





## Understanding Addiction

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I will be using the term addiction and addictive disorders to discuss what the DSM-IV classifies as substance use disorders and others refer to as chemical dependency. In this article I use the following definition of addictive disorder: An Addictive Disorder is a collection of symptoms (i.e., a syndrome) that is caused by a pathological response to the ingestion of mood altering substances and it has ten major characteristics. These Characteristics are covered below.

### **Euphoria**

People use drugs because they work. This is true of pain medications and other potential drugs of abuse. If a person experiences a unique sense of well being or euphoria when they use a drug or medication, they are in high risk of getting addicted to that drug.

Recent research shows that when a person is genetically susceptible to being addicted to a specific drug, their brain will release large amounts of brain reward chemicals whenever that drug is used. It is this high level of brain reward chemicals that cause the unique feeling of well being that many addicts experience when using their drug of choice. In this book we will call this unique feeling of well being euphoria.

It is important to distinguish between euphoria (the unique sense of well being experienced when using a drug of choice) and intoxication (the symptoms of dysfunction that occur when a person's use exceeds the limits of their tolerance to a drug). Addicts do not use their drug of choice to get intoxicated and become dysfunctional. The opposite is true. Addicts use their drug of choice to feel good and experience a unique feeling of well being that will allow them to function better.

People become addicted to this state of euphoria. They crave this unique sense of well being. They feel somehow empty or incomplete when they can't feel this way. They feel deprived when they can't experience this

euphoria. They may even experience deprivation anxiety, which is a fear that if they can't get their drug of choice (i.e. are deprived of it), they won't be able to feel good or to function normally.

This positive reinforcement is biopsychosocial in nature. Biologically the drug of choice causes a release of pleasure chemicals that create a unique sense of well being. Psychologically, "I come to believe the drug is good for me because it makes me feel good in the moment." This is called emotional reasoning (if it feels good it must be good for me). I then begin adjusting my social network to accommodate these beliefs. "Anyone who supports my use of my drug of choice is my friend. Anyone who challenges the use of my drug of choice is my enemy." The result is the development of a drug-centered lifestyle.

The stronger the positive reinforcement that is experienced when a person uses their drug of choice the greater the risk that they will become addicted. This is because strong biological reinforcement from drug use creates a craving cycle.

### **Craving**

Addiction starts when someone receives a reward, payoff, or gratification from taking the drug. This reward may be the relief of pain or the creation of a feeling of euphoria. Because the drug provides a quick positive reward, the person continues to use it.

With a pattern of consistent drug use people come to rely upon the drug to provide the reward. This leads to an addictive disorder, which is called dependence by DSM-IV. People need to use the drug to successfully accomplish one or more life tasks. Once people become addicted, they experience psychological distress when the thing they are dependent upon is removed. So when people become addicted to a drug for relief or euphoria, they experience anxiety when the drug is no longer available. Albert Ellis calls this *deprivation anxiety*. The person is anxious because he or she has been deprived of a drug that that they believe they need to function normally.

The deprivation anxiety then causes the person to start thinking about the drug. *Obsession* is out-of-control thinking about the reward that could be achieved by using the substance. Obsession can lead to *compulsion*—the irrational desire for the drug. Obsession and compulsion combine together to create a powerful *craving* or feeling the need for the drug.

This cycle of obsession, compulsion, and craving creates a strong urge or compulsion to seek out and use the drug even if the person consciously knows that it is not in his or her best interest to do so. Over time this reward continues to be reinforced, leading to an increased need for the drug. This leads to *Tolerance*.

### **Tolerance**

There is a biological component to developing tolerance. The increased

need for the drug leads to drug seeking behavior. There are also psychological and social components to this developmental process.

On the biological level, after this drug-seeking behavior has been established, the brain undergoes certain adaptive changes to continue functioning despite the presence of the drug. This adaptation is called *Tolerance*.

