Chapter 8
Drug use & Addiction

Professor Betty C. Jung

Do you know someone?

- Most of the 118 students who completed a survey admitted that they had been in some way exposed to people who misuse drugs and alcohol.
- ___% currently know someone who is addicted to pain med.
- ___% knew somebody who overdosed on either painkillers or heroin.
- ___% reported worrying that someone they knew may be misusing pain medication.

College students may face pressures from opioid epidemic's secondary effects (8/11/2018)

Professor Betty C. Jung
Drugs in Urine; Heroin Use

How long drugs stay in your urine:
- LSD: 2
- Amphetamines: 3
- Marijuana: 4
- Heroin: 4
- Cocaine: 4
- Ecstasy: 4
- Bath salts: 4
- Alcohol: 5
- Amphetamines: 6
- Methamphetamine: 6
- Cannabis: 28

Other substance abuse or dependence elevates risk for heroin abuse or dependence:
- People with abuse or dependence on:
  - Alcohol: 2x
  - Marijuana: 3x
  - Cocaine: 15x
  - Other psychoactive: 40x

More likely to have heroin abuse or dependence.

Drug Use Among College Students

- College Students Drug Use Surveys
  - Alcohol
  - Other drugs
  - Choices
  - Consequences
  - Staying safe

- (________________) - most common
- Co-exists with depression &/or anxiety
- Genetic predisposition
- Family history
## Nonmedical Drug Use among Americans, 2015 (Percent Using in Past Month)

<table>
<thead>
<tr>
<th>DRUG TYPE</th>
<th>AGE 18–25</th>
<th>AGE 12–17</th>
<th>AGE 12 AND OVER</th>
</tr>
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<tbody>
<tr>
<td><strong>ILLICIT DRUGS</strong></td>
<td></td>
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<tr>
<td>Marijuana and hashish</td>
<td>19.8</td>
<td>7.0</td>
<td>8.4</td>
</tr>
<tr>
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<td>Pain relievers</td>
<td>2.4</td>
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<tr>
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<td><strong>TOBACCO (ALL FORMS)</strong></td>
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<tr>
<td>Cigarettes</td>
<td>26.7</td>
<td>4.2</td>
<td>19.4</td>
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<td>Smokeless tobacco</td>
<td>5.4</td>
<td>1.5</td>
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<td><strong>ALCOHOL</strong></td>
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<td>Binge alcohol use</td>
<td>39.0</td>
<td>5.8</td>
<td>24.9</td>
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<td>Heavy alcohol use</td>
<td>10.9</td>
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What Is Addiction?

- American Psychiatric Association (APA) defines addiction as compulsive, drug-seeking behavior.
- **Changes in brain chemistry underlie addiction.** Certain activities, such as eating or gambling, may trigger the release of brain chemicals that produce pleasure in the same way as psychoactive drugs.
- Individuals still bear responsibility for their addictive behaviors.
- Lifestyle and personality traits play key roles.

HOW THEY DEVELOP

- Often starts as a way to bring pleasure or avoid pain.
- A combination of factors is involved in the development of addiction:
  - Personality
  - Lifestyle
  - Heredity
  - Social and physical environment
  - Nature of the substance or behavior in question
Characteristics of Addiction

- **Reinforcement**: physical and psychological with regards to pleasure or reduction of negative ones
- **Compulsion**: time, energy, and money are spent to pursue the behavior. Normal behavior has already degenerated
- **Loss of Control**: addicted people lose the ability to control their behavior and results in addiction to more than one drug or behavior
- **Escalation**: more of the substance is required over time to produce the desired effects
- **Negative Consequences**: the behaviors continues, regardless of the outcomes

Examples of addictive behaviors:
- Gambling
- Compulsive Exercising
- Work Addiction
- Sex and love addiction
- Compulsive buying or shopping
- Internet addiction

