

Why Do These Disorders Often Co-occur?

Although drug use disorders commonly occur with other mental illnesses, this does not mean that one caused the other, even if one appeared first. In fact, establishing causality or even directionality (i.e., which came first) can be difficult. However, research suggests the following possibilities for their co-occurrence:

- Drug abuse may bring about symptoms of another mental illness. Increased risk of psychosis in some marijuana users suggests this possibility.
- Mental disorders can lead to drug abuse, possibly as a means of **self-medication**. Patients suffering from anxiety or depression may rely on alcohol, tobacco, and other drugs to temporarily alleviate their symptoms.

These disorders could also be caused by common risk factors, such as

- *Overlapping genetic vulnerabilities*: Common genetic factors may make a person susceptible to both addiction and other mental disorders or to having a greater risk of a second disorder once the first appears.
- *Overlapping environmental triggers*: Stress, trauma (such as physical or sexual abuse), and early exposure to drugs are common factors that can lead to addiction and other mental illnesses.
- *Involvement of similar brain regions*: Brain systems that respond to reward and stress, for example, are affected by drugs of abuse and may show abnormalities in patients who have certain mental disorders.
- *Drug use disorders and other mental illnesses are developmental disorders*: This means they often begin in the teen years or even younger—periods when the brain experiences dramatic developmental changes. Early exposure to drugs of abuse may change the brain in ways that increase the risk for mental disorders. Also, early symptoms of a mental disorder may indicate an increased risk for later drug use.

How Are These Comorbid Conditions Diagnosed and Treated?

The rate of comorbidity between drug use disorders and other mental illnesses calls for a comprehensive

KEY TERMS

comorbidity
two or more disorders or illnesses occurring in the same person; they can occur either simultaneously or one after the other; also implies interactions between the illnesses that can worsen the course of both

self-medication
a method of self-care in which an individual uses nonprescribed drugs to treat untreated and often undiagnosed medical ailments involving his or her psychological condition; self-prescribed drugs can include recreational drugs, psychoactive drugs, alcohol, and/or herbal products in order to alleviate or diminish mental distress, stress and anxiety, mental illnesses, and/or psychological trauma

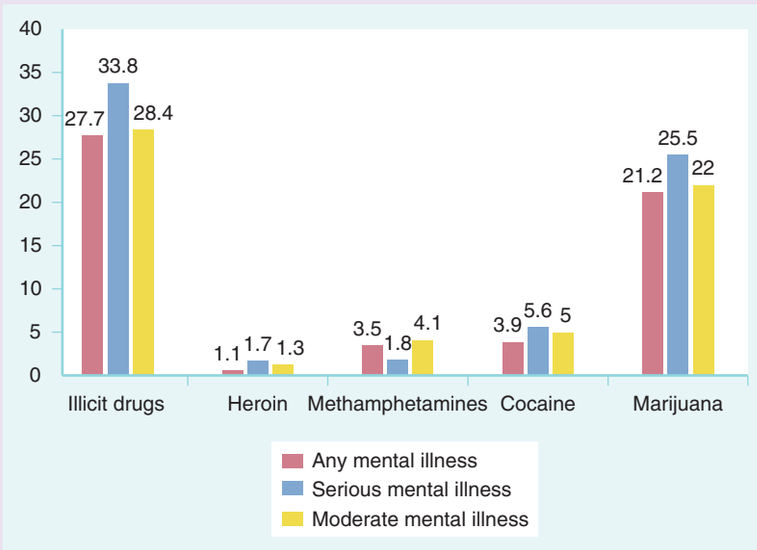
(*continues*)

DO GENES MATTER?

What Is the Relationship Between Addiction and Other Mental Disorders? (continued)

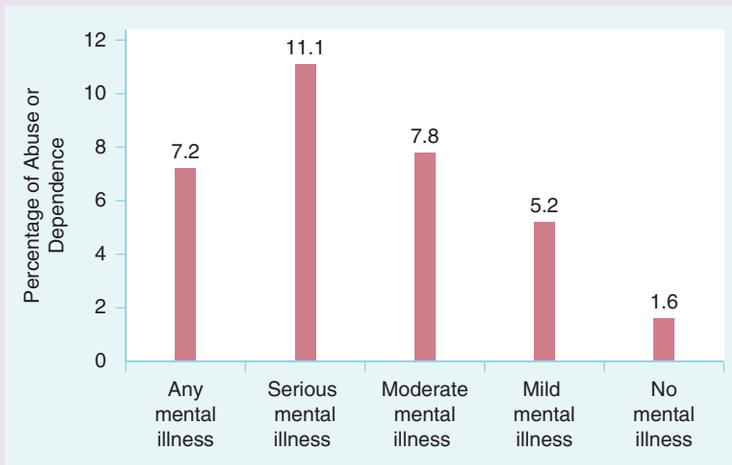
approach that identifies and evaluates both. Accordingly, anyone seeking help for either drug abuse/addiction or another mental disorder should be checked for both and treated accordingly.

Several behavioral therapies have shown promise for treating comorbid conditions. These approaches can be designed to target patients according to specific factors such as age or marital status. Some therapies have proved more effective for adolescents, whereas others have shown greater effectiveness for adults; some therapies are designed for families and groups, others for individuals.



Past-year percentage of specific drug usage and levels of mental illness ages 18 and older.

Reproduced from Center for Behavioral Health Statistics and Quality (CBHSQ). *Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health*. Rockville, MD: Health and Human Services (HHS) and National Survey on Drug Use and Health (NSDUH), 2015.



Past-year percentage of drug abuse or dependence and levels of mental illness ages 18 and older.

Reproduced from Center for Behavioral Health Statistics and Quality (CBHSQ). *Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health*. Rockville, MD: Health and Human Services (HHS) and National Survey on Drug Use and Health (NSDUH), 2015.

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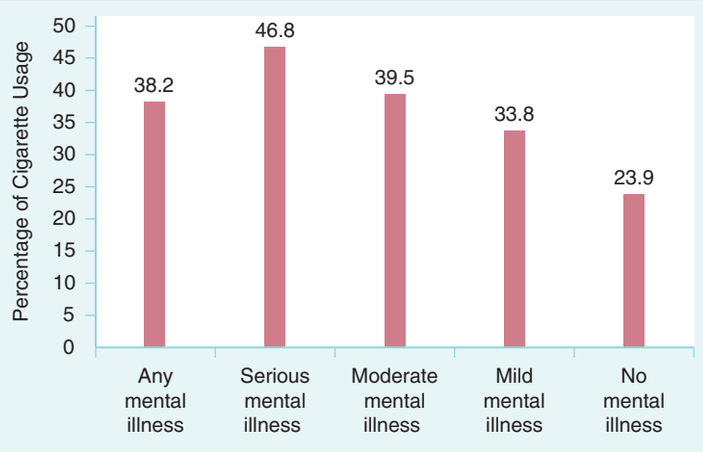
DO GENES MATTER?

What Is the Relationship Between Addiction and Other Mental Disorders? (continued)



Past-year percentage of cigarette usage and levels of mental illness ages 18 and older.

Reproduced from Center for Behavioral Health Statistics and Quality (CBHSQ). *Behavioral Health Trends in the United States: Results from the 2014 National Survey on Drug Use and Health*. Rockville, MD: Health and Human Services (HHS) and National Survey on Drug Use and Health (NSDUH), 2015.

Although several medications exist for treating addiction and other mental illnesses, most have not been studied in patients with comorbidities. For example, individuals addicted to heroin, prescription pain medications, cigarettes, or alcohol can be treated with appropriate medications to ease withdrawal symptoms and drug craving; similarly, separate medications are available to help improve the symptoms of depression and anxiety. More research is needed, however, to better understand how such medications act when combined in individuals with comorbidities, or whether such medications can be dually effective for treating comorbid conditions.

* Substance abuse and substance dependence are considered *substance use disorders*—a category under mental disorders—when they meet the diagnostic criteria delineated in the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (*DSM-5*). Drug dependence, as *DSM-5* defines it, is synonymous with the term *addiction* (even though *DSM-5* does not use the term *addiction*). Criteria for drug abuse hinge on the harmful consequences of repeated use but do not include compulsive use, tolerance, or withdrawal. Because the focus of this chapter is on comorbid drug use disorders and other mental illnesses, the terms *mental illness/mental disorders* will refer here to disorders other than drug use, such as depression, schizophrenia, anxiety, and mania. The terms *dual diagnosis, mentally ill chemical abuser*, and *co-occurrence* are also used to refer to drug use disorders that are comorbid with other mental illnesses.

Adapted from National Institute on Drug Abuse (NIDA). "Comorbidity: Addiction and Other Mental Disorders." *NIDA InfoFacts*. Bethesda, MD: U.S. Department of Health and Human Services, 2011: 1–2 and Center for Behavioral Health Statistics and Quality [CBHSQ] 2015

known to be major contributors to psychiatric disorders, such as schizophrenia and depression. Many people with one of these illnesses also have a substance abuse disorder (APA 2013; SAMHSA 2015). A high incidence of an abnormal gene in a cocaine-abusing population, for example, not only may be linked to drug abuse behavior but also may be associated with depression or another psychiatric disorder (Uhl, Persico, and Smith 1992; Uhl et al. 2002).

Theoretically, genetic factors can directly or indirectly contribute to drug abuse vulnerability in several ways:

- Taking drugs of abuse, thus encouraging their use, may relieve psychiatric disorders that are genetically determined.
- In some people, reward centers of the brain may be genetically determined to be especially sensitive to addictive drugs; thus, the use of

drugs by these people would be particularly pleasurable and would lead to a high rate of addiction.

- Volkow states that "drug addiction is a disease of the human brain" (Volkow 2016) and that ". . . [i]n the brains of addicts, there is reduced activity in the prefrontal cortex where rational thought can override impulsive behavior" (Kuehn 2010, p. 1905; Lemonick with Park 2007, p. 43).
- Character traits, such as insecurity and vulnerability, that often lead to drug abuse behavior may be genetically determined, causing a high rate of addiction in people with those traits (Kuehn 2010).
- Factors that determine how difficult it is to break away from drug addiction may be genetically determined, causing severe craving or very unpleasant withdrawal effects in some individuals. People with this predisposition are less likely to abandon their drug of abuse.

The genetic theories for explaining drug abuse may help us to understand the reasons that drug addiction occurs in some individuals but not in others. In addition, if genetic factors play a major role in drug abuse, it might be possible to use genetic screening to identify those people who are especially vulnerable to drug abuse problems and to help such individuals avoid exposure to these substances.

Major Theoretical Explanations: Psychological

Psychological theories mostly deal with mental or emotional states, which are often associated with or exacerbated by social and environmental factors. Psychological explanations of addiction include one or more of the following: escape from reality, boredom (Burns 1997), inability to cope with anxiety, destructive self-indulgence to the point of constantly desiring intoxicants, blind compliance with drug-abusing peers, self-destructiveness, and conscious and unconscious ignorance regarding the harmful effects of abusing drugs. Other authors write the following:

> [P]sychological theory explains that drug use and abuse begins because of the unconscious motivations within all of us. We are not aware of these motivations, not even when they manifest themselves. So, there are unconscious conflicts and motivations that reside within us as well as our reactions to early events in our lives that move a person toward drug use and abuse. The motivations for drug use are within us, and we are not aware of them, nor are we aware that those are the reasons we have chosen to turn to drugs. In this case, the person may be weak or without self-esteem or even see themselves in the opposite manner, as all-important. Drug use then becomes a sort of crutch to make up for all that is wrong with their lives and wrong with their selves. (Moore 2008, p. 1)

Psychologists propose several possible causes of addiction. First, people may engage in harmful behaviors because of an abnormality, or "psychopathology," that manifests itself as mental illness. Second, people may learn unhealthy behavior in response to their environment. Third, people's thoughts and beliefs create their feelings. This, in turn, determines their behavior (Horvath et al. 2015).

Freud established early psychological theories. He linked "primal addictions" with masturbation and postulated that all later addictions, including those involving alcohol and other drugs, were caused by ego impairments. Freud said that drugs compensate for insecurities that stem from parental inadequacies, which themselves may cause difficulty in adequately forming bonds of friendships. He claimed that alcoholism is an expression of the death instinct, as are self-destruction, narcissism, and oral fixations. Although Freud's views represent interesting intuitive insights often not depicted in other theories, his theoretical concerns are difficult to observe and test, and they do not generate enough concrete data for quantitative testing and verification.

