

HANDBOOK OF

# ADDICTIVE DISORDERS

*A PRACTICAL GUIDE  
TO DIAGNOSIS  
AND TREATMENT*

Edited by Robert Holman Coombs



John Wiley & Sons, Inc.



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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.

Published simultaneously in Canada.

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***Library of Congress Cataloging-in-Publication Data:***

Handbook of addictive disorders : a practical guide to diagnosis and treatment / edited by Robert Holman Coombs.

p. ; cm.

Includes bibliographical references and index.

ISBN 0-471-23502-4 (cloth : alk. paper)

1. Substance abuse—Handbooks, manuals, etc. I. Coombs, Robert H.

[DNLM: 1. Substance-Related Disorders—diagnosis. 2. Substance-Related Disorders—therapy. WM270 H2357 2004]

RC564.15.H357 2004

616.86—dc22

2003063155

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

*For*  
*Douglas Ray Coombs*  
*Beloved Brother*



# Acknowledgments

I GRATEFULLY ACKNOWLEDGE five esteemed colleagues who added significantly to this book: Tracey Belmont, acquisition editor at John Wiley & Sons, for giving me the opportunity to develop and publish this book. Highly efficient and personable, she made the entire experience rewarding. Carla Cronkhite Vera, my invaluable assistant at UCLA, facilitated the book at every stage with her sterling efforts. She monitored myriad details, coordinated activities, suggested improvements, and, in her characteristic way, kept things running smoothly and punctually. Marie Gengler, who coauthored Chapter 16, offered critical suggestions for chapter drafts and Sandra Allen Brimhall compiled the indexes. Carol Jean Coombs, my life's partner, as always, provided valued insights and support.

R. H. C.





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# Introduction

**V**ARIOUS ADDICTIVE DISORDERS, the leading public health problem in America and other industrialized nations, undermine the health and well-being of countless individuals and families. Many clients seen by health professionals manifest addictive problems.

The term *addiction* usually conjures up images of alcoholics and other drug addicts who manifest physical and/or psychological need for chemical substances. Such individuals rely on substances to function or feel good (psychological dependence). When their bodies reach a state of biological adjustment to the chronic presence of a chemical substance (physical dependence), they require increasing amounts to achieve the desired effect (tolerance). When denied access to their chemical elixirs, their bodies experience adverse effects (withdrawal), typically the opposite bodily effects as those sought. Whereas opiates, for example, induce euphoria and pain relief, withdrawal symptoms include psychological distress and physical pain.

Researchers and clinicians traditionally limit addiction to alcohol and other drugs. Yet, *neuroadaptation*, the technical term for the biological processes of tolerance and withdrawal, also occurs when substance-free individuals become addicted to pathological gambling, pornography, eating, overwork, shopping, and other compulsive excesses.

Recent scientific advances over the past decade indicate that addiction is a brain disease that develops over time as a result of initially voluntary behavior. "The majority of the biomedical community now consider addiction, in its essence, to be a brain disease," said Alan Leschner, former Director of the National Institute on Drug Abuse (NIDA; 2001, p. 1), "a condition caused by persistent changes in brain structure and function." Most important, research on the brain's reward system indicates that, as far as the brain is concerned, "a reward is a reward, regardless of whether it comes from a chemical or an experience" (Shaeffer & Albanese, in press). For this reason, "more and more people have been thinking that, contrary to an earlier view, there is a commonality between substance addiction and other compulsions" (Alan I. Leshner, cited by Holden, 2001, p. 980).

In 1964, the World Health Organization concluded that since addiction had been "trivialized in popular usage" to refer to any kind of habitual behavior, such as gambling addiction, it was no longer an exact scientific term (World Health Organization [WHO], 1964). Since then, medically oriented clinicians have narrowly restricted this term in their diagnostic manuals to refer to chemical dependence.

