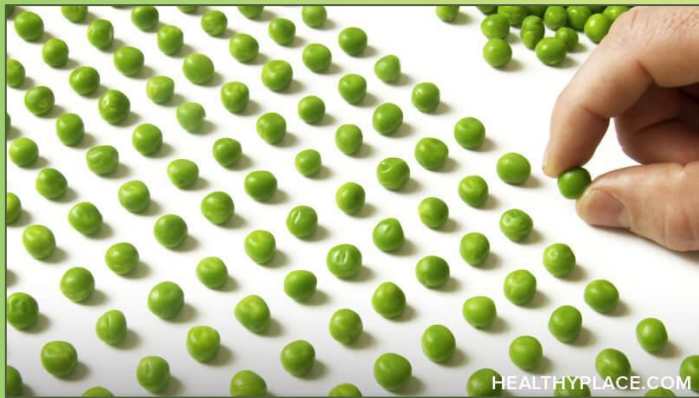




Obsessive Compulsive Disorder and Substance Abuse Disorders



Obsessive compulsive disorder (OCD)

- Characterized by repetitive thoughts and feelings usually followed by behaviours in response to these. The thoughts are usually perceived as unpleasant and not wanted.
- Obsessions: are generally unwelcomed thoughts that come into one's head. They may involve avoiding contamination, aggressive impulses, sexual content, somatic concerns and the need for order.
- Compulsions are the behaviors that one uses to respond to these thoughts.
- Not being allowed to engage in these behaviours results in distress and anxiety.

DSM & OCD related disorders

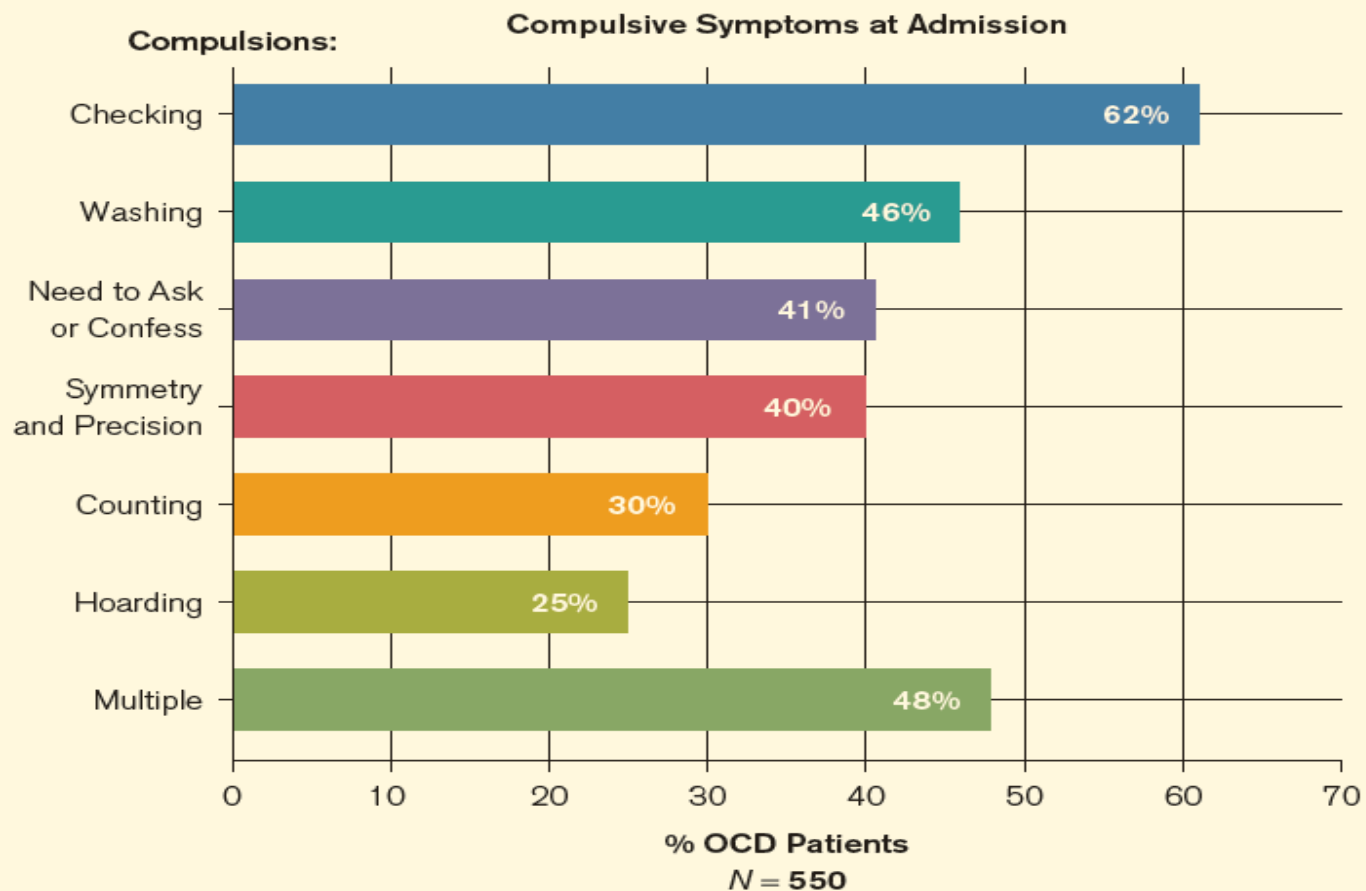
- Body Dysmorphic Disorder
- Hoarding Disorder
- Trichotillomania
- Excoriation
- Substance/Medication induced Obsessive -Compulsive and Related Disorder
- Obsessive-Compulsive Related Disorder Due to Another Medical Condition
- Other Specified Obsessive-Compulsive and Related Disorder
- Unspecified Obsessive-Compulsive and Related Disorder