Distinguishing Between Substance Abuse and Mental Disorders

The APA has established widely accepted categories of diagnosis for behavioral disorders, including substance use disorder (which includes substance abuse and substance dependence). As standardized diagnostic categories, the characteristics of mental disorders have been analyzed by professional committees over many years and today are summarized in the latest version of the *Diagnostic and Statistical Manual of Mental Disorders* (*DSM-5*). In addition to categories for severe psychotic disorders and other more common mental disorders, experts in the field of psychiatry have established specific diagnostic criteria for various

forms of substance abuse. All patterns of drug abuse that are described in this text have a counterpart description and classification in the *DSM-5* for medical professionals. For example, the *DSM-5* discusses the mental disorders resulting from the use or abuse of sedatives, hypnotics, or antianxiety drugs; alcohol; narcotics; amphetamine-like drugs; cocaine; caffeine; nicotine (tobacco); hallucinogens; phencyclidine (PCP); inhalants; and cannabis (marijuana). This manual of psychiatric diagnoses discusses in detail the mental disorders related to the drug use, the side effects of medications, and the consequences of toxic exposure to these substances (APA 2013).

Because of the similarities between, and the coexistence of, substance-related mental disorders and primary psychiatric disorders, it is sometimes difficult to distinguish between the two. However, for proper treatment to be rendered, the designation and characteristics of a mental disorder and a psychiatric disorder should be differentiated. According to *DSM-5* criteria, both substance abuse and substance dependence, together known as substance use disorder, can be identified by the occurrence and consequences of pharmacological factors, the amount of time spent obtaining the substance, craving, social impairment, risky use of the substance, and tolerance and withdrawal. (These categories were defined earlier in this chapter.)

According to the National Alliance on Mental Illness (NAMI), the relationship between substance abuse or dependency and mental illness is often termed **dual diagnosis**. Dual diagnosis is a very broad diagnosis because it often assumes multiple causes. It can range from someone developing mild depression because of binge drinking to someone's symptoms of bipolar disorder becoming more severe when that person abuses heroin during periods of mania (NAMI 2015).

The following relationships are possible when mental illness and substance use occur simultaneously (NAMI 2015):

- Drugs and alcohol can be a form of self-medication.
- Drugs and alcohol can worsen underlying mental illnesses.
- Drugs and alcohol can cause a person without mental illness to experience the onset of symptoms for the first time.
- Men are more likely than women to develop a co-occurring disorder.
- Individuals who are lower in socioeconomic status, military veterans, and people with more general medical illnesses are more like to develop a co-occurring disorder.

KEY TERM

dual diagnosis
an individual who is simultaneously manifesting a mental health disorder(s) and addiction to drug use at the same time (e.g., a drug addict experiencing depression or anxiety)

According to the *DSM-5*, the following information can also help distinguish between substance use disorder and primary mental disorders: (1) personal and family medical, psychiatric, and drug histories; (2) physical examinations; and (3) laboratory tests to assess physiological functions and determine the presence or absence of drugs. However, the possibility of a primary mental disorder should not be excluded just because the patient is using drugs—remember, many drug users use drugs to self-medicate their primary psychiatric problems (alcoholrehab.com 2015a; NIDA 2008a). Self-medicating is a method of self-care in which an individual uses nonprescribed drugs to treat untreated and often undiagnosed medical ailments involving their psychological condition.

The coexistence of underlying psychiatric problems in a drug user is suggested by the following circumstances: (1) the psychiatric problems do not match the usual drug effects (e.g., use of marijuana usually does not cause severe psychotic behavior), (2) the psychiatric disorder was present before the patient began abusing substances, and (3) the mental disorder persists for more than 4 weeks after substance use ends. The *Diagnostic and Statistical Manual of Mental Disorders*, five edition, text revision (*DSM-5*), makes it clear that clarifying the relationship between mental disorders and substances of abuse is important for proper diagnosis, treatment, and understanding (APA 2013; NIDA 2007, 2008a).

The Relationship Between Personality and Drug Use

Since medieval times, personality theories of increasing sophistication have been used to classify long-term behavioral tendencies or traits that appear in individuals; these traits have long been considered to be influenced by biological or chemical factors. Although such classification systems have varied widely, nearly all have shared two commonly observed dimensions of personality: introversion and extroversion. Individuals who show a predominant tendency to turn their

thoughts and feelings inward rather than to direct attention outward have been considered to show the trait of *introversion*. At the opposite extreme, a tendency to seek outward activity and share feelings with others has been called *extroversion*. Of course, every individual shows a mix of such traits in varying degrees and circumstances.

In some earlier research studies, introversion and extroversion patterns have been associated with levels of neural arousal in brainstem circuits (alcoholrehab.com 2015b; Apostolides 1996; Carlson 1990; Gray 1987), and these forms of arousal are closely associated with effects caused by drug stimulants or depressants.

Drugs like cocaine, alcohol, or Prozac all affect these processes and an individual's degree of extroversion. They can artificially correct an ineffective dopamine system and make someone feel more sociable or motivated to pursue a goal. Low levels of serotonin, correlated with depression, may make people more responsive to dopamine and more susceptible to dopamine-stimulating drug use such as the use of cocaine, alcohol, amphetamine, opiates, and nicotine (Lang 1996).

Such research hypothesizes that people whose systems produce high levels of sensitivity to neural arousal may find high-intensity external stimuli to be painful and may react by turning inward. With these extremely high levels of sensitivity, such people may experience neurotic levels of anxiety or panic disorders. At the other extreme, individuals whose systems provide them with very low levels of sensitivity to neural arousal may find that moderate stimuli are inadequate to produce responses. To reach moderate levels of arousal, they may turn outward to seek high-intensity external sources of stimulation (Eysenck and Eysenck 1985; Gray 1987; Rousar et al. 1995).

Because high- and low-arousal symptoms are easy to create by using stimulants, depressants, or hallucinogens, it is possible that these personality patterns of introversion or extroversion affect how a person reacts to substances. For people whose experience is predominantly introverted or extroverted, extremes of high or low sensitivity may lead them to seek counteracting substances that become important methods of bringing experience to a level that seems bearable.

■ Theories Based on Learning Processes

How are drug use patterns learned? Regarding learning, operant conditioning explains how human beings acquire new patterns of behavior by the close association or pairing of one significant reinforcing stimulus with another less significant or neutral stimulus. Also known as **social learning theory** (Bandura 1977; explained more fully in the "Social Learning Theory" section later in this chapter), this theory emphasizes that learned associations occur in the presence of other people using drugs coupled with other, often preconceived associations with the attitudes of society and friends about drug use (Gray and Bjorklund 2014). In this method of learning, people form expectations and become used to certain behavior patterns. This specific process of learning is known as conditioning, and it explains why pleasurable activities may become intimately connected with other activities that are also pleasurable, neutral, or even unpleasant. In addition, people can turn any new behavior into a recurrent and permanent one by the process of **habituation**—repeating certain patterns of behavior until they become established or habitual.

The basic process by which learning mechanisms can lead a person into drug use is also described in Bejerot's **addiction to pleasure theory** (Bejerot 1965, 1972, 1975; Dixon 2015; NIDA 1980). This theory assumes that it is biologically normal to continue a pleasure stimulus once started. Several research findings support this theory, indicating that "a strong, biologically based need for stimulation appears to make sensation-seeking young adults more vulnerable to drug abuse" (Mathias 1995, p. 1). Dixon (2015) and Khantzian (1998) also support this view. Another research finding complementing this theory states, "Certain areas of the brain, when stimulated, produce pleasurable feelings. Psychoactive substances are capable of acting on these brain mechanisms to produce these sensations. These pleasurable feelings become reinforcers that drive the continued use of the substances" (Gardner 1992, p. 43). People at highest risk for drug use and addiction are those who maintain

KEY TERMS

social learning theory
a theory that places emphasis on how an individual learns patterns of behavior from the attitudes of others, society, and peers

habituation
repeating certain patterns of behavior until they become established or habitual

addiction to pleasure theory
a theory assuming that it is biologically normal to continue a pleasure stimulus once begun

a constant preoccupation with getting high, seek new or novel thrills in their experiences, and are known to have a relentless desire to pursue physical stimulation or dangerous behaviors; these are classified as **sensation-seeking individuals** (Zuckerman 2000, 2007).

Drug use may also be reinforced when it is associated with receiving affection or approval in a social setting, such as within a peer group relationship. Initially, the use of drugs may not be very important or pleasurable to the individual; however, eventually the affection and social rewards experienced when drugs are used become associated with the drug. Drug use and intimacy may then become perceived as very worthwhile.

> I don't know how to explain why but an attractive part of cocaine use is the instant feeling of intimacy with others who are also snorting this drug. You just don't want to leave the scene when the lines are cut on the glass surface and people are taking turns snorting coke. Even after I have had four or five lines and the conversation is very friendly and engaging, leaving the scene because someone is waiting for you at home or even if you have to meet with someone that night does not matter. Usually, everyone is feeling high, a lot of feelings of togetherness, and open to intimate conversation. I never saw anyone getting violent or anything like that, but I hear that it can happen especially if you have a grudge against someone before doing the coke. I think that coke just makes you more open and if you are an angry person then it will just bring it out in you. My experiences have been that everyone is just so friendly and everyone just pretends not to be overly anxious to do the next line. Actually, everyone is kind of pretending, because what they really want is more powder up their nose and an unending amount of time for talking the night away. *(From Venturelli's research files, male graduate student, residing in Chicago, age 26, May 18, 2000)*

Ten years later at age 36, the author was able to interview the same interviewee:

> Back then I was a graduate student the last time you interviewed me. After I completed my master's degree I worked as a financial advisor and though I gave up regular use, on rare occasions I still have a hook up for cocaine and use it. It's a small amount on nearly a year basis. Why do I still dabble in it? The pleasures I had as a graduate student are still with me is my honest answer and it's still good but back then it was so often with so many memories of the good times. The last time I did snort cocaine was over a year ago and it's only when I visit a certain friend who also intermittently uses this drug. We just briefly revisit the past and it's all-good and everything but being 10 years older, I cannot get overinvolved with this drug as I used to 10 years ago. I have a lot more at stake regarding the clientele I have built up in addition to family responsibilities. My kids growing up would not be too happy if they knew their father uses drugs and my wife would be shocked that I still dabble in this. My wife is a schoolteacher and is fully engaged with teaching her students. For me it is like revisiting something in my past but when I meet up with my friend we do it and then leave it there for about a year or so. I think it's those prior experiences and good times that bring me to spend one or two nights a year to reuse this drug. *(From Venturelli's research files, financial advisor, age 36, July 2010)*

It is important to keep in mind that the amount of a drug taken can affect the extent of sociability, as the following interview indicates:

> Yes, I did read that quote [referring to the preceding quote] about how friendly everyone is while snorting lines. Well, I bet that person does not do too much coke—maybe it is like a weekend thing. What I am trying to say is that everyone is friendly at the beginning when snorting lines, but after doing a lot of snorting, people get real quiet—they sort of geek out. You see, too much of it at any one time makes you feel overloaded. It's like an amphetamine bombardment. In the beginning, it is like a "dusting" and people can become real friendly and talkative, but after doing it for an hour or so, it gets to you. Whenever I overdo it, and it is easy to do so, I become real quiet and several times even when I tried to change my mood by having sex, I could not even "get it up" so to speak. I usually do very well when I just have a little, but too much certainly can cause the sexual desire to peak, but the follow through is an entirely different matter. Too much just geeks you out after a while. *(From Venturelli's research files, male construction worker in Indiana, age 28, June 9, 2007)*

KEY TERM

sensation-seeking individuals
types of people who characteristically are continually seeking new or novel thrills in their experiences

Through the conditioning process, a pleasurable experience such as drug taking may become associated with a comforting or soothing environment. When this happens, two different outcomes may result. First, the user may feel uncomfortable taking the drug in any other environment. Second, the user may become very accustomed or habituated to the familiar environment as part of the drug experience. The user may not experience the same level of rush or high in this environment and in response may take more drugs or seek a different environment.

Finally, through this process of conditioning and habituation, a drug user becomes accustomed to unpleasant effects of drug use such as withdrawal symptoms. Such unpleasant effects and experiences may become habituated—neutralized or less severe in their impact—so that the user can continue taking drugs without feeling or experiencing the negative effects of the drug.

