Drug Use, Policy, and Management

Second Edition

Richard Israelowitz

Auburn House
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Contents

Preface

Whether it be illegal substances such as marijuana, heroin, and cocaine or legal substances including cigarettes and alcohol, drug use is a deeply embedded characteristic of society. It shows itself in the form of illness, death, crime and violence, police action and imprisonment, property confiscation, and massive allocations of federal, state, and local resources, as well as in many ways of human suffering. It attracts more public concern and attention than any other social issue.

It is estimated that 11 percent of the adult U.S. population suffer from substance abuse or dependence during the course of a year. About 13.7 million adults each year abuse or are dependent on alcohol and about 5.3 million abuse or are dependent on illicit drugs.[1] Almost two million Americans are either in prison (after conviction) or jail (waiting for trail). Of every 100,000 Americans, 481 are in prison. This is the highest rate in the Western world, second only to Russia. In the United States, 1.5 million children have at least one parent in prison, 500,000 more than in 1991.[2]

In terms of illegal drugs alone, the U.S. drug market has been estimated to be $150 billion a year; the current cost to construct and operate federal, state, and local prisons is $40 billion a year. “The cost of substance abuse to the US economy each year is estimated [to be] over $414 billion [in 1995].[3] The annual federal anti-drug budget for law enforcement is about $12 billion per year, and about $3 billion goes to overseas drug wars alone with about half of that amount going to Colombia to eliminate opium and coca cultivation. It has been reported that substance abuse and addiction will add at least $41 billion to the costs of elementary and secondary education for 2001 due to class disruption and violence, special education and tutoring, teacher turnover, truancy, children left behind, student assis-

tance programs, property damage injury, and counseling.[4] The cost to the nation for each of its hard core addicts is about $30,000 per year. Nearly $300 per year is being spent on the drug problem for every man, woman, and child in America to convince the public that there is "an abiding willingness on the part of the government and the people to fight back."[5]

The numbers and costs associated with the drug issue are overwhelming, and understanding the extent of the problem is not made any easier by drug policy makers and experts who explain the problem in different, often contradicting, ways in order to justify support for their perspective. Take for example the statements of Barry McCaffrey, director of the Office of National Drug Control Policy for President Clinton, and Mathea Falco, president of Drug Strategies, a nonprofit policy institute in Washington, DC, who served as a U.S. Assistant Secretary of State for international narcotics matters from 1977 to 1981, that appeared in the same publication, *Global Issues,* published by the U.S. Information Agency in June 1997.[6]

> **Barry McCaffrey:** As a nation we have made enormous progress in our efforts to reduce drug use and its consequences. . . . While America's illegal drug problem remains serious, it does not approach the emergency situation of the late 1970's, when drug abuse skyrocketed, or the cocaine epidemic of the 1980's. In the past 15 years, we have reduced the number of illicit drug users by 50 percent. Just 6 percent of our household population age 12 and over was using drugs in 1995, down from 14.1 percent in 1979. Cocaine use has also plunged . . . More than 1.5 million Americans were current cocaine users in 1995, a 74 percent decline from 5.7 million a decade earlier. Cocaine is on its way out as a major threat in America.
>
> **Mathea Falco:** Two-thirds of the public think that drug abuse is worse today than five years ago. . . . Since 1980, we have spent $290 billion on federal, state, and local anti-drug efforts. This amount—some $20 billion a year—is twice as much as the federal government spends annually for all biomedical research, including research on heart disease, cancer and AIDS. . . . Despite a fivefold increase in federal expenditures for supply reduction efforts since 1986, cocaine is cheaper today than it was a decade ago. Heroin is sold on the streets for $10 a bag at purities exceeding 60 percent compared to less than 30 percent in 1990. . . . Despite America's overseas efforts, worldwide opium and cocaine production has doubled in the last 10 years. The number of countries producing drugs has doubled as well, making drugs a truly global business. . . . Marijuana remains the most widely used illegal drug, among both adults and teenagers. . . . Heroin . . . [b]ecause of its higher purity . . . can be snorted or smoked, increasing its appeal to those reluctant to inject drugs. . . . Methamphetamine abuse is also increasing. . . . Among medical professionals, the legal narcotic fentanyl—10 times more powerful than heroin—is frequently abused. . . . Mood altering pharmaceutical drugs, [such as Ritalin which is a central nervous system stimulant, Rohypnol which is a tranquilizer that lowers inhibitions, suppresses short-term memory and has led to some women being raped] . . . and glue, aerosol sprays, lighter fluid and paint thinner are gaining new popularity . . . and [are being used] by growing numbers of children.
>
> **B.M.:** Drug education and prevention are the centerpiece of the national drug strat-

