What is addiction and why do some people but not others become addicted?

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Outline

• Introduction
• What behaviours tend to be addictive?
• Is there such a thing as “addiction”?
• Why do most people not become addicted?
What behaviours tend to be addictive?
Highly addictive

• Heavy use leads easily to problematic use
• Tolerance so increased quantities are required for the same effect
• Physical withdrawal syndrome on cessation
  – Tobacco/ Nicotine
  – Alcohol
  – Opiates and opioids including heroin, methadone, codeine and synthetic opioids including fentanyl, buprenorphine and many experimental ‘research chemicals’
  – Stimulants especially if smoked or injected, including cocaine and amphetamine like drugs
  – Benzodiazepines including valium (diazepam) and temazepam
  – Gambling - but no physical withdrawal
Moderately addictive

- Heavy use can lead to problems, but often does not
- No physical withdrawal syndrome, but there can be distress on cessation
- Little or no tolerance
  - Caffeine (although there is a withdrawal syndrome, it is mild and tolerable, and tolerance is unclear)
  - Khat (although heavy users show tolerance and physical withdrawal)
  - Cannabis
  - MDMA (ecstasy)
  - Mephedrone
  - Other hallucinogenic/ empathogenic drugs
  - Drugs where there are effect ceilings so taking another dose has diminishing or no further effect
Non addictive drugs

- Poisons that kill you immediately
- Drugs that have no psychological effects
- Drugs whose unpleasant effects overwhelm any effects you might enjoy
- Er, that’s it...
Addictive methods of use

• Short half-life
  – Fentanyl 30 minutes; morphine 6 hours; methadone 36 hours
• Potent [e.g. spirits vs beer]
• Rapid delivery to brain [smoking or injecting vs swallowing]
• Efficient delivery [injecting vs smoking]
Is there such a thing as ‘addiction’?
The disease model

- According to the USA National Institute on Drug Abuse: Addiction is a chronic, relapsing, brain disease.
- Consequently, an addiction needs to be treated by abstinence from the behaviour or by pharmacological or other biological means.
- This ‘disease model’ is more applicable to highly addictive behaviours than to moderately addictive ones.
Problems with the disease model

1. Abstinence is not itself an intervention, it is the consequence of an intervention
2. Psychological aspects of drug problems are ignored
3. Social aspects of drug problems are ignored
4. Heavy protracted substance use can occur without addiction
5. Treating ‘addiction’ with pharmacological and other biological interventions has not worked so far
1. Abstinence is not an intervention

- Many residential rehabilitation programmes require people to be drug and alcohol free before they will be admitted.
- Most people who have quit a substance have quit unaided:
  - Most ex-smokers just quit.
  - Some alcoholics (and many heavy drinkers) can return to controlled drinking:
    - 1-2 drinks a day no more than 1-2 days a week.
    - Heavier levels of drinking tend to escalate again.
- Most cocaine users quit, usually when they notice it has become too expensive.
- Heroin users can struggle, but people who inject heroin are an extreme group.
2. Psychological aspects of addiction

- 60% or more of drug and alcohol service clients have experienced serious childhood trauma
  - Physical and/or sexual abuse
  - Neglect, often due to parents’ own alcohol or drug problems
  - Multiple bereavements
  - Going into care
- High prevalence of personality disorders amongst people with alcohol and drug problems
  - Greater than 30%, compared with under 5% in the general population
- Use of alcohol and drugs as (dysfunctional) coping to obliterate thoughts about problems
- Addiction worsens pre-existing psychological problems
- Prison worsens problems
3. Social aspects of addiction

- Relative poverty, deprivation, lack of education and social exclusion are correlated with addiction
- Addiction, other mental health problems and a criminal record are correlated
- Background culture of heavy drinking facilitates extreme drug use
- Affluence is protective against problems
  - Money cushions problems
  - Social Capital
  - More to lose by becoming addicted
- Involvement with social work and criminal justice is often problematic
Homeless street heroin injectors in San Francisco
A luxury private rehab in Thailand:

In... “a sleepy Thai rural town famous for its tropical fruits, fantastic seafood and colored gemstones. XXXX employs 20 staff including five full-time, internationally certified therapists and offers personalized four, eight and twelve week rehabilitation programs.

XXXX has three different options to choose from; deluxe, superior and suite. All offer air-conditioning, DVD and en-suite bathrooms. Facilities include a 20 meter pool, 10 meter Koi pond, fully equipped gym, tennis court, meditation center, massage room, dining area, lounge with a book and DVD library, and free WiFi is available throughout the center.”
5. Heavy protracted use can occur without addiction

- Orford et al’s “Drink like a fish” study found many heavy drinkers who did not meet criteria for addiction, often because their families accepted and tolerated their drinking behaviour.

- “Unobtrusive” heroin users can use occasionally – for example only at weekends – for decades without developing health or criminal problems.

- The history of cocaine use is highly variable, and often has periods of intense use, but also periods of no use at all or light use.