Addiction is omitted from the latest diagnostic manual of the American Psychiatric Association, the *Diagnostic and Statistical Manual IV-text revision* (DSM-IV-TR; 2002). Instead, DSM-IV-TR lists these three forms of *chemical abuse*:

1. *Substance abuse disorders*: a maladaptive use of chemical substances leading to clinically significant outcomes or distress (recurrent legal problems and/or failure to perform at work, school, home, or physically hazardous behaviors, such as driving when impaired).
2. *Substance dependency disorders*: loss of control over how much a substance is used once begun, manifested by seven symptoms: tolerance, withdrawal, using more than was intended, unsuccessful efforts to control use, a great deal of time spent obtaining and using the substance, important life activities given up or reduced in order to use the substance, and continued use despite knowing that it causes problems.
3. *Substance induced disorders*: manifesting the same symptoms as depression and/or other mental health disorder, which symptoms, the direct result of using the substance, will cease shortly after discontinuing the substance.

By contrast, DSM-IV-TR classifies compulsive gambling as an “impulse control disorder” and groups it with fire setting.

Increasingly, research evidence shows that the neurobiology of nonchemical addictions approximates that of addiction to alcohol and other drugs. “Some chemicals or excessive experiences activate brain reward systems directly and dramatically,” notes addictionologist William McCown (in press). “Essentially they provide too much reward for an individual’s neurobiology to handle. For example, ingestion of certain chemicals is accompanied by massive mood elevations and other affective changes. These may lead to a reduction in other activities previously considered rewarding. Similarly, the ability of excessive behaviors to activate brain reward mechanisms alters normal functioning. This also results in a potentially addictive state.” (McCown, in press).

Traditionalists may argue that the addictive disorders discussed in this book are really obsessive-compulsive disorders (OCDs). Though the OCD-afflicted individual may recognize that his obsessive thoughts lead to illogical and inappropriate behaviors, he still feels compelled to perform these actions and feels extremely anxious when resisting these ritualized behaviors. “There are no rewards associated with OCD behaviors,” McCown points out, “except for the overwhelming reduction in anxiety.” On the other hand, addictions are initially extremely pleasant experiences. This contrasts with OCD, which plagues people with intrusive, unwanted thoughts or obsessions, and is inherently distasteful (McCown, in press).

Where does one draw the line between an addiction and a passionately enjoyed activity? “Breathing is also addictive,” noted the headlines of a *Newsweek* article (Levy, 1997, pp. 52–53). All addictions, whether chemical or nonchemical, share three common characteristics. Referred to as the three Cs (Smith & Seymour, 2001, pp. 18–19), they are:

1. *Compulsive use*: an irresistible impulse; repetitive ritualized acts and intrusive, ego-dystonic (i.e., ego alien) thoughts (e.g., voices in the head encouraging the addict to continue the addictive behavior).



2. *Loss of control*: the inability to limit or resist inner urges; once begun it is very difficult to quit, if not impossible, without outside help; the addict's willpower succumbs to the addictive power; though he or she may abstain for brief periods, he or she cannot stay stopped.
3. *Continued use despite adverse consequences*: escalating problems (embarrassment, shame, humiliation, loss of health, as well as mounting family, financial, and legal problems) do not dissuade the addict from the addictive behavior.

Regardless of addiction type, three needs initially motivate participants:

1. *Psychic rewards*: achieving a desired mood change; feeling euphoric "highs" and/or blocking out painful feelings; feeling good, pursuing such desired feelings, regardless of the cost, is the objective of all addiction.
2. *Recreational rewards*: having fun with other participants in these mutually enjoyable activities, especially during early stages, after which participants seek solitude with their "best friend," the addictive substance and/or activity.
3. *Instrumental (achievement) rewards*: performing better, and doing so with fewer worries, or gaining a competitive edge or advantage, and thereby, supposedly enhancing success and well-being.

In this regard, addictionologist Lynn Rambeck, a specialist in treating compulsive gamblers, broadly defines addiction as "a habitual substitute satisfaction for an essential unmet need." (personal communication, 2003).

I invited leading addition experts to contribute to this book. Each has a depth of academic and clinical experience and a proven record of significant publications on these topics. Two introductory chapters begin the book. The first, by David E. Smith and Richard B. Seymour, addresses the characteristics of addictive disorders. The second, by Patrick J. Carnes, Robert E. Murray, and Louis Charpentier, discusses the nature of interactive addictions, such as the cocaine addict who also experiences sexual compulsions.