egy. . . . Our diverse drug prevention and education campaigns have been successful. . . . There is no question that effective treatment programs can put people in a position where they no longer suffer from addiction. . . . [T]reatment lowers medical costs, reduces accidents and worker absenteeism, diminishes criminal behavior, and cuts down on child abuse and neglect . . . Unfortunately, there is no cure for addiction, and treatment is often a lifelong undertaking. . . . A 1994 study by the Rand Corporation demonstrated a cost-benefit ratio of seven to one for drug prevention and treatment compared to supply reduction. In other words, for every dollar not spent on drug prevention and treatment, we would have to spend $7 on reducing the supply of drugs. The question is not whether we can afford to pay for treatment. Rather, how can we afford not to?

M.F.: [M]ost children do not get effective drug prevention teaching. . . . In addition one million prison inmates in this country have serious drug habits, regardless of the crimes for which they were convicted. Treatment for drug abuse is not readily available inside the criminal justice system or in many communities. Yet, extensive research confirms that treatment is the most cost-effective way to combat addiction and drug-related crime. [Note: Treatment represents less than 20 percent of the annual federal budget used for dealing with the drug problem.]

For years, efforts to combat the drug problem have been referred to as a ''war." Now it appears that there is a retreat from the "war" terminology by government officials. According to General McCaffrey, "the metaphor of a 'war on drugs' is misleading. It implies a lightning, overwhelming attack. We defeat an enemy. But who's the enemy in this case? It's our own children. It's fellow employees. The metaphor starts to break down. The United States does not wage war on its own citizens. The chronically addicted must be helped, not defeated. . . . A more appropriate conceptual framework for the drug problem is the metaphor of cancer. Dealing with cancer is a long-term proposition. It requires the mobilization of support mechanisms—human, medical, educational, and societal among others."[7] While the general's remarks raise a number of questions including the meaning of "war," who is the enemy and the victim, and the use of a medical model approach for defining the drug problem, the important point is that perhaps his words reflect a government shift in terms of how the public is now being led to perceive the drug problem. From another perspective, there is a war at hand—one rooted in rogue states and terrorism, including the attack on America, September 11, 2001. It should not be surprising if proceeds from the production and sale of drugs such as opium and heroin were used to finance the September 11 event and other acts against people and property. In spite of Afghan declarations to ban opium farming, nothing has been said about opium selling. "Raw opium is openly available in shops all over Afghanistan, and its heroin continues to saturate the European market. Massive overproduction in the 90's drove down heroin prices in the West and created huge unsold inventories in Afghanistan. International law enforcers estimate that the big traders are now holding as much as 3,000 tons of raw opium or its equivalent in processed heroin" (*Newsweek*, September 17:21).[8] This second edition of *Drug Use, Policy, and Management* provides a unique inside report of the drug trade involving Afghanistan, including desperately poor republics of the for-

mer Soviet Union. In the Bekaa Valley (Lebanon), another region known for harboring terrorist activity, drugs have a long tradition. There cultivators and tribal drug lords working with militias have built up a thriving trade bringing billions of dollars each year of illegal revenue (*Newsweek*, September 17:34).[9]

In the first edition of this book, high hopes were laid on the landmark settlement between the U.S. government and the tobacco industry in 1998 that was to put an end to Joe Camel and the Marlboro Man.

> The broad goals of the settlement were to reduce the exposure of young people to tobacco marketing, to generate comprehensive smoking-prevention efforts in every state, and to counteract the effect on children of marketing by the industry. Specifically, the industry agreed to pay the states $206 billion over a 25-year period (four other states settled their lawsuits separately for a total of $40 billion), to respect certain limits on tobacco advertising, and to fund a nation-wide campaign of public education.[10]

Less than four years later, it is clear that

> the Master Settlement Agreement has not lived up to its promise . . . young persons continue to be bombarded by tobacco marketing. The industry has simply shifted its resources to concentrate on areas that were not restricted by the settlement. . . . Equally disturbing, the states have not used the money from the tobacco settlement as was intended. . . . Even the public-education campaign carried out by a foundation created by the Master settlement Agreement is not likely to have the effect that was envisioned. . . . In short, the Master Settlement Agreement by itself will do little to change the fact that 400,000 Americans still die every year of tobacco-related diseases and that more than 3,000 children become regular smokers every day."[11]

