

From: “*Treating Alcohol and Drug Problems in Psychotherapy Practice*” by Arnold Washton & Joan Zweben, Guilford Press, 2006.

Chapter 2

The Nature, Course, and Diagnosis of SUDs

Substance use disorders (SUDs) are complex conditions that must be understood from a variety of perspectives. All practitioners need to understand the nature and course of these disorders in order to decide whether intervention is needed, and if so, what kind. Certainly many patients present for treatment whose use is occasional and appears to contribute little if at all to their presenting complaints. Nonetheless you should remain attentive to the possibility that even moderate use can affect a person’s mood, mental state, and coping abilities and in ways that can hamper therapeutic progress, or it may represent a transitional phase in the developmental course of more serious substance abuse problems. Thus it is important to appreciate what factors can influence the course of these disorders. It is also important to be familiar with the diagnostic criteria and categories that define SUDs.

Addiction specialists view SUDs as conditions that are influenced by complex interaction between biological, psychological and social factors that are present to differing degrees in each individual. This accounts for the wide variation in patterns in the general as well as the clinical population. Biological factors include, for example, individual differences in a person’s response to drugs due to factors such as gender, age, and genetic heritage. Psychological factors include the full spectrum of mental and emotional difficulties, as well as cognitive and behavioral problems that elevate risk or provide resiliency. Social factors include variables such as

socioeconomic status, the prevalence of heavy drinking in certain peer groups and subcultures, and religious prohibitions against using psychoactive substances.

Many models and theories have been applied to the study of addiction and each sheds light on certain dimensions of the problem (Margolis & Zweben, 1998). Different factors come into play in the initiation of substance use and in the progression to serious problems. Expectancies about the positive effects of alcohol and other drugs develop through peer influence, adult examples, and the mass media. These expectations can shape the actual alcohol or drug experience once experimentation begins, during the period when doses are relatively modest. For example, research has demonstrated that study participants given a placebo and placed in a party atmosphere report having just as pleasant a time as those who consumed alcohol (Marlatt, 1985; Yalisove, 2004). If influential peer groups reinforce the desirability of drinking or taking drugs, then occasional use may evolve into regular use. Drinking alcohol or using other drugs thus becomes part of the inclusion requirement- the price of membership. Although adolescents are particularly susceptible to these pressures, adults are by no means immune.

Once alcohol and drug use begins, other factors influence the transition from occasional use to more serious involvement. A large literature documents the importance of genetic predisposition with alcohol and other drugs (Bierut et al., 1998; Kendler & Prescott, 1998; Pickens, 1997; Pickens et al., 2001; Schuckit, 1989; Schuckit & Smith, 1996; Tsuang et al., 1998; Vanyukov & Tarter, 2000). Genetic and environmental factors have differing levels of influence with each drug, and each drug category (except psychedelics) has influences unique to itself. For example, the genetic factors that influence vulnerability to alcoholism are thought to be somewhat different from those relevant to developing an addiction to cocaine. Genetic factors increase individual vulnerability by shaping individual differences in how psychoactive substances affect

an individual's brain and behavior. These may operate through metabolism, sensitivity to particular drug effects, unusually high or low tolerance, and neurological differences. For example, studies have documented that a genetically transmitted high tolerance to alcohol's intoxicating effects, while socially valued, is predictive of future alcoholism. Presumably, the ability to remain unaffected by substantial quantities of alcohol sets the stage for future problems because such people lack a warning system to indicate that their drinking is excessive or problematic (Schuckit & Smith, 1996). In some individuals, alcohol is such an extremely potent reinforcer- capable of alleviating negative affect states such stress, depression, and anxiety. Progression to serious problems is also influenced by biomedical factors. Women have higher morbidity and mortality with lower levels of alcohol consumption due to differences in absorption, distribution and elimination. Although women are less likely than men to drink heavily or even moderately, they are more vulnerable to alcohol related liver damage, cardiovascular disease, and brain damage. Recent reviews also noted women's relatively greater susceptibility to alcohol's effects on cognitive functions, such as divided attention and memory (National Institute on Alcohol and Alcohol Abuse, 2000; Zweben, 2002). Therapists should keep in mind that women who drink have a more rapid downhill course, indicating the need for more vigorous early intervention.

THE CONTINUUM OF SUBSTANCE USE

Addiction specialists typically see patients who have developed serious problems with alcohol and drugs, while general psychotherapists are more likely to see patients with benign use or mild to moderate problems. Although such patients often do not identify their substance use as an issue, you should nonetheless remain alert to the possibility that it is influencing their

mood, their self-esteem, their sense of personal effectiveness, etc. Relatively small quantities of alcohol and drugs may have pronounced effects in some individuals. It may also interfere with the therapeutic action of various types of psychotropic medications.

