



Research Update is published by the Butler Center for Research to share significant scientific findings from the field of addiction treatment research.

RESEARCH UPDATE

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Addiction: A Disease Defined

Definitions of “Addiction” and “Disease”

The question of whether addiction is a disease has been debated for decades. The answer to the question is important to researchers, medical practitioners, treatment providers, and to those who suffer from addiction.

Because both concepts—disease and addiction—have not been clearly defined, the debate continues¹. **Disease** can be defined using several criteria. Lewis² suggests that criteria for disease include the degree to which: the condition has a clear biological basis; is marked by identifiable signs and symptoms; shows a predictable course and outcome; and the condition or its manifestations are not caused by volitional acts. According to Hyman⁶, Leshner⁸, and the DSMIV, **addiction** is characterized by a person’s marked impairment in their ability to control their alcohol or other drug use. This loss of control, as it is often called, expresses itself as a person’s inability to predict when she or he will discontinue their use, once begun. The condition is characterized as one that is chronic, progressive, and relapsing.

The American Medical Association¹⁶, American Psychiatric Association¹⁷, and World Health Organization¹⁸, have stated that addiction is a disease. A joint 1990 report of the Committee of the American Society of Addiction Medicine and National Council on Alcoholism and Drug Dependence provided a detailed description of alcoholism as a disease^{19,20}. In 1960, a researcher named Jellinek delineated five types of alcoholism and classifies three as diseases³. What is the research that has led so many groups to state that addiction is a disease?

What Does the Research Show?

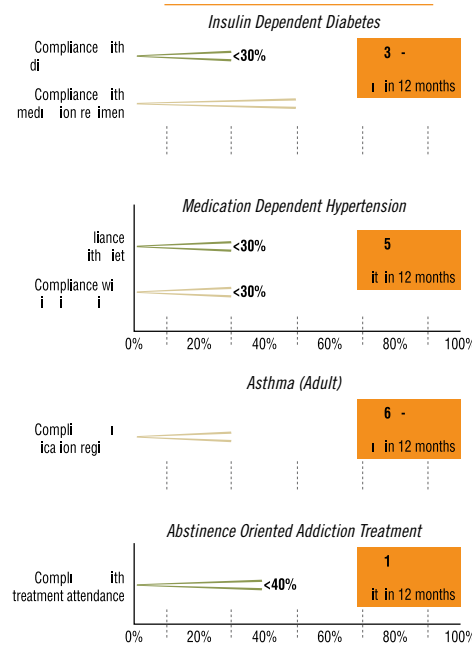
Using Lewis’s four criteria of a disease, let’s examine what the research shows for each.

A disease has a biological basis: ample studies demonstrate that alcohol and other drug dependency often has a genetic basis. Some researchers are conducting animal studies on inheritable differences in reactions to mood-altering substances. These differences include tolerance, sedation, susceptibility to seizures, righting reflex, or preference for the substance over water¹⁴. Other researchers are focusing more on identifying aspects of a person’s temperament or personality that predispose a person to use and dependency^{11,12}.

Repeated use of a chemical may produce biological changes. Hyman^{5,6} in his study of neural function, found that brain cells adapt to the introduction of chemicals.

> CONTINUED ON BACK

Compliance and Relapse in Selected Medical Disorders



THE HAZELDEN EXPERIENCE

Patients in treatment at Hazelden are taught that addiction is a disease—a treatable disease. It is a disease that not only has physical origins and implications but emotional, spiritual, and behavioral aspects as well.

The Hazelden treatment approach helps patients understand what is known about the disease and then to leave the “why” of it behind to move on to take concrete problem-solving steps. In this way, patients are encouraged to let go of shame and frustration they have about their inability to control their past drug use and accept responsibility now for recovery. Hazelden’s approach integrates principles from behavioral models, which is a common trend in the field⁹.

CONTROVERSIES & QUESTIONS

Controversy: Some people object to the idea that addiction is a disease, saying that diseases ‘happen to’ a person but addiction is caused by a person’s decisions and behavior.