With some limits on liability in place, cigarette manufacturers including Philip Morris, R. J. Reynolds, and Brown and Williamson, which have banded together to form the United States Cigarette Export Association, have moved on to other market places in the world. This is precisely the case for such countries as Japan, Taiwan, and South Korea, where their markets have opened up to U.S. brands, and have allowed U.S. companies a far greater promotional latitude than the state monopolies enjoyed. "The results [have been] dramatic: between 1985 and 1995, the market share of imported cigarettes jumped from 2 to 6 percent in South Korea, 2 to 21 percent in Japan, and zero to 22 percent in Taiwan."[12] In China, smoking is causing about 750,000 deaths a year, and it has been predicted that this will rise to three million a year by the time the young smokers of today reach middle and old age.[13] "Worldwide, by the turn of the century, cigarettes will already be causing about 4 million deaths a year, half in rich countries, half in poor countries . . . if current smoking patterns persist then by about 2030 this will have risen to 10 million deaths a year, 70% of them in developing nations."[14]

Time is needed to address many of the details of the settlement. Based on evidence regarding the addictive properties of tobacco, however, it seems that had it not been for its legitimate status gained through big business tactics and political

influence, cigarettes and other tobacco products could have been declared an illegal controlled substance a long time ago.

Many factors affect drug policy, the determination of whether a drug is legal or illegal, its control, and the way it is addressed through prevention and treatment, as well as other factors. The decisions are many and complex. Strong legislation may offer the best hope for reducing the negative consequences of drug use, but it is not a panacea.[15] It is only one way to address the problems and needs of people involved.

A new national priority and resolve swept through the United States to address terrorism at the time this edition of *Drug Use, Policy, and Management* was prepared. This mission will not be accomplished in the short run; it will take time, patience, and resources. It is a crisis, however, that offers to government officials and leadership the opportunity to declare to the nation that the time has also come to quickly assess what it is being done to deal with the drug problem and what measures must be taken in order to move on to other important issues. It is an opportunity to consider which drug-related initiatives are effective and which ones are not. It is a time to take those measures needed to back off of misdirected policies, actions, and spending habits in order to provide sensible and effective strategies for ameliorating the situation. This is not a retreat from the "war" on drugs; it is responsible decision making to move the nation forward in a very challenging time. Hopefully, the leadership of the United States will take advantage of this opportunity and will make the reforms needed and provide a model response for other nations. It has the ability and responsibility to do nothing less.

ABOUT THIS BOOK

Addressing the problem of drug use, regardless of the nature of intervention, may be likened to craftsmanship. Many skilled drug prevention educators, therapists, counselors, social workers, managers of drug treatment services, and others have acquired and mastered knowledge of the problem and have developed individualized approaches to intervention. Many others, however, involved with the drug problem including those coming from perspectives of policy and program decision making as well as those providing individual, group, and family services will benefit from the material presented in this book. The materials selected for inclusion have been gleaned from government publications and reports, professional books and journals, newspaper and magazine accounts, and other sources to present a useful, provocative, and readable book that relates to major stages of the helping process.

This book begins with definitions of key terms commonly used in discussing drugs and drug use: what is a drug, the meanings of use and abuse, and addiction and dependence—no simple task because these terms are used in many different ways in many different settings. Next, the classes of drugs including cannabinoids, opioids, cocaine, alcohol, amphetamines, methamphetamine, hallucinogenics, and designer drugs have been revised. With this background information in place, an examination is given to the social context and reality of drug use. To promote un-

derstanding of the importance of this dimension of the drug problem, tobacco is used as a focal point of discussion. This example has been brought up to date in response to the Master Settlement Agreement of 1998.

In Chapter 2, the focus shifts to a review of the theoretical considerations and risk factors commonly associated with drug use. Elements of social order, social forces (e.g., environment, values, and morals; interpersonal relations—family and peers; education and the media), the labeling and criminalization process, and biological and psychological characteristics are summarized. The chapter has been strengthened by adding new reports and research studies. Chapters 3 through 6 deal with heroin, alcohol, cocaine, and marijuana, four substances that underpin the drug problem. These substances, described in terms of historical background and present patterns and trends of use, personality characteristics of those who use the substance, case examples of individuals who have sought treatment, and multinational research that provides a cross-cultural perspective of the issue have been revised for this edition. Noteworthy is Chapter 3, which focuses on heroin. Research on Russian-speaking immigrant drug use, a concern for the United States, Germany, and Israel, where most of the immigrants settled during the past decade, is presented. This issue is complemented with case studies and unique insight of the role of Afghanistan and its neighboring countries in terms of distribution of heroin. Chapter 6, which deals with cocaine use, has been revised to include reported highlights of the problem over the last fifteen years.

