No impulse control disorders on upcoming exam

Substance Abuse II
Other Drugs of Abuse: Inhalants

• **Nature of Inhalants**
  - Found in volatile solvents
  - Breathed into the lungs directly
    • Rapid absorption
  - Examples: spray paint, hair spray, paint thinner, gasoline, nitrous oxide

  - Effects similar to alcohol intoxication
  - Produce tolerance and prolonged withdrawal symptoms
  - Several negative physiological effects
Other Drugs of Abuse: **Anabolic Steroids**

- **Nature of Anabolic-Androgenic Steroids**
  - Derived or synthesized from testosterone
  - Used medicinally or to increase body mass
  - No associated high
  - “Cycling” or “stacking” patterns of use
  - Long-term mood disturbances
  - Physical problems
Other Drugs of Abuse: Designer Drugs

- Dissociative Anesthetics and Designer Drugs
  - “Club drugs”
  - Ecstasy, Phencyclidine (PCP)/Ketamine (“special K”), GHB
  - Heightened sensory perception
  - Popular in nightclubs, raves, or large gatherings
  - All can produce tolerance and dependence

Lab Ketamine Story
Causes of Substance-Related Disorders

• Once thought to be moral weakness

• Combination of factors
  – Biological
  – Psychological
Causes – Biological Dimensions

• Family and Genetic Influences
  – Twin, family, and adoption studies
  – Use = environmental influences
  Vs.
  – Abuse and dependence = polygenetic vulnerability
Pleasure or reward centers
- Dopaminergic system
  - Midbrain
    - Nucleus Accumbens
  - Frontal cortex

- GABA
  - Inhibition yields more dopamine activation

- Predisposition to rewards
  - Study of sons of alcoholics, who were more sensitive to the immediate, euphoric effects of alcohol and less sensitive to the later, negative effects
Causes: Psychological Dimensions

• Positive Reinforcement
  – Repeated pairings with rewards

• Negative Reinforcement
  – Escape from unpleasantness
    • Cope with unpleasant feelings
  – Self-medication
  – Tension reduction
  – Coping mechanism for negative affect
Causes: Psychological Dimensions

- **Opponent-Process Theory**
  - Increase in positive feelings followed by increase in negative feelings
    - Mechanism is strengthened with use and weakened with disuse
  - Remedy is to use more of same drug
  - Motivation shifts from euphoria seeking to alleviating an unpleasant crash

- **Expectancy Effects**
  - Beliefs about drugs and effects

- **Cravings triggered by:**
  - the availability of drugs
  - specific moods
  - places and objects associated with drug taking
Causes: Social Dimensions

• **Exposure to Drugs**
  – Prerequisite for use
  – Media
  – Peers
  – Family
    • Monitoring
    • Peer groups

• **Societal Views**
  – Moral weakness
  – Disease model
Causes: Cultural Dimensions

• **Contextual normative framework**
  – Expectations about use
  – Gene-environment interactions
  – Values
An Integrative Model of Substance-Related Disorders

Exposure to drug
- Media influence
- Parental drug use
- Peer drug use
- Lack of parental monitoring

Social and cultural expectations for use

Psychological Influences
- Positive reinforcement
- Negative reinforcement
- Cognitive influences

Drug Use

Psychosocial stressors

Drug Abuse

Drug Dependence

Biological Influences
- Sensitivity to drug
- Rate of metabolism
- Base levels of arousal—e.g., antisocial personality disorder
- Disorders of mood or anxiety
Treatment - Biological

• **Agonist Substitution**
  – Safer drug
  – Similar chemical composition
    • Ex: methadone (*adolphine*) and nicotine gum or patch

• **Antagonistic Treatment**
  – Block or counteract pleasurable effects
    • Ex: naltrexone for opiate and alcohol
Treatment - Biological

• **Aversive Treatment**
  – Make use of drugs extremely unpleasant
  • Ex: **Antabuse for alcoholism**
    – **Must be motivated to keep taking the pill…**
      » So, only works on the most committed

• **Subjunctive Medication**
  – Cope with withdrawal symptoms
  • Benzos (valium)
    – **Reducte accompanying anxiety**
  • Clonidine and opiate withdrawal
    – **Treats hypersentive symptoms**

• **Efficacy**
  – Limited when used alone
  – Better with psychosocial tx
Treatment - Psychosocial

• Dual Diagnosis

• Inpatient Facilities
  – Expensive
  – Efficacy is equal to outpatient
    • Removes people from cues but they eventually have to return!