- OCD - adulthood prevalence of 2-3% and a child and adolescence prevalence of 1-2%. Approximately 40% of those with childhood OCD report continuing symptoms into adulthood.
- There is not a gender difference in rates-
 - Age Range: Males (6-15 years), Females (20-29 years).
- Obsession with dirt/germs: Avoidance in using public restrooms.
- Hypochondriac concerns: make repeated visits to the doctor for reassurance.
- Obsession with guilt: they have a pathological sense of responsibility. (Depressed because they don't want to feel this way but can't stop because of guilty feelings).
- Excessive use of alcohol or sedatives, hypnotic or anxiolytic medications (Xanax, Valium, Librium, Ativan).
- Avoidance of situations;
 - keep to themselves mostly; stay at home (so others don't see the odd behaviours).

Four OCD groupings:

- Thoughts and images concerning aggressive, sexual, and religious content and related checking compulsions.
- Symmetry and ordering
- Contamination and cleaning
- hoarding

Figure 10-6 Compulsions Found in an Initial Evaluation of 555 Patients



SOURCE: Pato, Fanous, Eisen, and Phillips (2008, p. 1445).

Hoarding

- Was previously considered a subtype of OCD
 - In DSM-5 it is a separate disorder.
 - It is defined in terms of an excessive acquisition of objects and an inability to discard these objects.
 - Cognitive deficits including difficulties in making decisions about possessions and avoidance of such decisions are seen in individuals with hoarding disorder.
 - These individuals also show resistance to family members and others who try to intervene in their behavior. It is suggested that areas of the brain related to executive decision and control such as the frontal lobes and the anterior cingulate are involved in the disorder.

The Onset and course of OCD

- Usually begins in adolescence/early adulthood but occasionally in childhood
- Onset is usually gradual. However some acute cases have been diagnosed.
- They may experience a waxing and waning course of symptoms.
- Progressive deterioration in occupational and social functioning.
- 90% of patients can expect to have moderate to marked improvement with optimum treatment.