Subsequent chapters focus on each addictive disorder, two chapters on each disorder: chemical dependence, compulsive gambling, sex addiction, eating disorders, workaholism, and compulsive buying. The first of these two address understanding and diagnosing the addictive disorder, and the second on treating it. Arthur W. Blume (Chapter 3) and Jeanne L. Obert, Ahndrea Weiner, Janice Stimson, and Richard A. Rawson (Chapter 4) discuss chemical dependence; Linda Chamberlain (Chapter 5) and William G. McCown (Chapter 6) explore compulsive gambling; Jennifer P. Schneider (Chapter 7) and Robert Weiss (Chapter 8) address sex addiction; David M. Garner and Anna Gerborg (Chapter 9) and Jean Petrucelli (Chapter 10) eating disorders; Bryan E. Robinson and Claudia Flowers (Chapter 11) and Steven Berglas (Chapter 12) workaholism; and Helga Dittmar (Chapter 13) and April Lane Benson and Marie Gengler (Chapter 14) compulsive buying.

Two additional chapters cover public policy and prevention. Beau Kilmer and Robert MacCoun discuss public policy issues related to addictive disorders (Chapter 15) and Kenneth W. Griffin and Gilbert J. Botvin review preventive tools and programs (Chapter 16).

Written to enlighten and assist helping professionals who deal with addicted clients, these practical chapters help shift the view of addiction from its tradition-based orthodoxy to a more enlightened and clinically useful model.

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PART I

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DEFINING ADDICTION



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## CHAPTER 1

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# The Nature of Addiction

DAVID E. SMITH and RICHARD B. SEYMOUR

### **A Ghetto Addict: Cocaine Dealer Supporting His Habit by Dealing**

He's getting too old for this and in moments of lucidity he knows it. It was all new and exciting when he started dealing at 11. By 14 he was still living with his grandmother in the projects. His mother was doing hard time in the state penitentiary. His father? Who knows? Then, the expensive sports shoes and his athletic jacket were his pride and joy. Both are now gone, gone into the pipe. It's a new century and the crack buyers who supported his habit have drifted away to other, more aggressive dealers and to other drugs. But for him, the pipe is everything and he is getting too old for this. Next week will be his 17th birthday.

### **The Model Student: Sport Star and Heroin Addict**

It started in his junior year of high school. Some older buddies took him along on a trip into the city. They knew a place where they could drink and the bartender didn't check IDs. He didn't drink very much or very often. After all, he was in training, a star athlete at the suburban high school he attended. His grade average wasn't spectacular, but it was good enough to get him into a college of his parents' choice. Going into the city was just a lark. After a few beers, one of the guys tossed a packet of white powder on the bar and said, "Let's go out back and have some real fun." When he snorted his first line of cocaine, he reports, the feeling was the same as when he had made a touchdown in the championship game and everyone in the stands was standing up and shouting his name. What a great feeling! When the cocaine got to be too much for him, he was introduced to heroin. The opiate that he snorted took the edge off the cocaine stimulant jangles and made it all bearable again, but he kept needing more.

### **A Housewife: Alcoholic and Chain Smoker**

She lit yet another cigarette off the spent one, crushed the butt in the ashtray that was already overflowing onto the kitchen table and refilled the glass of sherry. Outside her kitchen window, the sun shone and birds sang in the backyard trees. The children had left for school hours ago, but she was still in her bathrobe, the breakfast dishes were still on the table. There was plenty of time to clean the house and think about dinner. In the meantime, just one more glass of sherry and another cigarette.

### **An Aggressive Executive: Cocaine Addict**

He had smoked pot and, yes, dropped a little acid back in the Summer of Love, but he'd never really been a hippy and all that was way behind him as he built a highly competitive consulting business. He was a moderate drinker, a couple of martinis at a business lunch, wine with dinner, maybe a cocktail. One evening when he was 35, a business associate working with him on a grueling assignment gave him a prescription stimulant to help him keep going. He soon realized that stimulants gave him a competitive edge. Soon thereafter, he discovered that cocaine was even better than amphetamines. By the time he entered treatment, his consulting business and his personal life were in shambles.

