BASIC VOLUME

Elements of Drug Dependence Treatment

Treatnet

Module 3

Principles of CBT and relapse prevention strategies

Introduction to Cognitive Behavioural Therapy

Basics of pharmacological treatment

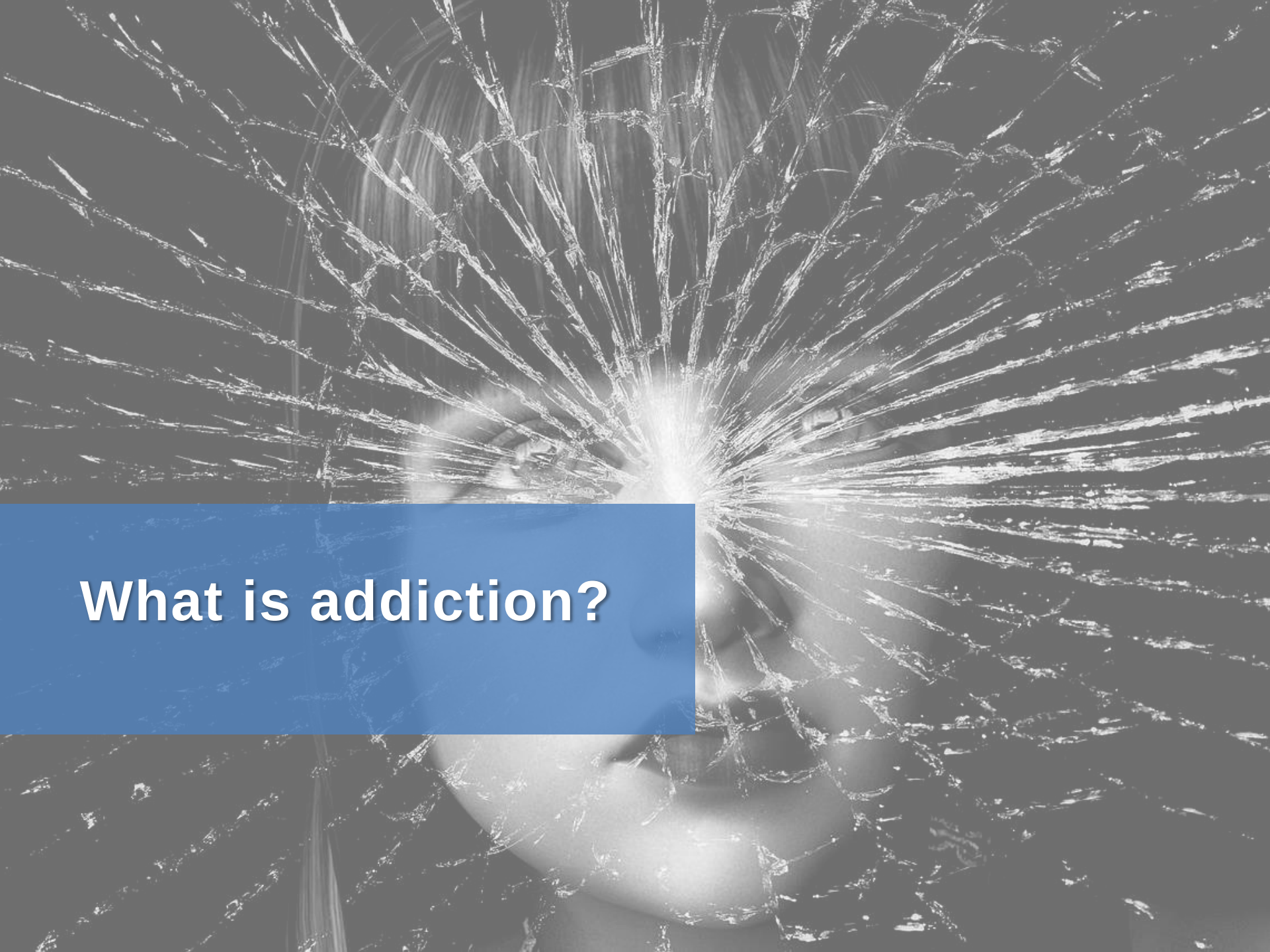
Workshop 2

Basics of pharmacological treatment

Training Objectives

At the end of this workshop you will be able to:

- Explain basic principles and concepts of drug use and dependence
- Determine the specific role of pharmacotherapy for overdose, as well as withdrawal, maintenance and relapse prevention treatments
- Identify the setting and stages for the use of medication-assisted approaches to substance use
- Discuss the different options which exist for medication-assisted therapies, and with which substances they are effective



What is addiction?