Assessment Techniques

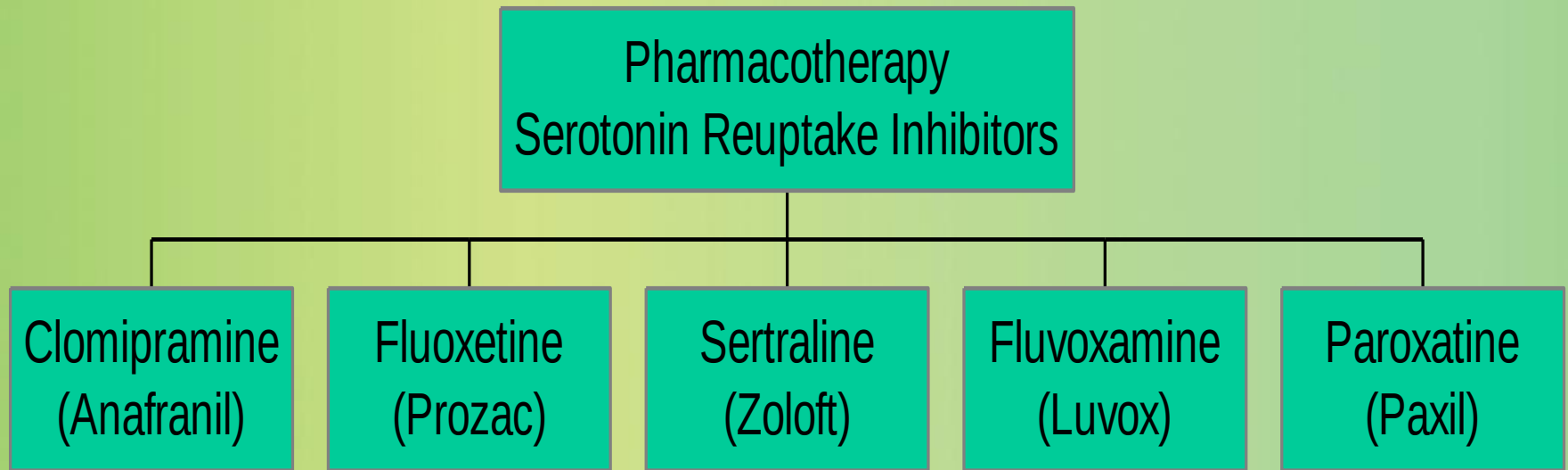
- The Anxiety Disorder Interview Schedule – Revised (ADIS-R)
- The Yale-Brown Obsessive-Compulsive Symptom Checklist (Y-BOC)
- The Leyton Obsessional Inventory (LOI)
- The State Trait Anxiety Inventory of Children (STAIC)

OCD Treatment Strategies

- The average OCD individual spends more than 9 years searching for help, and is diagnosed by 3 to 4 doctors before finally getting the right diagnosis (Obsessive-Compulsive Foundation).
- People with OCD usually have considerable insight into their own problems. Most of the time, they know their obsessive thoughts are senseless or exaggerated, and that their compulsive behaviours are not really necessary.
- However, this knowledge is not sufficient to enable them to stop obsessing or carrying out their rituals.
- Education is one of the most powerful weapons needed to win the battle over OCD.

OCD Treatment Strategies

Types of Treatment



OCD Treatment Strategies

- Behaviour Therapy-
- Traditional therapy which helps the client gain insight to his or her problem is **not** recommended for OCD.
- A specific behavior therapy approach called “exposure and response prevention” is effective.
- In this approach, the patient is deliberately and voluntarily exposed to the feared object or idea, either directly or by imagination, and then is discouraged or prevented from carrying out the usual compulsive response.
- When treatment works well, the patient gradually experiences less anxiety from the obsessive thoughts and becomes able to do without the compulsive actions for extended periods of time.
- A therapist will usually refer an OCD client to a specialist in this kind of therapy.

OCD: Treatment

- Both psychopharmacological and behavioural therapies have been shown to be effective for OCD.
- Typical medications: SSRIs and tricyclic antidepressant (clomipramine) are effective for about 60% of people with the disorder.
- 90% of patients who underwent behaviour therapy had at least a 30% reduction in obsessions and compulsions, the effective component being exposure and ritual prevention
- Long term results from 16 studies showed that, at a mean follow-up of 29 months, 76% of patients were “very much” or “much” improved.
- Patients unwilling to participate in behaviour therapy do benefit from only pharmacotherapy treatment, but symptoms reoccur when the medication is stopped.

Substance-Related and Addictive Disorders

- In the revised DSM 5 chapter of “Substance-Related and Addictive Disorders” includes substantive changes to the disorders grouped there plus changes to the criteria of certain conditions.
- Substance use disorder in DSM-5 combines the DSM-IV categories of substance abuse and substance dependence into a single disorder measured on a continuum from mild to severe.

