Understanding and Treating Adolescent Substance Abuse

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This chapter seeks to address these dilemmas and to clarify definitions and understandings about adolescent substance abuse. It is hoped that clearer terms and explanations can yield more potent treatment interventions for young chemical users and their families.

DEFINING THE STAGES OF ADOLESCENT SUBSTANCE USE

Adolescent chemical use can be construed as occurring in different stages along a continuum. Young persons progress, regress through, or stay at different stages according to varied biological, psychological, and social factors. In addition, their course may be affected by factors endemic to specific drugs.

Jellinek (1960) and Johnson (1973) were two of the pioneers in explaining alcoholism, and they both developed stages-of-use models of conceptualizing alcoholism. Their respective models have been combined and adapted as constructs for representing the different stages of chemical dependency. Macdonald (1984), Newton (1981), and Macdonald and Newton (1981) modified Johnson’s stages-of-use model for adult alcoholism into a useful tool for comprehending the stages of adolescent drug use. Presented in this book is the Adolescent Chemical Use Experience (ACUE) continuum (Figure 1.1), derived from Macdonald and Newton’s model for defining the stages of teenage chemical use.

The Adolescent Chemical Use Experience Continuum

A conceptual model representing the stages of adolescent chemical use is just that—a model. This model is not reality, but an abstraction of reality to aid in understanding the problem of teenage drug use. Stages of use overlap, and specific cut-off points from one stage to another are basically arbitrary. Nonetheless, it is necessary to make distinctions among the kinds of experiences that adolescents have along a continuum of chemical use (Muldoon & Crowley, 1986).

The adolescent chemical use experience (ACUE) continuum is a four-stage model of teenage substance use that is presented in this book. The central characteristic for defining the four stages is the adolescent’s experience of a chemically induced mood swing in each stage. In this context a mood swing refers to the effect of taking a psychoactive substance on the adolescent’s internal subjective state. Summarizing Macdonald and Newton (1981), the four stages of teenage drug use are (a) learning the mood swing, (b) seeking the mood swing, (c) preoccupation with the mood swing, and (d) doing drugs to feel normal.

The ACUE continuum incorporates four stages of experiencing the chemically created mood swing, as well as other features of adolescent substance use that are manifest in these respective stages. Although a small portion of teenagers do not try or use any substances during their adolescent years (Weiner, 1992), this “no use” stage will not be considered along the ACUE continuum.

Stage 1: Experimental Use (Learning the Mood Swing)

The first stage of adolescent chemical use relates to the young person’s discovery of the potential of chemicals to create a change in feeling state. The teenager learns that ingesting a chemical can change her mood and emotions. An example of a Stage 1 experimental user is a 14-year-old female who, along with her girlfriend, got caught drinking by her girlfriend’s parents. Both girls shared about a half of a bottle of wine. They reported that this was their first experience of trying alcohol and that they did so out of “curiosity.”

This is the stage of experimentation and exploration with drugs. “Drug experimentation is best defined as the use of one drug—usually not more than four or five times—to seek an intoxicant effect and to gain a sense of mastery over the experience” (Miller, 1986, p. 200). The experience of experimentation is relatively developmentally adaptive and corresponds to the adolescent’s developmental strivings.

A majority of teenagers probably try out drugs the way they try out all sorts of sensual and frightening experiences, in effect, to see what it is like—to find out what all the talk is about and whether it is true; to see if they will be scared; to see if they can master it.” (Noshpitz & King, 1991, p.404)

For many adolescents, this experience of trial and error with chemicals leads into a second stage of drug use.

Stage 2: Social Use (Seeking the Mood Swing)

The second stage of adolescent chemical use pertains to the young person exhibiting a pattern of chemically altering his emotional state, particularly in a social setting. The teenager’s behavior occurs with peers who are also seeking this mood swing. Labeling this stage the
social stage is not meant to imply that the adolescent’s chemical use is socially acceptable but is intended to identify the context within which the adolescent is seeking the mood swing.

An illustration of a Stage 2 social user is the case of a 17-year-old male who has been drinking beer on occasion during the past year. His use has been confined to weekends and takes place when he is with his friends. He is aware of the effects of alcohol, as he had one episode of intoxication about 6 months ago. Since then he has limited the amount of beer he drinks on the occasions when he drinks.