### **A Retired Executive with Late-Onset Alcohol Addiction**

Alcohol was part of his climb up the corporate ladder and he did like his drinks. While he was working and empire building, however, there really wasn't time to waste. Drinking was an adjunct to business activities. Those occasions when he did go over the line, he had assistants to take care of things and to make sure that no unpleasantness developed. Then he retired to afternoons at the Club and evenings that went on forever and no assistants to help when he passed out during dinner. His doctor called it late-onset alcohol addiction, but it had been there all along. Throughout his working life, Mr. Big had an entire staff of enablers to feed his denial and help him through. In retirement, he had the leisure to indulge his addiction to alcohol and he found his family actually made lousy enablers. They hired an interventionist who orchestrated an intervention and for the first time in his life, Mr. Big had to face his addiction. The family stood by him and remained involved in family therapy. He and they survived, but many do not.

As you can see from these examples, there is no addict profile. Movies such as *Traffic* and *The Twenty-Fifth Hour* have brought the breadth and depth of addiction to popular culture and awareness in the United States. Addicts come in all ages, sizes, and economic circumstances. One thing has become clear to those of us who are working in the field of addiction medicine: Addiction is not limited to those who are the stereotypical dregs of humanity. Many addicts are highly capable and successful individuals. Addiction is a democratic disease and an equal opportunity illness. Who is susceptible? Anyone. Although sons and daughters and grandsons and granddaughters of people who have had problems with alcohol and other drugs are thought to be more susceptible to the disease, anyone can become addicted.

## WHAT IS ADDICTION?

Addiction is a disease in and of itself, characterized by compulsion, loss of control, and continued use in spite of adverse consequences (Coombs, 1997; Smith & Seymour, 2001) (see Box 1.1). The primary elements of addictive disease are:

- *Compulsion*: In alcohol and other drug addiction, this can be the regular or episodic use of the substance. The person cannot start the day without a cigarette and/or a cup of coffee. Evening means a ritual martini, or two, or three. In and of itself, however, compulsive use doesn't automatically mean addiction.
- *Loss of control*: The pivotal point in addiction is loss of control. The individual swears that there will be no more episodes, that he or she will go to the party and have two beers. Instead, the person drinks until he or she experiences a blackout and swears the next morning, "Never again!" only to repeat the behavior the following night. The individual may be able to stop for a period of time, or control use for a period of time, but will always return to compulsive, out-of-control use.
- *Continued use in spite of adverse consequences*: Use of the substance continues in spite of increasing problems that may include declining health, such as the onset of emphysema or even lung cancer in the chronic smoker, liver impairment in the alcohol addict; embarrassment, humiliation, shame; or increasing family, financial, and legal problems.

While compulsion, loss of control, and continued use in spite of adverse consequences are the primary characteristics of addictive disease, there are a host of other qualities of addiction.

### ADDICTION IS CHRONIC AND SUBJECT TO RELAPSE

Many people equate addiction with simply using drugs and therefore expect that addiction should be cured quickly, and if it is not, the treatment is a failure. In reality, because addiction is a chronic disorder, the ultimate goal of long-term abstinence often requires sustained and repeated treatment episodes. Nearly all addicted individuals believe in the beginning that they can stop using drugs on

#### BOX 1.1 Qualities of Addiction

Addiction is a brain disease characterized by:

- Compulsive use,
- Loss of control, and
- Continued use despite adverse consequences.

Genetics + Environment = Addiction (Maybe)

AD = G + E

Addictive Disease = Genetics + Environment

their own, and most try to stop without treatment. However, most of these attempts result in failure to achieve long-term abstinence. Research shows that long-term drug use significantly changes brain function and these changes persist long after the individual stops using drugs. These drug-induced changes in brain function may have many behavioral consequences, including the compulsion to use drugs despite adverse consequences—the defining characteristic of addiction (Leshner, 1999).

#### ADDICTION IS PROGRESSIVE

The disease becomes worse over time. As the disease progresses, craving emanating from the old or primitive brain's reward system creates compulsion despite knowledge that resides in the new brain's prefrontal cortex that compulsive use leads to adverse consequences. Once the cycle of addiction is started by the first fix, pill, or drink, the reward system, fueled by a mid-brain system involving the dopaminergic system of the nucleus accumbens, is activated. A new paradigm for addiction can be described as a *drug-induced reward system dysfunction*. Addiction then becomes a disease of the brain just as diabetes is a disease of the pancreas. The brain, being a much more complicated organ, becomes involved in a complex neurochemical cascade in which the old brain sends out strong craving signals that the new brain attempts to control via the will. Denial is learned and recovery is learned, but there is a biological basis to addictive disease residing in the primitive brain.