- Each specific substance (other than caffeine) is addressed as a separate disorder, but nearly all substances are diagnosed based on the same overarching criteria.
- In this overarching disorder, the criteria have been combined and strengthened.
- Whereas previous diagnosis required only one symptom, mild substance use disorder in DSM-5 requires two to three symptoms from a list of 11.
- Drug craving was added, but problems with law enforcement are eliminated because of cultural considerations that make the criteria difficult to apply internationally.

- In DSM-IV, the distinction between abuse and dependence was based on the concept of abuse as a mild or early phase and dependence as the more severe manifestation.
- In practice, the abuse criteria were sometimes quite severe. The revised substance use disorder, a single diagnosis, will better match the symptoms that patients experience.
- Additionally, the diagnosis of dependence caused much confusion. Most people link dependence with “addiction” when in fact dependence can be a normal body response to a substance.

Addictive disorder

- Gambling disorder is also included as the sole condition in a new category on behavioural addictions.
- DSM-IV listed pathological gambling but in a different chapter. This new term and its location in the new manual reflect research findings that gambling disorder is similar to substance-related disorders in clinical expression, brain origin, comorbidity, physiology, and treatment.
- Recognition of these commonalities will help people with gambling disorder get the treatment and services they need, and enable others to understand the challenges that individuals face in overcoming this disorder.

Gambling disorder and internet gaming

- While gambling disorder is the only addictive disorder included in DSM-5 as a diagnosable condition, Internet gaming disorder will be included in Section III.
- Disorders listed there require further research before their consideration as formal disorders. This reflects the scientific literature on persistent and recurrent use of Internet games, and a preoccupation with them, which can result in clinically significant impairment or distress.

Other disorders of interest

- DSM-5 will not include caffeine use disorder, although research shows that as little as two to three cups of coffee can trigger a withdrawal effect marked by tiredness or sleepiness.
- There is sufficient evidence to support this as a condition, however it is not yet clear to what extent it is a clinically significant disorder.
- To encourage further research on the impact of this condition, caffeine use disorder is included in Section III of DSM-5.

How to diagnose:

- DSM-5 asks us to think of substance abuse and substance dependence as a unified, single entity, diagnosed as a substance use disorder, on a spectrum of mild, moderate and severe.
- Each specific substance is addressed separately, with consistent criteria for the diagnosis of a substance use disorder, intoxication, withdrawal, or substance induced disorders.
- The Substance-Related Disorders are divided into ten categories of substances:

- a. Alcohol
- b. Cannabis, (including marijuana, hashish, wax)
- c. Caffeine
- d. Hallucinogens (including Phencyclidine, Lysergic acid diethylamide, Ecstasy, mushrooms, club, rave drugs)
- e. Inhalants
- f. Opioids (including opiates, heroin, morphine, methadone, narcotics),
- g. Sedatives (muscle relaxers, barbiturates), Hypnotics (sleeping pills), anxiolytics (benzodiazepines)
- h. Stimulants (including cocaine, crack, amphetamines, methamphetamine),
- i. Tobacco
- j. Other (including anabolic steroids) or Unknown substances

- Providing a diagnosis of a SUD under DSM-5 requires the person to have a problematic pattern of alcohol or substance use leading to clinically significant impairment or distress as manifested by at least two of a set of 11 criteria, which have occurred during a 12-month period, either presently or in the past.
- Only 10 criteria are used for hallucinogens/ inhalants because they are not considered to generate a specific withdrawal syndrome.
- It is preferred to render the diagnosis using the name of the specific substance, rather than the substance category.

- The diagnosis of SUD requires the determination of its Severity and assignment of Specifiers.
- The levels of severity are determined by the number of criteria that are met. A patient with a SUD of severity Mild will meet two or three criteria; Moderate – four or five criteria; and Severe – six or more criteria.
- If the person does not meet any of the criteria, or only one, then they do not yet meet the DSM-5 definition for diagnosis, but it may be appropriate to think of the person's relationship with drugs or alcohol as being in the “at risk”, “problematic”, or “hazardous” pattern of use.

Case study 1:

- Martin has performed well in his annual exams last semester. Now, he is worried whether he will be able to keep up his performance and score good marks this year.
- His parents always tell him how they expect to see him achieve a first.
- Afraid of disappointing them, Martin does not share his concerns with them. He feels that some of his friends may be going through the same phase and discusses his problem with them. His friends suggest that smoking marijuana may reduce his stress and help him to relax.