Although some adolescents do become more vulnerable to experiencing this chemically modified mood swing and traverse into substance abuse, the social stage is fairly adaptive and normative for many adolescents. As Ungerleider and Siegel (1990, p. 437) observe, “Drug and alcohol use have become quasi-normal” behaviors in the adolescent subculture of the United States, at least on an experimental or recreational level. This is not to say that teenagers in the social stages do not have episodes of misuse or intoxication. But with most adolescents in this stage these episodes are transient and highly intermittent. The quality of over-indulgence with a substance in this stage differs from intoxication in Stages 3 and 4, where the young person’s life is becoming organized around regular episodes of getting drunk or high. Although adolescents in the second stage have not and may not progress to the next stage, there are serious risks with using drugs at this social stage.

**Stage 3: Operational Use (Preoccupation With the Mood Swing)**

The third stage of adolescent chemical use signifies the young person’s entry into substance abuse, with the gradual grip of addiction becoming more manifest. The adolescent is actively engaging the mood swing effects of psychoactive substances. In short, she is “acting out” with drugs as a way to have drugs “act on” her internal affective state.

Any chemical use in this stage can be considered to be self-medication. The teenager has become a junior pharmacist and is self-prescribing drugs to operate on her feelings. The adolescent may subjectively experience this self-medication as adaptive, but in reality it is quite developmentally maladaptive.

Medicinal drug use consists of taking drugs to relieve anxiety or tension or to enjoy a drug experience for its own sake. Because of the purposes it serves, medicinal drug use is primarily an individual experience. Two or more medicinal users may take drugs in each other’s company, but they are likely in doing so to be concerned more with their own mental state than with facilitating any personal interaction. (Weiner, 1992, p. 391)

There are two types of adolescent operational users of chemicals. The **first type** is the teenager whose use is pleasure pursuant or “hedonistic use” (Nowinski, 1990). These adolescents seek the euphoric effect of chemicals as an end in itself. These pleasure-pursuant users can appear a lot like social users, but the truth is that their hedonistic use is motivated by an incessant need to chemically intensify pleasurable feeling states. The **second type** of operational users are the pain-avoidant types or the “compensatory users” (Nowinski, 1990). These young persons use drugs to treat dysphoria or other painful feeling states. Adolescents who are operational users of chemicals can have characteristics of both pleasure-pursuant and pain-avoidant types of use.

An example of a Stage 3 operational user is a 15-year-old female who began using chemicals about 1 1/2 years ago, about the time of her mother’s remarriage. She manifested symptoms of depression following her parents’ divorce 4 years ago, and these symptoms became more pronounced over time. She currently smokes marijuana approximately 3 to 5 times weekly and drinks alcohol about 2 times per week. This girl experiences a temporary sense of relief when she is “high,” yet her lingering dysphoric mood returns once the effects of the chemicals have worn off.

This third stage of adolescent chemical use represents a point along the ACUE continuum at which an adolescent may meet the criteria for a DSM-III-R psychoactive substance use disorder (American Psychiatric Association, 1987).

The DSM-III-R criteria for psychoactive substance use disorders do not change with age. The continuum of adolescent substance use ranges from nonusers, through experimental and casual users, to compulsive users. The line between use and abuse is crossed more easily by young persons than by adults. (Dulcan & Popper, 1991, p. 96)

In this third stage of adolescent chemical use it is more likely that the teenager will meet the DSM-III-R criteria for psychoactive substance abuse, rather than the more problematic psychoactive substance dependence.
Stage 4: Dependent Use (Using to Feel Normal)

The fourth stage of adolescent chemical use is the stage in which addiction is maintaining a firm hold on the young person's life. The adolescent is compulsively consumed with urges to experience the mood swing from drugs. This chemically altered internal state is experienced as "normal" by adolescents in this fourth stage. Coping style, affect regulation, sense of self, identity, and drugs are inextricably intertwined for the chemically dependent adolescent.

An illustration of a Stage 4 dependent user is the example of a 16-year-old male who uses drugs as often as he can obtain them. Along with a 5-year pattern of alcohol use and a 3-year pattern of marijuana use, he reports to having "tried just about every drug possible except for heroin." Over the past 6 months he has been taking LSD at least once a week. His voracious appetite for chemicals is tied to his reported desire to "feel together with himself."

It is often difficult for therapists to distinguish between the dependent stage and the operational stage. "There is no definitive means of discriminating severe chemical abuse from dependency in adolescents" (Wheeler & Malquist, 1987, p. 439).

An adolescent in this fourth stage of chemical use inevitably meets the criteria of a DSM-III-R psychoactive substance use disorder. Minimally the adolescent can be diagnosed as presenting with psychoactive substance abuse, but many in this stage will likely meet the criteria for psychoactive substance dependence.

