Prescription Drug Abuse: Etiology, Prevention and Treatment

Presented by UIC College of Nursing
Purpose and Objectives

- Identify and describe the three most abused classes of prescription drugs
- Discuss the prevalence of prescription drug abuse in terms of age, gender, ethnicity, and socioeconomic status
- Compare and contrast five symptoms of opioid, CNS depressant and stimulant drug abuse
- Describe the effects of the three classes of drugs on the central nervous system
- Discuss the components of four evidence based treatment approaches for prescription drug abuse
Purpose and Objectives

- Identify specific risks for Older adults who abuse prescription drugs
- Identify and describe three current issues affecting attitudes toward prescription drug abuse
- Explain five strategies for the prevention of prescription drug abuse
“In the past, I often found that when I reached out for a fast cure it led me down a slippery slope of more medications, hopeful dependence on the next prescription and ultimately a much longer drawn-out illness.” – Carre Otis

The mentality and behavior of drug addicts and alcoholics is wholly irrational until you understand that they are completely powerless over their addiction and unless they have structured help, they have no hope.” – Russell Brand
Introduction

- Sale of RX painkillers increasing
- Fastest growing drug problem
- Adverse health consequences
Various Categories of Use

- Nonmedical use
- Misuse
- Abuse
- Physiological dependence
- Psychological dependence
- Pseudoaddiction
Complications of drug abuse and dependence

- Depression
- Drug overdose
- Bacterial endocarditis, hepatitis, thrombophlebitis, pulmonary emboli, malnutrition, respiratory infections caused by intravenous delivery
- HIV infection through shared needles
- Unsafe sexual practices, which may result in unwanted pregnancy, unviable pregnancy, fetal drug complications, sexually transmitted infections and HIV
Complications of drug abuse and dependence

- Problems with the law
- Increase in various cancer rates
- Problems with memory and concentration
- Interpersonal relationships
- Death
<table>
<thead>
<tr>
<th>Drug class</th>
<th>Legitimate Medical uses</th>
<th>Examples of Medications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opioid analgesics</td>
<td>Management of acute or chronic pain, relief of coughs, antidiarrheal</td>
<td>Codeine (Empirin, Tylenol 1,2,3), Hydrocodone (Vicoden), Hydromorphone (Demerol), Methadone, Morphine, Oxycodone (OxyContin, Percodan), Propoxyphene (Darvon)</td>
</tr>
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Drugs Classes, medical uses, examples of commonly prescribed medications

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<td>Sedative hypnotics: Benzodiazepines</td>
<td>Anxiety and panic disorders, acute stress reactions</td>
<td>Aprazolam (Xanax), Chlordiazepoxide HCL (Librium), Clonazepam (Klonopin), Diazepam (Valium), Lorazepam (Ativan)</td>
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### Drug Classes, medical uses, examples of commonly prescribed medications

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<td>Sedative hypnotics: Barbiturates</td>
<td>Anxiety, insomnia, seizure disorder</td>
<td>Butalbital (Fiorinal), Meprobamate (Miltown), Penetobarbital sodium (Nembutal), Secobarbital (Seconal)</td>
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<td>Stimulants</td>
<td>Attention Deficit Disorder and Attention Deficit/hyperactivity Disorder, (ADD and AD/HD), narcolepsy, weight loss, depression (rarely)</td>
<td>Amphetamine-dextroamphetamine (Adderal), Dextroamphetamine (Dexedrine), Methylphenidate (Ritalin), Sibutramine (Meridia)</td>
</tr>
</tbody>
</table>
Vulnerable Groups

- Youth
- Women
- 65 and over
- Military
Symptoms of Prescription Drug Abuse

Opiates and narcotics (use)
- Needle marks on skin, sometimes called tracks
- Scars from skin abscesses
- Rapid heart rate
- Small, pinpoint-sized pupils
- Relaxed or euphoric state (nodding)
- Confusion
- Constipation
- Low blood pressure
- Coma or respiratory depression leading to death in high doses
Symptoms of Prescription Drug Abuse

Opiates and narcotics (withdrawal)
- Anxiety and difficulty sleeping
- Sweating
- Goosebumps
- Runny nose
- Stomach craps or diarrhea
- Enlarged (dilated) pupils
- Nausea and vomiting
- Excessive sweating
- Increase in blood pressure, pulse and temperature
- Drug cravings
- Depression
- Bone and muscle pain
- Sleeplessness
Symptoms of Prescription Drug Abuse

Central Nervous System Stimulants (use)
- Exaggerated feeling of well-being (euphoria)
- Dilated pupils
- Fast or irregular heart rate
- Restlessness and hyperactivity
- Weight loss
- Agitation/irritability
- High Blood pressure
- Insomnia
Symptoms of Prescription Drug Abuse