Social Psychological Learning Theories

Other aspects of reinforcement or learning theory focus on how positive social influences by drug-using peers reinforce the attraction to drugs. Social interaction, peer camaraderie, social approval, and drug use work together as positive reinforcers to sustain drug use (Akers 1992). Thus, if the effects of drug use become personally rewarding "or become reinforcing through conditioning, the chances of continuing to use are greater than for stopping" (Akers 1992, p. 86; Everyday Psychology 2012). It is through learned expectations or association with others who reinforce drug use that individuals learn the pleasures of drug taking (Becker 1963, 1967). Similarly, if drug use leads to poor and disruptive social interactions, drug use may cease.

Note that positive reinforcers, such as peers, other friends and acquaintances, family members, and drug advertisements, do not act alone in inciting and sustaining drug use. Learning theory, as defined here, also relies on some variable amounts of imitation and trial-and-error learning methods.

Finally, **differential reinforcement**—defined as the ratio between favorable and unfavorable reinforcers for sustaining drug use behavior—must be considered. The use and eventual abuse of drugs can vary with certain favorable or unfavorable reinforcing experiences. The primary determining conditions are listed here:

- The amount of exposure to drug-using peers versus non–drug-using peers
- The general preference for drug use in a particular neighborhood or community
- The age of initial use (younger adolescents are more greatly affected than are older adolescents)
- The frequency of drug use among peers

Major Theoretical Explanations: Sociological

Sociological explanations for drug use share important commonalities with psychological explanations under social learning theories. The main features distinguishing psychological and sociological explanations are that psychological explanations focus more on how the internal states of the drug user are affected by social relationships within families, peers, and other close and more distant relationships, whereas sociological explanations focus on how factors external to the drug user affect drug use. Such outside forces include the types of families, adopted lifestyles of peer groups, and neighborhoods and communities in which avid drug users reside. The sociological perspective views the motivation for drug use as largely determined by the types and quality of bonds (attachment vs. detachment) that the drug user or potential drug user has with significant others and with the social environment in general. The degree of influence and involvement with external factors affecting the individual compared with the influence exerted by internal states distinguishes sociological from psychological analyses.

As previously stated, no one biological or psychological theory can adequately explain why most people use drugs. People differ from one another in terms of personality, motivational factors, upbringing, learned priority of values and attitudes, and problems faced. Because of these differences, many responses and reasons exist why people take drugs, which results in a plurality of theoretical explanations. Furthermore, the diverse perspectives of biology, psychology, and sociology offer their own explanations for drug use and abuse.

KEY TERM

differential reinforcement
ratio between reinforcers, both favorable and disfavorable, for sustaining drug use behavior

There are two sets of sociological theories: social influence and social structural. **Social influence theories** focus on microscopic explanations that concentrate on the roles played by significant others and their impact on an individual. **Structural influence theories** focus on macroscopic explanations of drug use and the assumption that the organizational structure of society has a major independent impact on an individual's use of drugs. The next sections examine these theories.

Social Influence Theories

The theories presented in this section are (1) social learning, (2) role of significant others in socialization, (3) labeling, and (4) subculture theories. These theories share a common theme: An individual's motivation to seek drugs is caused by social influences or social pressures.

SOCIAL LEARNING THEORY

Social learning theory explains drug use as learned behavior. Conventional learning occurs through imitation, trial and error, improvisation, rewarded behavior, and cognitive mental associations and processes (Akers and Sellers 2008; Liska and Messner 1999; Ritzer and Goodman 2010). Social learning theory focuses directly on how drug use and abuse are learned through interaction with other drug users. "[The] . . . motivations to use drugs are learned through associations with significant others in small, informal groups such as peer groups and families. It is in these intimate settings that individuals acquire attitudes regarding drugs and their use and observe the behavior of others" (Bahr and Hoffmann 2016, p. 200).

This theory emphasizes the pervasive influence of *primary groups*—that is, groups that share a high amount of intimacy and spontaneity and whose members are emotionally entwined. Families and long-term friends are examples of primary groups. In contrast, secondary groups share segmented relationships in which interaction is based on prescribed roles. An example of a secondary group is the relationship between a customer and a salesclerk in a grocery store or relationships between employees scattered throughout a corporation. Social learning theory addresses a type of interaction that is highly specific. This type of interaction involves learning specific motives, techniques, and appropriate meanings that are commonly attached to a particular type of drug.

The following are examples of first-time users learning drug-using techniques from their social circles:

> The first time I tried smoking weed, nothing much happened. I always thought it was like smoking a cigarette. When the joint came around the first time, I refused it. The next time it came around, I noticed everyone was looking at me. So, I took the joint and started to inhale, then exhale. My friend sitting next to me said something to the effect, "Dude, hold it in; don't waste it. This is good weed and we don't have that much between us." Right after that, we did some "shotguns." This is where someone exhales directly into your mouth—lips to lips. My friend filled my lungs with his exhaled weed breath. After the first comment about holding it in, I started to watch how everyone was inhaling and realized that you really don't smoke weed like an ordinary cigarette; you have to hold in the smoke. *(From Venturelli's research files, male high school student in a small Midwestern town, age 16, February 15, 1997)*

> I first started using drugs, mostly alcohol and pot, because my best friend in high school was using drugs. My best friend Tim [a pseudonym] learned from his older sister. Before I actually tried pot, Tim kept telling me how great it was to be high on dope; he said it was much better than beer. I was really nervous the first time I tried pot with Tim and another friend, even though I heard so much detail about it from Tim. The first time I tried it, it was a complete letdown. The second time (the next day, I think it was), I remember I was talking about a teacher we had and in the middle of the conversation, I remember how everything appeared different. I started feeling happy and while listening to Tim as he poked jokes about the teacher, I started to hear the background music more clearly than ever before. By the time the music ended and a new CD started, I knew I was high. *(From Venturelli's research files, male student at a private liberal arts college in the Midwest, age 22, February 15, 1997)*

KEY TERMS

social influence theories
sociological theories that view a person's day-to-day social relations as a primary cause for drug use

structural influence theories
theories that view the structural organization of a society, peer group, or subculture as directly responsible for drug use

> First time I tried acid [LSD], I didn't know what to expect. Schwa [a pseudonym] told me it was a very different high from grass [marijuana]. After munching on one "square" [one dose of LSD]—after about 20 minutes—I looked at Schwa and he started laughing and said, "Feelin' the effects, Ki-ki?" I said, "Is this it? Is this what it feels like? I feel weird." With a devious grin . . . Schwa said, "Yep. We are now on the runway, ready to take off. Just wait a little while longer, it's going to get better and better. Fasten your seat belts!" *(From Venturelli's research files, male, age 33, May 6, 1996)*

Learning to perceive the effects of the drug is the second major outcome in the process of becoming a regular user. Here, the ability to feel the authentic effects of the drug is being learned. The more experienced drug users in the group impart their knowledge to naïve first-time users. The coaching information they provide describes how to recognize the euphoric effects of the drug.

> I was just curious after watching my roommate with his friends frequently passing around a joint and remember always saying "I'll pass on that" many times. One night I just tried it with my roommate late at night. I really did not know how to even smoke it, but my roommate made more coaching comments as I was taking hits. The first few puffs nothing happened, but after I took in two huge hits, and coughing as it nearly choked me, I started to feel different. I had kind of a mellow feeling. I was talking about something and in the middle of the conversation I started to focus on everything around me like I was in some kind of trance, not heavy, but my mind was in several places as I spoke. After a few moments, I said, "I feel different not like I drank alcohol but just feel different." My roommate smiled and said, "You like the feeling?" I said I did not know but there was nothing bad in my feelings about what I had just done. It was like a change in the way I was processing input coming in. I remember saying that I felt kind of like light-headed and relaxed. My roommate said something like "Welcome to the world of marijuana, Mr. Schaffer [pseudonym]!" We just both laughed. *(From Venturelli's research files, male attending a small, private liberal arts college in the Midwest, age 18, May 21, 2010)*

Another example of learning to perceive the effects:

> One night several of us wanted to try weed so at my college dorm we went to see a friend of mine who always had plenty of week so we could try some. Ron was a new friend who the day before agreed to let me and two of my guys on my dorm floor smoke some up. Two out of three of us had never smoked weed and it wasn't long before he lit up his little pipe and all four of us took in hits. We were passing it around and during the first few hits I did not feel anything at all and being a nonsmoker I watched my other friend who smokes cigarettes inhale the marijuana so I could also smoke it up. After two hits nothing was happening. However, after Ron got up to turn up the music playing on his computer and at that moment I was thinking that maybe nothing is going to happen. As I was thinking that maybe I was not inhaling it properly I suddenly started to feel different and within seconds the feelings were more intense. Definitely reality had gone through a change! At the same time I also felt a little freaked out because I did not know if others were having similar experiences. A few minutes later I finally blurted out "Hey, I am high on marijuana!" Suddenly everyone was amused and one friend of mine roared with laughter. As soon as I made this comment everyone became very animated and acted much sociable. I remember feeling like I was thinking on multiple levels—at times my mind was racing with many different thoughts. It was so different from an alcohol high. It definitely was more of a mental high than a body high. I started out being skeptical of the high and was hoping that the effect would weaken, but as everyone was enjoying themselves I changed my mind that the effects were positive and feeling this different was a new experience. I think other people experiencing the high helped knowing I was not alone and my other friends were in the same state of mind. In answering your question (asked by the interviewer) whether I used this drug in the days and weeks ahead I would have to say yes I did but I would only do it on weekends late at night with my roommate hours before going to sleep. No, I did not become attached to it because I am pretty busy with school and work and keep a busy schedule. I tried doing some homework one night while feeling the effects of weed but I ended up not competing much because getting high distracts me from any work I have to do and usually ended up doing nothing and just chilling out. With my heavy schedule of classes during this last semester and work schedule, I don't have any time during the week to waste

away. Did I develop any kind of attachment to the pleasant feelings from a marijuana high? Not really, maybe a very weak attachment because throughout the week I knew I would fall behind in not doing my homework. I came to the conclusion that although getting high was a lot of fun, I planned ahead when I would do the drug so that it did not interfere with other things that had to be completed. A good thing was that my roommate was a lot more hesitant in using this drug for fear of drug testing at his part-time job. In fact, most times I did this drug with another dorm student who was an avid user. I also think that if my roommate liked the drug more was not so preoccupied with completing his degree in 3 instead of 4 years I would have used it much more often. *(From Venturelli's research files, male attending a private liberal arts college in the Midwest, age 22, November 2015)*

Once drug use has begun, continuing the behavior involves learning the following sequence: (1) identifying where and from whom the drug can be purchased, (2) maintaining steady contact with suppliers of the drug (i.e., drug dealers), (3) maintaining the secrecy of use from authority figures and casual non–drug-using acquaintances, (4) evaluating your experiences with the drug as pleasurable, (5) using with more frequency, and (6) replacing non–drug-using friends with drug-using friends.

ROLE OF SIGNIFICANT OTHERS

After a pattern of drug use has been established, the learning process plays a role in sustaining drug-taking behavior. Edwin Sutherland (1947; Akers 2009; Inderbitzin, Bates, and Gainey 2013; Liska and Messner 1999), a pioneering criminologist in sociology, believed that the mastery of criminal behavior depended on the frequency, duration, priority, and intensity of contact with others who are involved in similar behavior (Heitzeg 1996). This theory can also be applied to drug-taking behavior.

In applying Sutherland's principles of social learning, which he called differential association theory, to drug use, the focus is on how other members of social groups reward criminal behavior and under what conditions this deviance is perceived as important and pleasurable.

Becker and Sutherland's theories explain why adolescents may use psychoactive drugs. Essentially, both theories say that the use of drugs is learned during intimate interaction with others who serve as a primary group. (See "Here and Now: Symptoms of Drug and Alcohol Abuse" for information on how the role of significant others can determine a child's disposition toward or away from illicit drug uses and "Here and Now: How Not to Encourage Your Teen to Use Drugs.")

This child is role-playing largely by imitating the habits of a significant other.