Experience shows us that the disease worsens during active use and also during periods of abstinence and sobriety as well. We would expect the disease to get worse during active use but its growth in abstinence may come as a surprise. Individuals who resume use of alcohol or other psychoactive drugs after periods of abstinence progress to full addiction more rapidly with each period of returned use. As Chuck Brissett illustrated in his concept of the sleeping tiger, like an animal in hibernation, the disease continues to grow while in remission and if reawakened will be a full-grown beast (Seymour & Smith, 1987).

#### DENIAL—VICTIMS ARE INCAPABLE OF SEEING THAT THEY HAVE A PROBLEM

At Alcoholics Anonymous meetings and addiction conferences, the line: "Denial isn't just a river in Egypt," continues to get a laugh. Denial may be learned but it too has a nonconscious foundation. The addict is incapable of seeing the insanity of his or her behavior, but is capable of manipulating family, friends, and coworkers into enabling behavior. Wives will call the place of employment and make excuses for the addict. Coworkers will cover for them. Family and friends will act as though there is nothing wrong with passing out at the dinner table or under the Christmas tree. Often a process of intervention is the only means of bringing the addict into treatment.

#### THE DISEASE IS POTENTIALLY FATAL

Given the progressive nature of addiction, the disease only becomes worse over time (see Box 1.2). The good news is that most of the primary effects of addiction



**BOX 1.2**

**Often but Not Always a Factor in Addiction**

Tolerance + Withdrawal = Physical Dependence

are reversible and will eventually disappear with treatment, abstinence, and recovery. The bad news is that within the practice of alcohol and other drug addictive behavior the primary effects are toxically cumulative and result in death if the disease is not treated.

**THE DISEASE IS INCURABLE**

In the recovering community it is said that, "When a cucumber becomes a pickle, it cannot go back to being a cucumber." Once an individual has crossed the line into addiction, there is no going back. Any attempt at returning to noncompulsive, in-control use is doomed to failure and rapid descent back into full addictive behavior. All too often, individuals in long-term recovery who have experienced remission from the worst effects of their active disease will decide that they are cured and attempt to drink or use in a controlled way. Use may start with a glass of wine at a wedding or some other significant social function. For a short period, the addict may see no adverse effects and conclude that over time a cure has taken place. The sleeping tiger has been prodded and all too soon comes fully awake and the addict finds him or herself once more in the grips of the disease. Not all drug abuse is addiction, but the rapidity of relapse is clear proof of the disease.

**THE DISEASE CAN BE BROUGHT INTO REMISSION**

Although addiction is incurable in the sense that addicts cannot return to nonaddicted use, the disease can be brought into remission through a program of abstinence and supported recovery (see Box 1.3). Not using removes the cog that drives the addiction. The disease may progress in abstinence, but so long as there is no

**BOX 1.3**

**Substance Abuse in the United States**

There are an estimated 12 to 15 million alcohol abusers/alcoholics in the United States (SAMHSA).

Among full-time workers, 6.3 million are illicit drug users and 6.2 million are heavy alcohol users (SAMHSA).

About 70% of alcoholics are employed (NY State Office of Alcoholism and Substance Abuse Services).

Direct and Indirect costs of alcohol and drug abuse consume 3.7% of the U.S. Gross National Product.

use, there is no active addiction. However, mere abstinence is not enough. Will power is no match for this disease, and while you may be able to remain abstinent for a period of time without help, the maintenance of that abstinence can involve a tremendous and often losing effort. In the recovering community, this is called “white knuckle sobriety.” You are gripping sobriety so hard that your knuckles are drained of blood in the process. The best hope for many is in the support of other recovering addicts in one or more of a variety of self-help fellowships.

*Note:* Not all substance abuse is addiction. Opponents of the disease or medical models of addiction often try to paint their proponents as rigid doctrinarians who maintain that any individual who drinks or uses drugs is an addict in need of treatment, membership in alcoholics anonymous, and lifelong abstinence (Marlatt, Blume, & Parks, 2001). In reality, diagnosis utilizing the disease concept of addiction is based on specific, evidence-based criteria, and if anything, rules out substance abuse problems that do not fit the criteria for addiction.

