
PSYCHOACTIVE SUBSTANCE USE DISORDERS

KURT D. MICHAEL

Appalachian State University

Throughout history and across cultures, humans have sought out various psychoactive substances, concoctions, drinks, pills, plants, herbs, and potions to alter, improve, change, and otherwise treat what ails us. The term *psychoactive* refers to a substance or drug that can alter physiology, cognition, emotion, and behavior. The part of the body most affected by psychoactive substances or drugs is the central nervous system (CNS), which comprises the brain and the spinal cord. Once inside the CNS, the drug can alter biochemical interactions both within and between brain cells or neurons. These interactions, in turn, often have a powerful and rapid impact on thinking, feeling, and behaving. Drug effects are typically classified in terms of how they alter CNS functioning. For example, alcohol is classified as a CNS depressant, given that it typically slows heart rate and respiration and leads to sedation, disinhibition, and a subjective sense of euphoric intoxication. Opiate drugs, such as heroin and prescription medications like codeine, can have dramatic effects on the CNS, such as a euphoric rush, relaxation, apathy, and impaired judgment. In contrast to opiates and depressants, CNS stimulants like cocaine and amphetamines tend to produce physiological arousal, euphoria, restlessness, diminished appetite, expansive mood, agitation, and even paranoia. However, before the biochemical processes and subsequent effects can occur, drug-seeking behavior must take place. Drug-seeking behavior, or the use of psychoactive substances, is the focus of this chapter.

Whether the substance use is characterized as *disordered* will be a major point of discussion, given that drug-seeking behavior is ubiquitous across time and cultures. Thus, it is important to distinguish between typical and expected patterns of substance use versus more problematic behaviors, up to and including substance abuse and dependence. According to the *Diagnostic and Statistical Manual of Mental Disorder*, Fourth Edition, Text Revision (*DSM-IV-TR*; American Psychiatric Association [APA], 2000), substance *abuse* is characterized by the repeated use of a drug despite evidence of recurrent and significant negative consequences of drug seeking, such as damage to bodily organs (e.g., liver, brain), occupational impairments (e.g., absenteeism, being fired), legal difficulties (e.g., multiple DUI convictions), and interpersonal problems (e.g., family estrangement, divorce). Substance *dependence* involves many of these consequences plus the added features of *tolerance*, *withdrawal*, and compulsive drug taking (APA, 2000). Tolerance means that the substance user needs to take increasingly greater amounts of the drug to achieve the desired effects, whereas withdrawal suggests there is a maladaptive pattern of behavior, physiology, and cognition when the user stops taking the substance. In addition to tolerance and withdrawal, the compulsive drug-seeking behavior becomes a major focus of a person's life (acquiring, using, recovering), which often includes several unsuccessful attempts to cut down or quit and some acknowledgment that it is causing significant problems in several areas of functioning. Indeed,