Central Nervous System Stimulants (withdrawal)
- Fatigue and malaise
- Depression
- Very clear and unpleasant dreams
- Anxiety
- Intense cravings
- Suicidal thoughts and attempts
- Paranoia
- Decreased contact with reality, leading to acute psychosis
Symptoms of Prescription Drug Abuse

Central Nervous system depressants (use)

- Slurred speech
- Lack of coordination or unsteady gait
- Decreased attention span
- Impaired or poor judgement
- Drowsiness
- Confusion
- Involuntary and rapid eye movements
Symptoms of Prescription Drug Abuse

Central Nervous system depressants (withdrawal)

- Anxiety
- Sweating
- Hallucinations
- Sleep problems
- Shaking (tremors)
- Seizures
- Increase blood pressure, pulse and temperature
- Delirium
Etiology

- Exact cause unknown
- Reasons for use
- Risk Factors
- Brain disease
Genetic or Environmental Factors

- Genetic variation, personal background, social factors
- Has nothing to do with willpower and moral fiber
- Questions raised: what if it was possible to identify which individuals are predisposed to addiction by completing a genetic profile?
Tests and Diagnosis

- Substance-related disorders
  1. Psychotic disorder
  2. Bipolar disorder
  3. Depressive disorder
  4. Anxiety disorder
  5. Obsessive-compulsive or related disorder
  6. Dissociative disorder
  7. Sleep-wake disorder
  8. Sexual dysfunction
  9. Delirium
  10. Mild and major neuro-cognitive disorder
Tests and Diagnosis

- Criteria for diagnosis of a substance use disorder: A maladaptive pattern of substance use leading to clinically significant impairment or distress, as manifested by two or more of the following occurring within a 12-month period:
Tests and Diagnosis

1. Recurrent substance use resulting in failure to fulfill major role obligations at work, school, or home
2. Recurrent substance use in situation in which it is physically hazardous
3. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance
4. Tolerance as defined by either of the following:

   a) A need for markedly increased amounts of the substance to achieve intoxication or desired effect.

   b) Diminished effects from the use of the drug and the need to use increasing amounts of the substance.
Tests and Diagnosis

5. Withdrawal, as manifested by either of the following:

a) Characteristic withdrawal syndrome for the substance.

b) The same, or closely related, substance is taken to relieve or avoid withdrawal symptoms.
6. The substance is often taken in larger amounts or over a longer period of time than intended.

7. There is persistent desire or unsuccessful efforts to cut down or control substance use.

8. A great deal of time is spent in activities necessary to obtain the substance, use the substance or recover from its effects.
Tests and Diagnosis

9. Important social, occupational or recreational activities are given up or reduced because of the substance use

10. The substance use is continued, despite knowledge of persistent and recurrent physical or psychological problems, that are likely to have been caused or exacerbated by the substance

11. Craving or strong desire to use a certain substance
Severity specifiers:
- **Moderate**: 2-3 criteria positive
- **Severe**: 4 or more criteria positive from list above

With Physiological dependence (4-5 above)

Without physiological dependence (no evidence of 4-5 above)
Tests and Diagnosis

- Medical history
- Urine/blood tests
- Psychiatric disorders
Opioids

Analgesic (pain-relieving)

Diarrhea/cough

Abuse
Deaths from Opioid Pain Relievers Exceed Those from All Illegal Drugs

![Bar chart showing deaths per 100,000 population by age group for opioid pain relievers and illegal drugs.](chart_image)

CNS Depressants

- Slow normal brain function
- Barbiturates/Benzodiazepines/non-benzodiazepine sleep medications
- Abuse
CNS Stimulants

- Increase alertness, attention and energy
- Amphetamines, Adderall, Dexedrine, Concerta, Ritalin
- Abuse
“Sick and tired of all the drug commercials on TV?
At last, there’s a pill to relieve that sick and tired feeling...”
17% 65 and over abusing alcohol or Prescription drugs; little research

- RX drug abuse
- Long ½ life
- Antihistimines
“It’s a special casino for senior citizens. The slot machines pay off in prescription drugs.”
Treatment for Older adults

- Medical Status
- Identification, screening assessment
- Least Intensive first
- Intervention
- Motivational Counseling
Barriers to identifying and treating older adults

- Ageism
- Lack of awareness
- Clinician behavior
- Dual diagnoses
More on Treatment

- Recognizing the problem
- Detox
- Case management
- Behavioral/pharmacological
How to Stay Safe

- Start low and go slow
- Tell Doc about all meds you take
- Follow up frequently
- Be realistic
- Keep medications safe
Treating Addiction to opioids

- Naltrexone
- Agonist
- Vivitrol
- Buprenorphine
Treating addiction to CNS depressants/stimulants

