

# LESSON 1 DRUG AND ADDICTION COUNSELLING

*When it comes to substance related problems ‘addiction’ is a word which some authorities, like the American Psychiatric Association, prefer not to use - instead opting for the word ‘dependence’. The reasoning here is because addiction is not well defined. However, throughout the literature and within the helping professions (and even some of the leading institutions on drug related problems) it is impossible to avoid the use of the word addiction. Therefore, we have chosen to use it interchangeably with dependence.*



Any addiction is of serious concern. No-one begins to take drugs or drink too much with the intention of becoming addicted or to develop serious health problems. But prolonged drug or alcohol use can have a serious impact upon a person's health, both physically and psychologically. Addiction can undermine and even destroy interpersonal relationships and family networks. It can destroy careers and have a deleterious effect upon a person's wealth. If a person

becomes addicted to drugs and alcohol, then drug and addiction counselling is often required to help them overcome their addiction because the impulse to continue using is so strong.

Many people from different walks of life develop substance related disorders. There is no particular stereotype, although some people may be more likely to develop a disorder than others. If substance use becomes problematic there are typical characteristics of the behaviour:

- There is an overpowering urge to take the substance
- There is a problem with controlling use
- There are other difficulties relating to the use of the substance

Throughout this course we will examine what addiction is, the physical and emotional effects of substance related disorders, and the different treatments available to help a person to control their disorder.

## Suggested Tasks: ▼

*Throughout this course you will be provided with suggested tasks and reading to aid with your understanding. These will appear in the right hand column. Remember: these tasks are optional. The more you complete, the more you will learn, but in order to complete the course in 20 hours you will need to manage your time well. We suggest you spend about 10 minutes on each task you attempt, and no more than 20 minutes.*

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### Suggested Tasks

Do you know anyone you consider to be addicted in some way? Or do you consider you are addicted?

If so, think about why you think they/you are addicted.

What impact does it have upon their life (if any)?

People will tend to think that only certain “types” of people become addicted, but this is not the case. Anyone can become addicted.

## WHAT IS ADDICTION?

An addiction is an uncontrollably strong need for a certain substance or behaviour, such as to take drugs, drink alcohol, or to gamble. In the case of substance addiction, the person will seek out drugs even though they know the harm they can cause. When a person takes drugs or drinks for the first time, it is usually through their choice (although some may do so under peer pressure or to become accepted by peers). But with repeated drug or alcohol use, the substance often starts to have negative effects. These include changes in the brain's chemistry which make it more difficult for a person to resist taking the substance. The person may lose control so that as they continue to use the substance it is no longer a choice as such. They are instead satisfying a need.

Taking the substance can become the most important thing in a person's life. More important than their family, their job or their life itself. It can also lead to problems at home, at work and in education. It can cause the person to search out drugs or alcohol and use them again and again, rather than engage in everyday life activities.

Although the overall impact on the person's life and behaviour may depend on the severity of their addiction, any dependence on a substance has negative consequences.

Sadly, people may not always realise that they are addicted. They may think they can control what they are doing. The National Institute on Drug Abuse in America suggests that if a person answers 'yes' to any of the

following questions, they require professional help:

- Have you ever ridden in a car driven by someone (including yourself) who had been using alcohol or drugs?
- Do you ever use alcohol or drugs to relax, to feel better about yourself, or to fit in?
- Do you ever use alcohol or drugs when you are alone?
- Do you ever forget things you did while using alcohol or drugs?
- Do family or friends ever tell you to cut down on your use of alcohol or drugs?
- Have you ever got into trouble while you were using alcohol or drugs?



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### Suggested Tasks

What types of addiction are you aware of?

Try and think beyond drug and alcohol addiction.

If you are not sure, please carry out research online or in your local library to find out other types of addiction.

# DRUGS AND THE BRAIN

Drugs are chemicals. Like other chemicals which are consumed, they are metabolised. They affect the brain's communication systems and affect how our nerve cells send, receive and process information. The exact impact on our brain will vary between different

drugs as they all work differently. There are two main ways in which they act on our brain:

- They imitate the brain's natural chemical messengers.
- They overstimulate the reward circuit within the brain.

## Neurotransmitters and Neurons

Neurotransmitters are chemical messengers. They carry signals between neurons and other cells in the body. Neurons are basically nerve cells - the building blocks of our nervous system. They are similar to other human cells in some ways, but the main difference is that they are specialised cells which transmit information through the body. Neurotransmitters play a major role in our daily life and functioning. We don't know exactly how many neurotransmitters the human brain has, but at least 100 have been identified by scientists. If neurotransmitters are affected by alcohol or drugs, it can have an adverse effect on our brain and body.

For example, heroin and cannabis have chemical structures that effectively mimic neurotransmitters that occur in our body. They trick our receptors and activate nerve cells, but they don't work in the same way as natural neurotransmitters. This means that the neurons end up sending abnormal messages around the brain, which causes problems for the brain and our bodies.

Other drugs, such as methamphetamine and cocaine can cause the neurons to release too much dopamine or to prevent the normal recycling of dopamine. Dopamine is a natural neurotransmitter found in the brain which sends signals to other nerve cells. Interruptions to its normal use can lead to exaggerated messages passing around the brain. This may

cause problems with the communication channel. A way to imagine this is that it can create a difference between perceiving someone whispering compared to shouting into a microphone.

## The Reward System

Many drugs, such as cocaine, cannabis and nicotine, affect the brain's reward circuit. This is part of the limbic system. When the reward circuit is activated it normally responds by releasing dopamine and this creates feelings of pleasure. When a person takes the drug, it can stimulate high levels of dopamine release in the brain, which causes a 'high' or intense euphoria that can be linked to drug abuse. Whilst the exact mechanisms triggered by different types

of substance are slightly different, each substance leads to a pleasurable 'high'.

Our brains have developed to make sure we repeat healthy activities by making us feel good for engaging in them. For example, we might feel good after eating. The reward circuit will react and think that something important has happened that needs to be repeated without us having to think about it. Drugs and other pleasurable activities can do the same. For example, regularly drinking alcohol, taking drugs, smoking, gambling, using the internet (such as visiting porn sites), shopping and sex lead to pleasurable feelings, which can

in turn lead to a strong desire to repeat them more often.

They can make the brain think that because it felt good when taking drugs it should repeat that. The brain doesn't distinguish because a natural healthy 'good feeling' and the negative, fake 'high' which drugs produce. Therefore, instead of achieving pleasurable feelings from useful or adaptive everyday behaviours, the person gains the same sensations of pleasure from the drug which is being abused. Therefore, the behaviour becomes reinforced and the person continues to be a user.

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### Suggested Tasks

Try and explain in your own words how the reward system works.