- Martin wants to feel better and decides to follow his friends' advice. He starts smoking a joint or two once a week. Without realizing, over a period of six months he was smoking 6-10 joints a week. He is now worried as smoking has become habitual.
- Questions
- 1. Who is responsible for Martin's habit and why?
- 2. Do you think smoking marijuana helped reduce Martin's stress? Why/not?
- 3. What else could he have done to reduce his stress ?
- 4. What role could Martin's parents` have played to prevent him from smoking marijuana?

Vulnerability of young people

- More vulnerable to substance/ drug abuse because of the following reasons:
- Lack of basic knowledge about the effects and dangers of consuming drugs/ addictive substances.
- Urge to try something new, coupled with peer influence and pressure, make young people vulnerable.
- Myths that drugs help overcome boredom, depression, stress and fatigue.
- Media images that glamorize substance abuse.

- If parents, siblings in the family engage in substance abuse, young people in that family are more likely to start abusing the same or a different substance/s.
- Relatively easy availability of drugs, community norms, and adverse family situations may push young people into substance abuse.
- As the attitudes related to smoking, drinking and abuse of other substances are formed during preadolescence and early adolescence, this is an important age to invest in prevention efforts.

Commonly held myths

- There is no harm in trying just drugs once, because you can stop after that.
- Drugs increase creativity and make the user more imaginative.
- Drugs sharpen thinking and lead to greater concentration.
- Will power alone can help a drug addict stop taking drugs.
- Most of the addicts get their drugs from a peddler or a pusher.
- Alcohol helps people forget their problems.
- Drug use makes you 'cool' and better accepted by peers.

Effects of SU

- Short-term Effects: These are effects that appear only a few minutes after the intake of drugs.
- The drug abuser feels a false sense of well-being and a pleasant drowsiness.
- Some of the short term effects are distorted vision, hearing and coordination, impaired judgment, bad breath and hangovers.

Long term effects of SU

- Drugs have long-term impact that lead to serious damage due to constant and excessive use.
- These effects show over a course of time and are usually caused by progressive damage to different body organs.
- Substance abuse impairs both physical and mental functioning leading to compromised quality of life.
- Several long –term physical ailments, including loss of appetite, stomach ailments, skin problems, liver, heart and central nervous system damage, memory loss etc.
- In general drug use weakens the immune system and makes the individual more vulnerable to infection.

- Drug abuse in itself is not a cause of HIV/AIDS or other diseases, but under the influence, people engage in risk behaviours that make them more susceptible to infection.
- Drug abusers may die suddenly from an overdose.
- Death may also occur from long-term damage.
- Although substance/ drug abuse is harmful at any stage of life, these substances are especially harmful if consumed during pregnancy, as the growing foetus is also harmed.

- Substance abuse influences not only the individual but their families and communities.
- The addict loses interest in other activities/responsibilities.
- As a result, they are not able to take care of their responsibilities and become a liability.
- Furthermore, SU is expensive and addicted individuals may be forced to engage in crime.

Course and outcome

- Difficult to specify a course or outcome for SU, particularly alcohol.
- Age of onset varied considerably and whilst there is a rough pattern of stages, impairments and pharmacological symptoms, these vary between individuals.
- One large study (Vaillant, 2003) examined 456 inner city adolescents from Boston and 268 former UG from Harvard until they were 60 and 70 years of age respectively.
- Heart disease and cancer were twice as common amongst the alcohol users, with a cyclic routine of abstinence followed by relapse. The city men began using earlier, but were more likely to achieve abstinence by 60.

Prevalence

- Opium- highest in Middle East and Southeast Asia.
- Cocaine- South and North America, particularly USA.
- Cannabis- worldwide.
- Japan- amphetamine.
- Alcohol- 20% of drinkers will develop a serious problem, with only 24% of these receiving treatment (Grant et al., 2006).
- Nicotine-lifetime prevalence 24% (Kessler et al., 1994).
- Age of initial use is important and related to level of addiction, but it is unclear whether this is due to early use or a predisposition. Within 2 or 3 years addiction usually occurs (Anthony & Helzer, 1991).