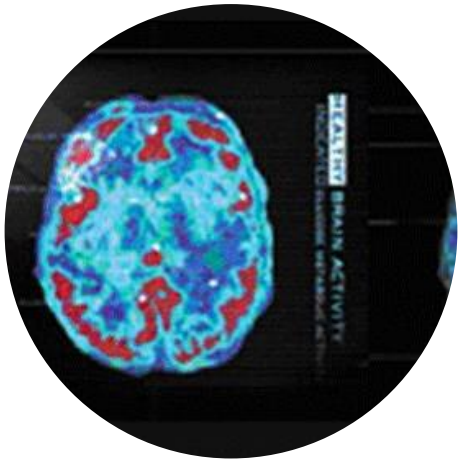
What is addiction?

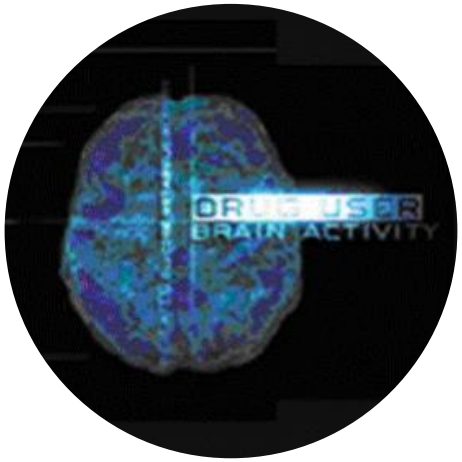
Advances in science have revolutionized our fundamental views of drug use, dependence and addiction

What is addiction?

Addiction is a brain disease, characterised by:

- Compulsive behaviour
- Continued use of drugs despite negative consequences
- Persistent changes in the brain's structure and function





