

Addiction and Impulse control disorders

➤ Definitions-

- Addiction is the compulsive, uncontrolled use of habit-forming drugs. However, psychologists have recognized that we can get addicted to a wider range of stimuli such as exercise or the internet.
- According to Griffiths (2005), there are 6 components to any addiction disorder:
 - Salience- when the addiction becomes the single most important activity in the person's life. It dominates the person's behaviour, thoughts and feelings.
 - Euphoria- the subjective experience that is felt while engaging in the addictive behaviour, like a rush or a buzz.
 - Tolerance- when the person has to do more of the addictive behaviour to get the same effect.
 - Withdrawal- this refers to the unpleasant thoughts and physical effects felt when a person tries to stop the addictive behaviour.
 - Conflict- when the person with the addiction begins to have conflicts with work colleagues, friends and family.
 - Relapse- the chances of the person "going back" to the addictive behaviour are high.

➤ Types-

- Alcoholism or alcohol dependence is a disease characterised by habitual intake of alcohol and includes four symptoms:
 - Craving
 - Loss of control (can't stop drinking once started)
 - Physical dependence (withdrawal symptoms such as upset stomach, shakiness, anxiety and sweating)
 - Tolerance
- In order to classify as an alcoholic, the sufferer must display chronic alcohol use to the degree that it interferes with their physical and mental health or their social or work behaviour.
- Impulse control disorders- a disorder where impulses cannot be resisted. It must have a significant impact on the person's life to be classified as an addiction. This disorder is associated with

psychological but not physical addiction. It has five distinct stages of behaviour:

1. An impulse
 2. A growing tension
 3. Pleasure when impulse is satisfied
 4. Relief from satisfaction
 5. Guilt or lack of guilt
- Pyromania- the inability to resist the urge to start fires for the purpose of internal relief or gratification. DSM-IV diagnostic criteria:
 - Deliberate and purposeful starting of fires on more than one occasion
 - Tension or affective arousal before starting fire
 - A fascination with, an interest in, attraction to or curiosity of fire and its situational context
 - Pleasure, gratification or relief when starting fire
 - Starting fires is not done to display bitterness or revenge, or because of a delusion or a fantasy
 - It is not due to behavioural disorder, manic episode or antisocial personality.
 - Kleptomania- the inability to resist the urge to steal items for any reason other than financial gain. The more difficult the challenge of gaining the objects, the more thrilling and addictive it becomes. According to the DSM-IV, it has these features:
 - Repeated inability to resist the urge to steal items for non-financial/personal reasons.
 - Escalating sense of pressure just before the theft.
 - Satisfaction when the theft is carried out
 - The theft is not done to display bitterness or revenge, or because of a delusion or fantasy
 - Thieving is not due to a behavioural disorder, manic episode or an antisocial personality.
 - Compulsive gambling- aka pathological gambling is the failure to resist gambling urges. DSM-IV diagnostic criteria:
 - Persistent and maladaptive gambling, shown by five or more of the following:
 - Preoccupation with gambling

- Amount during gambling consistently increases to achieve pleasure.
- Repeatedly unsuccessful attempts to cut down, control or stop the gambling.
- Restlessness or irritability when attempting to change gambling habits.
- Gambling as a means of escapism.
- When amounts are lost in gambling, they return to make up for the loss.
- Deceptive towards family, therapist and others about the extent of gambling.
- Acts of fraud, forgery or theft to finance the gambling.
- Jeopardised or loss of a significant relationship, job, education or career opportunity because of the gambling.
- Reliance on others to provide money during desperate financial situations caused by the gambling.
- Gambling is not due to a manic episode.

➤ Characteristics-

- Physical dependence: Physical dependence describes a situation where someone has taken drugs in quantity for a time and comes to rely on the use of them in order to feel well and for their body to function 'normally'. If they don't take the drug they suffer withdrawal symptoms, and so the drug is often taken simply to avoid these. Alcoholism and drug addiction lead to clear physical dependence (though there may also be psychological dependence).
- Psychological dependence: Psychological dependence involves a dependence on something which provides a psychological need, such as a need for stimulation, excitement, pleasure or to escape reality. It is not associated with withdrawal symptoms. Impulse control disorders (such as pyromania) would involve psychological dependence.
- They are NOT mutually exclusive and can exist together for one condition and often do.