An often overlooked aspect of the drug problem is the organization and management of drug services provision. Chapter 7 examines this issue with an overview of the human services perspective, including drug treatment services management. Also, the description of a model method of drug information collection and dissemination, RADAR (Regional Alcohol and Drug Abuse Resource Centers) is presented. Finally, the Epilogue to this book reviews the "War against Drugs'' in terms of public and professional opinions, numbers of people involved, and cost. These three perspectives raise questions about present policies and provide information relevant to future efforts.

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This book is dedicated to my parents—Sam and Helen; and children—Noa, Jesse, Orli, and Danny—who gave me their time to complete this initiative.

Chapter 1
Drug Use and Abuse: Definitions and the Social Context of Reality—Tobacco

TERMS AND DEFINITIONS: AN OVERVIEW

When asked what is a drug, most people will mention some characteristics they have heard about, like being illegal or causing addiction. But not every drug is illegal. Alcohol and tobacco, for example, are legal in most countries. And not every drug causes addiction. LSD, for example, is generally not considered addictive. Even the word "addiction" has to be clarified. For the most part,"addiction" has been substituted by the term "dependence" which refers to: (1) a behavioral syndrome, also known as psychological dependence, and (2) a physical or physiological dependence. Furthermore, the professional literature tends to avoid defining the term "drug"; rather, the preference is to refer to psychoactive substances with reference to classifications and names. For example, the *Diagnostic and Statistical Manual of Mental Disorders* (DSM—Fourth Edition) of the American Psychiatric Association (1994) lists 11 classes of pharmacological agents: alcohol, amphetamines or similar acting agents, caffeine, cannabis, cocaine, hallucinogens, inhalants, nicotine, opiates, phencyclidine (PCP) or similar agents, and sedatives, hypnotics, and anxiolytics. There is a 12th residual category for everything else including anabolic steroids, nitrous oxide, and others. Even after reading the list carefully, one still does not know the meaning of ''drug."

The reason for the lack of a clear definition is that almost anything may be a drug. What makes a drug out of a substance is not its chemical properties, but how it is used by people. A typical example of this is the use and abuse of medications such as substituting an abused opiate substance such as heroin with methadone, a controlled opiate substance. Methadone, dispensed in 100 cc. bottles, contains 40 mgs. of the active substance. If a doctor prescribes 30 mgs. of methadone a day for

a patient, then 75 cc. are needed from the bottle. If the patient drinks the entire contents of the bottle (100 cc.) instead of the prescribed 75 cc., the addict has ingested 40 mgs. of methadone instead of 30 mgs. The first 30 mgs. were medically and legally prescribed; however, were the other 10 mgs. taken illegally?

Morphine, when used in a hospital by a doctor to treat a patient, is a valuable medication against pain. But if the same ampoule of morphine was stolen from the hospital and used by somebody who is not a physician, the substance may be considered an illegal drug. If the same ampoule of morphine was used by the same doctor in the same hospital, not as a medication against pain but because someone, say an opiate addict, paid him to inject the substance, then the doctor may be considered a drug dealer subject to being imprisoned and/or having his medical license revoked.

It is commonly believed that laws exist covering every substance considered to be a drug. Indeed, there are international agreements among many countries, such as the Geneva Convention, that bans the use of certain substances except for purposes such as medical and experimental research. Such agreements, however, are subject to laws and means of enforcement that vary from country to country. Heroin, for example, may be used by those addicted to the substance for maintenance purposes in some countries but not in others. Cannabis oil may be used medically in the United States but not in many other countries. Other substances may be used on a country-by-country basis, for example, kat in Yemen and cocaine in Peru and Bolivia. The use of alcohol is permitted in most countries, but not all—Saudi Arabia and other Moslem-dominated countries have very strict laws prohibiting its use.