Psychologically the person starts believing that they need the drug. When people start to experience difficulty obtaining enough of the drug, they start feeling anxious and afraid. Socially they begin to experience difficulty with other people because of the time and energy they are expending.

### **Loss Of Control**

The final stage of the craving cycle and development of tolerance is a loss of control over drug use. The person begins to develop an even higher tolerance for the drug. In other words, it takes more of the drug to get the same effect. If the person keeps using the same amount of the drug, they experience less of an effect. So the person begins using more of the drug or seeking out stronger drugs that will give the same reinforcing effect.

At times the drug is taken in such large quantities that the person becomes intoxicated or dysfunctional. This dysfunction creates life problems. At this point, if the person stops using the drug, they will experience uncomfortable physical and emotional problems. This leads to lowered motivation to stop the drug use.

### **Withdrawal**

This stage is marked by the development of a specific withdrawal syndrome upon the cessation of use. In some cases patients may use the same or a similar drug to relieve or avoid the withdrawal syndrome.

Once tolerance and loss of control take place, further abnormalities occur in the brain when drugs are removed. In other words, the brain loses its capacity to function normally when drugs are not present.

- Low-grade abstinence-based brain dysfunction is distinct and different from the traditional acute withdrawal syndromes
- Low-grade abstinence-based brain dysfunction is marked by feelings of discomfort, increased cravings, and difficulty finding gratification from other behaviors
- Low-grade abstinence-based brain dysfunction creates a desire to avoid the unpleasant sensations that occur in abstinence.
- The desire to avoid painful stimuli is called *negative reinforcement*

### **Inability To Abstain**

As a result of their experiences created by the biological reinforcement and

high tolerance, the person comes to believe that the drug of choice is good for them and will magically fix them or make them better. They start to develop an addictive belief system. They come to view people who support their drug use as friends and people who fail to support it as their enemies.

At this point the person is experiencing both positive and negative reinforcement to keep using. If they continue to use they experience euphoria and pain relief. This occurs because the brain releases large amounts of reward chemicals when they use their drug of choice.

If they stop using, they experience dysphoria or pain and suffering. They start to experience a sense of anhedonia that is marked by a low grade agitated depression and the inability to experience pleasure. They begin to believe that they have no choice but to keep using.

### **Addiction Centered Lifestyle**

The person attracts and is attracted to other individuals who share strong positive attitudes toward the continued use of drugs (the problematic pain medication). These people usually have enabling support systems that condone and encourage their continued use. They become immersed in an addiction centered system.

### **Addictive Lifestyle Losses**

The person distances people who support sobriety and surround themselves with people who support alcohol and drug use. The pattern of biological reinforcement has motivated the person to build a belief system and lifestyle that supports heavy and regular use.

The person is now in a position where they will voluntarily use larger amounts with greater frequency until progressive addiction and the accompanying physical, psychological and social degeneration occur. The person's life becomes unbearable and unmanageable. They start experiencing a downward spiral of problems.

### **Continued Use In Spite Of Problems**

Unfortunately, this downward spiral leads to continued drug use in spite of the consequences. This inability to control drug use causes problems. The problems cause pain. The pain activates a craving. The craving drives people to start using the drug to get the relief that they believe they need.

As a result, when addicted people experience adverse consequences from their addiction, the adverse consequences cause cravings instead of correction. So addicted people keep using drugs to gain the immediate reward or relief in spite of the progressively more serious life problems.

### **Substance Induced Organic Mental Disorders**

The progressive damage of alcohol and drugs on the brain create growing problems with judgment and impulse control. As a result, behavior begins to spiral out of control. The cognitive capacities needed to think abstractly about the problem have also been impaired, and the person is locked into a

pattern marked by denial and circular systems of reasoning.

The person is unable to recognize the pattern of problems related to the use of alcohol and drugs. When problems are experienced and confronted, they begin to experience physical, psychological and social deterioration. Unless they develop an unexpected insight or are confronted by problems or people in their life, the progressive problems are likely to continue until serious damage results.

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