Response: First, diseases fall on a continuum in the significance of behavior on the etiology and course of the disease. Some diseases are caused mostly by genetic factors or unknown environmental factors. Other diseases, such as many forms of lung cancer, heart disease, diabetes, and hypertension, are highly affected by an individual’s behavior. Yet we still agree that these are diseases.

Secondly, a large portion of the population drinks alcohol, experiments with illicit drugs, or uses prescribed narcotic medications. Most of these people think, “I’ll watch for problems with my use and quit if I have any.” And indeed, most people never develop problems. But some individuals will develop a problem and cannot simply quit. It is therefore unfair to say that people who develop addiction “brought it on themselves” when their intentions about their use were no different than those of normal users’.

Controversy: Some people object to calling addiction a disease because it seems to absolve a person from responsibility to recover, or excuses them from criminal or irresponsible behavior while under the influence.

Response: People who have a disease are still responsible for their behavior and the social consequences of it. Further, once they understand they have a chronic disease, they have a responsibility to follow a treatment course and make necessary lifestyle changes to maintain recovery.

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These molecular adaptations may usurp the functioning of critical pathways in the brain that control motivated behavior.

Leshner⁷ suggested that the brain has a mechanism that changes at some point during drug use. This molecular “switch” signals a change from use/abuse to addiction.

A disease has identifiable signs and symptoms: The American Psychiatric Association’s Diagnostic and Statistical Manual (DSM-IV)¹⁷ codifies symptoms of dependence, based on evidence in research and expert consensus. Major symptoms include withdrawal symptoms; tolerance; using more of a substance than intended; unsuccessful attempts to control use; a large time investment in obtaining, using, or recovering from the effects of use; and, use despite of internal and external consequences. The disease is identified when several of these symptoms are present.

A disease has a predictable course and outcome: most recently, Schuckit¹⁴ and his colleagues conducted two studies describing a common pathway of alcoholism whose onset is marked by heavy drinking and social consequences, leading to loss of control and intensification of social difficulties, and then later, to serious problems in health, relationships, and employment. The desired outcome is complete abstinence, but short of this, it appears that the natural history of the disease includes periods of abstinence and relapse¹⁵.

A disease’s condition or manifestations are not caused by volitional acts: a cardinal feature of dependence is one’s inability to control use, once begun. And, for most dependent people, drinking or using becomes a top priority, despite willpower to the contrary. This lack of volition is what differentiates abuse from dependence^{6,7}.

Despite the strong evidence that addiction is a disease in terms of etiology, symptoms, course, and outcome, many people view addiction as a moral weakness and treatment as ineffective²¹. But addiction is very comparable to other chronic diseases in terms of treatment compliance and outcome.

A team of researchers under the auspices of the Physician Leadership on National Drug Policy (PLNDP)⁴ prepared a series of reports comparing addiction with other chronic diseases. The genetic contribution to addiction is comparable to that of other diseases such as hypertension, diabetes, and asthma. In addition, patients’ compliance with a treatment regimen, and need for repeated treatment, is similar across all these diseases.

How to Use This Information

Implications for treating addiction as a disease affect public attitude and policy, as well as insurance reimbursement. As a disease, addiction can be approached as the important public health issue that it is.

Insurance reimbursement for addiction treatment is essential to treat this disease. Like cancer and other diseases, effective treatment is required to interrupt the progression of the illness. Continued research and emphasis on the biomedical aspects of addiction may help restore parity when legislators and third party payors address the issue.

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The Butler Center for Research informs and improves recovery services and produces research that benefits the field of addiction treatment. We are dedicated to conducting clinical research, collaborating with external researchers, and communicating scientific findings.

Patricia Owen, Ph.D., Director

If you have questions, or would like to request copies of Research Update, please call 800-257-7800 ext. 4405, email butlerresearch@hazelden.org, or write BC 4, P.O. Box 11, Center City, MN 55012-0011.