The substances and their effects



Alcohol abuse

- Affects virtually every organ and system.
- Following absorption it is eventually broken down by the liver. If alcohol levels rise above 400mg % there is serious risk of coma or death. Legal driving levels are 80mg %.
- Long term effects are disruptive relationships, blackouts, memory loss, work performance, financial stability and violence.
- Effects on the body include the pancreas, liver, gastrointestinal, cardiovascular and endocrine systems.
- Resulting in neurocognitive disorder, poor nutrition, cancer and heart problems. In fact alcohol is the most detrimental drug over time (Cornelius et al., 2008).

Tobacco

- Nicotine is the active substance and is never taken in its pure form.
- Short term effects include the increase of heart rate and blood pressure, stimulates the release of norepinephrine producing CNS arousal (Houezec, 1998). It also stimulates the release of dopamine within the reward systems (mesolimbic pathways).
- Paradoxically it calms people despite being a stimulant, because low doses stimulate, but high doses relax. Also, smoking reduces withdrawal feeling thus aiding relaxation.
- Long term consequences are harmful due to its deadly addictive nature. Withdrawal is as equally difficult as that from heroin (Hughes, 2007).

- Fatal illness such as cancer, lung or heart disease result from tobacco use.
- 80% of lung cancer deaths arise from tobacco, with 3.5 million people dying prematurely every year and babies born to mothers who smoke are likely to be of low weight and at risk of a whole host of disorders or birth defects (Kozlowski et al., 2001).

Amphetamine and cocaine

- Psychomotor stimulants- simulate the effects of neurotransmitters such as epinephrine, norepinephrine, dopamine and serotonin.
- They activate the sympathetic nervous system (Constable, 2004)increasing HR and BP and dilate blood vessels in lungs. They suppress appetite and sleep and bring about a positive mood, from confidence, energy to euphoria (Jaffe, 1995).
- Tolerance develops very quickly and great individual differences exist in terms of resistance.
- Long term use can lead to psychosis, which increases with continued exposure (Bolla et al., 1998).
- The compulsion to continue can lead to financial ruin and physical exhaustion.

Opiates

- The active ingredients are morphine and codeine. Heroin is a synthetic opiate which is made by modifying the morphine molecule.
- Opiates induce a dream like euphoria, with increased sensitivity to hearing and vision.
- Whilst there is an instant rush, this does not last. After 30-60 minutes a general negative mood occurs to the extent of governing the persons waking life.
- High doses can lead to a coma, depressed breathing and convulsions. More accidental deaths are occurring due the abuse of opiod painkillers (Jones et al., 2013).
- At low doses, many can function healthily despite their addiction. However tolerance develops quickly and the person becomes preoccupied with sourcing the drug.

Sedatives, hypnotics and anxiolytics

- Used to reduce anxiety, agitation and promote sleep. They lead to a state of intoxication similar to alcohol and the drowsy state achieved through opiates.
- Sometimes use can lead to an aggressive and hostile reaction, known as `rage reaction` or aggressive dys-control.
- When stopping their use, discontinuance syndrome can occur, a worsening of the original anxiety symptoms.
- Additional new symptoms may occur associated with withdrawal such as paranoia, irritability, muscle tension, restlessness, sleep and perceptual disturbance.

Cannabis

- Marijuana and hashish: orally doses will need to be 2-3 times stronger than if smoked as they take longer to absorb. They are metabolised in the liver.
- Getting high is almost always pleasant, with a pervasive sense of well-being and happiness. However some individuals can become anxious and paranoid.
- In addition, the mood of others around you is important in influencing you. Users are often affected by temporal disintegration and lapses in concentration and memory.
- Tolerance effects to THC is ambiguous with some experiencing reverse tolerance.
- Prolonged use can lead to neuropsychological deficits in attention, learning and decision making.

Hallucinogens

- LSD, psilocybin, mescaline, MDMA and PCP. They cause hallucinations and perceptual disturbances of time and place, with higher doses causing delusions and psychotic behaviour.
- The effects are difficult to study objectively since they bring about subjective experiences which are mostly pleasant but occasionally frightening.
- Whilst not toxic, people do die from overdose and PCP is potentially far more toxic, leading to arrest, coma, convulsions and brain haemorrhage. MDMA damages serotonin neurons permanently (Gold et al., 2001).
- Long term use generally is not problematic and neither are there withdrawal symptoms. Some people are susceptible to psychosis, but this is likely to be because of a pre-existing vulnerability.