While DSM-IV provides a uniform set of diagnostic criteria for all psychoactive substances (as will be discussed later in this chapter), forcing all SUDs into only two categories (abuse or dependence) without a methodology for rating the severity of these disorders. This diagnostic schema overlooks the fact that there is not a dichotomy but rather a continuum of substance use and substance-related harm. Some patterns of use fall into the realm of nonpathological or nonproblematic use in the sense that they are associated with no apparent harm or dysfunction. Despite popular cultural beliefs, stereotypes, and biases many people do seem able to use legal and illegal substances in ways that do not fit neatly into the categories of abuse or dependence. A broader range of substance use categories that includes abuse and dependence have been defined as follows:

Experimental use marks the initiation into use and may represent a relatively benign category. People are motivated by curiosity to experience a drug effect, and usually try a substance for the first time in a social situation. Their use is limited to a few exposures, they do not develop a regular pattern of use, and no substance-related harm or consequences are evident. It is important to remember that even apparently benign experimentation can and sometimes does result in significant harm. For example, tragic stories continue to emerge yearly from college campuses, in which young people, some of whom normally drank very little or not at all, consume large quantities of alcohol in connection with fraternity events and suffer serious injury or even die. Similarly, infrequent cocaine use can produce cardiac arrhythmia and even sudden death in a partygoer without prior warning or any evidence of having a pre-existing vulnerability to

experiencing such an ominous reaction to the drug. In short, there is no level of substance use that is completely safe and free of risk.

Occasional use is another category that may be relatively benign. This category is sometimes called social or recreational use, but prevention specialists are wary of using any such term that conveys that use at any level is a harmless form of “recreation”. Substance use in this category is typically infrequent and irregular, and the quantities consumed are modest. You should inquire carefully and document use over time, because it is common for the patient to report irregular use when in fact a pattern has emerged. It is useful to ask the patient to keep notes describing the circumstances, quantities, and adverse effects for purposes of self-observation. It is important to evaluate the effect on the individual before deciding that a use pattern is benign. For example, marijuana is widely viewed to be a “light” drug, but it has been shown to exacerbate depression in those who are prone to it, as well as producing physical dependency in long-term regular users. Similarly, what passes for “normal” drinking in some social circles is in fact above the level at which physical and social harms have been shown to occur. Problematic drinking can be camouflaged by being part of a peer or social group of heavy drinkers. Even moderate social drinking can depress mood. Enormous variability among individuals means that small amounts of a substance may have surprisingly strong effects, and a period of abstinence may be one of the best ways to identify these effects. Patients with the best of intentions may under-report their use, but even those who report accurately may be impacted more strongly by their alcohol and drug use than they realize.

Regular use is said to be present when a person’s use becomes more frequent and patterned. Many people move so slowly from occasional to regular use that they scarcely notice the transition. This may begin with a pattern of drinking heavily every Friday night or using

cocaine every weekend. The person becomes habituated and a regular pattern emerges. In the case of a drug like marijuana, people may develop a pattern of regular use, but if their use does not create any obvious or serious problems, they may feel little cause for concern. People at this stage may not necessarily experience negative consequences, and perhaps the clinician cannot identify obvious negative effects. However, the regularity of use may or may not be a warning sign that some loss of control is beginning to develop. Reinforcing properties of a drug become seductive once a person achieves desirable changes in mood and feeling states reliably from using the drug.

Circumstantial or situational use includes various patterns in which the substance is used to produce specific types of effects deemed desirable to enhance an experience or better cope with certain types of situations. For example, stimulants may be used to study for examinations, meet work deadlines, or enhance sexual arousal. Similarly, alcohol and/or tranquilizers may be used to deal with the anticipatory anxiety of public speaking or being in uncomfortable social situations. This pattern of use can become problematic when the instantly “curative” effects of the substances preclude the person from developing other non-drug coping skills and the types of situations that create the desire for substance use arise more frequently.

Binge use refers to an episodic pattern in which large quantities of alcohol and drugs are consumed intensively in marathon-like fashion during a single episode of use. For example, an drinking binge may involve consumption of enormous quantities of alcohol that continues almost nonstop for an entire weekend. Similarly, some cocaine users disappear on binges for days, until they run out of drugs and/or money or collapse from physical exhaustion. Binges may be punctuated with long periods of abstinence and little or no craving. This can encourage a belief that the use pattern is really not a problem. However, since binge patterns typically involve

larger quantities of drug use per occasion, as compared to maintenance patterns of use, the acute physical impact is generally greater. It is also challenging to address the patient's fluctuating motivation. Immediately following a binge, the person may feel remorseful and overwhelmed by the negative consequences of the intensive use and feel at that point strongly motivated to not repeat the pattern again. However, it is typical for patients to begin to minimize or selectively forget about the drug-related consequences as time passes from the last binge.