Learning theory also explains how adults and the elderly are taught the motivation for using a particular type of drug. This learning occurs through influences such as drug advertising, with its emphasis on testimonials by avid users, by medical experts, and by actors and actresses portraying physicians or nurses. Listeners, viewers, and readers who experience such commercials promoting a particular brand name of OTC drugs are flooded with the necessary motives, preferred techniques, and appropriate attitudes for consuming drugs. When drug advertisements and medical experts recommend a particular drug for specific ailments, in effect they are authoritatively persuading viewers, listeners, or readers that taking a drug will soothe or cure the medical problem presented.

ARE DRUG USERS MORE LIKELY TO BE DEVIOUS?

Social scientists—primarily sociologists and social psychologists—believe that many social development patterns are closely linked to drug use. Based on the age when an adolescent begins to consume alcohol and other drugs, predictions can be made about his or her sexual behavior, academic performance, and other behaviors, such as lying, cheating, fighting, and using marijuana. Similar predictions can be made when the adolescent begins using marijuana. More recent studies (CBHSQ 2015; CESAR 2011) show that there is a strong relationship between adolescent behavior problems and alcohol use.

Figure 2.1 shows the percentages of adolescents (aged 12 to 17) using alcohol, cigarettes,

HERE AND NOW

How Not to Encourage Your Teen to Use Drugs

Parents may unwittingly encourage their teens to recreationally experiment with alcohol and other drugs. The following are four things that may encourage teens to recreationally experiment with alcohol and other drugs of abuse:

- *Being unclear or not voicing your opinion about drug use*: Before your child becomes affected by peer pressure, you should take a stance on drug use. Clearly indicate that experimentation with recreational drug use is not acceptable (Sack 2013). Be certain to create an open atmosphere about your teen's opinions about drug use. If there is a family history of drug or alcohol problems, more concentrated discussions should be a primary goal without being overbearing.
- *Not practicing what you preach*: Be a positive model for your child. "Children pay closer attention to what you do than what you say. Even fiercely independent teens are adversely affected by their parents, so if you drink excessively or use drugs, don't be surprised if your teen follows suit. Having a parent who uses drugs is a strong predictor of adolescent substance abuse" (Sack 2013). Similarly, never provide alcohol or any other drugs to your teen and his or her friends in your home.
- *Denying suspicions about your teen's probable drug use*: Often, bringing up these suspicions and discussing your suspicions with your teen can be unpleasant. These suspicions often result from changes in your teen, such as "moodiness, new friends, much less or much more energy, weight loss or gain, or inattention to personal hygiene" (Sack 2013). Although at times adolescence is difficult to understand, remaining actively involved with your teen allows the parent to witness firsthand beginnings in the use of drugs. At this time, denial may be more comfortable than voicing your suspicions, but denial can become deadly, in that if drug use is occurring, more than likely it will advance to more dangerous levels.
- *Waiting to get help*: The period of adolescence can be filled with challenges. "From moment to moment it can be difficult to know the right thing to do or say, but there are a few ways you can't go wrong. Spend lots of quality time with your teen and if something seems amiss, talk about it. For those occasions when talking doesn't get you anywhere, get help. Your teen's drug use isn't your fault, but you are a critical part of the solution" (Sack 2013).

Data from Sack, D. "5 Things Parents Do That May Encourage Teen Substance Abuse." Huffington Post: Parents (4 March 2013). Available http://www.huffingtonpost.com/david-sack-md/teen-substance-abuse_b_2792838.html

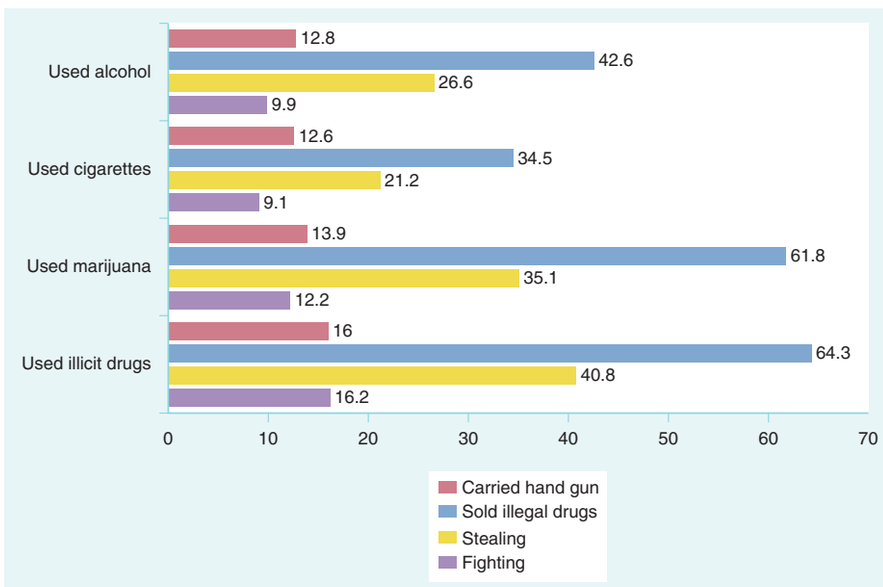


FIGURE 2.1 Percentages of adolescents (Aged 12 to 17) engaging in drug use and various types of deviant behavior

Center for Behavioral Health Statistics and Quality (CBHSQ). *2014 National Survey on Drug Use and Health: Detailed Tables*. Rockville, MD: Substance Abuse and Mental Health Services Administration, 2015.

HERE AND NOW

Symptoms of Drug and Alcohol Abuse

Following are profiles of children who are less likely and more likely, respectively, to use and abuse drugs.

Less Likely to Use Drugs

- Child comes from a strong family.
- Family has a clearly stated policy against drug use.
- Child has strong religious convictions.
- Child is an independent thinker, not easily swayed by peer pressure.
- Parents know the child's friends and the friends' parents.
- Child often invites friends into the house and their behavior is open, not secretive.
- Child is busy and productive and pursues many interests.
- Child has a good, secure feeling of self.
- Parents are comfortable with their own use of alcohol, drugs, and pills; set a good example in using these substances; and are comfortable in discussing their use.
- Parents set a good example in handling crises.
- Child maintains at least average grades and good working relationships with teachers.

More Likely to Use Drugs

Note: A child will usually display more than one of the symptoms that follow when experimenting with drugs. Please remember that any number of the symptoms could also be the result of a physical impairment or disorder.

- Red, watery eyes; pupils larger or smaller than usual; blank stare.
- Abrupt change in behavior (e.g., from very active to passive, loss of interest in previously pursued activities such as sports or hobbies).
- Diminished drive and ambition.
- Moodiness.
- Shortened attention span.
- Impaired communication such as slurred speech or jumbled thinking.
- Significant change in quality of schoolwork.
- Deteriorating judgment and loss of short-term memory.
- Distinct lessening of family closeness and warmth.
- Suddenly popular with new friends who are older and unknown to family members.
- Isolation from family members (hiding in bedroom or locking bedroom door).
- Sneaking out of the house.
- Secretive or suspicious behavior.
- Sudden carelessness regarding appearance.
- Inappropriate overreaction to even mild criticism.
- Secretiveness about whereabouts and missing personal possessions.
- Use of words that are odd and unfamiliar.
- Secretiveness or desperation for money.
- Rapid weight loss or appetite loss.
- "Drifting off" beyond normal daydreaming.
- Extreme behavioral changes such as hallucinations, violence, and unconsciousness that could indicate a dangerous situation close at hand and needing fast medical attention.
- Nonprescribed or unidentifiable pills.
- Unfamiliar looking devices (e.g., smoking paraphernalia, pills, smaller plastic baggies or pipes, or other hidden paraphernalia in a child's or adolescent's bedroom).
- Articles missing from the house. (Child could be stealing money or household articles in order to sell or trade in order to pay for drugs.)
- Sudden appearance and possession of new items in the teen's bedroom—often electronic items—from money spent, bartered, or exchanged from drug dealing.
- Unexplained need for money or contradictory explanations regarding the need for money.

Data from L.A.W. Publications. *Let's All Work to Fight Drug Abuse*. Addison, TX: C&L Printing Company, 1985: 38; Drug Strategies. *Santa Barbara Profile: Alcohol, Tobacco, and Other Drugs*. Washington, DC: Drug Strategies, 1999; Liddle, H. *AAMFT Consumer Update: Adolescent Substance Abuse. American Association for Marriage and Family Therapy (AAMFT)*. Alexandria, VA: American Association for Marriage and Family Therapy, 2001; Witmer, D. "Teen Drug Use Warning Signs." About.com. 2013.

marijuana, and use of other illicit drugs and engaging in various types of deviant behavior, namely, carrying a handgun, selling illegal drugs, stealing, and fighting. Highest to lowest percentages indicate the following (CBHSQ 2015):

- 64.3% of adolescents using illicit drugs, 61.8% using marijuana, 42.6% using alcohol, and 34.5% using cigarettes sold illegal drugs.
- 40.8% of adolescents using illicit drugs, 35.1% using marijuana, 26.6% using alcohol, and 21.2% using cigarettes were involved in stealing.
- 16% of adolescents using illicit drugs, 13.9% using marijuana, 12.8% using alcohol, and 12.6% using cigarettes carried a handgun.
- 16.2% of adolescents using illicit drugs, 12.2% using marijuana, 9.9% using alcohol, and 9.1% using cigarettes engaged in physical fighting.

Figure 2.2 shows early alcohol use among Washington, DC, public high school students (aged 16 and older) and the onset of other risky behaviors, such as past-month underage alcohol use, carrying a weapon, binge drinking, past-year consideration of suicide, use of a nonprescribed prescription drug, and driving after drinking alcoholic beverages. A key factor that predominates is the significantly higher percentages in each of the risky behaviors examined when adolescents first tried alcohol *before* age 13 versus significantly lower percentages with adolescents who first tried alcohol *after* age 13 or never used alcohol (CESAR 2011):

- Nearly one-quarter (21%) of Washington, DC, public high school students were early drinkers, having first tried alcohol before age 13.
- Early drinkers, defined as adolescents trying alcohol before age 13, were more than twice as likely than nonearly drinkers (adolescents who first tried alcohol after age 13 or never used alcohol) to have used alcohol, carried a weapon, binged on alcohol, considered suicide, used a nonprescribed prescription drug, and driven after drinking.
- Although not shown in Figure 2.1, this study also found that early drinkers were also more likely (but less than twice as likely) to have done the following:
  - Used marijuana in the past month (40% vs. 23%)
  - Ridden in a car with a drinking driver (32% vs. 20%)
  - Physically fought in the past year (52% vs. 34%)
  - Been in a gang/crew in the past year 24% vs. 18%)
  - Had sex in the past 3 months (50% vs. 41%)

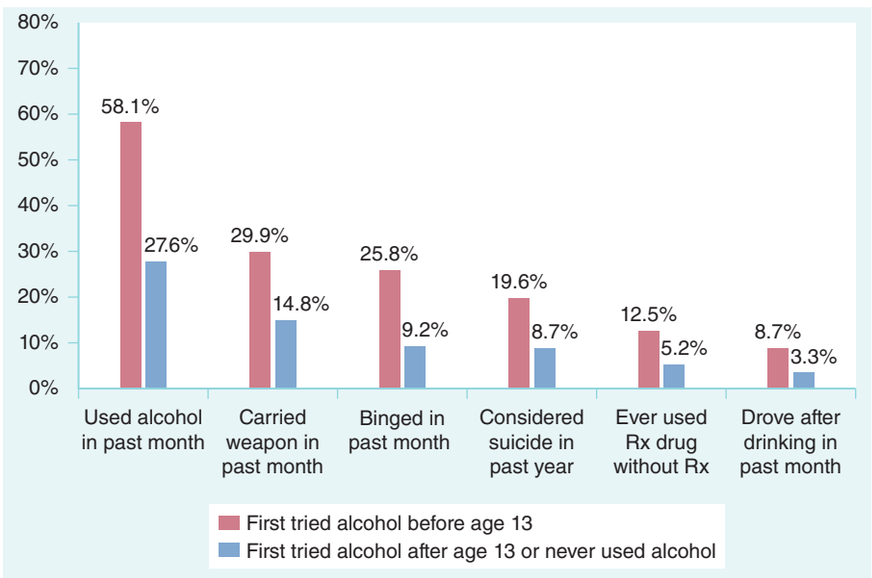


FIGURE 2.2 Early alcohol use and other risky behaviors among Washington, DC, public high school students aged 16 or older.

Data from the 2011 DC The Youth Risk Behavior Survey (YRBS), Office of the State Superintendent of Education (OSSE), District of Columbia.