Diagnosing Substance Misuse and Addiction

- **APA’s DSM-5 criteria for substance use disorders**
  - Severity determined by the number of criteria a person meets
    - 2–3 criteria—mild disorder
    - 4–5 criteria—moderate disorder
    - 6 or more criteria—severe disorder
Physical User Factors

- Body mass – greater impact on thinner people
- General health
- Genetic factors
- Altered biochemical state from prior drug use
- Interactions (prescription & over-the-counter (OTC) drugs)

Pregnancy precautions
- Risky for women to use any drugs during pregnancy
- Avoid ___________
- Most detrimental to fetal development during ___________
- Fetus may become physically dependent on drug and suffer withdrawal upon birth (neonatal abstinence syndrome)

Drug Classifications

- 8 Classifications of Psychoactive Drugs
- Opioids
- Central nervous system depressants
- Central nervous system stimulants
- Marijuana and other cannabis products
- Hallucinogens
- Inhalants
- Prescription drugs
- Synthetic recreational drugs
Opioids (Narcotics)

- Effects: Relieves pain, drowsiness, induce euphoria
- Natural (opium) or synthetic
- Beneficial in prescribed doses
- Misuse -> Addiction
- Purity of street heroin -> unintentional overdose
- Nalcan/Naloxone: Opiate antidote for respiratory depression

“MOMCHO”
- M
- O
- M
- C
- H
- O

Nalaxone/Narcan

Number of Naloxone Administrations by EMS: 2015

Naloxone was administered 214,611 times to 173,016 patients. Most patients received one administration. However, 18.24% of the patients received more than one administration.
CNS Depressants
(Sedative/Hypnotics)

- Effects: Slows down the central nervous system
- Reduce anxiety, causes mood changes, drowsiness, sleep; impairs muscle coordination and speech
- Causes mild sedation to death

“BATC”
- B__________
- A____________
- T____________
- C____________

Club Drugs

- CNS Depressants or hallucinogens
- Date Rape Drugs
- Varying degrees of purity
- Can be fatal when combined with alcohol
- Causes anterograde amnesia (no memory of what occurred while under the influence)

- Depressant effects
- When combined with alcohol & other depressants ->

- Responsible for many poisonings and deaths.
CNS Stimulants

- Effects: elevates sensory function of the Central Nervous System (CNS)
- Speeds up heart rate, raises blood pressure; Blood vessels constrict; Pupils dilate
- Amphetamines - “state dependence” - what is learned in drug-induced state cannot be recalled when drug wears off. Repeated use -> paranoid psychosis and episodes of unprovoked violence.

“CRACEN”
- C
- R
- A
- C
- E
- N

Synthetic Recreational Drugs

- “Designer drugs”
  - Chemically distinct—so either legal or impossible to detect on drug screenings
- Two main groups
  1. ________________
      - “Spice, K2, Genie, Mr. Nice Guy”
      - Mimics effects of THC
      - Rapid heart rate; vomiting, confusion, hallucinations
  2. ________________
      - “Zoom, Ivory Wave, White Rush”
      - Cocaine or methamphetamine substitute
      - Combative, violent, agitation, confusion, hallucinations
      - Banned by ______
      - Speed of onset ______
      - (Miami Face-eating Cannibal Attack 6/2012)
Treatment for Drug Dependence

- Medication-assisted treatment
  - Drug substitution
- Treatment centers
- Self-help groups
- Groups and peer counseling
  - AA
  - NA
- Codependency

Harm Reduction Strategies

- Minimize negative effects of drug use
- ___________________________
- ___________________________
- Making __________ available in schools
- programs
- ___________________________ programs

The Role of Drugs in Your Life

Issues
- What are the risks involved?
- Is using the drug compatible with your goals?
- What are your ethical beliefs about drug use?
- What are the financial costs?
- Are you trying to solve deeper problem?

Bored?
Stressed?
Shy or lonely?
Feeling low on self-esteem?
Depressed or anxious?
Apathetic or lethargic?
Searching for meaning?
Afraid to say no?
Still feeling peer pressure?