Abuse is said to occur when an individual manifests significant substance-related problems repeatedly in important areas of functioning (health, legal, social). For example, a parent may consume enough wine with dinner to become regularly unable to assist a child having school difficulties with homework. A college student who has been arrested and is on probation may continue to smoke marijuana despite progressive warnings about the consequences of coming up positive on a drug screen. A skier may use whiskey to warm up on the slopes in the late afternoon, despite having previously suffered serious orthopedic injuries. Although many who show signs of abuse do not progress to substance dependence, this does not mean the therapist should ignore such warning signs. Substance abuse is often related to the patient's presenting problems and, where indicated, an attempt should be made to view it within that context. Most therapists are in an ideal position to do early intervention with substance abusers if they take the stance that it is not necessary to wait for severe problems to emerge before addressing a patient's alcohol and drug use.

Dependence, the most troubling category on the continuum of substance use, is evidenced by a preoccupation with obtaining and using the drug, an inability to control consumption in a dependable manner, impairment in psychosocial functioning, and continued use despite adverse consequences. A dependence diagnosis does not require evidence of tolerance or withdrawal.

For example, a business executive's heavy drinking that begins every evening after work has on numerous occasions caused him to miss important meetings the next morning with co-workers and prospective clients. It also has caused severe conflict with his wife who is on the verge of leaving him if he does not seek help for his drinking problem. He has promised many times to cut down or stop drinking altogether, but his good intentions do not result in lasting change. He would like to drink less, but cannot imagine life without alcohol. This person clearly meets criteria for alcohol dependence.

LATE ONSET OF DETECTABLE SIGNS AND SYMPTOMS

Patients who seek private office-based psychotherapy often (but not always) are functional enough so that the signs and symptoms of serious alcohol and other drug problems are not readily apparent. Consider the following case:

James is an astute businessman whose vision and judgment allowed him to build a highly successful company. Charming and gregarious, he was sought after in the many business-related social gatherings where alcohol was plentiful. He was driven, and had great difficulty unwinding after he finally left his office. His alcohol consumption increased slowly over time until he was consuming substantial amounts daily. He consumed a before-dinner drink, a nightly bottle of wine with dinner, and an aperitif with dessert. High levels of drinking were normal in his business subculture and he never appeared intoxicated, so his drinking behavior passed unnoticed. His frequent brief affairs had disrupted his marriage and he sought therapy to clarify whether to seek a divorce. A medical

checkup for gastric distress revealed elevated liver enzymes and slight gastrointestinal bleeding, both related to alcohol. Upon the advice of his physician, he discontinued drinking and was astonished to find himself struggling to accomplish this. His withdrawal symptoms were sufficient to require medication and he was chagrined that the type of discipline he applied to his work life was not enough to keep him from drinking. His therapist was able to offer behavioral strategies to establish and consolidate abstinence. This allowed them to work on other issues more productively.

Drinkers like James may appear to function well for a long time and then at some point the cumulative effect of drinking results in what appears to be a sudden onset of difficulties. At that point, other alcohol-related manifestations, such as irritability, short-temperedness, silent withdrawal, sexual indiscretions or other interpersonal difficulties can be examined in a new light. You can reframe the patient's unexpected struggle to stop as a valuable learning experience about how easy it is to underestimate the power of alcohol.

UNPREDICTABLE COURSE: PROGRESSION IS NOT INEVITABLE

Addiction specialists typically see patients who have severe problems, and so much of what is written about addiction suggests that progression is inevitable. However, clinical experience, studies of natural recovery, and long term prospective studies indicate that there are subgroups of people who use alcohol and drugs to varying degrees at different stages of their lives. Excessive or problematic substance use at one point in an individual's life is not necessarily predictive of progression to more serious problems at a later point in his or her life. Researchers have long

understood that it is necessary to understand the natural history of a disorder in order to determine to what extent clinical intervention does or does not affect the developmental course of that disorder. Such work balances a perspective that becomes skewed when generalizations and conclusions are based only on clinical populations, which cannot possibly be truly representative of the entire population of people in society who ever experience problems with alcohol and other drugs. A fifty-year prospective study documented a subgroup that continued alcohol abuse for decades, without remission or progression to more severe symptoms (Vaillant, 1995). This study followed a college sample and working class, core city sample from the Boston area. Findings support the view that social class is an important mitigating factor in developing more serious problems.. The working class sample had significantly higher rates of death and complete abstinence from alcohol than the group with greater social advantages. The middle class sample had more than twice as many who continued to abuse alcohol without significant progression. Though your patient may never meet criteria for a full-blown substance use disorder, this does not mean that the consequences are unimportant for your therapeutic goals. Although the substance abuse pattern may be stable, it may nonetheless undermine your patient's quality of life and ability to make use of resources.