- Causes of addiction and impulse control disorders:
 - Genetic- alcohol
 - Schuckit (1985) investigated the genetic basis of alcoholism. The participants in his study were 400 college men, half of which had alcoholic fathers (alcoholic mothers were excluded so that any pregnancy-related effects could be avoided). This therefore provided two conditions in an independent measures design - alcoholic father and non-alcoholic father. None of the participants in the study were alcoholics themselves.
 - Schuckit gave the volunteers four or five alcoholic or non-alcoholic beverages (but each drink smelled and tasted the same so participants were blind as to which one they were receiving). The participants' blood alcohol levels were tracked.
 - Despite having the same levels of blood alcohol (as they'd had the same amount of alcohol), the 'sons of alcoholics' group reported feeling less drunk than the 'sons of non-alcoholics' group, and they even performed better in tests of hand-eye coordination! They swayed much less when walking and had fewer obvious changes in their hormones, according to Schuckit.
 - In total 40% of the sons of alcoholics showed a decreased sensitivity to alcohol in terms of drunkenness, performance and hormone levels. This was seen in less than 10% of the sons of non-alcoholics. Schuckit also cited high concordance rates among identical twins as compared with fraternal twins (e.g. Kendler, 1992, found a 54% concordance rate for MZ twins but only a 28% concordance rate for DZ twins) and the fourfold greater risk of alcoholism in children of alcoholics, even in adopted children.
 - *Black et al (2006) found that the first degree relatives of pathological gamblers were themselves more likely to have gambling problems.*
 - Biochemical- dopamine
 - Apart from Schizophrenia, dopamine is also implicated in addiction because it is a neurotransmitter heavily involved in the activity of brain areas associated with “reward”.

- A release of dopamine in certain areas of the brain (called the 'mesolimbic' system) is associated with feelings of pleasure and a desire to repeat the action that caused the release.
- The cycle continues with repetitive behaviours and people become dependent on certain substances for a 'dopamine high'.
- And according to incentive sensitisation theory, desire for the rewarding substance or behaviour persists even in the absence of the behaviour or substance.
- When GABA is released, nearby dopamine cells take it up in GABA receptors. The enzyme GABA-transaminase destroys GABA. Dopamine cells receive the signal for GABA and stop releasing more dopamine. Meanwhile, existing dopamine gets on top of neighbouring cells and re-enters its home cell through a "gate". When this happens, a "pleasure signal" is sent. When the dopamine leaves, the pleasurable feelings also reduce. The point of this paragraph is basically that dopamine is the cause of the pleasure felt when an addict takes their drug.
- Behavioural- positive reinforcement:
 - The behavioural model explains addiction as the result of positive reinforcement (rewarding). "Reinforcement" basically refers to how behaviour will increase or decrease, depending on whether people associate it with a positive reward or a negative punishment.
 - The initial formation of an addiction can be explained by classical conditioning where a single event can lead to a sudden association of a certain action with a positive outcome.
 - Operant conditioning is most effective at describing the *maintenance* of the addiction rather than being an explanation of its original cause. The good feeling that a person gets from their action is reinforcement and the effect of reinforcement is to make the person repeat the behaviour more frequently.

- *Me: I don't think the behavioural model is a proper explanation because in compulsive gambling, an addict continues to gamble despite losses which would ideally be a punishment and not reinforcement, thus operant conditioning is a very reductionist approach.*

○ Cognitive explanation- personality

- There is some evidence that a particular personality type is more likely to lead to addiction in one or behaviours. Such personalities are impulsive, have little self control and often have compulsions.
- An addictive personality refers to a set of personality traits that make an individual predisposed to developing addictions.
- The hypothesis states that there are common elements among people with varying addictions that relates to personality traits.
- Identifying the different personality traits will help in the long term when it comes to the treatment of addiction, the strategies to intervene, and how to break the pattern of addiction.
- In its simplest form the cognitive approach assumes that addiction behaviour is due to irrational beliefs.
- For example regular gamblers have the irrational belief that the odds are not stacked against them and tend to over-estimate the extent to which their behaviour can affect outcomes. In particular they tend to under-estimate the money they put in whilst over-estimating their winnings.
- Unlike the medical and behaviourist models the cognitive model considers the thinking that underlies the behaviour.
- Cognitive psychologists also explain addiction as a result of distorted cognitions. One theory discusses a 'self-fulfilling prophecy'- whatever one expects will happen, will actually happen. E.g. an addict keeps telling herself that recovery is impossible and so her distorted cognitions and imbalanced thought process are aiding in the formation and maintenance of her addiction.
- Personality traits common in pyromaniacs (Gannon et al, 2013):

- Higher anger-related cognitions
 - Interest in serious fires
 - Lower levels of perceived fire safety awareness
 - Lower general self-esteem
 - External locus of control
- Nathan (1988) showed that depression and a history of anti-social behaviour were traits that were commonly associated with the misuse of alcohol.

Errors and biases in addicts thinking

A heuristic is a rule or shortcut that we use when we are making a decision. Sometimes these are irrational, and lead to addictive behaviour being continued when it shouldn't be. Therefore, a person more likely to make these cognitive mistakes may be more likely to develop an addiction.