### ADDICTION AS A CHANGING PARADIGM

As is true with most concepts concerning the nature of human behavior, the disease concept is not an immutable law but rather the most recent paradigm in an evolution of conceptualizations, each in its turn an attempt to meld observed phenomena with prevailing opinions to create an acceptable synthesis. Rarely will one paradigm be universally adopted. The disease paradigm, in fact, has several different wordings although the general concepts tend to be congruent within the addiction treatment field. It is generally understood to be an expansion based on the disease concept of alcoholism, first developed by Elfrin M. Jellinek (1960):

Addiction affects the:

- Cerebral cortex,
- Midbrain, and
- Old brain.

### ADDICTION AS PHYSICAL DEPENDENCE

When we were first writing articles and teaching classes on addiction, the emphasis was on the drug itself. Addiction was seen as synonymous with physical dependence characterized by increasing drug tolerance and onset of physical withdrawal symptoms. It was generally believed in the treatment community that the drugs, by their action, created addiction. As a result, the primary goal of treatment was detoxification, clearing the system of the toxic substance or substances and treating withdrawal in the belief that once the perceived cause of continued use, that is, the pain of withdrawal, was eliminated, the addict could return to a nonaddicted life (Inaba & Cohen, 2000).

This paradigm worked to some extent in a world where addiction appeared to be limited to opiate and opioid pain killers and sedative-hypnotic substances, including alcohol, with which there was a pronounced development of tolerance, or the need for more drug in order to meet desired effects and rapid onset of physical withdrawal symptoms.

Even here, however, the frequency of relapse among detoxified opioid addicts made it clear that tolerance and withdrawal were not the only components of

addiction. Something lured addicts back to active use and no amount of socioeconomic aid, vocational rehabilitation, jail time, or remembrance of the pain of withdrawal was sufficient in many cases to keep addicts away from the drugs.

In 1972, David Smith, MD, founder of the Haight Ashbury Free Clinics and George R. Gay, MD, director of the Clinics' Heroin Detoxification, Rehabilitation, and Aftercare Program, edited a book of articles on the background, social and psychological perspectives, and treatment of heroin addiction titled *It's So Good Don't Even Try It Once*. The title was a quotation, the words of a young middle-class addict. We speculated at the time that these words "catch some of the essential ambiguity in the young heroin user's position. He has gone beyond the counterculture, or around it, to arrive at what seems like simple self-destruction. But is that how he sees it? And is heroin really a universal evil that we can all feel safe in condemning, or could it be that our social-political system is the true culprit? What is heroin, what does it do to you, how 'good' is it and where (if anywhere) is the new drug scene leading us?" (Smith & Gay, 1972)

At that time, treatment for addiction at the Haight Ashbury Free Clinics consisted of detoxification with the help of nonnarcotic, symptom-targeted medication given on a daily basis along with counseling. A team of physicians, counselors, and pharmacists worked together to ascertain the patient's symptoms each day during the detoxification process. Aftercare consisted of a period of individual and group counseling aimed at rehabilitating the clean addict to a normal life pattern, including employment. Vocational rehabilitation was offered through a crafts shop and retail store on Haight Street until federal funding ran out and rehabilitation was reabsorbed into the general treatment facility.

The primary treatment alternatives were methadone and therapeutic communities. At that time, however, most of the Clinics' patients were young, new addicts whose use of low-potency heroin precluded the utilization of methadone as either a substitution and eventual withdrawal protocol or within a maintenance program, preferring to detoxify with medications that were not serious physical dependence producers and which had low street value, precluding patients from trading their medication on the street for heroin and other drugs.

In 1974, the Clinics attempted to start an aftercare program as a therapeutic community based in rural Mendocino County, an idyllic location about 3 hours north of San Francisco. A federal grant specified that the project needed to have demonstrated acceptance and approval from the local neighbors, however, and this was not forthcoming. The Rural Rehabilitation Center would have provided long-term residential treatment for selected drug patients, but by 1974, the specter of drug-induced violence—spurred by sensationalist reports based on the behavior of methamphetamine addicts suffering from paranoia with ideas of reference (sometimes with good reason in an era of armed and territorial young drug dealers)—had given rise to a climate of fear, even in rural areas and the rise of what came to be termed "nimbyism," that is, we would love to see these people helped, but not in my backyard.