COMPLEX ETIOLOGIES

Considering that the etiology of a substance use disorder in any given person is multidimensional, a variety of risk factors should be considered when formulating a treatment plan. Biological factors include drug properties and genetics. How prone to abuse is the patient's substance of choice and method of use? Use of highly dependence-producing drugs and/or rapid routes of administration elevate the risk, despite personal and social protective

factors. High dose stimulant use (i.e., cocaine and methamphetamine) has been shown repeatedly to override most protective factors. On a psychological level, co-existing psychiatric disorders can markedly elevate the risk. The anxiety and mood disorders that propel people into psychotherapy also are associated with high levels of problematic substance use. However, you cannot assume that the presence of an SUD inevitably means “ego deficits” or other psychological problems. Longitudinal studies have demonstrated the hazards of generalizing from contact with individuals in the active stages of their abuse cycle. The psychological and behavioral patterns begin to look similar and obscure the heterogeneity that often is present both before the development of a substance abuse problems and after a period of abstinence.

Social factors are certainly major elements in the etiology of SUDs. Subgroups where drinking and drug use are socially encouraged contribute significantly to the development of problems in susceptible users, and eventually even individuals with few other risk factors may succumb with sufficient repeated exposure and peer pressure. Poverty factors, with their attendant sense of hopelessness, contribute heavily to people becoming exposed to substances at very young ages, and trapped in these patterns more readily than those with greater options. Recovery resources are certainly fewer. Although the casualty rate is high, many indigent people can and do cease their substance use and go on to live productive lives. The mitigating element of social class may mean that the psychotherapy patient is less likely to confront the negative consequences of use unless the therapist is astute and willing to make the issue part of the therapy.

RECOVERY WITHOUT TREATMENT

Although clinician intervention is a powerful catalyst for change, it is important to remember that recovery from serious alcohol and drug problems can occur without formal treatment

(Biernacki, 1986; Sobell, Ellingstad, & Sobell, 2000). Studies of natural or untreated recovery, though relatively few and methodologically limited, highlight some of the important factors that allow people to overcome problems with alcohol and drugs. Both clinical and non-clinical populations report similar types of consequences that led them to decide to change their substance use behaviors. These include: increasing dysphoria, emotional distress; loss of important relationships; loss of jobs, interference with performance; health problems; financial problems; and, legal problems. The most important factor cited as promoting success in “natural recovery” is a supportive social environment that includes family and significant others. Other influences include changes in work and general life style, living arrangements, and involvement in religion. Interestingly, many of the same factors have been identified as contributing to positive outcomes in addiction treatment programs. It has also been observed that many individuals change their patterns of alcohol and drug use as part of a more global “maturing out” process (Peele & Brodsky, 1991) that involves assuming new responsibilities, entering a new stage of development in the life cycle, changing peer groups, and/or developing a new set of values that excludes or competes with substance use.

FAVORABLE PROGNOSIS WITH APPROPRIATE INTERVENTION

Stigma and stereotypes have conveyed the mistaken assumption people with serious alcohol and drug problems are fundamentally untreatable. This is far from the case. Those with mild to moderate problems often respond well to brief interventions. Many have been contemplating change and a brief conversation and recommendation from a therapist or physician is all that it takes to initiate a meaningful change process. Others may balk initially, then revise their views and commitments as they continue to engage in a process of self-examination:

A therapist working with visualizations noted that a patient had unusual difficulties sustaining attention on the imagery and suggested that marijuana use could be a contributing factor. The patient agreed to experiment with discontinuing the marijuana, and after several months he exhibited more normal powers of concentration. He was surprised at the changes he noticed, and decided to extend his commitment to abstinence indefinitely.

Results with severely addicted populations also yield reasonably good results, if treatment is sufficiently comprehensive to address not only the alcohol and drug use, but also the risk factors undermining stable recovery. Three decades of research document improvement in both middle class and indigent populations. Treatment of substance abuse has been compared with treatment for diabetes, asthma, and hypertension, three chronic relapsing medical disorders that evoke very different attitudes from treatment providers (McLellan, Lewis, O'Brien, & Kleber, 2000). Improvement rates are similar across all four disorders and depend heavily on patient compliance with specific treatment recommendations. Low compliance results from similar factors: poor social support, psychiatric comorbidity, and poverty. If substance abuse is viewed as a chronic, relapsing disorder, then it is unrealistic to expect a single treatment episode to result in life long recovery or “cure” for most people. It is possible that individuals will require additional treatment, as in the case of diabetics who may repeatedly lapse in and out of managing their disease properly. Treatment for an alcohol or drug problem can be intensive, such as inpatient or residential, or can consist of a continuum of outpatient activities fading in intensity as the patient progresses. Recovery maintenance can occur in the self-help system, without much costly

treatment intervention. In all four disorders, life style changes are one of the most important the key to achieving positive results over the long-term.

INTERACTION WITH OTHER MENTAL HEALTH PROBLEMS

Epidemiological studies have established that co-occurring disorders are the norm, not the exception, among people with SUDs and thus treatment for SUDS must address these co-occurring problems. General psychotherapists are usually well-equipped to address the mental health disorders, but need to learn how to address SUDs in an integrated manner. Substance use can exacerbate or obscure symptoms, lead to earlier onset of serious disorders, and promote premature termination or failure to progress in treatment. For these reasons, the office-based practitioner is well advised to invest the time needed to become proficient in addressing SUDs..