Data from the Center for Substance Abuse Research (CESAR). "District Youth in Brief: Early Alcohol Use: Is Early Alcohol Among DC Public High School Students Associated with Other Risky Behaviors?" University of Maryland, College Park, MD: Center for Substance Abuse Research (CESAR), (Volume 3, Issue 8), September 2011. Available http://www.cesar.umd.edu/cesar/pubs/20110901%20DC%20YinB%203-8.pdf

Other studies show that early intense use of alcohol or marijuana represents a move toward less conventional behavior, greater susceptibility to peer influence, increased delinquency, and lower achievement in school. In general, drug abusers have 14 characteristics in common:

1. Their drug use usually follows clear-cut developmental steps and sequences. Use of legal drugs, such as alcohol and cigarettes, almost always precedes use of illegal drugs.
2. Use of certain drugs, particularly habitual use of marijuana, is linked to amotivational syndrome, which some researchers believe is a general change in personality.[2] This change is characterized by apathy, lack of interest, and inability to accomplish or difficulty accomplishing goals. Past research also clearly shows that marijuana use is often responsible for attention and short-term memory impairment and confusion (NIDA 1996).
3. Immaturity, maladjustment, or insecurity usually precede the use of marijuana and other illicit drugs.
4. Those more likely to try illicit drugs, especially before age 12, usually have a history of poor school performance and classroom disobedience.
5. Delinquent or repetitive deviant types of behavior usually precede involvement with illicit drugs.
6. A set of values and attitudes that facilitates the development of deviant behavior exists before the person tries illicit drugs.
7. A social setting in which drug use is common, such as communities and neighborhoods in which peers use drugs indiscriminately, is likely to reinforce and increase the predisposition to drug use.
8. Drug-induced behaviors and drug-related attitudes of peers are usually among the strongest predictors of subsequent drug involvement.
9. Children who feel their parents are distant from their emotional needs are more likely to become drug addicted (see "Here and Now: Does Divorce Affect Adolescent Drug Use?").
10. The younger people are when they begin using drugs, the higher the probability of continued and accelerated drug use. Likewise, the older people are when they start using drugs, the lower the probability of accelerated use and addiction. The period of greatest risk of initiation and habitual use of illicit drugs is usually over by the early 20s.
11. The family structure has changed, with substantially more than half (58.6%) of all women (72 million) in the United States now working outside the home (U.S. Department of Labor 2011). A higher divorce rate has led to many children being raised in single-parent households. How the lack of a stay-at-home parent or how membership in a single-family household affects the quality of childcare and nurturing is difficult to assess.
12. Mobility obstructs a sense of permanency, and it contributes to a lack of self-esteem. Often, when children are repeatedly moved from one location to another, their community becomes nothing more than a group of strangers. They may have little pride in their home or community and have no commitment to society.
13. Among minority members, a major factor involved in drug dependence is a feeling of powerlessness due to discrimination based on race, social standing, or other attributes. Groups subject to discrimination have a disproportionately high rate of unemployment and below-average incomes. In the United States, approximately 15.6 million children (21%) are reared in poverty (Landau 2010). The adults they have as role models may be unemployed and experience feelings of powerlessness. Higher rates of delinquency and drug addiction occur in such settings.
14. Abusers who become highly involved in selling drugs begin by witnessing that drug trafficking is a lucrative business, especially in rundown neighborhoods. In some communities, selling drugs seems to be the only available route to real economic success (Jones 1996; Shelden, Tracy, and Brown 2001).

LABELING THEORY

Although controversy continues over whether labeling is a theory or a perspective (Akers 1968, 1992; Heitzeg 1996; Plummer 1979), this text takes the position that labeling is a theory (Cheron 2001; Hewitt and Shulman 2010; Liska and Messner 1999), primarily because it explains something very important with respect to drug

[2]Some argue that perhaps a general lack of ambition (lethargic behavior) may precede rather than result from marijuana use or that amotivational syndrome is present in some heavy marijuana users before the initial use of this drug, and when the drug is used, the syndrome becomes more pronounced. In any case, some drug researchers believe that when used steadily, marijuana and the amotivational syndrome occur together.

HERE AND NOW

Does Divorce Affect Adolescent Drug Use?

"When parents make a decision to divorce . . ., children are expected to cope with the decision. Except in cases involving abuse, it is rare that children will thrive during a divorce. The impact of divorce is that children will have problems and experience symptoms" (Conner 2011; Heritage Foundation 2016). One of the major symptoms listed by Conner (see also Doherty and Needle 1991; Kelly 2000), a clinical psychologist, is drug or alcohol abuse. Further, as an example of how drug users may be affected by socialization, a study conducted by Needle (Conner 2011; Needle, Su, and Doherty 1990; NIDA 1990; Siegel and Senna 1994) found higher drug use among adolescents whose parents divorced (also see Heritage Foundation 2016). According to the study, children who are adolescents when their parents divorce exhibit more extensive drug use and experience more drug-related health, legal, and other problems than their peers (Heritage Foundation 2016). This study linked the extent of teens' drug use to their age at the time of their parents' divorce. Teenagers whose parents divorce were found to use more drugs and experience more drug-related problems than two other groups of adolescents: those who were age 10 or younger when their parents divorced, and those whose parents remained married.

This study has important implications for drug abuse prevention efforts. Basically, it says not everyone is at the same risk for drug use. People at greater risk can be identified, and programs should be developed to meet their special needs.

In this research project, drug use among all adolescents increased over time. However, drug use was higher among adolescents whose parents had divorced when their children were either preteens or teenagers. Drug use was highest for those teens whose parents divorced during their children's adolescent years. Such families also reported more physical problems, family disputes, and arrests.

The research results showed that distinct gender differences existed in the way that divorce affected adolescent drug use, whether the divorce occurred during the offspring's childhood or adolescent years. Males whose parents divorced reported more drug use and drug-related problems than females. Females whose caretaking parents remarried experienced increased drug use after the remarriage. By contrast, males whose caretaking parents remarried reported a decrease in drug-related problems following the remarriage.

The researchers caution that these findings may have limited applicability because most of the families studied were white and had middle- to high-income levels. Needle also notes that the results should not be interpreted as an argument in favor of the nuclear family. Overall, divorce affects adolescents in complex ways and remarriage can influence drug-using behavior; particularly when disruptions occur during adolescence, such turmoil can "trigger" a desire for extensive recreational licit and illicit drug use, often leading to drug abuse.

Data from Conner, M. G. "Children During Divorce." *Michael G. Conner*, 24 August 2011. Heritage Foundation. "Family and Adolescent Well-being." Washington, DC: The Heritage Foundation, 2016. Available http://www.familyfacts.org/briefs/34/family-and-adolescent-well-being; Needle, R. H., S. S. Su, and W. J. Doherty. "Divorce, Remarriage, and Adolescent Substance Use: A Prospective Longitudinal Study." *Journal of Marriage and the Family* 52 (1990): 157–159; National Institute on Drug Abuse (NIDA). "Study Finds Higher Use Among Adolescents Whose Parents Divorce." *NIDA Notes* 5 (Summer 1990): 10; Siegel, L J., and J. J. Senna. *Juvenile Delinquency: Theory, Practice and Law*. St. Paul, MN: West, 1994.

use. Although **labeling theory** does not fully explain why initial drug use occurs, it does detail the processes by which many people come to view themselves as socially deviant from others. Note that the terms *deviant* (in cases of individuals) and *deviance* (in cases of behavior) are sociologically defined as involving the violation of significant social norms held by conventional society. The terms are not used in a judgmental manner, nor are the individuals judged to be immoral or "sick"; instead, the terms refer to an absence of the patterns of behavior expected by conventional society.

Labeling theory says that other people whose opinions we value have a determining influence

KEY TERM

labeling theory
the theory emphasizing that other people's perceptions directly influence one's self-image

over our self-image (Best and Luckenbill 1994; Goode 2010; Liska and Messner 1999). (For an example of how labeling theory applies to real-life situations, see "Case in Point: Specific Signs of Marijuana Use.")

Implied in this theory is the idea that we exert only a small amount of control over the image we portray. In contrast, members of society, especially those we consider to be significant others, have much greater influence and power in defining or redefining our self-image. The image we have of ourselves is vested in the people we admire and look to for guidance and advice. If these people come to define our actions as deviant, then their definition becomes incorporated as a "fact" of our reality.

We can summarize labeling theory by saying that the labels we use to describe people have a profound influence on their self-perceptions. For example, imagine a fictitious individual named Billy. Initially, Billy does not see himself as a compulsive drug user but as an occasional recreational drug user. Let us also assume that Billy is very humorous, unpretentious, and very outspoken about his drug use and likes to exaggerate the amount of marijuana he smokes on a daily basis. Slowly, Billy's friends begin to perceive him as a "real stoner." According to labeling theory, what happens to Billy? Because of being noticed when "high," his self-presentation, and the comments he makes about the pleasures of drug use, his friends may begin to reinforce the exaggerated drug use image. At first, Billy may enjoy the reflected image of a "big-time" drug user, but after nearly all of his peers maintain a constant exaggerated image, his projected image may turn negative, especially when his friends show disrespect for his opinions. In this example, labeling theory predicts that Billy's perception of himself will begin to mirror the consistent perception expressed by his accusers. If he is unsuccessful in eradicating the addict image or, in this example, the "stoner" image, Billy will reluctantly concur with the label that has been thrust on him. Or, to strive for a self-image as an occasional marijuana user, Billy may abandon his peers so that he can become acceptable once more in the eyes of other people.

An important originator of labeling theory is Edwin Lemert (Lemert 1951; Liska and Messner 1999; Williams and McShane 1999), who distinguished between two types of deviance: primary and secondary. **Primary deviance** is inconsequential deviance, which occurs without having a lasting impression on the perpetrator. Generally, most first-time violations of law, for example, are primary deviations. Whether the suspected or accused individual has committed the deviant act does not matter. What matters is whether the individual identifies with the deviant behavior.

Secondary deviance develops when the individual begins to identify and perceive himself or herself as deviant. The moment this transition occurs, deviance shifts from being primary to secondary. Many adolescents casually experiment with drugs. If, however, they begin to perceive themselves as drug users, then this behavior is virtually impossible to eradicate. The same holds true with OTC drug abuse. The moment an individual believes that he or she feels better after using a particular drug, the greater the likelihood that he or she will consistently use the drug.

Howard Becker (1963) believed that certain negative status positions (such as alcoholic, mental patient, ex-felon, criminal, drug addict, and so on) are so powerful that they dominate others (Pontell 1996; Williams and McShane 1999). In the earlier example, if people who are important to Billy call him a "druggie," this name becomes a powerful label that takes precedence over any other status positions Billy may occupy. This label becomes Billy's **master status**—that he is a mindless "stoner." Even if Billy is also an above-average biology major, an excellent musician, and a dependable and caring person, such factors become secondary because his primary status has been recast as a "druggie." Furthermore, once a powerful label is attached, it becomes much easier for the individual to uphold the image dictated by members of society and simply to act out the role expected by significant others. Master status labels distort an individual's public image because other people expect consistency in role performance.

Once a negative master status has been attached to an individual's public image, labeling

KEY TERMS

primary deviance
any type of initial deviant behavior in which the perpetrator does not identify with the deviance

secondary deviance
any type of deviant behavior in which the perpetrator identifies with the deviance

master status
major status position in the eyes of others that clearly identifies an individual, for example, doctor, professor, alcoholic, heroin addict

CASE IN POINT

Specific Signs of Marijuana Use

This excerpt, from the author's files, illustrates labeling theory:

> After my mom found out, she never brought it up again. I thought the incident was over—dead, gone, and buried. Well . . . it wasn't over at all. My mom and dad must have agreed that I couldn't be trusted anymore. I'm sure she was regularly going through my stuff in my room to see if I was still smoking dope. Even my grandparents acted strangely whenever the news on television would report about the latest drug bust in Chicago. Several times that I can't ever forget were when we were together and I could hear the news broadcast on TV from my room about some drug bust. There they all were whispering about me. My grandma asking if I "quitta the dope." One night, I overheard my mother reassure my dad and grandmother that I no longer was using dope. You can't believe how embarrassed I was that my own family was still thinking that I was a dope fiend. They thought I was addicted to pot like a junkie is addicted to heroin! I can tell you that I would never lay such a guilt trip on my kids if I ever have kids. I remember that for 2 years after the time I was honest enough to tell my mom that I had tried pot, they would always whisper about me, give me the third degree whenever I returned late from a date, and go through my room looking for dope. They acted as if I was hooked on drugs. I remember that for a while back then I would always think that if they think of me as a drug addict, I might as well get high whenever my friends "toke up." They should have taken me at my word instead of sneaking around my personal belongings. I should have left syringes lying around my room!

