PATHWAYS TO HEROIN DEPENDENCE: TIME TO REAPPRAISE SELF-MEDICATION

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The Self-Medication Hypothesis

- Psychodynamic model of substance dependence

- Two formal components
  - The psychopathology postulate
    - The genesis of dependent substance use lies in relief from distressing psychological symptoms
    - Relief of negative affect, rather than pursuit of euphoria
  - The drug-specificity postulate
    - Drug of choice will reflect the ability to ameliorate distressing symptoms
    - Opioids argued to attenuate intense, rageful and violent affect
The psychopathology postulate: Parents, childhood and pathology

- Postulates distress preceding the onset of heroin use is the motivator for use

- Highly likely to come from a disadvantaged background
  - More likely to experience abuse and neglect, as well as depression and hopelessness
  - Substance abuse amongst parents many magnitudes those of general population
  - >1/3 at least one substance dependent parent
  - >1/3 parental separation when children
“Shattered childhood”
- Rates of abuse/neglect many magnitudes higher than general population or matched controls
- Sexual abuse: 1/3-1/2
  - Onset 8-12 yrs
  - Multiple incidents
- Physical abuse: Similar levels
- Emotional abuse/neglect: >1/2

Expect many disorders to first manifest during childhood
Fundamental that psychopathology be highly prevalent

¾ qualify for at least one comorbid Dx
  - MD/Dysthymia: 1/3-1/2
  - Anxiety disorders: 1/3-1/2
  - PTSD 1/2 (lifetime) 1/5-1/2 (current)

Suicide/Self-harm: Annual rate higher than pop. lifetime rate

Personality disorders
  - BPD ≈40%
  - ASPD (CD) ≈50%
The drug specificity postulate

- Heroin almost never first drug used
  - Forms part of a suite of drugs, onset late in the sequence
  - Onset 19-20 yrs
  - Use to dependence in 18mths

- Polydrug use
  - Lifetime: 10 drug classes
  - Annual: 6 drug classes
  - Alcohol, cannabis, psychostimulants, BZDs

- Extent of polydrug use predicts poorer clinical profile
Psychopathology postulate
- Clinical picture of distressing affect and symptoms
- Difficult to see how, if SMH not a driving force, the pathogenic childhoods of users could be adequately accounted for

Must we view each and every individual use episode as an instance of medication?
- Once dependent, other factors such as neuroadaptation and withdrawal relief come into play.
- Neuroadaptation is not, however, an argument against self-medication
Drug-specificity postulate
- Appears less sustainable
- Clinical picture is one of far broader distress than rageful anger

Appears unnecessary
- Intoxication *per se* the aim
- Psychic numbing
- Extent of polydrug use might fruitfully be considered as a measure of the *extent* of self-medication
Summary

- Self-medication plays a prominent, plausible, role
  - High levels of psychopathology and trauma
  - Onset typically occurs well before the use of heroin
  - Passing strange if these events were not causally related

- Drug specificity component tenuous
  - Dependent heroin users are polydrug users
  - NOT essential to the core concept
  - More fruitful avenue maybe to explore the role of polydrug use as self-medication


**References**