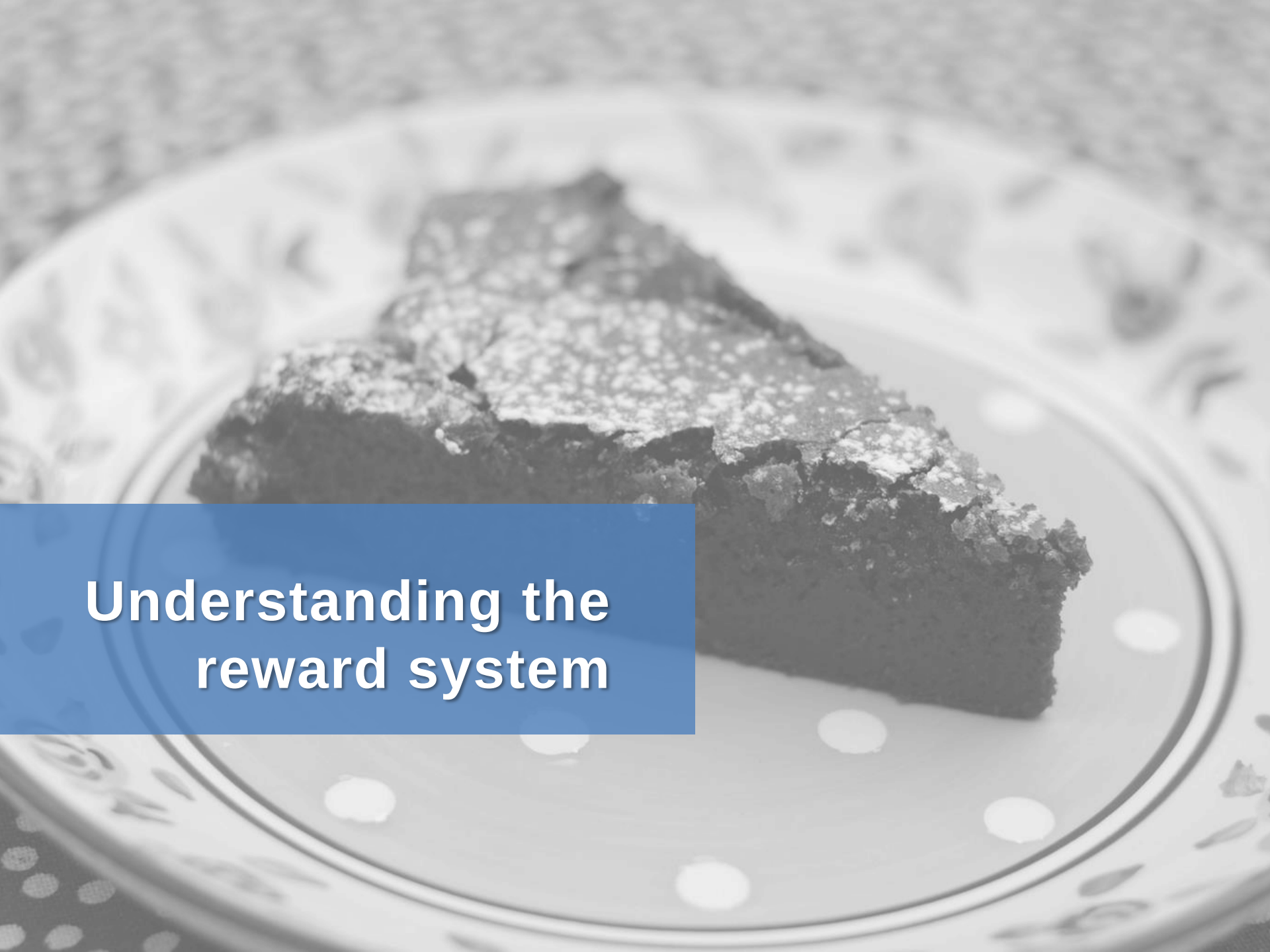
Addiction as a brain disease

- Addiction is a chronic, often relapsing brain disease that causes compulsive drug seeking and use, despite harmful consequences to the addicted individual and to those around him or her

- Although the initial decision to take drugs is voluntary for most people, the brain changes that occur over time challenge an addicted person's self control and hamper his or her ability to resist intense impulses to take drugs

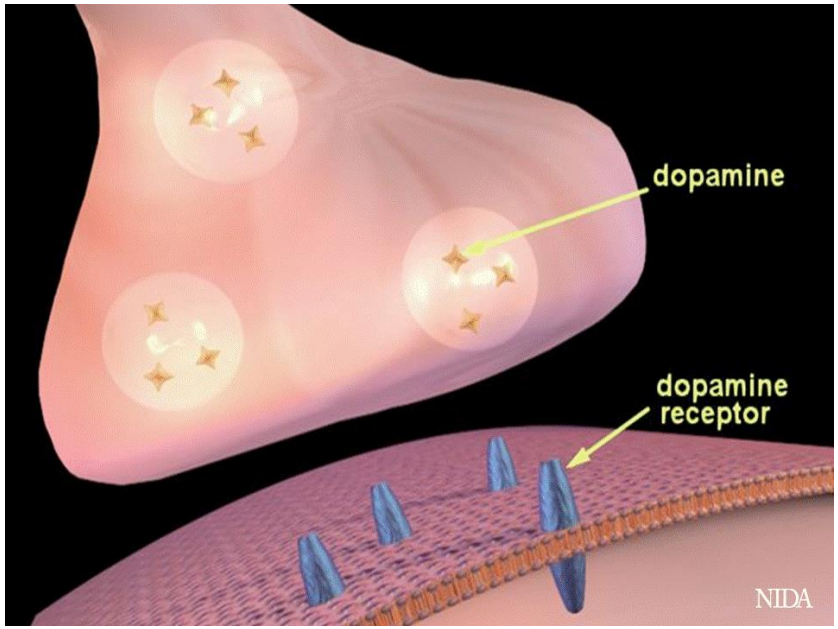
Drug addiction
as a chronic medical condition