Movement Along the ACUE Continuum

Based on various biological, psychological and social factors, and factors indigenous to certain drugs, any given adolescent can experience different movement through the stages of the ACUE Continuum. Considering the effects of these different factors, a teenager might progress from one stage to a more advanced stage, possibly regress from one stage to a less advanced stage, or might maintain himself at a given stage of chemical use for a period of time.

Most adolescents who use chemicals maintain their use at Stage 1 and Stage 2. "The vast majority of adolescents who have tried drugs appear to be experimental or social users, inasmuch as only a small minority of them show the pattern of current, regular drug-taking that characterizes medicinal or addictive use" (Weiner, 1992, p.392).

UNDERSTANDING ADOLESCENT SUBSTANCE USE

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Figure 1.1. Three Ways of Defining Substance Abuse
A. Adolescent Chemical Use Experience Continuum (ACUE); B. types of problems; C. stages of adolescent addiction.

Of the adolescents who try or use chemicals in Stages 1 or 2, only a fraction progress to the extreme stage of dependency. As Wheeler & Malquist (1987) note, "A relatively low portion of chemical-using adolescents are seen as meeting the criteria for dependence (6-10 percent is the estimate)" (p. 439). Nevertheless, this is still an unacceptable percentage of young people who are experiencing chemically induced atrophy rather than growth during the teen years.

Those adolescents who progress to substance abuse and then regress to a less problematic stage, or cease using altogether, have usually been impacted by some external intervention. For an adolescent substance abuser to experience a spontaneous remission or practice self-prescribed abstinence for any length of time is a rarity.

DEFINING PROBLEMS WITH ADOLESCENT SUBSTANCE USE AND ABUSE

Overview

Trying to identify what exactly is problematic about an adolescent's chemical use can be highly subjective. Some parents and professionals may identify the actual event of using a drug to be the problem, while others may consider the effects of the drug use (for example, becoming aggressive and getting into fights) as the problem. Still others may consider the underlying spread of an addiction to be the problem.

Striving toward consensually developed definitions of adolescent substance use and abuse involves discussion within and among the disciplines of medicine, psychiatry, psychology, social work, and the professionals who
as involving controlled substances, criminals and/or deterrence. At present, no single theory dominates thinking in the field of addictive behavior or directs clinical interventions comprehensively. (Shaffer, 1985, p. 66)

There are even splits within disciplines that treat addicted populations as to which theories or perspectives can best explain crucial etiological factors. For example, psychiatrists and psychologists—focusing on psychological variables contributing to a drug problem—may range from holding a classic psychodynamic perspective (emphasizing unresolved unconscious processes) in viewing the problem to a position that incorporates such contemporary perspectives as behaviorism, interpersonal theory, trauma theory, role theory, family and general systems theory, and the group-therapy movement, among other perspectives (Rivinus, 1991b).

To understand the spectrum of adolescent chemical use, it is essential to move beyond the myopia that can occur when clinging to a specific perspective toward a lens that can offer a comprehensive view. Such a lens would have a wide angle to include the range of factors that can contribute to adolescent substance use and abuse, be kaleidoscopic to account for the interactive nature of these factors, and have the capacity to be finely tuned for focusing on those primary factors most critical for viewing adolescent chemical use.

**Toward a Model of Multiple and Interactive Factors**

Understanding the spectrum of teenage drug use necessitates identifying a range of possible contributing factors as well as considering the complexity of the interaction of these factors. Lettieri (1985) has provided a comprehensive summary of 43 theoretical perspectives relevant to adolescent substance abuse. In garnering this collection of theoretical positions, Lettieri highlights the multiplicity of factors essential for understanding teenage drug abuse: “We must be cognizant of the need to incorporate variables from diverse scientific disciplines in order to fully understand the drug dependence process. No one discipline or viewpoint, alone, has successfully accounted for the multifaceted phenomenon of drug dependence” (p.12).

At the same time, Lettieri expounds upon the significance of the interaction of different factors for understanding the spectrum of adolescent chemical use:
interactive perspective that is important for understanding teenage drug abuse. Five levels of possible causative variables—biological, adolescent psychological development, interpersonal environment (family and peer factors), community, and societal—and the synergy of these variables is identified. In addition, the triad of primary variables—adolescent psychological development, family functioning, and peer relationships—within this model are highlighted.

This biopsychosocial model is “adolescent sensitive.” As teenagers can develop substance abuse disorders 7 times faster than adults (Myers & Anderson, 1991), these factors unique to adolescent substance abuse need to be isolated. In addition, treatment interventions need to be targeted at those systems—the teenager, as well as his family and friends—that correspond with those unique factors.

