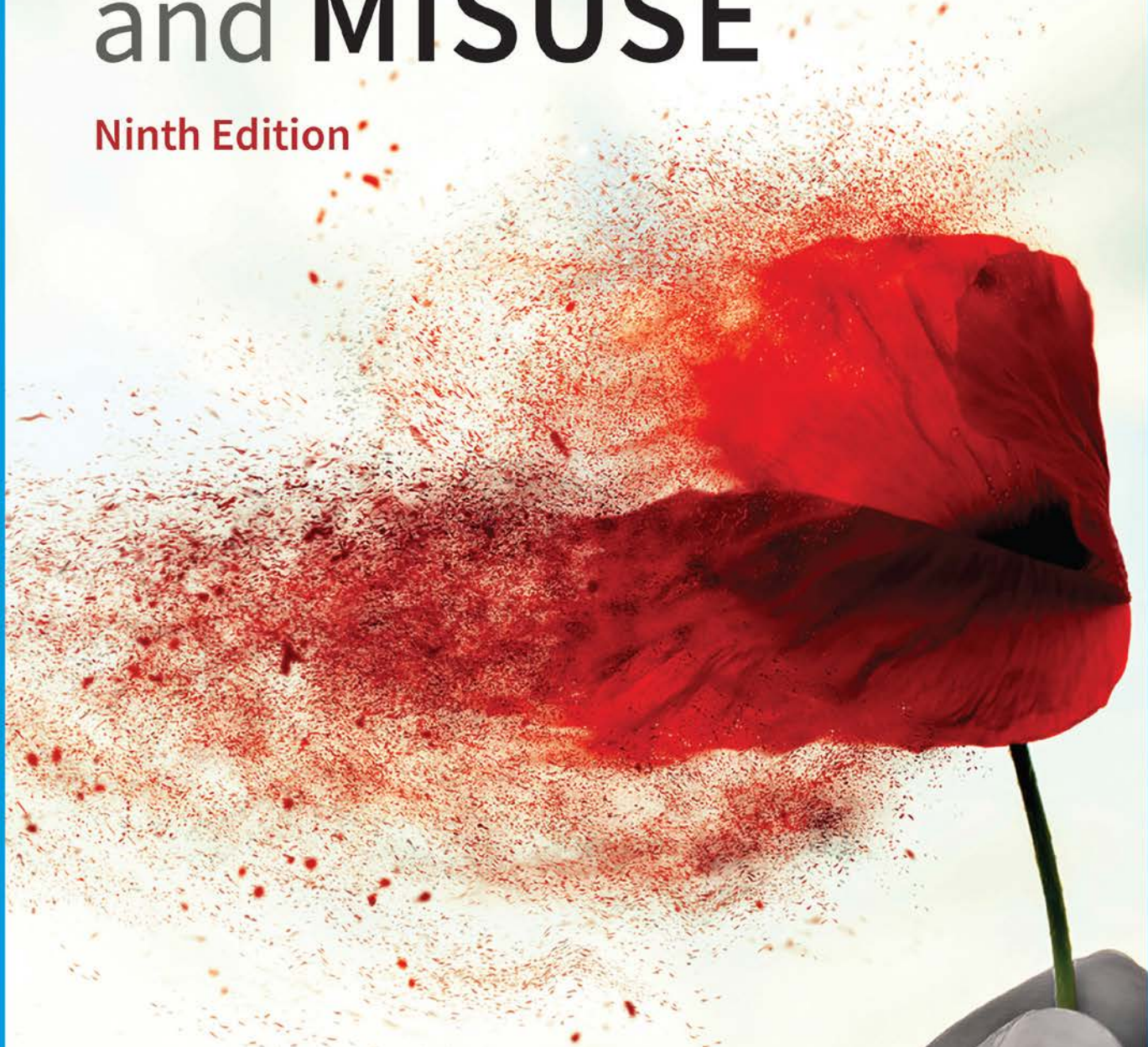




DRUG USE and MISUSE

Ninth Edition



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Ninth Edition

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Drug Use and Misuse, 9th Edition
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Digital Delivery QP: Scott Diggins

Manufacturing Planner: Karen Hunt

Production Services: Lumina Datamatics, Inc.

Production Services: Integra

Cover Image Credit: iStock.com/stock_colors

Production Management and Composition:
Lumina Datamatics, Inc.