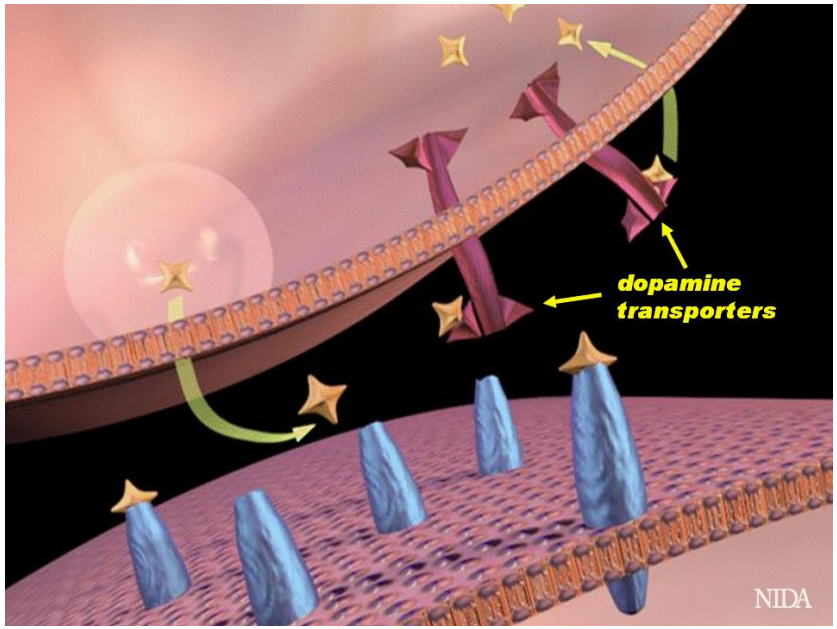
- Addiction is similar to other chronic (c/c), relapsing diseases like diabetes, asthma/heart disease
- Drug addiction can be managed and treated successfully
- As with other c/c diseases, it is not uncommon for a person to relapse and begin using drugs again
- Relapse, does not signal treatment failure – it indicates that treatment should be reinstated or adjusted to help the individual regain control and recover



Understanding the reward system

Dopamine:
basis for motivation, reward and addiction





Dopamine & some more..

Dopamine is only PART of the story

Scientific research has shown that other neurotransmitter systems are also affected:

- Serotonin (regulates mood, sleep, etc.)
- Glutamate (regulates learning and memory, etc.)

Drugs and the brain

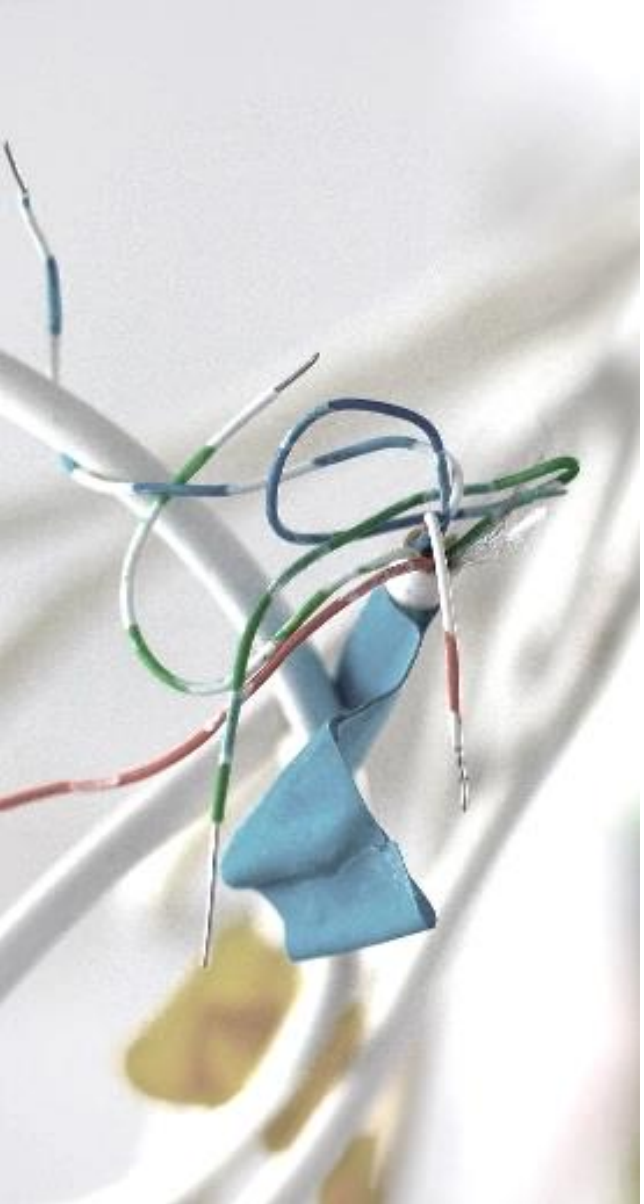
Why can’t people just stop drug use?