Historically, substance abuse problems were viewed as manifestations of an “underlying” disorder and were presumed to resolve once the “primary” disorder was treated. This view produced a sizeable cohort of treatment failures, and patients who were embittered at having lost decades of their lives despite having sought help from professionals. The recovering community developed an intense distrust for professionals. This distrust is gradually dissipating as mental health professionals become more competent in addressing SUDs and people in recovery from addiction receive effective treatment from mental health clinicians for other types of problems. However, one legacy is the idea that the substance abuse must be treated first, and other issues placed on hold until abstinence is firmly established. This was an appealing idea that proved impractical. It became apparent that many people could not get clean and sober unless their other problems were effectively addressed, and sequential treatment was ineffective for many. Clinicians have been working on principles of integrated treatment and the research literature

documents growing success with complicated populations, including those with severe mental illness. In these models, issues of safety take priority, no matter what the source of danger. Interventions to promote stabilization address substance use issues, other psychiatric issues, medical problems, domestic violence, and any other conditions that would interfere with initiating or sustaining recovery.

SUBSTANCE USE DISORDERS ARE PRIMARY DISORDERS

A key to treating SUDs successfully is to approach them as independent disorders with a life of their own whether or not they are intertwined there with other mental health problems. Although many therapists can cite individual examples of successfully addressing SUDs in psychodynamic therapy, there are no systematic studies confirming the efficacy of nonspecific treatments (e.g., psychodynamic psychotherapy) for substance abuse. Patients present with mood and anxiety disorders, and relationship problems, believing that their substance use helps them cope with their difficulties. It is always possible to make the case that the patient is engaged in some form of self-medication for character defects or painful feeling states (Khantzian, 1997; Khantzian, Halliday, & McAuliffe, 1990; Krystal, 1988). Usually there is partial truth in such assertions. The related assumption that the substance use behavior would change once the “underlying” issues were addressed allowed patients to remain in therapy for years, if not decades, without the therapist addressing their behavior. In retrospect, it is remarkable how long therapists persisted in this approach despite its inadequacies.

The view of SUDs as independent conditions has allowed for the development of specialized treatment methods that have in turn improved the effectiveness of psychotherapy. Substance abuse functions as a “wild card” that promotes early dropout from psychotherapy and

undermines therapeutic progress if the patient does remain in treatment. However, SUDS are often intertwined with predisposing, concurrent, and/or resulting mental health problems. As such, they complicate the assessment and treatment of other disorders. Designating SUDS as a primary disorder does not mean you should postpone addressing other issues until the substance use is resolved. In an integrative approach, you must consider how various conditions interact and prioritize treatment tasks appropriately. An extensive literature on co-occurring disorders examines how best to address the challenges of specific combinations of disorders (Graham, Schultz, Mayo-Smith, & Ries, 2003). In general, clinicians need to focus first on safety, then on behavior change and stabilization, and then on maintenance of gains and/or ways to make progress.

ADDICTION AS A BIOPSYCHOSOCIAL DISORDER

A major challenge for the office-based practitioner is to appreciate the biological, psychological, and social factors involved in the initiation, progression, and maintenance of SUDs. It is certainly expectable for most specialists to conceptualize problems in terms of their own theoretical orientation and clinical expertise, but an integrated model requires a continual ability to shift perspectives.

A growing literature documents the many ways in which addiction is a complex brain disease. Pre-existing characteristics can set the stage for future problems, as in the case of the individual who is endorphin-deficient long before using any opioid substances. Once exposed, such an individual is more likely to develop problems because certain drugs are dramatically more rewarding. Continuing drug use changes the brain in ways that may not normalize immediately if at all upon cessation of drug use. These changes are thought to contribute to persistent

vulnerability to relapse in all stages of recovery even well after drug taking has ceased. In current models, chronic drug use brings a cycle of spiraling dysregulation of the brain's reward systems, progressively increasing, eventually resulting in loss of control over drug taking and compulsive use. In time, this process changes the reward set point in the brain, resulting in a continuous relapse vulnerability that remains high even though the patient is abstinent (Koob, 2000; Koob & Le Moal, 2001). Research on the brain supports the disease model first proposed by Jellinek over forty years ago (Jellinek, 1960).