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WCN: 02-300

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Library of Congress Control Number: 2021937456

Soft-Cover Edition: ISBN: 978-0-357-37595-2

Loose-Leaf Edition: ISBN: 978-0-357-37602-7

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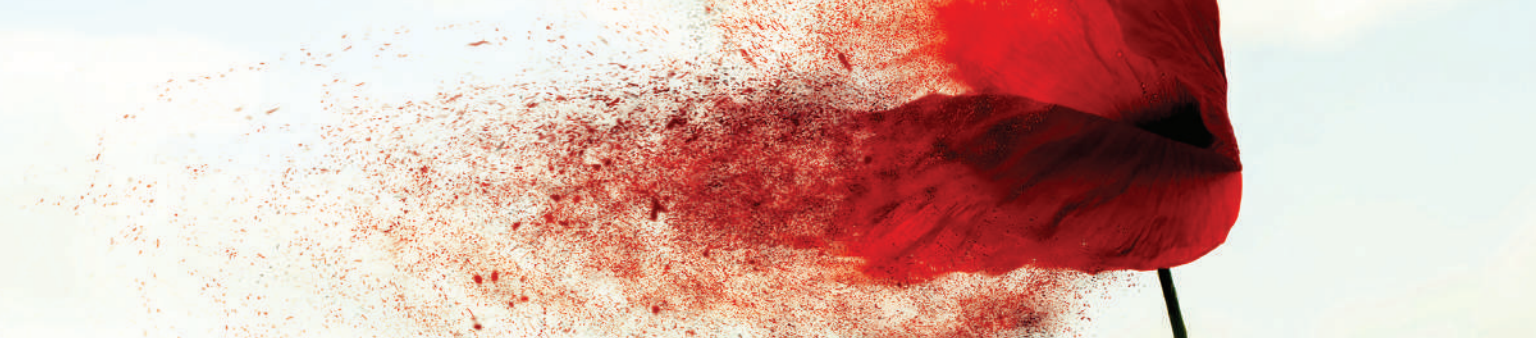
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To Joseph A. Maisto
S. A. M.

To Kate and Annie
M. G.

To Elyse and Guy
G. J. C.

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PREFACE

We began writing the first edition of this text in the late 1980s. At that time, drug use and related problems were of major interest and concern in the United States and in other countries. Awareness, interest, and concern about drug use have not abated since that time, nor has the need for a general undergraduate text to educate college students on the biological, psychological, and social factors that influence drug use and its effects. Therefore, we have completed this ninth edition, which retains many features of previous editions but also reflects changes that have occurred in this very dynamic area of study since the eighth edition was published in 2019.

As in all of the text's previous editions, the central theme of this edition is that a drug's effects are determined not only by its chemical structure and interaction in the body but also by drug users' biological and psychological characteristics and the setting in which they use the drug. This central theme is reflected in the inclusion of chapters on pharmacology and psychopharmacology, and is continued throughout the presentation of individual drugs or drug classes and in the discussion of prevention and treatment. The text examines the complexity of human drug consumption on biological, psychological, and social levels. Although the text is scholarly, it is understandable to students with little background in the biological, behavioral, or social sciences.

The text also retains a number of pedagogical features designed to increase students' interest and learning. **Diagnostic pretests** at the beginning of each chapter challenge students to test their knowledge of drugs while drawing their attention to important concepts or facts that follow in the chapter. Pretest answers and explanations at the end of each chapter provide an important review of the main concepts. The **margin glossary** helps students identify and define important terms within the text. **Margin quotes** help bring abstract concepts to life through personal accounts, comments, and quips about drug use and its ramifications. **Drugs and Culture boxes** explore variations in drug use and its consequences. They highlight the importance of differences in drug use that are associated with factors such as a person's sex, race, and ethnic background. Finally, **Contemporary Issue boxes** discuss current controversies involving drugs or drug use, as well as events related to such controversies.