UNDERSTANDING ADDICTION WITH ADOLESCENTS

Like many of the terms in the chemical dependency field, the term addiction has come to mean different things to different people. What is key in having a working definition of addiction is to identify the essential addiction dynamics. Understanding addiction for adolescents also involves an awareness of the stages of adolescent drug addiction. Also, no discussion about addiction can be complete without some examination of the disease concept of addiction.

A Working Definition of Addiction

For a number of years the accepted definition of addiction included the criterion of the addict being physically dependent on a drug (O’Brien & Cohen, 1984). However, by 1965 the definition of addiction/drug dependence, as articulated by the World Health Organization (WHO), did not emphasize being physically dependent on a drug as a necessary condition for addiction.

A state, psychic and sometimes also physical, resulting from the interaction between a living organism and a drug, characterized by behavioral and other responses that always include a compulsion to take the drug on a continuous or periodic basis in order to experience its psychic effects, and sometimes to avoid the discomfort of its absence. Tolerance may or may not be present. A person may be dependent on more than one drug. (O’Brien & Cohen, 1984, p. 6)

What this definition of addiction by the WHO does emphasize is the dynamic of compulsion to use a drug. This criteria of compulsion is the foundation for defining addiction. More recent suggestions for defining addiction emphasize other addiction dynamics, along with compulsion. The tendency to relapse following discontinued drug use is one additional dynamic that is stressed (Blum, 1984; Donovan, 1988), and the “phenomenon of denial” is another dynamic that is emphasized (Miller & Gold, 1989).

An operative definition of addiction, which applies to adolescent substance abusers and shall be used in this book, incorporates the addiction dynamics of relapse and denial with the essential dynamic of compulsion to use a drug. Each of these three addiction dynamics—compulsion, relapse proneness, and denial—can be manifest in biological, psychological, and social ways. In this sense the addiction process can be construed as a biopsychosocial process involving these three dynamics. The biopsychosocial addiction process and the biopsychosocial expression of these addiction dynamics are detailed in Chapter 3.

Stages of Adolescent Addiction

Addiction is most overtly manifest in the fourth stage of the ACUE continuum. But adolescent addiction also has its own sequence of stages—an initiation stage, an escalation stage, and a maintenance stage (Coombs & Coombs, 1988). Although these stages of addiction can overlap the stages of adolescent chemical use experience (Figure 1.1), this is not to assume that these two series of stages are necessarily linked together. The earlier stages of adolescent addiction can only be diagnosed in hindsight, after the teenager has progressed to the later stages of addiction. In other words, most young persons in the experimental use or social use stages are not in the early stages of addiction and will not progress into operational use or dependency use stages, in which addiction becomes entrenched. However, for those unfortunate teenagers who—for whatever combination of biological, psychological, or social factors, or factors intrinsic with specific drugs—progress to the latter stages of the ACUE continuum, their experimental or social stages of use can be diagnosed “after-the-fact” as having been early addiction.

These three stages of adolescent addiction can be likened to a progressive slide down a chute into the abyss of chemical dependency. As
the young person slides further down this chute, she gathers increasing momentum before "hitting the bottom." Substance abuse treatment represents the hope for interrupting this developmentally crippling tumble down the chute of addiction.

The Addictive Disease Concept

**History of Disease Concept**

Alcoholism is the prototype of the addictive disease. Although some support for the disease concept of alcoholism dates as far back as 19th-century Europe (Jellinek, 1960), the modern era of the disease concept of alcoholism as advanced by the medical community in the United States, can be attributed to the mid-20th century (Anderson & Henderson, 1984). In identifying alcoholism as a disease, this disorder meets the disease characteristics of being a primary, progressive, chronic, and fatal condition (Johnson, 1973).

As knowledge grew about addiction to chemicals other than alcohol, the disease model of alcoholism was applied to these other chemical addictions. The current disease concept of chemical dependency is the result of the extrapolation of the disease model to other drug addictions.

**Challenges to the Disease Concept**

There has been criticism of the addictive disease concept for as long as a disease concept has been applied to the addictions. These criticisms seem to fall into four general categories: (a) debates about the nature and definition of disease, and whether addictions correspond with these definitions; (b) indictments about the absence of conclusive biological evidence for addictions; (c) criticism of Alcoholics Anonymous and other 12-step recovery programs, which are central to the disease model of treatment; and (d) dismissing the disease concept as more metaphor than science.

The following arguments support the disease concept of addiction in response to the aforementioned challenges to this model.