The disease model forms the basis of nearly all addiction treatment programs in the U.S., but regrettably this model has been misinterpreted, misused, and misapplied. First developed in relation to a subtype of alcoholism and later applied to drug abuse, an essential tenet of the disease model is that once a person has crossed the line from controlled to uncontrolled use, he or she can never return to reliably controlled use. Thus the remedy (not cure) for alcoholism is abstinence. Jellinek and subsequent proponents noted that there is no cure for this condition; however it can be effectively held in remission by refraining from use. A corollary is that abstinence from all intoxicants is required. There are two main reasons for this. The first is the likelihood of drug substitution. For example, it is common for heroin users who have ceased using opioids to escalate their alcohol consumption, often requiring treatment. However, problems with alcohol may escalate slowly, leading the patient to underestimate the connection. The second reason poses more complex clinical challenges. It appears that the use of any intoxicant may stimulate hunger for the primary drug of abuse. Use of the primary drug may occur immediately, or even weeks or months later. For example, both clinical experience and the empirical literature documents the frequency of significantly higher relapse rates to stimulant drugs (cocaine and methamphetamine) in individuals who continue to smoke marijuana or drink

alcohol. The fact that the return to using stimulant drugs may not occur immediately after using substances makes it more difficult for these individuals to perceive the connection between these events

A key principle in working with SUDs is that patients are likely to connect immediate consequences much more readily with their substance use than consequences that unfold over time. Thus cocaine users will readily acknowledge that if they are in a bar drinking and someone offers them alcohol, their ability to resist temptation and refuse the offer is severely compromised. What appears harder to integrate is that the beer today is a harbinger of the cocaine relapse three weeks from now. Even the patient who has repeated this cycle numerous times may continue to defend drinking because “alcohol wasn’t a problem before I started using cocaine.” Recent work on the neurobiology of craving offers one level of explanation for these phenomena. Once the reward pathways are stimulated by any psychoactive substance, the person is more likely to be drawn back to his or her primary drug of abuse.

In the biopsychosocial model, behavior is a major focus, especially in early recovery. By avoiding the first drink or drug use, the patient avoids setting in motion the cycle of events that leads to compulsive use. Behavioral interventions assist the patient to change course while choice is still possible and behavior is still voluntary. Various cognitive-behavioral models address motivation, commitment to abstinence, identifying necessary psychological and life style changes, and relapse prevention (Carroll, 1999; Carroll, Libby, Sheehan, & Hyland, 2001; Kadden et al., 1995; Matrix Center, 1995, 1997, 1999a, 1999b). These are based in part on the premise that feelings, thoughts and behaviors interact with the effects of psychoactive drugs on brain chemistry to initiate and maintain compulsive behaviors.

The disease model was a landmark event in the history of treatment because it provided the framework to move alcoholism out of the realm of a character defect and moral weakness and into the realm of a treatable disorder. The former view justified desperate and abusive practices further fostering the dangerous assumption that alcoholics were untreatable. Once the disease model became more accepted, clinicians were given a way to help alcoholics work past their shame and guilt and take personal responsibility for changing their behavior. Although these feelings remain paralyzing for many, the ability to introduce an alternative approach gave therapists a productive place to begin.

The disease of addiction is viewed as sharing certain similarities with other chronic conditions such as heart disease. It has multiple factors contributing to its etiology, including genetic factors in some but not all cases. Using the disease model does not imply that the treatment is solely medical. It is behavior change by the addicted person, not the intervention of treatment professionals produces progress. Although the disease model is sometimes misconstrued as giving a rationale for abdicating responsibility for one's alcohol and drug use ("My disease made me do it"), in fact is that the addicted person is deemed fully capable of managing the disease. The remedy is abstinence. In other words, the inability to dependably control one's alcohol and drug use existed prior to the first use and by acknowledging the disease, the person accepts the need to avoid taking using and begin the destructive cycle all over again.

Once the disease model became widely accepted, funding followed. The National Institute on Alcoholism and Alcohol Abuse (NIAAA: www.niaaa.gov) was established in the early 1970's and has extensively studied a wide variety of issues. This research has enormously elucidated our understanding of alcoholism and pointed the way to the development of more effective treatment methods.

There is still much misunderstanding of the disease model, even on the part of its proponents, who may interpret it narrowly. Many forget that in Jellinek's seminal work (Jellinek, 1960), progression was inevitable in only some but not all of his five subtypes. Although the disease model states that addiction is to be treated as a primary disorder, this does not mean that other areas of concern are neglected in programs based on this model. In fact, it is important to find out what actually goes on in a treatment program and avoid conclusions based on stereotypes. In an important treatment outcome study that drew participants from highly regarded, accredited substance abuse programs, the patient was more likely to receive psychiatric services in an inpatient program with a traditional orientation to alcohol and other drug dependence treatment than in the inpatient program with a psychiatric orientation (McLellan et al., 1993). Recovering counselors are often stereotyped as being the most rigid, but several studies document that they endorse more varied treatment techniques and a broader range of treatment goals (Humphreys, Noke, & Moos, 1996; Stoffelmayr, Mavis, Sherry, & Chiu, 1999). Careful observation leads us to conclude that inflexibility is not concentrated in any particular therapeutic orientation.

