Practicing in an Environment of Recreational Substances – Addiction & Pain Management

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1 May 2024

Content Warning

- This presentation will discuss topics that include:
  - Drug use
  - Injection
  - Sexual abuse
  - Suicide and self-harm
  - Mental illness
  - Stigma
  - Death/dying

Overview

- History and future of addiction medicine
- Identification of opioid/substance misuse & disorders
- Overlap between palliative care and addiction
- Harm minimisation strategies

The Past…

- Thousands of years of use of substances
  - Medicinal
  - Religious
  - Recreational
- Used by most societies throughout history in some form
  - Alcohol
  - Poppy
  - Hemp
  - Tobacco
  - Coca

The Past…Medicinal

- Opium
  - Analgesia
  - Sleep
  - Forgetfulness
- Nepenthes pharmakon
  - Greeks - ?anxiolytic
  - “No grief”
- Sumerians – gil/hull gil
  - Opium to sooth pain/cause joy
- Paracelsus – 16th century
  - Laudanum

The Past…Religious

- Priests and shamans
- Noah after the ark
- *Amanita muscaria*
  - Fly agaric mushroom
  - psychogenic – ibotenic acid and muscimol
- Central America
  - Psilocybe mushrooms
- SW North America
  - Peyote
    - mescaline

The Past…Recreational

- Alcohol
  - Used by nearly every civilisation through history
  - Easy to make
- Nicotine (Tobacco) - Americas
- Hashish – Islamic cultures
- Caffeine (coffee/tea)
  - Ethiopian origins – Spread throughout the world by the Europeans
  - Tea – China 3rd century BCE

Progress!???

- Technologic advances, esp. distillation!
- Beer > Wine > Spirits > AWOL?
- Coca leaf – smoke it instead!
- Poppy -> opium -> morphine -> heroin
- Tobacco – snuff > cigar > chewing > cigarette

Addiction…the past.

- Alexander the Great
- Aristotle – alcohol withdrawal and pregnancy
- Celsus – dependence on intoxicating drink
- Chinese – opium dependence 18th century
- Early 1800s – dipsomania
- The Qur'an warns against wine and gambling

The recent past

- 20th century classifications
- Lewin's system:
  - Stimulants
    - Nicotine, caffeine
  - Inebriants
    - Alcohol, ether
  - Hallucinogens
    - LSD, peyote
  - Euphoriants
    - Cocaine, opioids
  - Hypnotics
- Animal studies (Pavlov's paradigm)
- Genetic factors

The more recent past

- 1937 – *Alcoholics Anonymous* is published
- 1950 – Antabuse introduced
- 1950s – halfway houses established
- 1964 – methadone introduced
- 1967 – alcoholism established as a complex disease
- 1981 – “Just Say No”
- 1987 – the War on Drugs
- 1995 – naltrexone
- 2001 – Suboxone
- 2020 - LAIB

The future……

- New treatments being developed
- Focus on “driver” of use
- Understanding of the complexity of addiction

What's in a word?

- Addiction originally from addictus – a person enslaved because of unpaid debts in Roman Law.
- Now?

- From the American Society of Addiction Medicine:
- *Addiction is a treatable, chronic medical disease involving complex interactions among brain circuits, genetics, the environment, and an individual's life experiences. People with addiction use substances or engage in behaviors that become compulsive and often continue despite harmful consequences.*