Other disorders associated with addictions

- ASPD, mood and anxiety disorders, with conduct disorder in adolescents.
- Risk for addiction across the lifespan- abstinence is 22% in thirties, 47% in sixties and 80% in eighties.
- Illegal drug use in the elderly is minimal, BUT they are the largest group of legal drug users!



The causes



Social factors and Peer pressure

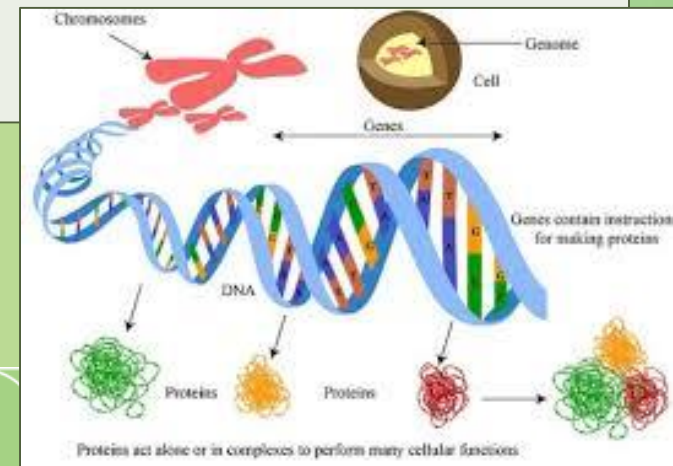
- Young people are highly influenced by their peers and mimic their behaviours.
- In many instances, young people are influenced by their peers to experiment with cigarettes, alcohol and other harmful substances.
- Young people should be educated to recognize that a friend is someone who cares, protects and looks after their welfare rather than coercing them/ initiating them into unhealthy habits.
- They should be empowered with adequate information and skills to decide that it is their body, their life and they should be taking well-informed and responsible decisions.

- Culture and religion (Johnson, 2007).
- Initial experimentation and rebelliousness (Chassin et al., 2003).
- Parents as role models (Kirisci et al., 2007).
- Negative affect and reduced parenting (Chassin & Handley, 2006).



Biological factors

- Initial physiological effects/reactions. 30-50% of Asian descendants unable to tolerate Alcohol. It occurs due to a variant in the ADH and ALDH genes responsible for the metabolism of alcohol (Chen & Yin, 2008).
- The initial point of usage is important in the development of an addiction, but most people who drink alcohol do not develop an addiction.
- What is the crucial determining factor?



Genetics of alcoholism

- Lifetime prevalence in parents siblings and children associated with alcohol abuse is 3-5 times higher than the general population (MacKillop et al., 2010).
- The use of twin and adoption studies show that the concordance rates and heritability of alcoholism is around 56% (male) and 33% for females. With two thirds of heritability being accounted for by genetic factors.
- Adoption studies also demonstrate that being reared by an alcoholic parent is not a critical factor.
- The genes implicated are the ADH and ALDH genes and those for personality (Dick, 2007).

Neuro-anatomy and neurochemistry

- Psychoactive drugs stimulate the `reward pathways` which play an important part in processing emotional reactions, planning and judgement (Koob, 2006), such as the medial forebrain bundle. Electrical stimulation of this produces positive reinforcement in rats in an operant learning task.
- The effects of alcohol on the brain are less clearly understood, but it is believed that GABA neuron activity is decreased, leading to lowered inhibition of dopamine (Radel et al., 2005).