Approximately 17 years after this interview was conducted, this author was able to revisit the same interviewee, who at the time of this second interview was 37 years of age. After showing him the same excerpt I had written, he commented,

> You know, Professor, while today marijuana use is no longer such a big deal, I can still tell you that it took years to finally convince my family that I was not a "big time drug user." Though my grandma is now dead, I can still remember how she would look at me when I would tell her that I just smoke it once in a while. I knew she never believed that I was just an occasional user by the look on her face, when she would ask ". . . and last night when you went out, did you smoke the dope again?" My mom, who is now living with her sister, still mentions how I went wild those days when I was drugging it up! Yes, I have to say it had a big impact on me when my own family believed I was a drug addict back then. I will never forget those looks from my family every time I would walk into the house on weekends when I would return from a night out with my friends.

Interview with a 20-year-old male college student at a private university in the Midwest, conducted by Peter Venturelli on November 19, 1993. Second interview with same interviewee, 37 years of age, June 2010.

theorist Edwin Schur asserted that retrospective interpretation occurs. **Retrospective interpretation** is a form of "reconstitution of individual character or identity" (Schur 1971, p. 52). It largely involves redefining a person's image within a particular social stereotype, category, or group (see cartoon as an illustration). In the eyes of his peers, Billy is now an emotional, intelligent, yet weird or "freaky" stoner.

Finally, William I. Thomas's (1923) contribution to labeling theory can be summarized in the following theorem: "If men define situations as real, they are real in their consequences" (p. 19). Thus, in applying this dictum by Thomas to drug use, when someone is perceived as a drug user, the perception becomes the reality of that

KEY TERM

retrospective interpretation
social psychological process of redefining a person in light of a major status position, for example, homosexual, physician, professor, alcoholic, convicted felon, or mental patient

person's character and, in turn, shapes his or her self-perception.

SUBCULTURE THEORY

Subculture theory speaks to the role of peer pressure and the behavior resulting from peer group influences. In all groups, there are certain members who are more popular and respected and, as a result, exert more social influence than other peer members. Often, these more socially endowed members are group leaders, task leaders, or emotional leaders who possess greater ability to influence others. Drug use that results from peer pressure demonstrates the extent to which these more popular and respected leaders can influence and pressure others to initially use or abuse drugs. These four excerpts from interviews illustrate subculture theory:

> I started using drugs at a young age. I was 8 years old when my friend Linda and I would smoke cigarettes while my mom and dad were running the bar business. I would take a pack of cigarettes from my dad's tavern and we would go into a little clubhouse we built out of plywood and we would smoke one cigarette after another hidden in that little clubhouse my older brother built for me. It was not long before I would also sneak in some liquor along with cigarettes and Linda and I would get buzzed on the alcohol and cigarettes and we would giggle and laugh while we were sitting in this little hutlike place and we thought we were having so much fun. My mom and dad never checked on us while we were in the hut and if I was wanted by my mom or dad they would call out my name from the back entrance door of the back kitchen and I either yelled back I am here or at times I would stroll in—really check-in quickly—and they would be busy with the business never suspecting anything was wrong. We did this a few times a week and it was like a secret we both kept away from our parents. I always saw everyone was drinking and smoking in my dad's bar so why not do the same with my friend Linda? A few years later, I did the same thing with my two male friends when I would stop by their parents' apartments during the weekdays when their parents were at work. I was always the kid who had the cigarettes and we would go for walks down a nearby alley and I would supply the smokes. Now that I think about this we were lucky we never got caught with our secret behavior. *(From Venturelli's research files, male office worker, residing in Chicago, age 47, July 12, 2015)*

Courtesy of Alex Sillivestri.

This cartoon illustrates the reflective process in retrospective interpretation that often occurs in daily conversations when we think that our unspoken thoughts are undetectable and hidden. In reality, however, these innermost thoughts are clearly conveyed through body language and nonverbal gestures.

A second account:

> I first started messing around with alcohol in high school. In order to be part of the crowd, we would sneak out during lunchtime at school and get "high." About 6 months after we started drinking, we moved on to other drugs. . . . Everyone in high school belongs to a clique, and my clique was heavy into drugs. We had a lot of fun being high throughout the day. We would party constantly. Basically, in college, it's the same thing. *(From Venturelli's research files, male student at a small, religiously affiliated private liberal arts college in the Southeast, age 19, February 9, 1985)*

A third account:

> I remember Henri was from Holland, and he never tried coke. One night all three of us were at Joe's apartment and Joe had a hefty amount of coke that he brought out from his bedroom. We started snorting it and when it was Henri's

KEY TERM

subculture theory
explains drug use as a peer-generated activity

turn he said, "I never did this and maybe I shouldn't do it now." Paul, who was also a good friend of Henri, said "Come on Henri, it won't do that much to you." Henri looked at each of us and shot back with "Okay, I will try it once." Well, that night Henri had about as much coke as the two of us had. It was all okay until Henri suddenly got sick and vomited a good number of times. We spent a good part of the night taking care of Henri making sure he did not pass out and made sure to get him back to his apartment and call it a night. Henri was just not used to the coke and we probably let him have too much being his first time. *(From Venturelli's research files, all three mentioned were seniors at a liberal arts college in Chicago, August 18, 2009)*

The fourth interview illustrates how friendship, coupled with subtle and not-so-subtle peer pressure, influences the novice drug enthusiast:

There I was on the couch with three of my friends, and as the joint was being passed around, everyone was staring at me. I felt they were saying, "Are you going to smoke with us or will you be a holdout again?" *(From Venturelli's research files, male university student, age 20, April 10, 1996)*

In sociology, charismatic leaders, defined as leaders with distinction in the eyes of others, are viewed as possessing status and power. In drug-using peer groups, such experienced drug users have power over inexperienced drug users. Members of peer groups are often persuaded to experiment with drugs if the more popular members say, "Come on, try some, it's great" or "Trust me, you'll really get off on this, come on, just try it." In groups where drugs are consumed, the extent of peer influence coupled with the art of persuasion and *camaraderie* or friendship are powerfully persuasive and cause the spread of drug use.

A further extension of subculture theory is the *social and cultural support perspective*. This perspective explains drug use and abuse in peer groups as resulting from an attempt by peers to solve problems collectively. In the neoclassic book *Delinquent Boys: The Culture of the Gang* (1955), Cohen pioneered a study that for the first time showed that delinquent behavior is a collective attempt to gain social status and prestige within the peer group (Liska and Messner 1999; Siegel and Senna 1994; Williams and McShane 1999). Members of certain peer groups are unable to achieve respect within the larger society. Such status-conscious youths find that being able to commit delinquent acts and yet evade law enforcement officials is admirable in the eyes of their delinquent peers. In effect, Cohen believed, delinquent behavior is a subcultural solution for overcoming feelings of status frustration and low self-esteem largely determined by lower class status.

Although Cohen's emphasis is on explaining juvenile delinquency, his notion that delinquent behavior is a subcultural solution can easily be applied to drug use and abuse primarily in members of lower-class peer groups. Underlying drug use and abuse in delinquent gangs, for example, results from sharing common feelings of alienation and low self-esteem and a collective feeling of escaping from a society that appears uncaring, noninclusive, distant, and hostile.

Consider the current upsurge in violent gang memberships. In such groups, not only is drug dealing a profitable venture, but drug use also serves as a collective response to alienation and estrangement from conventional middle-class society. The hope of sudden monetary gain from drug dealing is perceived as a quick ticket into the middle class. In cases of violent minority gang members, the alienation results from racism, poverty, effects of migration and acculturation, and effects of minority status in a white, male-dominated society such as the United States (Glick and Moore 1990; Moore 1978, 1993; Sanders 1994; Thornberry 2001).

Structural Influence Theories

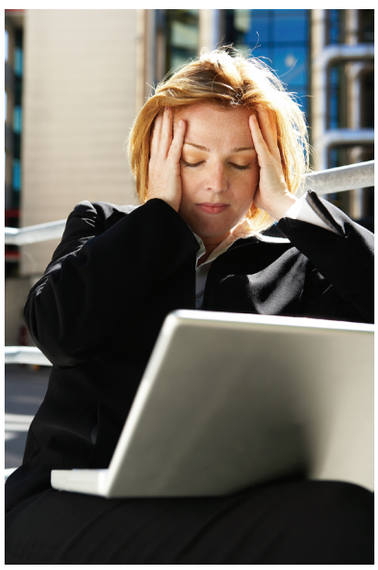
Structural influence theories focus on how elements in the *organization* of a society, group, or subculture affect the motivation and resulting drug use behavior that is for nonmedical—most often recreational—use. The belief is that no single factor in the society, the group, or the subculture produces the attraction to drug use but rather that the organization itself or the lack of organization largely causes this behavior to occur.

Social disorganization and social strain theories (Bahr and Hoffmann 2016; Liska and Messner 1999; Werner and Henry 1995) identify the different types of social change that are disruptive and explain how, in a general sense, people are adversely affected by rapid social change. Social disorganization theory asks, "What in the larger structure and organization of the social order causes people to deviate?" Social strain theory offers an explanation regarding what causes some

people to break away from social conformity. For example, this theory suggests that an inability to achieve sought-after goals, such as earnestly working hard yet being unable to meet financial obligations, compels some people out of shear frustration to deviate in achieving financial stability. One outcome viewed as a solution can result in drug dealing in order to achieve economic sustainability.

Overall, social disorganization theory describes a situation in which, because of rapid social change, previously conformity committed and affiliated individuals no longer find themselves integrated into a community's social, commercial, religious, and economic institutions. When this type of alienation occurs, community members may, despite the fact that their parents served as role models of social conformity, find themselves increasingly disconnected from conventional living, resulting in a lack of effective attachment to the social order. As a result, these disconnected or "disaffiliated" people may, for example, be led to deviant behavior, such as drug dealing or drug use, as an attractive quick-fix solution to their financial problems.

An essential factor for effective and sustainable socialization is trusting, longer-term relationships within a relatively stable environment. As will be discussed later in this chapter, when major identity development and personality transformations occur during the teen years, some stability and trusting relationships in the immediate environment are crucial. Today, however, most Westernized societies (including the United States) are experiencing rapid social and technological development and social changes that result in more destabilizing and disorienting factors that affect us (Gergen 2000; Ritzer 1999, 2011).



An example of feeling stressed and experiencing strain from an overly demanding society.

Even though on the surface most people in society adapt to continually evolving social and technological social changes, on a cognitive level many people find themselves overwhelmed with the continual frantic pressure to keep up on a daily basis. The drive to keep up with social and technological innovation is more demanding today than ever before (Gergen 2000). The constant need to keep pace with change and the increasing multiplicity of realities and ever more contradictory realities produced by such change often appear barely controllable and increasingly chaotic. People who are less skillful in coping with the rapid pace caused by social and technological changes have difficulty in successfully maintaining a stable self-identity. For example, consider the large number of people who need psychological counseling and therapy because they find themselves unable to cope with personal, family, and work-related problems and conflicts. In one study, "an estimated 26.2% of Americans ages 18 and older—about one in four adults—suffer from a diagnosable mental disorder in a given year" (Kessler et al. 2005, p. 617). The following interview shows how such confusion and lack of control can easily lead to drug use:

> *Interviewee*: The world is really much more complicated today than it was when I was growing up. Everything has a tendency to be in a perpetual state of flux.
>
> *Interviewer*: Can you explain what you mean by the continual state of flux?
>
> *Interviewee*: No one agrees with anything anymore. There are all these very divergent opinions. Just look at gay marriage for example. If my parents were alive today, I keep thinking what would my parents say about all this disagreement regarding marriage between two people? You know there was a time when marriage was always between a man and woman—not today. I know my parents never had to mentally deal with all these contrasting opinions. Even in their days I am sure they had contradictory ways of doing things but those other ways were never mainstream. I just think we are always on the cusp of total disagreements about things and ways of doing things.
>
> *Interviewer*: How do you think people today cope with all this change?

