

Mental Health

Fact Sheet

Rimrock
Foundation

Mental Health Services

Addiction is a Brain Disease

Addiction changes many of the neuro circuits in the brain.

IMPACT OF DRUGS

MEDICAL DEFINITION OF ADDICTION

COMPLEXITIES OF BRAIN DISEASE

ENVIRONMENTAL CUES

THE ROLE OF PERSONAL RESPONSIBILITY

THE PATH TO HEALING

Impact of Drugs

Today, we now know in great detail the brain mechanisms through which drugs acutely modify our mood, memory, perception, and emotional states. Using drugs repeatedly over time changes the brain structure in fundamental and long-lasting ways that can persist long after the individual stops using them.

Evidence suggests it is these long-lasting brain changes that are responsible for the distortions of cognitive and emotional functioning which characterize addictions, particularly the compulsion to use drugs. It is as if drugs have hijacked the brain's natural control circuits, resulting in the acquisition and use of drugs becoming the top priority.

Most of the medical research now considers addiction to be a brain disease: a condition caused by persistent changes in brain structure and function

Medical Definition of Addiction

The Institute of Medicine, the American Psychiatric Association, and the American Medical Association define addiction as **“uncontrollable, compulsive drug craving, seeking, and use, even in the face of negative health and social consequences”**. In updating our national discourse on drug abuse, we should keep in mind that addiction is a brain disease expressed in the form of compulsive behavior.



Unfortunately, we still do not have clear biological or behavioral markers of the transition from voluntary drug use to addiction. However, scientific evidence now developing, points to a series of cellular changes in specific brain circuits. **Many of these brain changes are common to all chemical addictions, and some also are typical of other compulsive behaviors such as overeating, bulimia and anorexia.**

Addiction is now best understood as a chronic recurring illness. While many people do gain full recovery over their drug use after treatment, some others appear more prone to relapse.

Complexities of Brain Disease

People differ substantially in how easily and quickly they become addicted and in their preferences for particular substances. Consistent with the nature of addiction, these individual differences result from a combination of environmental and biological factors. Some estimates are that between 50 and 70 percent of the susceptibility to addiction can be accounted for by genetic factors.

Over time the addicted person loses control over his or her initial voluntary behavior, and it becomes compulsive. For many people these behaviors are truly uncontrollable, very similar to the behavioral expressions of other brain diseases. Schizophrenics cannot control their hallucinations and delusions. Parkinson’s disease patients cannot control their trembling. Clinically depressed patients cannot voluntarily control their moods.

Environmental Cues

Addictive behaviors are often related to the social settings in which they originate. The environment surrounding an individual’s drug use experiences becomes a stimulus to drug use through classic social conditioning. When environmental cues are present at a later time, they elicit anticipation of a drug experience and generate tremendous drug craving. **Cue-induced craving is one of the most frequent causes of drug use relapses, even after long periods of abstinence.**

The strength of these environmental cues helps explain why reentry to one’s community can be so difficult for patients leaving treatment and why aftercare is so essential to successful recovery. The person who became addicted in their home environment is constantly exposed to the cues that conditioned his or her initial drug use, such as the neighborhood where they lived.

Simple exposure to these cues can automatically trigger craving and rapidly lead to relapses. This is one reason why someone who apparently overcame drug cravings while in residential treatment can quickly revert to drug use upon returning home. In fact, one of the major goals of drug addiction treatment is to teach patients how to deal with the cravings caused by an inevitable exposure to these cues.

The Role of Personal Responsibility

The recognition that addiction is a brain disease does not mean that the addicted person simply becomes a hapless victim. **Addiction normally begins with the voluntary behavior of using drugs, which means patients must participate in and take significant responsibility for their ongoing recovery.** Having this brain disease does not absolve the person of responsibility for his or her behavior, but it does explain why they cannot simply stop using drugs by force of will alone. Our new understanding of addiction underscores the need for a more sophisticated treatment approach.

As with any illness, a patient's behavior is a critical part of recovery. At a minimum, patients must comply with the treatment regimen, which is harder than it sounds. **Lack of treatment compliance is the biggest cause of relapse for all chronic illnesses, including asthma, diabetes, hypertension, and addiction.**

Nationally, treatment compliance rates for addiction treatment range from 30 to 50 percent. Rimrock's research shows our patient compliance rate for all programming was 87% in 2002. An individual's motivation and behavior, combined with program quality are clearly important parts of success in treatment and recovery.

The Path to Healing

Research shows that the best drug addiction treatment approaches are comprehensive programs focused on the whole person, combining the use of medications, behavioral therapies, education and necessary social services.

Treatment also should include education and family therapy to enable the patient to return to successful family life. A principle of effective addiction treatment at Rimrock Foundation is that the array of services included in an individual's treatment plan must be matched to a patient's particular set of needs.

Another important part of Rimrock's programming is the emphasis we place on the integration of a broad spectrum of community, health and human services for the benefit of our patients. Addressing a patient's physical, psychological, social and economic needs improves the likelihood of a successful treatment experience. Successful recovery principles in addiction treatment are characterized by the integration of personal, family, professional and other community resources toward the goal of enhancing the duration and quality of life of those patients we serve.

For further information on Rimrock Foundation's treatment of addictions, call Jen Porter, Admissions Supervisor, at 1-800-227-3953 or 1-406-248-3175, visit our website at www.rimrock.org, or contact the Rimrock Foundation Library at the above numbers.



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