When people first try drugs, it is usually a voluntary decision…

…but after using the drug for a while, it is no longer voluntary!

So why can’t people stop?

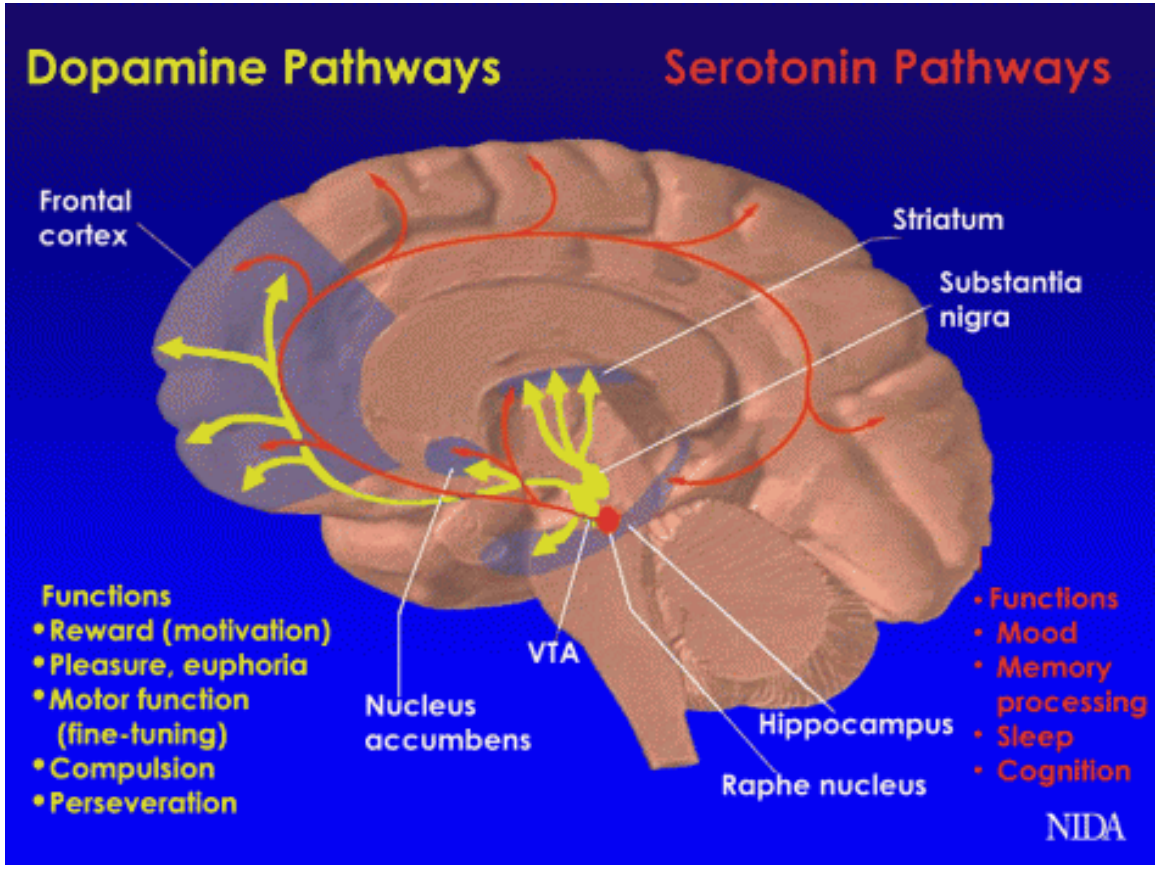
Why can’t people stop?