New in This Edition

As mentioned earlier, drugs and drug use are popular and dynamic areas of study. For example, when the seventh edition was published in 2015, synthetic designer drugs like “Spice” and “bath salts” had recently emerged as international phenomena. These designer drugs are sold on the Internet, often legally. The ninth edition chronicles the impact of this drug trade, with a focus on the legal changes in the United States designed to address the problem (Synthetic Drug Abuse Prevention Act of 2012, Chapter 2) and reviews of the major drugs involved: synthetic cathinones or bath salts (Chapter 6), synthetic opiate drugs (Chapter 10), synthetic cannabinoids or Spice (Chapter 11), and phenethylamine hallucinogens (2C-B, Chapter 12).

Numerous other changes have occurred in the field since publication of the eighth edition. Each chapter of the ninth edition has been updated to represent findings from the latest research, as well as to reflect social and legal changes related to drugs.

Among the many revisions, we present the latest survey data available at this writing on patterns of drug use in the United States and in other countries worldwide. Chapter 2, “Drug Use: Yesterday and Today,” includes new information on the voter and legislative approvals in multiple states to regulate, tax, and control marijuana use and distribution; updates on the continuing movement to legalize the use of marijuana for medical reasons; and new coverage on the synthetic opioid fentanyl being used alone or mixed with heroin.

Chapter 3, “Drugs and the Nervous System,” adds detail on how drugs affect neurotransmission processes.

Chapter 6, “Cocaine, Amphetamines, and Related Stimulants,” adds information on the changing trends in cocaine and methamphetamine use, as well as new information about synthetic cathinones (bath salts).

Chapter 7, “Nicotine,” has updated National Survey on Drug Use and Health (NSDUH) data on the epidemiology of nicotine use in the United States, along with an expanded and updated section on the treatment of nicotine addiction. The latter includes how the concept of precision medicine is influencing the pharmacological treatment of tobacco cigarette smoking. Chapter 7 also features updated material on the harm-reduction approach to cigarette smoking, including expanded discussion of products billed as “safer” alternatives to traditional cigarettes, such as the electronic cigarette and smokeless tobacco products.

Chapter 8, “Caffeine,” includes the latest data on caffeine effects, including a variety of apparent health benefits of coffee. Also included are new insights on the metabolism of caffeine, including the genetics of caffeine consumption. The chapter also features coverage of caffeine withdrawal as a clinical phenomenon. The latest information on the combined use of alcohol and caffeine is also provided.

Chapter 9, “Alcohol,” has new epidemiological data on alcohol consumption in the United States and around the world, as well as the health “benefits” of moderate alcohol consumption. Chapter 9 also contains updated data on the effects of a pregnant woman’s moderate alcohol use on the health of the fetus that she is carrying.

Chapter 10, “Opiates,” provides extensive new coverage of the dramatic increase in use of heroin, prescription opiates, and synthetic opiates. Two new sections are included on the events that led to the opiate epidemic and the current status and impact of the epidemic. The increase in opiate overdose deaths is chronicled, and a new box on treating overdose with naloxone is added.

The chapter on marijuana (Chapter 11) includes the latest epidemiological data on marijuana use around the world, including use among youth. Chapter 11 also contains the latest information on the therapeutic uses of marijuana, on the relationship between cannabis use and various mental health outcomes, and on newer methods of consumption (such as vaping and dabbing).

Chapter 12 covers the exciting new research on psychological effects of hallucinogens, especially psilocybin and MDMA (methylenedioxyamphetamine). New sections expand coverage of the therapeutic uses of hallucinogens like psilocybin for anxiety and depression, MDMA for posttraumatic stress disorder, and ketamine for depression. A new box discusses the potential and challenges for medical use of hallucinogens.

Chapter 13, “Psychotherapeutic Medications,” includes the most recent data on the nature and extent of mental illness in the United States. It also includes the latest information on newly prescribed psychotherapeutic medications, with discussion of their benefits and side effects. Chapter 13 also provides coverage of the use of psychotherapeutic medications during pregnancy, which often has been a difficult and challenging issue for pregnant women and their physicians alike.

Chapter 14, “Other Prescription and Over-the-Counter Drugs,” adds coverage of the controversial plant compound “kratom,” which has become popular in recent years.

Chapter 15, “Treatment of Substance Use Disorders,” includes a new Contemporary Issue Box on the use of telehealth (the use of technology, such as electronic medical records, smartphones, and web-based applications to support the delivery of health care, health-related education, and other health-related services and functions) in efforts to help patients sustain changes that they make in treatment, added discussion of the effectiveness of mutual help support groups such as Alcoholics Anonymous, and updated information on the integration of the Affordable Care Act in our discussion of economics and the stepped-care approach to substance use disorders treatment.