Other substances present complicated legal problems because of their chemical composition. One such example is the illegal hallucinogenic substance popularly called LSD, which in chemical terms is "LSD 25" because it is the 25th of the possible 32 derivatives of lysergic acid. If someone sells or uses LSD 26 instead of LSD 25, which has been the case, that person may be well within the law since there is no law prohibiting the use of LSD 26. Another legal problem is the amount of substance possessed or used. Some laws permit the possession of a determinate amount of marijuana (usually up to one ounce or 28 grams) or at least consider the violation a minor offense and not a crime like drug dealing. Other legal systems, depending on the country, consider all possessions of an illegal substance, regardless of the amount, a crime. Still others make a distinction between "for one's own use" and ''for dealing." Consequently, even the term "legal" has to be defined on a country-by-country as well as a situation-by-situation basis.

The status of substances is not dependent solely on legal considerations. Laboratory analysis may be needed to determine whether a substance is known and has been categorized for response. Drug producers and dealers have come to realize that by modifying certain illegal substances they may avoid legal prosecution for a year or two until the new substance is proven to be harmful or at least determined to be illegal. Consequently, they tend to stay ahead of the laboratories and law by continuously producing new substances.[1]

The meaning of the word "drug" often varies with the context in which it is used. Because terms such as "drug," "drug dependence," "drug abuse," and "drug addiction" are used so often and in so many different ways—varying across geographic locations, from country to country, and changing over time in response to social and economic pressures—it is often difficult to provide accurate, up to date, definitions of the terms. In the *Guide to Drug Abuse Research Terminology* published in 1982 by the National Institute on Drug Abuse in the United States, nearly three pages were used on these four terms without providing a simple definition for any of them.[2]

From a strict scientific viewpoint, "a drug is any substance other than food which by its chemical nature affects the structure and function of the living organism."[3] From a sociological perspective, the concept of "drug" is a cultural artifact, a social fabrication—something that has been arbitrarily defined by certain segments of society as a drug.[4] Clearly, society determines what a drug is, and this social definition influences our values, attitudes, and behavior toward substances, whether they be of a licit or illicit nature. In a sense, therefore, the definition of a drug lies in the subjective realm. In a study conducted in the United States, substances such as heroin, cocaine, marijuana, amphetamines, and barbiturates were regarded by the public as being drugs.[5] Psychoactive substances such as alcohol and tobacco are generally not regarded as drugs at all. In neither public law nor public discussion is alcohol regarded as a drug.[6] At present, however, there are few experts in the drug field who would argue that alcohol is not a drug.[7] In 1973, little if any mention was made of tobacco being a narcotic substance, but tobacco is now widely recognized as being one of the most harmful drugs in use.[8] In 1988, the Surgeon General of the United States, C. Everett Koop, stated that all of the criteria used to define addiction are met by tobacco.[9] Yet, a spokesman for the Tobacco Institute in the United States has stated flatly that the claim to tobacco's addictive properties "contradicts common sense."[10]

In sum, a drug may be legal or illegal, harmful or helpful (as is the case of those substances used in medical therapy, such as penicillin). For purposes of this book, the term "drug" refers to those substances having psychoactive properties that influence the mental functioning of humans, and consequently have a physical effect on the body as well, or refers to substances used without medical advice in order to improve mood.

Use/Abuse

The terms "drug use" and "drug abuse" are often applied interchangeably. For example, the use of an illegal drug may be considered an abuse. For many people who use marijuana on occasion in order to achieve a state of euphoria, pleasure, or relaxation, it may be argued that they do not abuse the substance. Other perspectives of abuse rely on the notion of potential or actual harm. The use of almost any drug, even those under the guidance of a physician, has at least some potential for harm.[11]

The American Medical Association once referred to abuse as the use of a drug outside a medical context. Used in this sense, abuse conveyed the impression that a behavior is measurable, and announced to the world that the nonmedical taking of drugs was undesirable.[12] In 1973, the National Commission on Marijuana and Drug Abuse stated that the term "drug abuse" must be deleted from official pronouncements and public policy dialogue. "The term has no functional utility and has become no more than an arbitrary code word for that drug use which is presently considered wrong. Continued use of this term, with its emotional overtones, will serve only to perpetuate confused public attitudes about drug-using behavior."[13] More than 20 years later, however, the term has been found useful to differentiate users and abusers. "Users are those individuals who have tried or continue to use alcohol or other drugs but who are not dependent or addicted. They also fall into different subgroups: a) those who have tried a substance but have discontinued use; b) those who use infrequently and primarily in response to social circumstances; and, c) those who use periodically but infrequently enough to avoid dependence or addictions. . . . Abusers are heavily involved in alcohol or drugs use; [and] treatment is clearly the appropriate intervention.''[14]