• Al-Anon & Ala-Teen

• Alcoholics Anonymous (12 step)
  – Most popular
  – Social support
  – Limited research
  – Effective for highly motivated
• God grant me the serenity to accept the things I cannot change; courage to change the things I can; and wisdom to know the difference.

• Living one day at a time; Enjoying one moment at a time; Accepting hardships as the pathway to peace; Taking, as He did, this sinful world as it is, not as I would have it; Trusting that He will make all things right if I surrender to His Will; That I may be reasonably happy in this life and supremely happy with Him Forever in the next.

Amen.

• --Reinhold Niebuhr
• **Step 1** - We admitted we were powerless over our addiction - that our lives had become unmanageable
• **Step 2** - Came to believe that a Power greater than ourselves could restore us to sanity
• **Step 3** - Made a decision to turn our will and our lives over to the care of God as we understood God
• **Step 4** - Made a searching and fearless moral inventory of ourselves
• **Step 5** - Admitted to God, to ourselves and to another human being the exact nature of our wrongs
• **Step 6** - Were entirely ready to have God remove all these defects of character
• **Step 7** - Humbly asked God to remove our shortcomings
• **Step 8** - Made a list of all persons we had harmed, and became willing to make amends to them all
• **Step 9** - Made direct amends to such people wherever possible, except when to do so would injure them or others
• **Step 10** - Continued to take personal inventory and when we were wrong promptly admitted it
• **Step 11** - Sought through prayer and meditation to improve our conscious contact with God as we understood God, praying only for knowledge of God's will for us and the power to carry that out
• **Step 12** - Having had a spiritual awakening as the result of these steps, we tried to carry this message to other addicts, and to practice these principles in all our affairs
Treatment - Psychosocial

AA Does not condone this!!!!

• **Controlled Use**
  – Moderation
  – Possible benefits
    • Change in lifestyle is too extreme or unrealistic.
  – Limited research
Treatment Psychosocial

• **Component Treatment**
  – Comprehensive
  – Individual and group therapy
  – **Aversion therapy**
    • Counteract positive associations (shock)
  – **Covert sensitization**
    • Imagining negative associations (associating cocaine with vomit)
  – **Contingency management**
    • Clinician and client together select the behaviors that the client needs to change and decide on reinforcers that will reward reaching certain goals (e.g., money, small retail items)
Treatment Psychosocial

• **Community reinforcement**
  – Focuses on correcting overall aspects of lifestyle that may lead to abuse/dependence
  – Involvement of collateral
  – Behavioral analysis
    • Antecedents and consequences
  – Social service assistance
  – **New recreational activities**
Treatment - Psychosocial

• **Relapse prevention**
  – Learned aspects of dependence
  – Address distorted cognitions (“nothing is as good as a __ high”)
  – Identify negative consequences
  – Increase motivation to change
  – Identify high risk situations
  – Reframe relapse
    • failure of coping skills, not person

• failure of coping skills, not person
Treatment Psychosocial

- **Intervention**
- **Prevention approaches**
  - Did Prohibition work?
  - Education-based (DARE)
    - Limited efficacy
  - Comprehensive (skills training)
    - Promising preliminary results
  - Cultural change
    - Media
Links

- http://www.youtube.com/watch?v=de_b7k9kQp0&feature=related
- http://www.youtube.com/watch?v=f2zzUWkWpHM&feature=related
- http://www.youtube.com/watch?v=ZkLtnaBpxCk