Chapter 16, “Prevention of Substance Abuse,” covers the latest trends in prevention interventions, including temperament-based programs that focus on traits, such as sensation seeking and anxiety sensitivity, uniquely associated with risk for subsequent development of a drug-related problem. Updates on the broad array of negative consequences associated with problematic use of alcohol among college students, including deaths, assault, sexual abuse, and academic problems, are provided.

Accompanying the ninth edition are both new and expanded supplements that will help instructors with class preparation and help students by providing opportunities for review, including an Instructor’s Manual, Test Bank, Instructor PowerPoints, an online companion website, and MindTap. The Instructor’s Manual provides chapter outlines, learning objectives, key terms, glossary terms and definitions, and useful web links. The Instructor’s Manual follows the text chapter by chapter with organized material to aid in planning an effective, engaging course. To aid instructors in integrating technology into their classroom, the manual also includes a MindTap Integration Chart and Educator’s Guide, designed to highlight important activities and content found in MindTap.

The Test Bank is available in Cengage electronic format, an online system which allows instructors to author, edit, and manage Test Bank content from multiple Cengage solutions. Instructors may also easily create multiple test versions in an instant and deliver tests from a chosen learning management system (LMS), the classroom, or anywhere else Internet access is available. The Test Bank features multiple-choice, true/false, and essay questions. Questions are tagged to Bloom’s Taxonomy and to the associated text content.

Instructor PowerPoint presentations accompany each chapter. These slides address all major topics covered within the text in an easy-to-use and condensed format. Slides may be used to guide classroom presentations or conversations, as a classroom handout for student preparation, or as an additional student resource for chapter review. Instructors may customize the slides to best suit their course.

A student companion website offers text-specific review and enrichment materials, including tutorial quizzes, flash cards, and an online glossary. An instructor companion website features the Instructor’s Manual, PowerPoint lectures, and Test Bank materials.

The ninth edition also includes MindTap. MindTap®, a digital teaching and learning solution, helps students be more successful and confident in the course—and in their work with clients. MindTap guides students through the course by combining the complete textbook with interactive multimedia, activities, assessments, and learning tools. Readings and activities engage students in learning core concepts, practicing needed skills, reflecting on their attitudes and opinions, and applying what they learn. Instructors can rearrange and add content to personalize their MindTap

course and easily track students' progress with real-time analytics. And MindTap integrates seamlessly with any learning management system.

Acknowledgments

This text could not have been completed without the help of a number of people. We want to thank the many talented folks at both Cengage Learning and Lumina Datamatics, Inc., who provided guidance through content development, permissions, and production. This book would not be possible without all of you.

We also want to thank other special people who helped us in completing the ninth edition. Stephen Maisto would like to thank his wife, Mary Jean Byrne-Maisto, for her love and support in finishing this edition. He also would like to thank his outstanding graduate student, Dezarie Moskal, for all of her help in preparing this edition. Mark Galizio thanks his wife, Kate Bruce, and daughter, Annie. Their love and support make it all worthwhile. Mark also thanks the many students at the University of North Carolina Wilmington who provide continuing challenges and inspiration. Gerard Connors thanks his wife, Lana Michaels Connors, for her constant support and love throughout the preparation of the ninth edition. Finally, all three authors would like to thank Mark R. Duerr for his tireless assistance and patience in preparing the chapters for this edition.

Stephen A. Maisto
Mark Galizio
Gerard J. Connors



LEARNING OBJECTIVES

After studying this chapter, you will be able to...

- 1-1 Differentiate among the definitions of *drug*
- 1-2 Explain the major ways of classifying drugs
- 1-3 Describe the pharmacological and nonpharmacological factors that influence the drug experience
- 1-4 Explain current patterns of alcohol and drug use in the United States
- 1-5 Describe negative consequences associated with alcohol and drug use
- 1-6 Describe advantages and disadvantages of using the *DSM-5* definitions for substance use disorder, addiction, psychological dependence, and craving
- 1-7 Differentiate between tolerance and withdrawal
- 1-8 Explain the criteria used to evaluate websites

CHAPTER

1

Drug Use and Misuse

Pharmacology and Drugs

Drug Classification
The Drug Experience

Alcohol and Drug Use in the United States

National Survey on Drug
Use and Health
Multiple Drug Use
International Comparisons
of Drug Use
Negative Consequences
of Alcohol and Drug Use

Defining Harmful Drug Use

Use of the *DSM*
Drug Tolerance, Withdrawal,
and Drug-Taking Behavior

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Summary



What Do You Think? True or False?