Interviewee: Good and interesting question. Everything that was considered normal in the past is now up for grabs! People who never had a voice have a voice today. This is both good and bad.

Interviewer: Can you explain what you mean by good and bad?

Interviewee: Well, it's good for individuals to be liberated but I think it's bad for social agreement and social organization. It's like everything is being deconstructed. Sometimes I think about all these contradictory perspectives and honestly I resolve my uncertainty by taking time out breaks by altering my reality. I do this by getting together with friends and we drink at least one night per week so we can get high laugh, sit back, and relax. In reality, I really think we cope with all this perceived mental turmoil by drinking in order to forget (really anesthetizing) or to suspend all the tension and turmoil in our daily lives. I also think with a good number of drug users the good feelings associated with their drug use is the ability to have time in order to cast out mental tension and conflict. I think as we "progress" as a society, drug use will only get worse because it becomes a great alternative coping mechanism for increasing numbers of people. *(From Venturelli's research files, male, Ph.D. graduate student attending a prominent university in Chicago, age 29, January 7, 2016)*

Similarly, an interview illustrates how a work environment can affect drug use:

I had one summer job once where it was so busy and crazy that a group of us workers would go out on breaks just to get high. We worked the night shift and our "high breaks" were between 2:00 and 5:00 in the morning. *(From Venturelli's research files, female first-year college student, age 20, July 28, 1996)*

CURRENT SOCIAL CHANGE IN MOST SOCIETIES

Does social change per se cause people to use and abuse drugs? In response to this question, social change—defined as any measurable change caused by technological advancement that disrupts cultural values and attitudes about everyday life—does not by itself cause widespread drug use. In most cases, social change materialistically advances a culture by profoundly affecting the manner in which things are accomplished. At the same time, rapid social change disrupts day-to-day behavior anchored by tradition, which has a tendency to fragment such conventional social groups as families, neighborhoods, and communities. By **conventional behavior**, we mean behavior that is largely dictated by custom and tradition that is evaporating away or goes into a state of flux because of the accelerating speed of social change.

Examples of social change include the number of youth subcultures that proliferated during the 1960s (e.g., beatniks, mods, bikers, hippies) (Yinger 1982) and other more recent lifestyles and subcultures, such as rappers, punk rockers, potheads, Goths, street artists, skinheads, Satanists, gangstas, hipsters, and rave enthusiasts (Wooden 1995). Furthermore, two other subcultures, teenagers and the elderly, have become increasingly independent and, in some subgroups, alienated from other age groups in society (see **Figure 2.3**).

Simply stated, today's social, religious, and political institutions no longer effectively dictate, embrace, influence, and lead people as they did in the past. Consequently, people are free to explore different means of expression and a vast array of recreational pursuits. For many, this liberating experience leads to attractive and novel outcomes; for others, this freedom from conventional societal norms and attitudes creates a type of alienation that can lead to drug use and abuse as self-medication.

The following two excerpts, gathered from interviews, illustrate social disorganization and strain theories:

Honest to God, I know things occur much faster than they did 20 years ago. Change is happening faster and occurs more often. What helps is doing some drugs at night at home. I either drink alcohol or do lines of coke. Two different highs but I like them both. This is about the only recreation I have except for the TV at night, after working all darn day nonstop writing letters, answering phone calls, attending meetings, having to go on-site for inspections, and many other things I do each day. *(From Venturelli's research files, male home security systems manager, age 29, Chicago, Illinois, June 23, 2000)*

KEY TERM

conventional behavior
behavior largely dictated by custom and tradition, which is often disrupted by the forces of rapid technological change

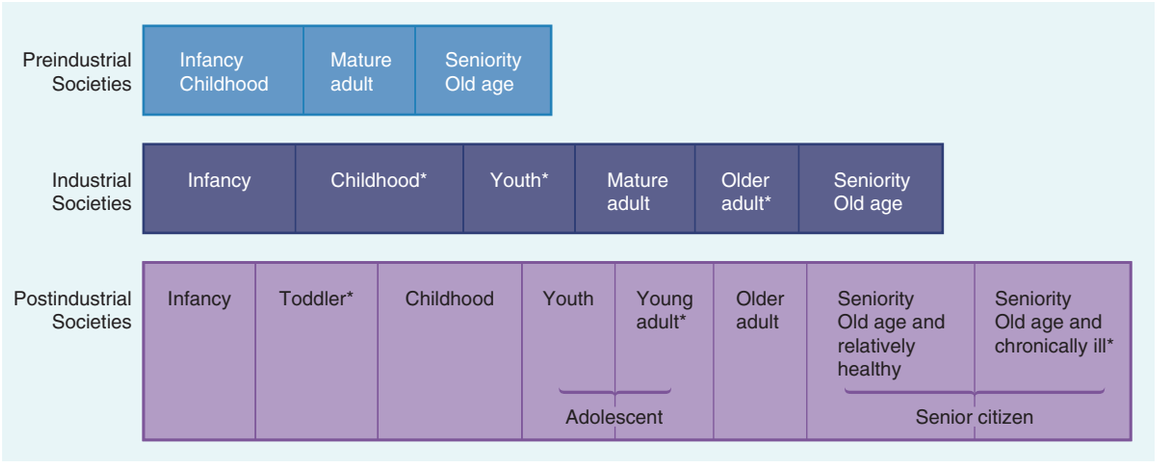


FIGURE 2.3 Levels of technological development and resulting subcultures.

*Represents a newly developed and separate stage of identification and expression from the prior era.

Second interview:

> Just as CNN flashes one news item after another at rapid speed, my life is similar. Most work days are so crammed with trying to constantly keep up, maintain my house and all that property upkeep demands, take care of the kids when my wife works nights, help clean the house, cook meals for all of us (since I am better at cooking than my wife), and dozens of other demands, that when the kids are finally asleep my wife and I try to relax with some combination of alcohol and weed. (We had to give up the coke because the kids are getting older and we don't mind if they find out we drink and smoke dope but the other stuff is out of the question. We don't want them to ever know we did coke.) Plus, those nights of staying up late when doing coke is too much for me now at this age. Really, the only time we can relax is when the kids are asleep and we can have a few drinks before going to bed. I keep hoping things will slow down, but it seems to either remain at the same frenzied pace or even get worse each year. *(From Venturelli's research files, male residing in a Midwestern town, age 31, February 10, 2010)*

Currently, there is a lack of reliable quantitative (statistical) evidence clearly proving that unprecedented rapid social change *per se* directly causes drug use. However, in looking at the impact of rapid social change and how it causes disaffiliation with established traditional social order, social disorganization theory may provide a better explanation for the formation and development of subcultural groups that use and often abuse illicit drugs as a response to the chaos created by rapid social change. Examples include the increasing use of methamphetamines in blue-collar subcultures, cocaine use in professional middle- and upper-middle-class occupational groups, crack use by disenfranchised and poor minority groups, opiates by Hispanic/Latina women (SAMHSA 2009), and heroin use by middle- and upper-middle-class youth subcultures.

Figure 2.3 illustrates how the number of life-cycle stages increases depending on a society's level of technological development. Overall, it implies that, as societies advance from preindustrial to industrial to our current postindustrial type of society, new subcultures emerge at an increasing rate of development (see Fischer 1976 for similar thinking). In contrast to industrial and postindustrial societies, preindustrial societies do not have as many separate and distinct periods and cycles of social development. What is shown in Figure 2.3 and implied here is that the greater the number of distinct life cycles, the greater the fragmentation between the members of different stages of development. Generation gaps (conflicting sets of values and attitudes between age cohorts) cause much ignorance and lack of insight between age-group subcultures. This often leads to separation and fragmentation across age groups who develop and live within distinct lifestyle patterns, increasing the likelihood of conflict.

CONTROL THEORY

The final major structural influence theory, **control theory**, emphasizes influences outside the

self as the primary cause for deviating to drug use and/or abuse. Control theory places importance on positive socialization. **Socialization** is the process by which individuals learn and internalize the attitudes, values, and behaviors needed to participate in conventional society. Generally, control theorists believe that human beings can easily become deviant if left without the social controls imposed by family, social groups, and organizations. Thus, control theory theorists emphasize the necessity of maintaining bonds to family, school, peer groups, and other social, political, and religious organizations (Liska and Messner 1999; Thio 2010). In the 1950s and 1960s, criminologist Walter C. Reckless (1961; Liska and Messner 1999; Siegel and Senna 1994) developed the containment theory. According to this theory, the socialization process results in the creation of strong or weak internal and external control systems. The degree of self-control, high or low frustration tolerance, positive or negative self-perception, successful or unsuccessful goal achievement, and either resistance or adherence to deviant behavior determine internal control. Environmental pressures, such as social conditions, may limit the accomplishment of goal-striving behavior; such conditions include poverty, minority group status, inferior education, and lack of employment.

The external, or outer, control system consists of effective or ineffective supervision and discipline; consistent or inconsistent moral training; and positive or negative acceptance, identity, and self-worth. Many believe that latchkey or unsupervised children have a higher risk of becoming delinquent due to nonexistent and/or inconsistent supervision and a lack of moral guidance experienced by latchkey or unsupervised children. Oftentimes, drug-addicted parents socialize children who develop delinquent tendencies because such parents are more likely to be inconsistent with discipline and adherence to disciplinary rules as a result of their drug addiction(s).

In applying control theory to the use or abuse of drugs, if an individual has a weak external social control system largely composed of a social environment lacking conformity to conventional and lawful behavior, then the internal control system, largely composed of coherent internal values and attitudes prohibiting drug use, must compensate for the external acceptance of drug use. Similarly, if an individual's external social control system prohibits drug use, his or her internal control system will not be seriously challenged. If, however, either the internal or the external control system is contradictory (weak internal vs. strong external), or the worst-case scenario in which both internal and external controls are weak, drug abuse is more likely to become an outcome.

TABLE 2.2 Likelihood of Drug Use

Individual Internal Control	External Social Control	
	Strong	Weak or Nonexistent
Strong	Least likely (almost never)	Less likely (probably never)
Weak	More likely (probably will)	Most likely (almost certain)

Table 2.2 shows the likelihood of drug use resulting from either strong or weak internal and external control systems. It indicates that if both internal and external controls are strong, the use and abuse of drugs are less likely to occur. Travis Hirschi (1971), a much-respected sociologist and social control theorist, believes that delinquent behavior tends to occur when people lack (1) attachment to others, (2) commitment to goals, (3) involvement in conventional activity, and (4) belief in a common value system (Liska and Messner 1999; Thio 2010). If a child or an adolescent is not bonded or circumscribed into a family setting or school curriculum and is not in alliance with nondelinquent peers, then the drift into delinquent behavior is inevitable.

We can apply Hirschi's theories to drug use as follows:

- Drug users are less likely than nonusers to be closely attached to conventional parents.
- Scholastically successful students are less likely to use drugs.
- Drug users are less likely to participate in social clubs and organizations and engage in team sport activities.

KEY TERMS

control theory
theory that emphasizes that when people are left without bonds to other groups (peers, family, social groups) they generally have a tendency to deviate from upheld values and attitudes

socialization
the growth and development process responsible for learning how to become a responsible, functioning human being

- Drug users are very likely to have friends whose activities are congruent with their own attitudes. Drug users tend to associate with other drug users (similar to delinquents associating with other delinquents). Likewise, non–drug-using adolescents often associate with non–drug-using adolescents.

The following excerpt illustrates how control theory works:

> I was 15 when my mother confronted me with drug use. I nearly died. We have always been very close and she really cried when she found my "dugout" [paraphernalia that holds a quantity of marijuana] and a "one hitter" [a tubular device for smoking very small quantities of this drug] in her car. My fear was that she would inquire about my drug use with our next-door neighbors, whose children were my best friends. The neighbor residing on the left of our house was one of my high school teachers who knew me from the day I was born. The neighbor on the right side of our house was our church pastor. For a while after she confronted me, I just sneaked around more whenever I wanted to get high. After a few months, I became so paranoid of how my mother kept looking at me when I would come in at night that I eventually stopped smoking weed. Our family is very close and the town I live in (at that time the population was 400) was filled with gossip. I could not handle the pressure, so I quit. *(From Venturelli's research files, female postal worker residing in a small Midwestern town, age 22, February 9, 1997)*

In conclusion, control theory depicts how conformity with supportive groups may prevent deviance. It suggests that social control is both formerly and informally prescribed by family, school, and peer group expectations. In addition, individuals who are not equipped with an internal system of self-control reflecting the values and beliefs of conventional society or who feel personally alienated from major social institutions are more likely to deviate without feeling guilty for their actions, often because parental or peer pressure results in a suspension or modification of internal beliefs.