- Depressants
- Stimulants
Chronic Pain treatment and addiction

- 116 million
- Substance abuse and chronic illness similarities (diabetes, hypertension, asthma)
Prevention

- Physicians
- Patients
- Pharmacists
- Parents
- Relapse prevention
“These pills will help you stay asleep. They change your dreams into Powerpoint presentations!”
References

- American Psychiatric Association, (DSM-V)
- Centers for Disease Control and Prevention (CDC) Unintentional Drug Poisoning in the United States, CDC data brief, July 2010
- Hanson, G. (2012) Genetics is an Important Factor in Addiction. Genetics
- SAMHSA (Substance Abuse and Mental Health Services Administration) Substance Abuse among Older Adults, Treatment Improvement Protocols, series 26
Resources

- Drug Policy Alliance (DPA)  
  www.drugpolicy.org
- Narcotics anonymous (NA)  
  www.na.org
- National Institute on Drug Abuse (NIDA),  
  http://nida.hih.org
- Rational Recovery,  
  https://rational.org
- U.S. Drug Enforcement Agency (DEA),  
  www.usdoj.gov.dea
Geriatric Depression Scale (GDS) Short form

1. Are you basically satisfied with your life? Yes/No
2. Have you dropped many of your activities and interests? Yes/No
3. Do you feel that your life is empty? Yes/No
4. Do you often get bored? Yes/No
5. Are you in good spirits most of the time? Yes/No
Geriatric Depression Scale (GDS) Short form

6. Are you afraid that something bad is going to happen to you? Yes/No
7. Do you feel happy most of the time? Yes/No
8. Do you often feel helpless? Yes/No
9. Do you prefer to stay at home, rather than going out and doing new things? Yes/No
10. Do you feel that you have more problems with memory than most? Yes/No
Geriatric Depression Scale (GDS) Short form

11. Do you think it is wonderful to be alive now? Yes/No
12. Do you feel pretty worthless the way you are now? Yes/No
13. Do you feel full of energy? Yes/No
14. Do you feel that your situation is hopeless? Yes/No
15. Do you think that most people are better off than you are? Yes/No
Answers in **bold** indicate depression and each answer counts as one point. For clinical purposes a score of 5 or more suggests depression and warrants a follow up interview. Scores above 10 almost always indicate depression.
1. How often do you have a drink containing alcohol? (0) never (1) once a month or less (2) two to four times a month (3) two to three times a week (4) four or more times a week

2. How many drinks containing alcohol do you have on a typical day when you drinking? (0) 1 or 2 (1) 3 or 4 (2) 5 or 6 (3) 7-9 (4) 10 or more
The AUDIT Questionnaire circle the number that comes closest to the patient’s answer

3. How often do you have six or more drinks on one occasion? (0) never (1) less than monthly (2) Monthly (3) Weekly (4) daily or almost daily

4. How often in the past year did you find you were unable to stop drinking once you had started? (0) never (1) less than monthly (2) monthly (3) weekly (4) daily or almost daily
The AUDIT Questionnaire
circle the number that comes closest to the patient’s answer

5. How often in the past year have you failed to do what was normally expected of you when drinking? (0) never (1) less than monthly (2) monthly (3) weekly (4) daily or almost daily

6. How often in the past year have you needed a first drink in the morning to get yourself going after a heavy drinking session? (0) never (1) less than monthly (2) monthly (3) weekly (4) daily or almost daily
The AUDIT Questionnaire

circle the number that comes closest to the patient’s answer

7. How often during the past year have you had a feeling of guilt or remorse after drinking? (0) never (1) less than monthly (2) monthly (3) weekly (4) daily or almost daily

8. How often during the past year have you been unable to remember what happened the night before because you had been drinking? (0) never (1) less than monthly (2) monthly (3) weekly (4) daily or almost daily
The AUDIT Questionnaire

circle the number that comes closest to the patient’s answer

9. Have you or someone else been injured as a result of drinking? (0) no (2) yes, but not in last year (4) yes within the last year

10. Has a relative, a friend, or a doctor or other health worker been concerned about your drinking or suggested you cut down? (0) no (2) yes, but not in last year (4) yes, within last year
In determining the response categories it has been assumed that one drink contains 10g of alcohol.

Record sum of individual item scores here______

A score of 8 or more indicates a strong likelihood or hazardous or harmful alcohol consumption.
The CAGE is a 4-item, relatively non-confrontational questionnaire for detection of alcoholism. It takes less than 1 minute to administer, is easy to learn, remember and replicate.

1. Have you felt the need to Cut down on your drinking?

2. Do you feel Annoyed by people complaining about your drinking?

3. Do you ever feel Guilty about your drinking?

4. Do you ever drink an Eye-opener in the morning to relieve shakes?

Two or more affirmative responses suggest that the client is a problem drinker.