Answers are given at the end of the chapter.

1. Because the effects of drugs are both predictable and obvious, it is relatively easy to define harmful drug use.
2. A drug's street name sometimes describes the actual effects of that drug.
3. A person's reaction to a drug depends mostly on the biological action of the drug in the body.
4. Because drug use is complicated, it is impossible to estimate patterns of drug use for the population of a whole country.
5. From 2008 to 2018, the use of alcohol, cocaine, and heroin increased in the United States.
6. The highest rates of alcohol and other drug use are found among 18- to 25-year-olds.
7. A person's use of more than one drug at a time is of little concern because it happens so infrequently.
8. Estimated economic costs associated with alcohol and drug use include illness, death, medical expenses, and crime.

- ___ 9. The chemical action of alcohol and other drugs causes violence and crime. physically or psychologically dependent on a drug.
- ___ 10. Modern researchers rely on definitions of alcohol and other drug use that are free of social or cultural biases. ___ 12. Definitions of addiction emphasize overwhelming involvement with a drug.
- ___ 11. A diagnosis of substance use disorder is made when a person has become either ___ 13. The continued use of any drug will eventually lead to tolerance of and physical dependence on that drug.

Athletic	Legal	Religious
Biological	Medical	Social/cultural
Economic	Political	
Educational	Psychological	

Q: How are these 10 systems alike?

A: They influence or are influenced by alcohol and other drug use.

This one-question quiz shows that drugs¹ may affect us in many ways, whether or not we use them. Although what we see and hear in the media often focuses on the negative consequences of drug use, drugs are popular all over the world because people perceive that they benefit from using drugs. For example, on an *individual* level, people say that drugs make them feel more relaxed, socialize more easily, feel sexier, escape boredom, and feel more confident and assertive. Drugs have also helped to ease a lot of suffering in humans and other animals when used for specific medical purposes. On a *group* or *community* level, drugs have been used for thousands of years as part of social and religious rituals. Drugs are used for such purposes less for the effects of the drug's chemistry than for social or cultural reasons. One society may condone the use of a drug—say, alcohol in the United States and European countries—whereas another society condemns it—such as the societies in Iran and Saudi Arabia. This complex picture of human drug use suggests that many different factors influence drug use.

What influences drug use and how that use affects us make up the subject of drugs and human behavior and are what this text is about. Because our subject matter is so wide-ranging, this introductory chapter spans a variety of topics. We include formal definitions throughout the chapter, beginning with terms such as *pharmacology*, *drug*, and *drug abuse*.

As you'll soon see, we introduce many key terms in this chapter. These terms will be used throughout the text, so it is important for you to begin learning and differentiating among them.

In this chapter, we also explain the drug classification systems used in this book and then move to a discussion of who uses drugs. The final sections of the chapter cover ways to define harmful drug use. The chapter closes with a brief overview of the rest of the text.

“Food is good. Poison is bad. Drugs may be good or bad, and whether they are seen as good or bad depends on who is looking at them.”

(Weil & Rosen, 1983, p. 10)

¹Sometimes in this text we use the phrase *alcohol and drugs*; at other times, we use *drugs* as the inclusive term. Because alcohol is a drug, saying “alcohol and drugs” is redundant. However, we do so on occasion, when it seems useful, to distinguish alcohol from all other drugs.

1.1 Pharmacology and Drugs

LEARNING OBJECTIVES

- 1-1 Differentiate among the definitions of *drug*
- 1-2 Explain the major ways of classifying drugs
- 1-3 Describe the pharmacological and nonpharmacological factors that influence the drug experience

pharmacology

The scientific study of drugs concerned with how drugs act on biological systems and how the body responds to the drug.

psychopharmacology

The subarea of pharmacology that concerns the effects of drugs on behavior.

psychology

The scientific study of behavior and mental processes.

drug

Broadly defined as any substance with the potential to treat or cure disease, or enhance physical or mental welfare; any chemical agent that alters the biochemical physiological processes of tissues or organisms; psychoactive drugs, for which there is nonmedical use in addition to any medical use.

drug abuse

Any use of drugs that causes physical, psychological, legal, or social harm to the individual user or to others affected by the drug user's behavior.