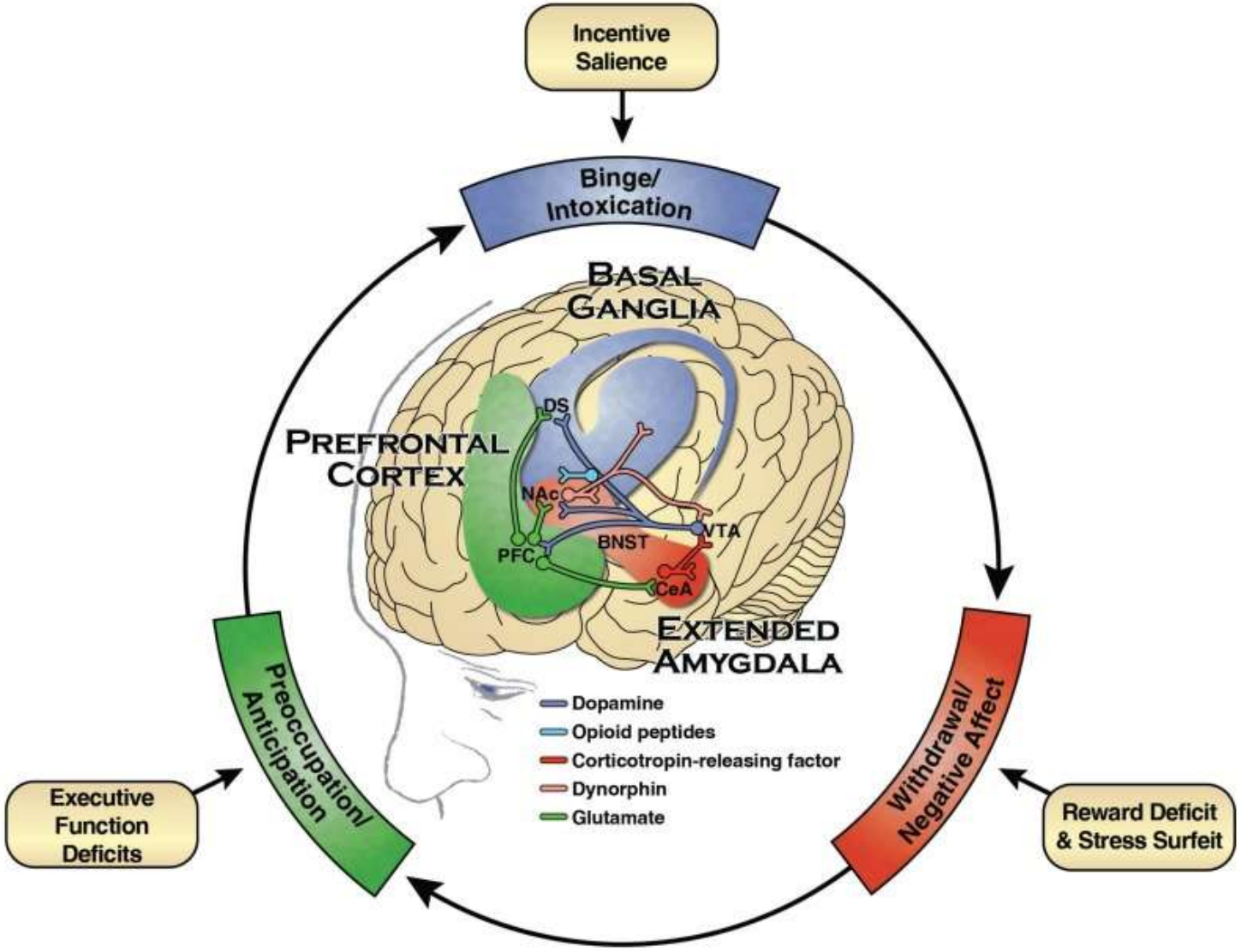
- *Prevention efforts and treatment approaches for addiction are generally as successful as those for other chronic diseases.*

https://www.asam.org/quality-care/definition-of-addiction

Use vs Use Disorder

- Difference between substance use and substance use disorder
- Substance use is a voluntary activity
- Substance use disorder is a compulsive behaviour of seeking and use despite negative consequences

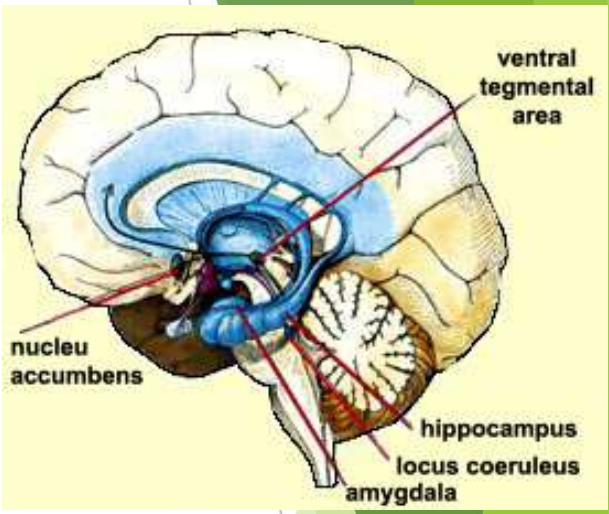
Substance Use Disorder



Opioid Dependence

- Repeated use of opioids in the absence of painful stimuli activates opioid reward system
- Active via VTA and mesolimbic reward system releasing DA in the NAc
- Receptors eventually become less responsive to opioid stimulation – requires larger doses to achieve same effect
- Also affects the locus coeruleus in the brain stem

- The LC usually increases noradrenaline production to stimulate wakefulness, breathing, BP, alertness
- In the presence of opioid molecules – supress the release of NA
- Over time the LC adjusts by increasing level of production
- In the absence of opioids, the LC now produces excessive NA – jitters, anxiety, cramps, diarrhoea