Griffiths (1994) suggests a number of such heuristics:

Gambler's fallacy is the idea that random events equal themselves out over time. For example "it's been heads four times so it's bound to be tails this time"

Illusion of control: gamblers tend to over-estimate the amount of control they have. We follow lucky strategies when picking lottery numbers, or get excited at 'nudges' on slot machines.

Availability bias: The notion that because something has happened in the past it will occur again in the future. Because we see reports of success stories, but no coverage of all the cases of failure, we overestimate our chances of success.

Sunk cost bias: Having put something in initially (e.g. money), we feel obliged to keep going no matter how bad it gets, to try to get back our initial investment. The problem is that it could just keep on getting worse!

- Helps to account for individual differences
 - However, it is hard to determine cause and effect.
 - Cognitive explanations might be limited to certain addictions and are difficult to use for substance abuse addictions.
 - They are reductionist as they do not consider biological factors.
- Rat-Park experiment (Alexander et al, 1978)
- Despite the addictive reputation of heroin, the researchers had to strongly coax the rats into taking drugs. Far from it being an

irresistible poison, sugar, forced-habituation and isolation were essential to make the rats want to drink the morphine.

- Given the chance to live in a 'normal' society with comfortable housing and social contact, the rats living in rat-park had little appetite for opiate drugs.
 - Chemical addiction was not the strongest factor in influencing the rats' habits. Rather than becoming identically spellbound by addiction, the rats' drug-taking varied with physical, mental and social setting.
 - *What if the difference between not being addicted and being addicted was the difference between seeing the world as your park and seeing the world as your cage?*
- Coping with and reducing addiction and ICDs:
- Token Economy (behavioural)-
 - Token economy is a system of behaviour modification (or "conditioning") which is based on the systematic positive reinforcement (rewarding) of target behaviour.
 - It is based on the principles of operant conditioning. It uses secondary and primary tokens that are the "reinforcers" of good behaviour. The tokens are collected and later exchanged for a meaningful privilege or reward.
 - TE is especially useful when combined with another treatment programme such as the ones followed in rehab centres. It is shown to result in (Petry et al, 2000):
 - More addicts completing the treatment/rehab programme
 - More addicts abstaining from the drug (staying cleaner longer)
 - Aversion therapy for alcoholism (behavioural)-
 - It is based on the principles of classical conditioning.
 - The idea is to create an unpleasant association between the addict and the addictive substance.
 - This decreases the frequency as the undesirable drug is no longer enjoyable.
 - This can be done by giving the addict an emetic drug every time they taste/smell alcohol. This will make them vomit. They should begin to associate being sick with drinking

alcohol and avoid drinking or drink less alcohol, so their behaviour will be changed.

- It can also be done by giving electric shocks such as while gambling.
- It is not highly effective but is better than just counselling alcoholics. (Smith, Frawley & Polissar, 1997)
- Howard (2001) showed that:
 - The strength of “positive outcomes for drinking alcohol” was significantly reduced.
 - The confidence that they could avoid drinking alcohol in “high-risk situations” was significantly increased.
 - Those who had a greater experience of alcohol-related nausea pre-treatment or were involved in antisocial conduct showed reduced effectiveness for the treatment.
- CBT for kleptomania:
 - Hodgins and Peden (2008) reviewed CBT usage for kleptomania. The main techniques used tended to be:
 - Covert sensitisation- this is when the patient has to visualise a negative image with the kleptomania behaviours, especially those that are specific to the behaviour such as getting arrested and going to prison. The idea is to make them associate the two so the behaviour decreases.
 - Imaginal desensitisation- this is when the patients are taught relaxation techniques. They have to visualise themselves engaging in the impulsive behaviour while also engaging in relaxation. Impulsion and relaxation cannot happen at the same time and the idea is that relaxation takes over when people have the urge to involve themselves in kleptomania.
 - The review concluded that CBT appears to be the most effective way of controlling kleptomania.
 - Kohn (2002) conducted a case study on a 39 year-old man who had shoplifted since he was 6. He had kleptomania and also had depression, suicidal ideations and potential legal complications. Strategies included covert sensitisation,

behavioural chaining, problem solving, cognitive restructuring and homework. After treatment had been administered, Kohn noted that symptoms of depression and kleptomania decreased significantly. A four-month follow-up showed positive results in the client, who also reported that no episodes of kleptomania occurred.

- CBT for Kleptomania would roughly follow a stepped program like the one below:
 - Identifying the exact nature of the problem through interviews, questionnaires etc
 - Teaching the sufferer stress reduction skills to help them cope with anxiety (which often comes before they commit their addictive behaviour)
 - Learn skills to challenge their irrational or distressing thoughts (such as Ellis' cognitive restructuring, for example)
 - Behavioural changes to avoid the behaviour happening. This could include diary keeping, daily challenges or other means to understand when exactly the sufferer performs the behaviour and how to best reduce it.
 - Continued monitoring (by both the sufferer and the therapist) to prevent relapse