A more recent definition of substance abuse is presented by the American Psychiatric Association. "The essential feature of 'substance abuse' is a maladaptive pattern of substance use manifested by recurrent and significant adverse consequences related to the repeated use of substances. There may be repeated failure to fulfill major role obligations, repeated use in situations in which it is physically hazardous, multiple legal problems, and recurrent social and interpersonal problems. . . . Unlike the criteria for 'substance dependence', the criteria for 'substance abuse' do not include tolerance, withdrawal, or a pattern of compulsive use and instead include only the harmful consequences of repeated use. . . . Although a diagnosis of 'substance abuse' is more likely in individuals who have only recently started taking the substance, some individuals continue to have substance-related adverse social consequences over a long period of time without developing evidence of 'substance dependence.' The category of 'substance abuse' does not apply to caffeine and nicotine."[15]

Addiction/Dependence

According to Goode (1989), it has been known for thousands of years that certain drugs "have the power to enslave men's minds, [but] it was not until the nineteenth century that the nature of physical addiction or dependence began to be understood. It was at that time that a classic definition of the problem was being developed based on the opiates—at first opium and morphine, and then, after the turn of the century, heroin as well. Much later, it was recognized alcohol, sedatives, such as barbiturates, and minor tranquilizers also produced most of the symptoms of 'classic' addiction."[16]

Classic addiction or dependence is understood to mean that when a person takes certain drugs in "sufficient quantity over a sufficiently long period of time, and stops taking them abruptly, the user will experience a set of physical symptoms

known as withdrawal" which are likely to include chills, fever, diarrhea, muscular twitching, nausea, vomiting, cramps, and general body aches and pains, especially in the bones and joints.[17] Yet, not all drugs, even when used over time and in large quantities, produce withdrawal symptoms when the substance is discontinued. Therefore, not all drugs fit the classic definition of addiction.

According to the *Diagnostic and Statistical Manual of Mental Disorders* (DSM—Fourth Edition) of the American Psychiatric Association (1994), the essential feature of substance dependence is a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues use of the substance despite significant substance-related problems. There is a pattern of repeated self-administration that usually results in tolerance, withdrawal, and compulsive drug-taking behavior. These important terms are defined as follows:

> *Tolerance* is the need for greatly increased amounts of the substance to achieve intoxication (or the desired effect) or a markedly diminished effect with continued use of the same amount of the substance. The degree to which tolerance develops varies greatly across substances. Individuals with heavy use of opiates and stimulants can develop substantial (e.g., tenfold) levels of tolerance [that] . . . would be lethal to a nonuser. Alcohol tolerance can also be pronounced, but is usually much less extreme than for amphetamines. Many individuals who smoke cigarettes consume more than 20 cigarettes a day, an amount that would have produced symptoms of toxicity when they first started smoking. Individuals with heavy use of cannabis are generally not aware of having developed a tolerance.
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> *Withdrawal* is a maladaptive behavioral change with physiological and cognitive concomitants. . . . After developing unpleasant withdrawal symptoms, the person is likely to take the substance to relieve or to avoid those symptoms, typically using the substance throughout the day beginning soon after awakening. Withdrawal symptoms vary greatly across the classes of substances. . . . [E]asily measured physiological signs of withdrawal are common with alcohol, opiates, sedatives, hypnotics, and anxiolytics. Withdrawal signs and symptoms are often present, but may be less apparent, with stimulants such as amphetamines and cocaine, as well as nicotine. No significant withdrawal is evident, even after repeated use of hallucinogens.
>
> *Dependence* or compulsive drug taking behavior is when an individual takes the substance in larger amounts or over a longer period than was originally intended (e.g., continuing to drink until severely intoxicated despite having set a limit of only one drink). . . . In some instances of *Substance Dependence*, virtually all of the person's daily activities revolve around the substance. Important, social, occupational, or recreational activities may be given up or reduced because of substance use. The individual may withdraw from family activities and hobbies in order to spend more time with substance-using friends.[18]

According to the World Health Organization (1992), dependence syndrome is a

> cluster of physiological, behavioral, and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority for a given individual than other behaviors that once had greater value. A central descriptive characteristic of the de-