Humans have used drugs for several thousand years, but the scientific study of drugs is more recent. The scientific study of drugs is called **pharmacology**, which is concerned with how drugs act on biological systems and how the body responds to the drug. Pharmacology is a separate discipline in the health sciences; it is considered a part of biology, and allied with physiology and biochemistry (Blum, 1984). **Psychopharmacology** is an area within the field of pharmacology that focuses on the effects of drugs on behavior. Although *psychopharmacology* is a joining of the words **psychology** and *pharmacology*, it is now recognized that understanding how drugs affect human behavior requires knowledge about social and environmental factors as well. This book is about human psychopharmacology.

Drugs are easy enough to talk about, or so it seems from the numbers and variety of people who do so. However, defining **drug** is not so simple, as it has varied usage. According to the World Health Organization, the term can mean:

1. “any substance with the potential to prevent or cure disease or enhance physical or mental welfare” (in medicine);
2. “any chemical agent that alters the biochemical physiological processes of tissues or organisms” (in pharmacology);
3. psychoactive drugs, or more specifically illicit drugs, “of which there is non-medical use in addition to any medical use” (in common usage).

These fundamental definitions bring us to the questions: What is drug *use* (and *misuse*), and what is drug *abuse* (or harmful drug use as it may be known as the field begins to use less stigmatizing language)? We discuss these distinctions in more detail later in this chapter, but it is important for you to get an idea at the outset of what is called drug use and drug abuse. Abuse has been referred to in different ways when people write about drugs, and there is no generally accepted definition. In such circumstances, one way to define a term is by a consensus of experts. A study by Rinaldi et al. (1988) achieved such a consensus definition for a number of terms used in research and clinical work on alcohol and drugs. In the Rinaldi et al. study, the experts defined **drug abuse** as “any use of drugs that causes physical, psychological, legal, or social harm to the individual or to others affected by the drug user’s behavior.” The term *drug misuse*, while sometimes used interchangeably with drug abuse, is also used to refer to the use of a drug for reasons other than what it was prescribed for.

As you can see, the definition of abuse centers on the consequences of drug users’ behavior, both to themselves and to others in their social environment. Our opening question on the 10 systems and drug use comes into sharper relief with this definition of abuse. The definition also illustrates the difficulties in defining abuse. A major problem is that the behavior that causes consequences in one community or culture

may not cause them in another, or not to the same degree. Therefore, the goal to have a standard reference for drug abuse has proved elusive. Nevertheless, the word *abuse* is used frequently, and efforts to arrive at a more generally applicable definition should continue. For now, however, our initial definition of abuse is sufficient for understanding what we say in the first part of this chapter.

If *abuse* is drug use with negative consequences, then drug *use* may be viewed as the larger category, with drug abuse as a subset. Drug consumption that does not meet the criteria for drug abuse is referred to as drug use.

Drug Classification

As the WHO panel of experts understood, their definition of *drug* is very broad. To make the definition useful for research and practical purposes, it is necessary to order the substances that fit the definition of drug into smaller categories. Pharmacologists have done this with their many systems for classifying drugs. These classification systems have been based on the primary properties of drugs to communicate a drug's nature and the ways it can be used. Following are some of the major ways of classifying drugs:

1. *“by origin”*. An example is drugs that come from plants, such as the opiates, which are derived from the opium poppy. The “pure” (nonsynthetic) opiates include compounds such as morphine and codeine. Heroin, which is a semisynthetic compound, is often called an opiate drug. Because this classification distinguishes only the source of the drug, a given drug class may include many drugs that have different chemical actions.
2. *“by therapeutic use”*, or according to similarity in how a drug is used to treat or modify something in the body. For example, with this system, amphetamines are called appetite-suppressant drugs. Note that the reasons some drugs are used can be much different from their therapeutic effects. Amphetamines are often used nonmedically because of their stimulant effects. Similarly, morphine may be used medically as a powerful painkiller, but those who misuse morphine most commonly take it for its euphoric effects.
3. *“by site of drug action”*, which pertains to where in the body the drug is causing physical changes. For example, alcohol is often called a depressant drug because of its depressant action on the central nervous system (CNS). Conversely, because of its CNS stimulant properties, cocaine is often called a stimulant drug. The utility of this system is limited when a drug affects several different body sites. One example is the CNS stimulant cocaine, which also has local anesthetic (pain-reducing) effects. Furthermore, drugs that differ widely in chemical structure or mechanisms of action may affect the same body site.
4. *“by chemical structure”* For example, the barbiturates (such as phenobarbital, amobarbital, and secobarbital) are synthetic compounds derived from the chemical structure of barbituric acid, the synthetic compound that forms the chemical base for barbiturate drugs.
5. *“by mechanism of action”*, which means how a drug produces its **drug effects**. This is a good system in principle, and ongoing research in pharmacology is directed at specifying the mechanisms of action of an increasing number of drugs.
6. *“by street name”*, which comes from drug “subcultures” and the street drug market. For example, amphetamines are called “speed,” and drugs like the barbiturates

drug effects

The action of a drug on the body. Drug effects are measured in different ways.

“I don’t do drugs. I am drugs.”

Salvador Dali

psychoactive

Pertaining to effects on mood, thinking, and behavior.

drug dosage

Measure of the quantity of drug consumed.

route of drug administration

The way that drugs enter the body.

psychological set

An individual’s knowledge, attitudes, expectations, and other thoughts about an object or event, such as a drug.

placebo

In pharmacology, a chemically inactive substance.

or depressants such as methaqualone (Quaalude) are called “downers.” As these examples show, street names sometimes reflect actual drug effects (Brands et al., 1998, pp. 11–13).

The topics of this text’s drug chapters (Chapters 6 through 14) were determined according to several different ways of classifying drugs. One of the ways to classify drugs, by their effects, applies to virtually all of the drugs covered in this text. We are most interested in **psychoactive** drugs—those that affect mood, thinking, and behavior. Some substances have been designated formally as psychoactive, such as alcohol, whereas others have not, such as aspirin. Psychoactive drugs are most important in this text because they are the ones that people are most likely to use, sometimes in ways that create serious problems for them. This text mainly concerns the nonmedical use of psychoactive drugs, but we also discuss medical uses.

The Drug Experience

As we said earlier, people like many of the experiences they have when they take drugs. This raises an important question: What causes the “drug experience”? The drug’s chemical action is part of the answer, but how much? Not too long ago, the chemical actions of drugs were viewed as the primary reason people experienced certain changes when they took different drugs. However, research from different disciplines, such as pharmacology, psychology, and sociology, has shown that the drug experience is a product of more factors than just the drug’s pharmacological action.

Generally, we can look at three sets of factors, one pharmacological and two non-pharmacological. The first set includes *pharmacological factors*, and three of them stand out. First are the chemical properties and action on the body of the drug used. Another is **drug dosage** (or dose), which is the measure of how much of the drug is consumed. The third pharmacological factor is the **route of drug administration**, or the way the drug enters the body. This is important because the route affects how much of a dosage reaches its site(s) of action and how quickly it gets there. Chapter 4 discusses in detail major routes of drug administration and their effects on the drug experience.

The second set of factors is nonpharmacological and consists of the *characteristics of the person who uses drugs*. Included are such factors as the person’s genetic makeup (biologically inherited differences among people govern their bodies’ reaction to the ingestion of different drugs), gender, age, drug tolerance, and personality. An important part of personality is the person’s **psychological set** about a drug, which refers to knowledge, attitudes, expectations, and thoughts about a drug. For example, sometimes the strong belief that a drug will produce a certain effect will be enough to produce the effect, even though the person has ingested a chemically inactive substance (**placebo**).

The third and last set of factors, also a nonpharmacological one, is the *setting in which a drug is used*. The factors in this group span a wide range and include laws pertaining to drug use in the community where the drug is taken, the immediate physical environment where the drug is used, and whether other people are present at the time of drug use.

Together, these three sets of factors influence what people experience when they take a drug. You may have guessed that the path to a drug experience is not always easy to chart. However, many people are trying to do just that—to understand how drugs affect people. The accumulated knowledge from these efforts is the foundation of this book.