With the spread of heroin use by young members of the counterculture in the late 1960s and the return of addicted veterans from Vietnam in the early 1970s, the shortcomings of the physical dependence paradigm became increasingly obvious. Detoxification wasn't the whole answer. As the 1970s progressed, increasing problems with drugs outside the opioid and sedative-hypnotic/alcohol categories, such as methamphetamine, cocaine, phencyclidine, and even marijuana, led to the

development of a two-tiered system in which the drugs that produce obvious physical dependence and those that produce what was termed *psychological dependence* came to be seen as hard drugs and soft drugs with differing treatment approaches.

#### PHYSICAL DEPENDENCE AS A CULTURAL ICON

Otto Preminger's 1955 film *The Man with the Golden Arm* is a near perfect exemplar of the "Addiction as Physical Dependence" paradigm that shaped public attitudes about drug dependence for a generation. Frank Sinatra's performance as the heroin-addicted gambler, in and out of treatment, subject to relapse and ever-increasing tolerance, seared our consciousness, while Preminger's depiction of both criminal justice-sponsored "treatment" consisting of "cold turkey" withdrawal and the addict's world graphically portrayed the moral degeneracy that was seen as a key component of addiction at that time.

#### THE MORAL DEGENERACY/WILLFUL DISOBEDIENCE MODEL

Outside the treatment community, addiction is all too often considered to be the result of low morality or actual criminal behavior. Such attitudes are largely responsible for the development of stereotypes depicting addicts as criminals and moral degenerates. Until recently, the Universal Code of Military Justice characterized alcoholism and other forms of addiction as "willful disobedience."

At the turn of the nineteenth-century, addiction within the middle class was generally treated in physicians' offices and private drug clinics and often by opiate maintenance. All of that began to change after the 1914 passage of the Harrison Narcotic Act and a series of subsequent court decisions that stripped the medical profession of its rights to treat opioid addicts. At the same time, treatment passed into the hands of the criminal justice system and was concentrated in prison hospitals such as the one in Lexington, Kentucky (Musto, 1987).

In the 1940s and 1950s, the prevailing concept of "treatment" was guided by the moral degeneracy/willful disobedience model and limited to federal prison facilities wherein addicts were detoxified without benefit of what today is considered minimal treatment. When these individuals were released and usually relapsed within a short period of time, the criminal justice attitude that addicts were untreatable was reinforced and spread into the general population through news articles and films such as *The Man with the Golden Arm*. Until recently, recovering military veterans were blocked from receiving education and other benefits that had elapsed while they were in active addiction because the government maintained a policy that stated their addiction was "willful disobedience" and not a disability (NCA News, 1988; Seessel, 1988).

#### A SYMPTOM OF UNDERLYING PSYCHOPATHOLOGY VERSUS DUAL-DIAGNOSIS

Within the mental health treatment community, addiction was often considered a symptom of underlying psychopathology. The problem with this paradigm is that it can lead the practitioner to attempt treatment of mental health problems without addressing primary addiction. Darryl Inaba, the long-time director of Haight Ashbury Free Clinics' Drug Treatment Project and now the Clinics' chief executive officer, has always cautioned that psychiatric diagnoses of practicing addicts should be written in disappearing ink. Often, psychotic symptoms are

**BOX 1.4**  
**Comorbidity**

Among full time workers, 1.6 million are both heavy alcohol and illicit drug users (SAMHSA).

80% to 90% of alcoholics are heavy smokers (Drug Strategies).

There are 6.5 million persons with co-morbid substance abuse and mental illness disorder.

50% to 75% of general psychiatric treatment populations have alcohol or drug disorders (Miller & Gold, 1995).

20% of liver transplants are received by alcoholics.

drug induced and disappear in the course of detoxification and aftercare. This is not always the case, however. Many addicts have a dual diagnosis of addiction and mental illness. Roughly 40% of the patients seen at Haight Ashbury's Substance Abuse Treatment Services (SATS) are dually diagnosed. We also learned that treating mental problems while the patient is still practicing active addiction is a waste of time, counterproductive, and potentially dangerous. A team approach that addresses both diagnoses is the most practical and productive way to treat patients with both addictive disease and mental health problems. (See Box 1.4.)