Because their brans have been re-wired by drug use

Why can't people stop?

Brain pathways are affected by drugs



Drug use changes brain

- Prolonged drug use changes the brain in fundamental ways that reinforce drug taking and lead to dependence and/or addiction
- Drug use changes both the structure of the brain and its functionality
- Exposure to some drugs of abuse can change the structure of neurons in the brain
- Repeated drug exposure also changes brain function
- Decrease in Dopamine transporter activity, e.g. Methamphetamine

These changes are difficult to undo and may last a long time.

Psychoactive drugs

Psychoactive drugs are generally defined as substances that alter:

- Mood
- Cognition (thoughts)
- Behaviour

Drug use and health

Drug use and health

Patients with drug use disorders:

- Often have multiple health and social problems
- Expect doctors to ask and provide information about alcohol and drug issues – failure to inquire may lead to medical malpractice in some situations

Important terminology

- Harmful use
- Physical dependence vs. addiction
- Psychological craving
- Tolerance
- Withdrawal symptoms
- Neurotransmitters and receptors

Psychological craving

Psychological craving is a strong desire or urge to use drugs. Cravings are most apparent during drug withdrawal.

Tolerance

A state in which a person no longer responds to a drug as they did before, and a higher dose is required to achieve the same effect.

Withdrawal

A period during which somebody dependent on a drug or other addictive substance reduces their use or stops taking it, causing the person to experience painful or uncomfortable symptoms.

OR

A person takes a similar substance in order to avoid experiencing the effects described above.

Withdrawal

When a drug is removed, physical and/or mental disturbances may occur, including:

- Physical symptoms
- Emotional problems
- Cognitive and attention deficits
- Aggressive behavior
- Hallucinations
- Convulsions
- Death

Rationale for the treatment of drug use disorders

- Treatment works
- Behavioural therapies can engage people in treatment, modify their attitudes and behaviours related to drug abuse and increase their life skills
- Medications are available to treat opioid, alcohol and tobacco addiction, while others are on the horizon
- In addition, behavioural therapies can enhance the effectiveness of these medications and can help people stay in treatment longer

Rationale for the use of medication

- Treatment of acute intoxication
- Prevent and treatment of withdrawal symptoms (detoxification)
- Reduce craving and compulsion to use
- Normalize disrupted physiological functions
- Prevent relapse
- Create opportunities for longer term psycho-social treatment

Goals of pharmacological management of withdrawal

- To provide withdrawal that is humane and protects the patient's dignity
- To provide a safe withdrawal from the drug(s) of dependence and enable the patient to become drug free
- To prepare the patient for ongoing treatment of his or her substance dependence

Pharmacological treatment: summary

- There are medications available to treat drug use disorders caused by different types of drugs
- Pharmacological treatment should be a part of a comprehensive treatment plan that also includes psychosocial interventions
- Pharmacological treatment only (e.g., detoxification) is not always enough to treat drug use disorders or addiction

Pharmacotherapies

There are medications available to support treatment of drug use disorders:

- Alcohol dependence – Benzodiazepines and symptomatic treatment: Thiamine & multivitamins, Antiemetic, Analgesia (e.g., paracetamol), Anti-diarrhoeal
- Opioids dependence –
  - Long acting opioids agonists: Methadone, Buprenorphine
  - Antagonists: Naltrexone
- Psychostimulant dependence: promising medication ongoing research

Questions

Wrap-up

- What is drug dependence? What is addition? What common characteristics do they share with other chronic diseases?
- Why people cannot easily stop drug use?
- How drugs affect human body?
- What is the rationale for the use of medications in the treatment of drug use disorders?

Post-assessment

What is your “take-away”?

- What was the most meaningful to you in this training?
- What will you take away with you?
- What did you enjoy the most?
- How will you use this information?
- What skill(s) do you think you will begin to practice in your work?
- What would you like to share in closing?

Thank you for your time!

End of module 3