The debate about harm reduction and moderation goals can be a catalyst for depicting programs oriented to the disease model as uniformly harsh and rigid. Though this may occur in programs isolated from the mainstream, most programs based on the disease model have modified their practices in keeping with the treatment outcome literature. One of the most important developments is the emphasis on motivational enhancement strategies as a way of engaging those who are ambivalent about abstinence. Programs have also developed an understanding of the importance of retention in producing good outcomes, and are far less likely to terminate clients who drink or use. They do retain the view that complete abstinence yields the best results, but in recent years at least some outpatient programs have become increasingly

willing to work with clients who continue to drink and use in the hopes of moving them incrementally toward abstinence. Inpatient or residential facilities do not tolerate active drinking or drug use on site. This is intended to provide safety for other residents, and does not necessarily preclude transfer to an outpatient component for those who use alcohol or drugs during their residential stay.

DIAGNOSTIC CRITERIA

The diagnostic system used most widely in the U.S. for mental health problems, the DSM-IV (American Psychiatric Association, 1994), defines two types of substance use disorders: substance *abuse* and substance *dependence*. These two categories are applied to a wide range of different types of psychoactive substances, including: (1) central nervous system depressants (e.g., alcohol, sedative-hypnotics, and benzodiazepines such as Valium, Xanax, Ativan); (2) central nervous system stimulants (e.g., cocaine, amphetamine); (3) opioids (e.g., heroin, methadone, morphine, codeine, Demerol, Percoset, Vicodin, OxyContin); (4) cannabinoids (e.g., marijuana, hashish); (5) hallucinogens (e.g., LSD, mescaline); (6) inhalants (e.g., nitrous oxide, butyl nitrate, solvents, glues, aromatic hydrocarbons); and, (7) phencyclidine (PCP) and related substances (e.g., ketamine- “Special K”).

The DSM-IV definitions of abuse and dependence are based not on quantitative measures of substance use such as how much or how often a person may use, but rather on the qualitative nature of a person’s involvement with psychoactive substances. The definitions hinge primarily on the nature of a person’s attachment to alcohol/drugs, the role that substances play in his/her life, and the impact that substance use has on an individual’s functioning as these are seen as more clinically relevant to diagnosis and treatment planning than absolute consumption levels.

Moreover, these definitions reflect a consensus that pathological use of psychoactive substances is manifested as a *behavioral* syndrome characterized by *behavioral* indicators such as loss of control over use, preoccupation and obsession with use, and continued use despite adverse consequences.

It is important to recognize that a diagnosis of substance dependence can be applied in the absence of signs of physical dependence. In fact, in DSM-IV not only are signs of tolerance or withdrawal not required for a diagnosis of dependence, but in the absence of core behavioral indicators (e.g., loss of control, preoccupation, etc.) these physiological signs alone do not support a diagnosis of dependence. A person who is physically dependent on an adequate dose of prescription painkillers (opioids) but displays no evidence of drug-related obsession, compulsion, or psychosocial dysfunction does not qualify for a diagnosis of substance dependence. For example, many people are physically dependent on prescription painkillers or anxiolytics, but their functioning is improved rather than impaired by the medication and they do not exhibit addictive behaviors. Confusion between physical dependence and addiction (substance dependence) leads to under-medication of pain or anxiety and unnecessary disruption of appropriate treatment for patients who are in fact functioning well.

Although the variable of consumption levels is absent from DSM-IV it can provide useful information as to how easily an individual may be able to quit or cut down and whether medical intervention may be needed to safely manage the withdrawal syndrome associated with certain types of substances (e.g., alcohol, benzodiazepines, and other CNS depressants).

The DSM-IV defines substance *abuse* and substance *dependence* as maladaptive patterns of substance use leading to clinically significant impairment or distress over a 12-month period. Substance dependence is manifested by at least three of seven possible indicators. Two of these

seven indicators refer to impaired control of substance use: (1) taking the substance in larger amounts or over longer periods of time than originally intended; and, (2) persistent desire or unsuccessful efforts to control or cut down use. The next three indicators refer to the priority and impact of substance use on the person's behavior and psychosocial functioning: (3) spending a great deal of time acquiring or using the substance or recovering from its effects; (4) reducing or giving up important social, occupational, or recreational activities because of substance use; and, (5) continued use despite knowledge that the substance use is associated with persistent or recurrent physical or psychological problems caused or exacerbated by the use. The last two indicators refer to signs of physical dependence: (6) tolerance defined as the need for increased amounts of the substance to achieve the desired effects or as diminished effects with continued use of the same amount; and, (7) emergence of withdrawal symptoms after abruptly reducing or stopping use, or the need to take substitute drugs to prevent or relieve withdrawal symptoms.