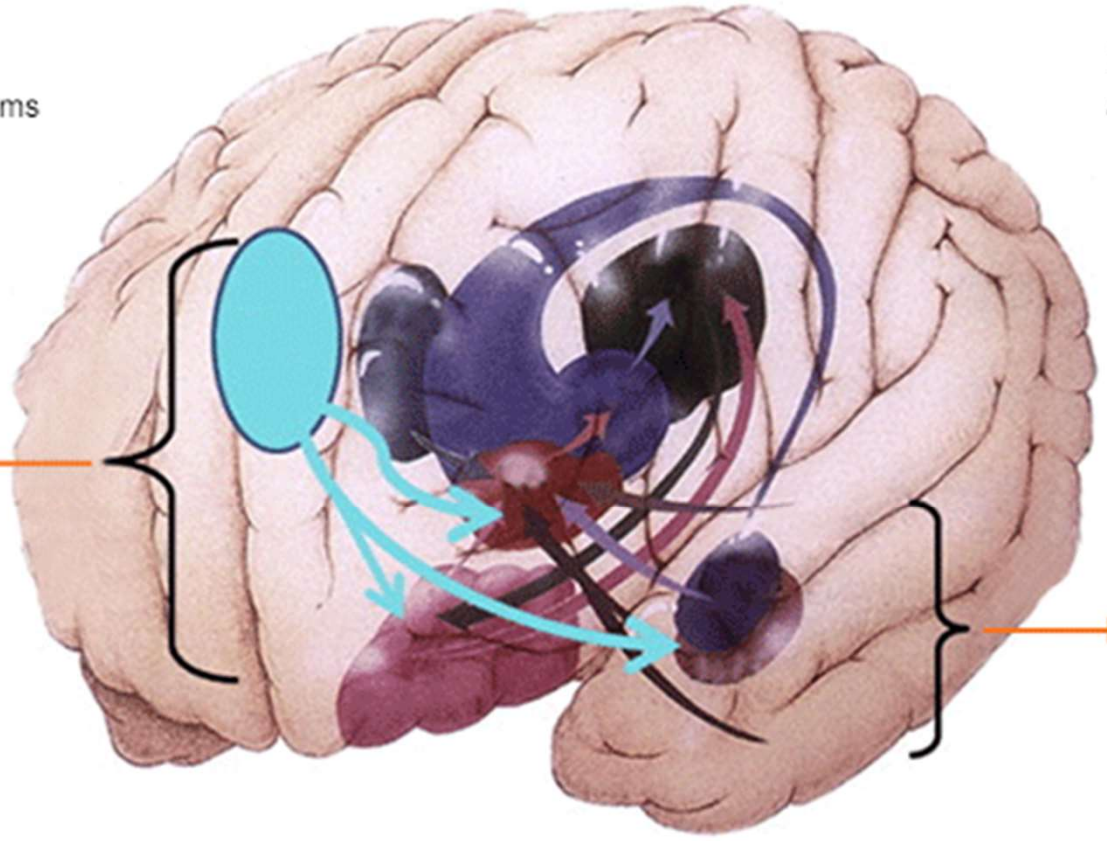
Opioid Dependence

Opioids usurp brain circuitry and compromise dopaminergic reward pathway[4]

Drug and stress innate immune gene induction creates the neurobiology of dependence

Disrupts frontal cortical behavioral control mechanisms

Increases limbic negative affect, craving, and anxiety



Frontal Cortex:
- Goal setting
- Motivation
- Planning
- Impulse inhibition

Amygdala Hippocampus:
- Anxiety
- Urgency
- Negative Affect
- Craving
- Impulsiveness

Adapted with permission from Crews et al.

Diagnosis of dependence/use disorder

- Following the ICD10 criteria for substance use disorder will help establish whether there is a dependence or not

- Three or more of the following must have been experienced or exhibited at some time during the previous year:

1. A strong desire or sense of compulsion to take the substance;
2. Difficulties in controlling substance-taking behaviour
3. A physiological withdrawal when substance ceased or reduced
4. Evidence of tolerance, such that increased doses are required in order to achieve effects originally produced by lower doses;
5. Progressive neglect of alternative pleasures or interests because of substance use, increased amount of time necessary to obtain or take the substance or to recover from its effects
6. Persisting with substance use despite clear evidence of overtly harmful consequences