*Addictions Correspond With the Nature of Disease.* Among the arguments put forth by addictive disease critics is that “real diseases” are inextricably connected to physical functioning and disorder and that addictions do not meet this criterion (Peelle, 1989). However, there is no agreement on what exactly constitutes a disease (Campbell, Scadding & Roberts, 1979).

There has come to be growing acceptance of behavioral disorders and addictions as diseases by the medical community, specifically, and by society in general. As Dupont & McGovern (1991) observe, “The change from the threat of infectious diseases to the threat of behavioral disorders is the central reality of the evolution of diseases from the first decades to the last decades of the twentieth century” (p. 326).

*Evolution From Classic to Contemporary Disease Concept.* In keeping with the real-disease-is-biological-disease line of thinking, disease critics also contend that without conclusive genetic markers for an addiction the disease model does not apply. In short, without genetic proof there is no disease.

Genetics and other biological research are just beginning to be explored and are truly on the frontier of addiction research. Although a conclusive genetic link for alcoholism, the prototype of addiction, has yet to be found, promising discoveries have occurred (Chapter 3).

However, a concern about the absence of a genetic marker is that it confines addictive disease to reductionistic thinking. Such reductionism was applied with the original disease concept of alcoholism (Robak, 1991). But this classic disease concept has since evolved to a contemporary disease model that is inclusive of genetic and other biological factors, yet not confined to these factors. “At present the concept views the condition as a highly complex illness of multi-factorial etiology, characterized by progressive physical and psychosocial impairment and/or dependence” (Anderson & Henderson, 1984, p. 80).

*Twelve Step Recovery Useful in Addiction Treatment.* Another challenge to the disease concept of addiction arises from its often corresponding model of treatment, 12-step recovery. These self-help fellowships are under fire for a variety of reasons. A detailed listing of the criticisms and responses to the criticisms of 12-step recovery is contained in the next chapter.

In spite of the arguments against 12-step recovery, “the program,” when used in conjunction with appropriate mental health treatment approaches, can be a powerful therapeutic force in the treatment of addictions.

*Where Metaphor Meets Science.* As Shaffer (1985) states, “The disease concept is, on certain occasions, a useful metaphor for the natural history of drug-related human problems. It is not, however, an accurate scientific representation of the evidence that surrounds drug dependencies” (p. 73). Thus the disease concept of addiction is also criticized as being more symbolic than truly substantive.
Yet the benefits of the “addictive disease metaphor” need not be dismissed as unscientific. For research purposes the disease metaphor can serve as a heuristic device for communicating about addiction, “Calling a behavior a disease is only a way of talking about it, which may or may not be useful; it is not a truth that can be proved or disproved” (Neuhaus, 1991, p. 88). For treatment purposes the disease metaphor can be a potent therapeutic analog, providing the map for therapy, “The important question to answer here is whether saying that addiction is a disease allows treatment personnel to make useful interventions, and with which patients” (Neuhaus, 1991, p. 88).

The Biopsychosocial Perspective and the Contemporary Addictive Disease Model

The disease model of alcoholism has evolved from its original disease concept to the contemporary disease model. This contemporary disease model of alcoholism can be understood from a biopsychosocial perspective (Wallace, 1989).

As alcoholism has historically been the prototype addictive disease model, alcoholism viewed from a biopsychosocial perspective can represent the prototype of the contemporary addictive disease model. This biopsychosocial alcoholism model paves the way for understanding chemical dependency in general, with both adults and adolescents, as a biopsychosocial disease.

By viewing addictive diseases from a biopsychosocial perspective it can be asserted that they fit the criteria for a biopsychosocial model. Addictive diseases are both multifactorial and factorial interactive in their etiology, and treatments are multisystematic and interactive.

SUMMARY

Professionals who treat adolescents with drug problems should be open to examining their conceptualizations of these problems. There is integrity to broadening one’s conceptual framework by integrating new and relevant knowledge.

This chapter discussed some current dilemmas among treatment professionals regarding definitions of and understandings of adolescent substance use and abuse. A synthesis of different perspectives was offered in an attempt to address these dilemmas: delineating the stages of adolescent chemical use, distinguishing between adolescent substance use problems and substance abuse disorders, possible ways of explaining adolescent chemical use throughout the different stages, and how to comprehend addiction and addictive disease.

Helping to treat teenagers with drug problems begins with having cogent clinical definitions of and understandings of these problems. Working toward such useful definitions and understandings requires informed and conscientious efforts by those entrusted with aiding these young people and their families.