Danger Signals of Drug Abuse

How does one know when the use of drugs moves beyond normal use? Many people are prescribed drugs that affect their moods. Using these drugs as prescribed can be important for both physical and emotional health. Sometimes, however, it may be difficult to decide when use of drugs to handle stress or anxiety becomes inappropriate. It is important that your use of drugs does not result in either dependency or addiction. The following are some danger signals that can help you evaluate your drug use behavior:

1. Do people who are close to you often ask about your drug use? Have they noticed any changes in your moods or behavior?
2. Do you become defensive when a friend or relative mentions your drug or alcohol use?
3. Do you believe you cannot have fun without alcohol or other drugs?
4. Do you frequently get into trouble with the law, school officials, family, friends, or significant others because of your alcohol or other drug use?
5. Are you sometimes embarrassed or frightened by your behavior under the influence of drugs or alcohol?
6. Have you ever switched to a new doctor because your regular physician would not prescribe the drug you wanted?
7. When you are under pressure or feel anxious, do you automatically take a sedative, a drink, or both?
8. Do you turn to drugs after becoming upset, after confrontations or arguments, or to relieve uncomfortable feelings?
9. Do you take drugs more often than prescribed or for purposes other than those recommended by your doctor?
10. Do you take prescription drugs that have not been prescribed by a physician?
11. Do you often combine drugs and alcohol to heighten the effects?
12. Do you drink or take drugs regularly to help you sleep or even to relax?
13. Do you take an illicit or nonprescribed drug to get going in the morning?
14. Do you find it necessary or nearly impossible to not use alcohol and/or other drugs to have sex?
15. Do you find yourself not wanting to be around friends who do not use drugs or drink on a regular basis?
16. Have you ever seriously confronted the thought that you may have a drug addiction problem?
17. Do you make promises to yourself or others that you will stop getting drunk or using drugs?
18. Do drink and/or use drugs alone?

A higher number of "yes" answers indicate a greater likelihood that you are abusing alcohol and/or drugs. Many places offer help at the local level, such as programs in your community listed in the phone book or online under "Drug Abuse Help" or "Drug Counseling," including SMART Recovery at www.smartrecovery.org, Saint Jude Retreats at www.soberforever.net, or the National Council on Alcoholism and Drug Dependence (NCADD) at www.alcoholalcoholism.org/?gclid=CJPXhvvwzrkCFdFDMgodoBwAEg. Other resources include community crisis centers, telephone hotlines, and the National Mental Health Association.

Low-Risk and High-Risk Drug Choices

Some very real risks are associated with recreational drug use. Low-risk and high-risk drug choices refer to two major levels of alcohol and other drug use. **Low-risk drug choices** refer to values and attitudes that keep the use of alcohol and other drugs in control. **High-risk drug choices** refer to values and attitudes that lead to using drugs habitually and addictively, resulting in emotional, psychological, and physical health problems. Low-risk choices include abstinence from all drugs or remaining in true control of the quantity and frequency of drugs taken.

Low-risk choices require self-monitoring your consumption of alcohol and other drugs to reduce your risk of an alcohol and other drug-related problem. Both "low-risk" and "high-risk" are appropriate descriptive concepts that allow us to focus on the health and safety issues involved in drug use and refer to developing and maintaining completely different values and attitudes in your approach to alcohol and other drugs.

This chapter described numerous factors influencing drug use, theoretical explanations, and reasons why people start using or abusing drugs. A good number of theories were covered that attempt to explain initial and habitual use. Some people can easily become addicted to alcohol and other drugs because of inherited characteristics, personality, mental instability or illness, and vulnerability to present situations. Others who have more resistance to alcohol and drug addiction may have stronger convictions and abilities to cope with different situations.

MAINTAINING A LOW-RISK APPROACH

To minimize the risk of alcohol and drug-related problems, we suggest you remain aware of the following:

- Investigate your family drug history. Does anyone in your family have a history of alcohol or drug abuse? How many members of your family who have alcohol or drug problems are blood relatives? In other words, are you more likely to become dependent on alcohol or drugs because of the possibility of inherited genes or because of the values and attitudes to which you are exposed?
- Do you particularly enjoy the effects of alcohol and other drugs? Do you spend a lot of time thinking about how "good" it feels to be high?
- Does it seem as if the only time you really have fun is when you are using alcohol and other drugs?
- Keep in mind the following accepted findings:
  - *Body size*: A small person typically becomes more impaired by drug use than a larger person does.
  - *Gender*: Women typically become more impaired than men of the same size, especially with regard to alcohol use but with other types of drugs as well.
  - *Other drugs*: Taking a combination of drugs generally increases the risk of impairment and, in some combinations, accidental death.
  - *Fatigue or illness*: Fatigue and illness increase the risk for alcohol and drug impairment.
  - *Mindset:* As you set out to drink or use other drugs, are you expecting heavy use of alcohol or heavy involvement with drugs to the point of inebriation or severe distortion of reality as the evening's outcome? More important, what view do you have regarding moderate versus heavy use of drugs?
  - *Empty stomach:* Taking drugs on an empty stomach increases drug effects.

Also keep in mind that most excessive drug use comes with the following risks:

- It is against all school policies.
- It is unlawful behavior (risky with the law).
- Excessive alcohol and other drug use usually leads not only to public attention but also

KEY TERMS

low-risk drug choices
developing values and attitudes that lead to controlling the use of alcohol and drugs

high-risk drug choices
developing values and attitudes that lead to using drugs both habitually and addictively

to criminal justice attention (police and the courts). Jail time or prison, fines, costly forced rehabilitation programs, and community service work are possible outcomes.
- The defense costs involved in even simple drug possession charges are often $3000 to $8000 (often beyond an individual's ability to pay for such legal services).
- A criminal record is a public record and can be acquired or suddenly come to the attention of school officials (especially loan officers and/or government loan personnel), credit bureaus, as well as any other community members.

We leave you with this question: *Are excessive drug use and the resulting drug dependence still worth such risks?* This question is critical, especially when we know that the more often drugs are consumed, the greater the potential not only for drug dependence and addiction but also for damage to health, personal well-being, family and interpersonal relationships, and community respect.

LEARNING PORTFOLIO

Discussion Questions

1. Define the terms *addiction*, *tolerance*, *dependence*, and *withdrawal*.
2. Describe and contrast the disease and characterological (personality predisposition) models of addiction.
3. List and briefly discuss several major biological, social, and cultural factors that may be responsible for addiction to drugs.
4. In addition to better cultivation techniques, cite several other possible reasons why the potency (THC levels) of the average marijuana joint has substantially increased since the 1960s.
5. Given that more than approximately 88% of the U.S. population are daily drug users in some form, do you think we need to reexamine our strict drug laws, which may be punishing a sizable number of drug users in our society who stubbornly want to use their drugs of choice?
6. Is there any way to combine the biological and sociological explanations for why people use drugs so that the two perspectives do not conflict? (Sketch out a synthesis between these two sets of theoretical explanations.)
7. Describe the relationship between mental illness and drug abuse.
8. Is the relationship between drug abuse and mental illness important? Why or why not?
9. Do you accept the behavioristic view that one school of psychology offers for explaining why people come to abuse drugs? (In a general sense, this view primarily states that when behavior is rewarded, people repeat behaviors that are rewarded.) Explain your answer in terms of how this occurs with drug users and drug abusers.
10. In reviewing psychological and sociological theories, which theory do you think best explains drug use? Defend your answer.
11. Does differential association theory take into account non–drug-using individuals whose socialization environment was drug infested? Explain your answer.
12. Are drug users socialized differently? Defend your answer. If you think this is true, *how* are they socialized differently?
13. Can divorce be blamed for adolescent drug use? Why or why not? If so, to what extent?
14. To what extent do you think rapid social change is a major cause of drug use and abuse? Cite three examples of how the speed of change in today's society may explain current drug use.
15. Is making low-risk choices regarding drug use a more effective approach for eliminating or moderating drug use rather than advocating "Just say no"?

Key Terms

Summary

1. Chemical dependence has been a major social problem throughout U.S. history.
2. People define chemical addiction in many ways. The essential feature is a chronic attachment to drug use despite significant negative outcomes and consequences.
3. The major models of addiction are the moral model, the disease model, and the characterological or personality predisposition model.
4. Transitional periods, such as adolescence and middle age, are associated with unique sets of risk factors.
5. Drug dependence that advances to addiction generally occurs in stages affecting a minority of drug users who become caught up in vicious cycles that worsen their situation, causing psychological and biological abnormalities as they increase their drug usage. Although not inevitable, drug use has a general tendency to advance to severe drug dependence, also known as addiction.
6. Drug use is more serious today than in the past because (a) it has increased dramatically since 1960, (b) today's illicit drugs are more potent than in the past, (c) the media present drug use as rewarding, (d) drug use physically harms members of society, and (e) drug use and drug dealing by violent gangs continues to increase at alarming rates.
7. Genetic and biophysiological theories explain addiction in terms of genes, psychiatric disorders, reward centers in the brain, character traits, brain dysfunction, and biochemical patterns.
8. Drugs of abuse interfere with the functioning of neurotransmitters, chemical messengers used for communication between brain regions. Drugs with abuse potential enhance the pleasure centers by causing the release of a specific brain neurotransmitter, such as dopamine, which acts as a positive reinforcer.
9. The American Psychiatric Association classifies severe drug dependence as substance use disorder. Drug abuse can cause mental conditions that mimic major psychiatric illnesses, such as schizophrenia, severe anxiety disorders, and suicidal depression.
10. Four genetic factors can contribute to drug abuse: (a) many genetically determined psychiatric disorders are relieved by drugs of abuse, which, in turn, encourages their use; (b) high rates of addiction result from people who are genetically sensitive to addictive drugs; (c) such character traits as insecurity and vulnerability, which often have a biological basis, can lead to drug abuse behavior; and (d) the inability to break away from a particular type of drug addiction may in part be genetically determined, especially when severe craving or very unpleasant withdrawal effects dominate.
11. Introversion and extroversion patterns have been associated with levels of neural arousal in brainstem circuits. These forms of arousal are closely associated with effects caused by drug stimulants or depressants.
12. Reinforcement or learning theory says that the motivation to use or abuse drugs stems from how the "highs" from alcohol and other drugs reduce anxiety, tension, and stress. Positive social rewards and influences by drug-using peers also promote drug use.
13. Social influence theories include social learning, the role of significant others, labeling, and subculture theories. Social learning theory explains drug use as a form of learned behavior. Significant others play a role in the learning process involved in drug use and/or abuse. Labeling theory says that other people we consider important can influence whether drug use becomes an option for us. If key people we admire or fear come to define our actions as deviant, then the definition becomes a "fact" in our reality. Subculture theories trace original drug experimentation, use, and/or abuse to peer pressure and influence.
14. A number of consistencies in socialization patterns are found among drug abusers, ranging from immaturity, maladjustment, and insecurity to exposure and belief that a life with drug use is appealing and that selling drugs is a very lucrative business.
15. Sociologist Howard Becker believes that first-time drug users become attached to drugs because of three factors: (a) they learn the

techniques of how to use the drug, (b) they learn to perceive the pleasurable effects of drugs, and (c) they learn to enjoy the drug experience.

16. Primary deviance is when deviant behavior is initially tried, yet the perpetrator does not identify with the deviant behavior; hence, it is inconsequential deviant behavior. Secondary deviance is when the perpetrator begins to identify with the deviant behavior (i.e., "Yes, I am a drug user, so what if I am?").
17. Both internal and external social control should prevail concerning drug use. Internal control deals with internal psychic and internalized social attitudes. External social control is exemplified by living in a neighborhood and community in which drug use and abuse are severely criticized or not tolerated as a means to seek pleasure or avoid stress and anxiety.
18. Low-risk and high-risk drug use choices refer to the process of developing values and attitudes toward alcohol and other drugs. Low-risk drug choices encompass values and attitudes leading to a controlled use of alcohol and drugs—from total abstinence to very moderate use. High-risk choices encompass values and attitudes leading to using drugs both habitually and addictively.

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