A diagnosis of abuse is a less severe than dependence and can be applied only to individuals who previously never met criteria for substance dependence for the same or similar class of substances. Four different criteria define substance abuse with the patient needing to exhibit only one of the four within a 12-month period to receive an abuse diagnosis: (1) recurrent substance use resulting in failure to fulfill major role obligations such as those at home, work, or school; (2) recurrent substance use in situations in which it is physically hazardous (e.g., while driving or operating other dangerous machinery); (3) recurrent substance-related legal problems (e.g., arrest for DWI or possession of controlled substances); (4) continued substance use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the use. Both types of substance use disorders (abuse and dependence) are characterized by substance-related dysfunction and continued use despite adverse consequences, but dependence is distinguished by

the additional features of impaired control of substance use and preoccupation or compulsion regarding the use. Whereas in substance abuse the person is seen as still having some ability to control or moderate use and is neither obsessed with the substance use or at a point where it dominates his/her life, in substance dependence there is clear evidence of an automatic, stereotyped, compulsive pattern of substance use that is occurring without the person's full volitional control and in some cases accompanied by signs of physiological dependence such as tolerance and withdrawal.

It should be noted that where *illegal* drug use is concerned, nonclinical (i.e., moral, cultural, and legal) considerations may complicate the diagnosis of substance *abuse*. It has been argued that because any use of illicit drugs exposes the user to the potential risk of serious legal consequences it should be considered *de facto* as *abuse*. Although defining use of all illicit drugs as abuse ignores the fundamental concepts that underlie the DSM-IV definition of substance use disorders, clinicians should refrain from condoning or supporting illicit drug use in their patients but also refrain from being judgmental or recriminating about it.

DSM-IV Specifiers

DSM-IV defines various types of "specifiers" to further delineate a diagnosis of substance abuse or dependence. For example, for persons who have stopped using there are four "remission" specifiers based on time elapsed since criteria for abuse or dependence were met.

1. *Early full remission*. For at least 1 month but less than 12 months, no criteria for abuse or dependence have been met.

2. *Early partial remission.* For at least 1 month but less than 12 months, one or more criteria of abuse or dependence have been met but the full criteria have not been met.
3. *Sustained full remission.* None of the criteria for abuse or dependence have been met at any time during a period of 12 months.
4. *Sustained partial remission.* Full criteria for dependence have not been met for 12 months or longer; however, one or more criteria for dependence or abuse have been met.

There are also specifiers that denote (a) whether physiological dependence (as evidenced by either tolerance or withdrawal) is part of the clinical picture, (b) whether the patient is receiving substitute medication (e.g., methadone), and (c) whether the patient is residing in a controlled environment (e.g., hospital or rehab) where access to psychoactive substances is precluded.

NIAAA CATEGORIES OF “LOW RISK” AND “AT RISK” DRINKING

Recognizing that most people who drink do not develop problems related to their alcohol consumption, the National Institute on Alcohol Abuse and Alcoholism (NIAAA) defines “low-risk” or non-problematic drinking as no more than two drinks per day for adult males and no more than one drink per day for adult women with never more than four drinks per occasion for men and three for women. (A standard “drink” is defined as 12 grams of pure ethyl alcohol, which is equal to one 12-ounce serving of beer or wine cooler, one 5-ounce glass of wine, or 1.5 ounces of liquor or other distilled spirits). These consumption limits are based on extensive research on the levels above which physical and social harms can be documented (National Institute on Alcohol and Alcohol Abuse, 2000; Yalisove, 2004). The definition of “low risk” must also take into account individual characteristics such as age, body weight, metabolic rate,

psychiatric status, overall health status, and family (genetic) history all of which can affect a person's sensitivity to alcohol and lead to adverse interactions with a wide variety of medical conditions and prescribed medications. Some people are highly sensitive to alcohol as evidenced by negative changes in mood, behavior, and personality in response to relatively small doses of alcohol whereas in other drinkers these same doses have no such effects. Being at "increased risk" for developing alcohol-related problems is defined by NIAAA by one or more of the following: (a) drinking above the aforementioned low-risk consumption levels; (b) drinking by people whose use of alcohol or other CNS depressants has ever met DSM-IV criteria for substance abuse or dependence; (c) drinking by pregnant women; (d) drinking by people with medical conditions adversely affected by alcohol; (e) being under the influence of alcohol in situations that are high risk such as driving an automobile or operating other dangerous machinery. The concept of low-risk consumption is highly controversial and usually not applied to use of illicit drugs. As might be expected, no safe levels of illegal drug use have been formally defined by health organizations or government agencies. While reducing levels of drug use and drug-related harm may be desirable intermediate steps, complete abstinence from illegal drugs is generally recommended as the only acceptable goal.

FINAL COMMENT

We have discussed in this chapter the nature and course of SUDs, emphasizing that these problems are multi-determined primary disorders that have complex etiologies. Often there is neither a linear nor inevitable progression from initial use to addiction. Although therapists must be careful not to downplay or ignore their patients' use of alcohol and drugs, especially when other types of mental health problems are the primary presenting complaints, they also should

not overreact and overdiagnose (pathologize) substance use when it falls short of meeting criteria for abuse or dependence. While DSM-IV provides a uniform set of diagnostic criteria for all substance use disorders, forcing all disorders into only two categories (abuse and dependence) without a methodology for rating the severity of these disorders overlooks the fact that there is not a dichotomy but rather a continuum of substance use and related problems.