- Studies of heavy cannabis users find some who meet the criteria for addiction, but do not care, and others who do not meet those criteria.
6. Pharmacological and biological interventions have not so far worked

• Substitute prescribing - of buprenorphine or methadone for heroin - reduce harm but substitute one addiction for another

• Vaccinations against cocaine did not work

• Electrical stimulation of the brain has not as yet worked

• Blocking opiate receptors with naloxone does not work (users increase the dose to break the blockade)
Substitute prescribing

• Of what? Methadone; Buprenorphine; Morphine/Heroin
• Benefits
  – Reduced costs
  – More stable lifestyle
  – Reduced overdose risk
• Problems
  – Continues addiction
  – Overdose on prescribed drugs
  – Leakage to black market
More than methadone?

- Methadone plus psychological therapy
- Supervised administration
- Accessible service
- Service integrated with everyday health care
- Continuity of health care in prison
Psychological interventions

- Psychological therapies
  - Duration of treatment more important than intensity?
  - Needs to be time in sessions to do psychological therapy
  - Psychotherapy needs to actually occur
  - Cognitive behavioural therapy/ Motivational Interviewing/ Mindfulness
  - Contingency management: Rewarding people for meeting treatment goals

- Mutual assistance organisations
  - 12-steps organisations
  - Rational Recovery
  - Residential rehabilitation programmes using counsellors who have themselves recovered

From Zhang et al 2003, Addiction
Why do most people not become addicted?
Pathways through drugs and crime

Drugs (40-60%)

- Normalised substance use
- Social exclusion
- Psychosocial problems

Drugs & Crime (20%)

- Desistance (X%)

TRAUMA

- Intense drugs and crime (X%)
- continued trauma

Problem drug use (2%)
What leads to desistance?

- Stable intimate relationships
- Recovery from trauma
- Engagement in pro-social activities
- Problems caused by drugs and crime do not lead to desistance without pulls to conventional life

“Stopping smoking is easy, I’ve done it hundreds of times”

Mark Twain

- It is long term recovery that matters
Common sources of major trauma

• Bereavement including by murder
• Life threatening events
  – Traffic accidents
  – Violence related to drug trade and juvenile conflicts
  – Sudden and unexpected drug-related deaths
• Abuse
  – Emotional
  – Sexual
  – Physical
• Family dysfunction
  – Including familial drug and alcohol problems
• Prison and criminal justice proceedings
• Major physical health problems
• Enduring mental health problems
Patterns of drugs and crime

• Drugs and crime
  – “Juvenile delinquency”
  – Large minority of adolescents
  – Most reduce or quit by age 20

• Intense drugs and crime
  – “Acting out”
  – Response to trauma/ stress
  – Diminishes if and when stress abates

• Problem drug use
  – Cyclical dysfunctional lifestyle
  – Takes 2 years or more to develop
  – Increases likelihood of trauma
  – Persists
Interventions: Drugs and crime

• Do not accelerate problems by labelling and stigmatisation
• Assess stress and trauma and treat appropriately
• Facilitate social inclusion
  – Occupation
  – Education
  – Intimacy
  – Income
• Handle sentencing wisely
• Accept drug use is not unusual
• Awful warnings do not work
Interventions: Intense drugs and crime

• A symptom, but of what?
• Need for comprehensive assessment
  – Are drugs and crime primary or secondary?
  – Are symptoms truly of sufficient duration and severity for a diagnosis of dependence?
  – Consistent diagnostic standards are not applied across drugs
• Care planning approach
  – Improve lifestyle
    • Focus on positives
  – Facilitate social inclusion
  – Is substitute prescribing helpful?
Constraint Theory: Why people refrain from intense drug use (Hammersley 2013)

- People stop or moderate their substance use because:
  1. They have explicit and active religious or other moral beliefs that prohibit use.
  2. They become jaded of consumerism/materialism.
  3. People important to them are strongly opposed to use and that opposition matters to them.
  4. Opportunities for taking the substance are reduced by life circumstances.
  5. They have other things to do that conflict with use of that particular substance.
  6. Sympathetic friends to use with are not available.
  7. The substance does nothing for them.
  8. They dislike the effects.
  9. They lack the stresses and strains that lead to a desire for hedonistic, present oriented escapism
  10. They like the effects too much, compared to other things.
  11. They have a health scare, or serious health problems.
  12. They recognise immanent dependence.
  13. They are concerned about the legal risks involved.
  14. The substance is not readily available.
  15. The substance is unduly expensive relative to other factors.
Pathways into Opiate Dependence: Lose your constraints

• Have a history of trauma
  – Learn to use drugs to blank out thought and emotional pain
• Have a partner who injects
• Deal drugs
• Have another major trauma
  – Loss of access to children
  – Murder of family member
  – Physical, sexual or emotional abuse
• Be in despair:
  – Depressed
  – Anxious
  – Low self-esteem
• Be so chronically intoxicated that reflection is impossible
Conclusions

• There is a difference between
  – drug use – an issue of morality and social norms
  – and problematic drug use or dependence – the result and the additional cause of serious psychological and social problems
• Drug use and offending develop differently across the life span
• Addiction is not the sole and sufficient cause or explanation of offending by drug users
• Most attempts to prevent dependence try unsuccessfully to prevent drugs
• Problem drug users have complex psychological and social needs
• They also need compassion
• Double standards about alcohol and drugs are not helpful
Further reading