DSM-V

1. Taking the substance in larger amounts or for longer than you're meant to
2. Wanting to cut down or stop using the substance but not managing to
3. Spending a lot of time getting, using, or recovering from use of the substance
4. Cravings and urges to use the substance
5. Not managing to do what you should at work, home, or school because of substance use
6. Continuing to use, even when it causes problems in relationships
7. Giving up important social, occupational, or recreational activities because of substance use
8. Using substances again and again, even when it puts you in danger
9. Continuing to use, even when you know you have a physical or psychological problem that could have been caused or made worse by the substance
10. Needing more of the substance to get the effect you want (tolerance)
11. Development of withdrawal symptoms, which can be relieved by taking more of the substance

DSM-V

- **Mild**: Two or three symptoms indicate a mild substance use disorder.
- **Moderate**: Four or five symptoms indicate a moderate substance use disorder.
- **Severe**: Six or more symptoms indicate a severe substance use disorder.

Intersection with Palliative Care

- General population: 5-15% any substance use disorder
- Aging population due to treatment availability results in increased frequency of co-morbid palliative conditions and substance use
- Palliative care does not always equal terminal care
  - Life after symptom management
- Often palliative care is perceived as an “older” person’s requirement
- Person and family centred care – optimise quality of life

Issues

- Health
  - Reason for palliation
  - Pain management
  - Illnesses of chronic injection use
    - OD
    - BBV Cx
    - Vascular
    - Soft Tissue
- Finances
  - Crime, Housing, Poverty
- Social
  - Isolation, Employment

Liver disease

- HCV infection in the 20s, complications after 20 years
  - Cirrhosis
  - Hepatoma
- Alcohol related liver disease
  - Cirrhosis
  - Ascites
  - Oesophageal varices

Health

- Hyperalgesia – excessive sensitivity to pain (discussed later)
- Dental
- Mental health
  - Depression
  - Suicidal ideation
  - Cognitive impairment (ARBI/ID)

Social

- Financial impact of substance use
- Isolation
- Criminal activity
- Poverty
- Under/unhomed people
- Diversion of prescriptions

Substances to consider

- Opioids
- Alcohol
- Nicotine
- Caffeine
- Methamphetamine
- Cannabis
- Benzodiazepines
- Z-drugs
- Behavioural addictions

Ongoing Drug Use

- The intoxicated patient
- Withdrawal syndromes
- Risk factors
  - Needles
  - Aggression
  - Criminal activity
  - Family?
  - Diversion
- Drug interactions with medications?
  - Palliative and non-palliative

Risk of misuse

- Multifactorial
  - Family History
  - Male gender
  - Poor social
  - Previous substance use history
  - Previous drug related convictions
  - Pre-adolescent Hx sexual abuse
  - Co-morbid psychiatric conditions

Pitfalls

- Not identifying someone with substance use issues
- Rekindling addictions
- Fear of addiction
- Measuring pain
- New substance misuse (up to 25%)
- Inadequate treatment due to
  - Misdiagnosis
  - Bias
  - Moral judgement
  - Misconceptions

A word on Stigma

- Perceived Stigma
  - Belief that the public holds a negative impression about a person and/or their condition
  - Label avoidance – avoiding treatment to reduce the risk of being labelled with a diagnosis that may carry with it stigma
  - Self – internalised public stigma
- External Stigma
  - Public – endorsed negative stereotypes and prejudices
  - Association – linked stigma by association with a stigmatised person
  - Structural – systems built in a way that reduces the ability of people to access support
  - Health Practitioner – negative impact on patient care by healthcare professionals belief in negative stereotypes

A word on Stigma

- Why do words matter?
  - Affects how we frame the current situation/crisis/admission
  - Can lead to treatment avoidance
  - “Discharged AMA”
  - Patients may either over or under report their substance use
  - Patients may not disclose concerns due to fear over stigma
  - Can cause increased stress/anxiety in the patients we care for
  - Even if we are providing the best care possible, the perception may be that we don’t care
  - Patients may hide information from us for fear of repercussions
  - Leads to poor health outcomes

A word on Stigma

- Removing stigmatising language can change the entire course of a patient's admission
- Framing of our language has a big impact – Person First language
- Focus on the patient/client
- Self-education about terminology, science
- Think about how we speak to each other regarding those under our care
- Address inadequacies in the system that impact on stigma
- Trauma informed practice
- Interventions that build trust

Considerations

- Screening tests for the chronic illnesses that are not terminal
- Involve the patient!
- Be flexible
- Good communication across all treating teams
- Plan for the future
- Medication storage options
- Carer involvement

Harm minimisation

- Needle Syringe Program
- Take Home Naloxone
- Medication Safe at home
- Staged supply of medications
- Consideration of Opioid Agonist Treatment
- Anti-craving medications for alcohol use disorder
- NRT


any
questions?