Reward system

How substances affect the brain

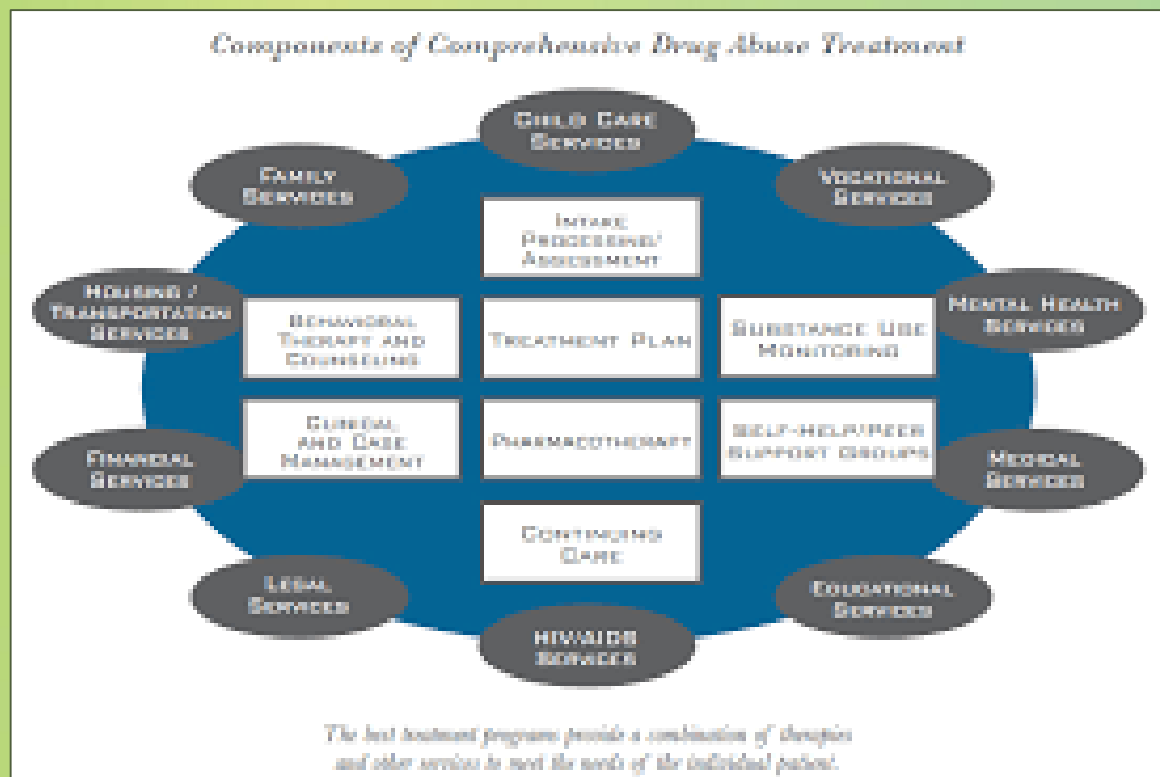
- The brain and marijuana
- The brain and cocaine
- The brain and amphetamine

Our endogenous opioids (endorphins) are linked to withdrawal and tolerance similar to those associated with exogenous opioids, leading to the suggestion that our opioid system is implicated in mediating alcohol and other dependencies.

Psychological factors

- Placebo effects demonstrate that expectations are an important part of any drug/substance effects.
- Many studies have looked at the expectation effects of alcohol and believe that these cognitive factors may be similar for drugs (Nicolai et al., 2010).
- These expectations derive from personal experiences and indirect learning.
- Research shows that adolescent expectations regarding alcohol effects can predict those who will develop drinking problems later (Jones et al., 2001).

Treatments



Detoxification and medication

- Removal of a drug for 3-6 weeks (Coombs et al., 2005). Some drugs can be stopped abruptly, others less so.
- People are often given drugs to help with the withdrawal side effects, but this in itself is controversial (O'Brien & McKay, 2007).
- Medication such as Antabuse (emetic) or Revia (reduces effects of alcohol) can work, but compliance is poor.
- Campral is a promising treatment which works by reducing the levels of craving.
- SSRI's are used particularly where depression is co-morbid for alcohol abuse.

Self-help groups, CBT and motivational therapy

- AA for alcoholics- a 12 step programme which is fundamentally spiritual (Kaskutas et al., 2003).
- Meetings as frequently as possible for first 90 days. Half leave within 3 month, but of those who remain, 80% continue to be sober (Tonigan et al., 2003).
- CBT- coping skills, expectation beliefs and relapse prevention are all important elements, including the abstinence violation effect.
- Motivational therapy- raise awareness of incongruence of goals and addictive behaviour. Research suggests it is most useful with moderate problems rather than severe (Roberts & Marlatt, 1999).

Is compulsive gambling an addiction?

- In DSM IV gambling disorder was included within impulse control disorders, but in DSM5 it has moved to substance-related and addictive disorders.
- Why?
- Many of the symptoms are similar to those encountered with addiction to alcohol, such as preoccupation, unsuccessful attempts to quit, financial and interpersonal consequences and behaviour that is out of control.
- One key difference- gambling involves chasing losses.
- Both tolerance and withdrawal occur; physiologically and psychologically. Pathological gamblers are often intelligent, well-educated and competitive.

The end!

The gambling brain