A DISEASE CONCEPT OF ALCOHOLISM

The disease concept of alcoholism didn't begin with Jellinek (1960). In 1785, a Philadelphia physician named Benjamin Rush published a temperance tract entitled "An Inquiry into the Effects of Ardent Spirits upon the Human Mind and Body," in which he wrote that alcoholism is a disease. In 1804, an Edinburgh physician named Thomas Trotter stated his belief that habitual drunkenness was a disease. Milam and Ketcham, in their groundbreaking book on alcoholism *Under the Influence* (1981) point out that Trotter's statement caused a storm of protest, particularly from the church and the medical profession. Not only did Trotter raise "depravity" to the status of a "disease," thereby confusing the line between good and evil, he proclaimed that "the drinker cannot be held responsible for his own actions and is thus protected from moral condemnation and judgment." The medical professional, whose involvement with the drunkard had been limited to treating physical complications, performing autopsies, and signing death certificates, was equally outraged. The alcoholic was a subject of fear and disgust that physicians wanted as little to do with as possible.

The idea that alcoholism is a disease gained credence in the 1930s and 1940s with the founding of Alcoholics Anonymous (AA) by two "drunkards" and the movement's undeniable success. According to Milam and Ketcham (1981), "AA demonstrated for the first time that alcoholics in significant numbers could recover and return to productive, useful lives. Most importantly, it proved that alcoholics, when they stayed sober, were decent, normal human beings and not hopeless degenerates." At that point, all it took was a respected scientist of the caliber of E. M. Jellinek to proclaim in acceptable medical terms that alcoholism is indeed a disease (Box 1.5).

**BOX 1.5****Alcoholism: A “Closet” Disease**

NIAAA estimates that 7% of the U.S. population—14 million adults, suffer from alcohol abuse or dependence.

An estimated 25% of adults either report drinking patterns that put them at risk or have alcohol-related problems.

40% suffer from co-morbidity however, more than 20% of those treated remain abstinent 12 months after treatment.

**A DISEASE CONCEPT OF ADDICTION IN GENERAL**

Although the disease concept of alcoholism came to be tacitly accepted, even the mainstream of recovering alcoholics continued to view addiction to any other drug as some combination of moral degeneracy, willful disobedience, and/or physical dependence intentionally entered into by the addict. Health professionals in general tended to share this opinion, while those involved in the treatment of addiction continued to view physical detoxification as the beginning and end of addiction treatment. With the exception of a few visionaries such as Chuck Brissett, who spoke of addiction as a “Three-headed Dragon,” composed of physical, mental, and spiritual components, most who studied or practiced addiction treatment saw the problem as one of physical dependence.

The physical dependence paradigm remained viable as long as the principle drugs involved in addiction were seen as opiates and sedative-hypnotics. Both of these classes of drugs produced tolerance and physical withdrawal symptoms that usually frustrated any attempts at abstinence that were not reinforced. With the appearance of hallucinogens, the widening use of marijuana and the spread of stimulant drugs, such as methamphetamine and cocaine, none of which produced the classic tolerance and withdrawal symptoms that fit the model for addictive drugs, something had to change. First, there came attempts to reconfigure the existing paradigm. Opioids and the more powerful sedative drugs were labeled “hard” drugs, while LSD, marijuana, cocaine, and other stimulants became “soft” drugs. The result was general confusion that became particularly acute with the appearance of “crack” cocaine, quickly recognized as extremely potent in causing loss of control and continued addictive use. The solution was to adopt a modified version of the disease concept of alcoholism, after all, alcohol is not unique but one of a family of addictive drugs.

**ADDICTION AS A BRAIN DISEASE**

In 1999, on the basis of extensive research undertaken by the National Institute on Drug Abuse (NIDA) and other corroborative research, NIDA Director Alan I. Leshner declared addiction “a brain disease.” In his introduction to *Principles of Drug Addiction Treatment: A Research-Based Guide*, Leshner (1999) says:

Drug addiction is a complex illness. It is characterized by compulsive, at times uncontrollable drug craving, seeking, and use that persist(s) even in the face of