REVIEW

1. Describe the different ways that drugs are defined, and give an example of a substance that would be included under each definition.
2. Create a table listing the six major ways that drugs can be classified. Then give an example for each classification type.
3. Explain how pharmacological and nonpharmacological factors influence the drug experience.

1.2 Alcohol and Drug Use in the United States

LEARNING OBJECTIVES

1-4 Explain current patterns of alcohol and drug use in the United States

To get an understanding of the rates of alcohol and drug use in the United States, the federal government conducts regular national surveys, interviewing individuals age 12 or older throughout the country. The administrators of the survey generally ensure that those interviewed are representative of the U.S. population as a whole—taking into account variables such as gender, age, race, region of the country, and rural versus urban living environments. These data provide the best estimates concerning alcohol and drug use for all individuals in the population over age 12. In the United States, this is currently approximately 255 million people.

The U.S. federal government goes to great trouble and expense to support these national surveys of drug use, because the knowledge gained from them is extremely valuable in making legal, tax, educational, and health policy decisions. More narrowly, we are interested in the information from national surveys for this text because

“I could have easily gotten stoned [before coming to this interview]; it wouldn’t have bothered me. It depends on the situation. I wouldn’t like to smoke [marijuana] in the middle of the day if I have things to do. Or I wouldn’t smoke in the middle of a class. Things like that.”

Research participant
(Zinberg, 1984, p. 140)



Dmitry Shironosov/Alamy stock photo



Thomas Baker/Alamy stock photo

People use drugs in a variety of situations.

CONTEMPORARY ISSUE BOX 1.1

U.S. Society and Drug Use

Learning about alcohol and drug use in the United States is important. One reason is the sheer number of people in the United States who use alcohol or other drugs. Another reason is the negative consequences associated with alcohol and drug use, which are discussed later in more detail. A third reason is the amount of controversy that drugs, especially illicit drugs, create. Despite the prevalence of drug use among U.S. citizens, popular opinion in the country has been to eradicate illicit drug use, at times ranking such use among the nation's top problems. Indeed, a 2007 survey conducted by the University of Michigan involved collection of data on adults' perceptions of the main problems threatening children's and adolescents' well-being, and "drug abuse" was number 2 in the top 10. (Interestingly, smoking tobacco and alcohol misuse were numbers 1 and 4, respectively.) Think of some of the major headline events that have occurred and the controversies they have generated in the last few years. Some of them touch upon the basic constitutional rights of Americans:

- The right of the federal government and other public and private employers to conduct urine

screens (tests for drug taking) of employees as a way to control drug abuse in the workplace

- The question of whether people who use intravenous drugs should be supplied with clean syringes free of charge as a way of preventing the spread of human immunodeficiency virus (HIV) infection
- The continuing debate on whether marijuana should be available as a prescription drug, and, more recently, whether it should be legally available to adults for recreational purposes
- Some proposed legal penalties related to selling or using drugs—the requirement of life sentences for drug dealers who are convicted twice of selling drugs to teenagers and the imposition of the death penalty for dealers when a murder occurs during a drug deal

Many Americans use alcohol or other drugs. However, the country's attitudes toward such use, especially regarding illicit drugs, are far from permissive. Society's proposed and actual solutions to drug use in the United States have far-reaching legal, social, and financial implications. Which stand out to you?

many people do not know the typical patterns of drug use among Americans. For example, the popular media expose us primarily to extreme cases of use and problems associated with it. The national survey data on alcohol and drug use give us a more balanced reference for understanding any one person's or group's use. In the same way, our brief review of national survey data in this chapter will help you understand drug use patterns and related problems that we write about in later chapters of this book.

National Survey on Drug Use and Health

To provide you with an overview of alcohol and drug use, we used a national survey that is conducted annually by the Substance Abuse and Mental Health Services Administration, an agency in the U.S. Department of Health and Human Services. The National Survey on Drug Use and Health (NSDUH) includes households in all 50 states and the District of Columbia (but not U.S. territories such as Puerto Rico or Guam). In this section we refer to findings from the 2018 survey (Substance Abuse and Mental Health Services Administration, 2019).

This survey included individuals 12 years of age or older. Interviews were completed with 67,791 individuals, including 16,852 interviews with adolescents aged 12 to 17 and 50,939 interviews with adults over age 18. As it was a household survey, individuals with no fixed address (e.g., military personnel on active duty, residents of