What Is Addiction?

- National Institute on Drug Abuse (NIDA)
- Not a disorder of choice
- Chronic relapsing brain disease
- Similar to diabetes, asthma, heart disease, it can be managed successfully
- Relapse is not a failure—treatment needs to be reinstated, adjusted, or altered
- Characterized by
  - Compulsive substance seeking and use
  - Substance use despite harmful consequences
  - Tendency to relapse

Substances That Lead to Use Disorders

- Alcohol
- Caffeine
- Cannabis
- Hallucinogen
- Inhalant
- Opioid
- Sedative-hypnotic
- Stimulant
- Tobacco
- Other: Process addiction—Gambling

Concepts Central to Addictive Use Disorders

- Intoxication
- Tolerance
- Withdrawal
- Synergistic effect
- Antagonistic effect

Substance Use Disorder

- A problematic pattern of use leading to clinically significant impairment or distress, as manifested by at least two of the following, occurring within a 12-month period:
  1. Using larger amounts or over longer periods than intended
  2. There is a persistent desire or unsuccessful efforts to cut down or control use
  3. A great deal of time is spent on activities necessary to obtain the substance, use the substance, or recover from its effects

Substance Use Disorder (cont.)

- Craving, or a strong desire or urge to use the substance
- Recurrent use resulting in failure to fulfill major role obligations at work, school, or home
- Continued use despite persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of use
- Important social, occupational, or recreational activities are given up or reduced because of use
- Recurrent use in situations in which it is physically hazardous
Substance Use Disorder (cont.)

9. Use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by the substance
10. Tolerance
11. Withdrawal

Mild: presence of 2-3 symptoms
Moderate: presence of 4-5 symptoms
Severe: Presence of 6 or more symptoms

Etiology

• Neurobiological factors
• Psychological factors
• Sociocultural factors

The Brain Reward Pathway

The Brain Reward Pathway

Epidemiology

• Alcohol
• Other substances
• Pain and addiction

Alcohol Use in the Elderly

• Hidden epidemic in the elderly
• 20% of hospitalized elderly patients have serious EtOH problems (compared to 10% in the normal population)
• May be r/t stress of aging, retirement, widowhood, loneliness, isolation

Comorbidity

• Psychiatric comorbidity – 6 out of 10 people affected by substance-abuse disorder also affected by mental health disorder
  • Schizophrenia
  • Bipolar disorder
  • Attention deficit disorder
  • Borderline and antisocial personality disorders
  • Anxiety disorders
  • Depression
  • High risk for suicide
  • Eating disorders
  • Compulsive behavior
Comorbidity

• Social comorbidity
  • Crime
  • Auto accidents/deaths
  • Suicide
  • Rape and domestic abuse
  • Individual and family dysfunction
  • Work productivity
  • Social relationships

Medical Comorbidity

• Cocaine abusers
  • Extreme weight loss
  • Malnutrition
  • Myocardial infarction
  • Stroke
• Intravenous drug users
  • Infections and sclerosing of veins
  • HIV, Hepatitis C
  • Intranasal users
  • Sinusitis, perforated nasal septum
  • Smoking a substance
  • Respiratory problems

Medical Comorbidity

Alcohol

• Alcoholism: Systemic effects
  • Peripheral neuropathy
  • Alcoholic myopathy and cardiomyopathy
  • Esophagitis, gastritis, and pancreatitis
  • Alcoholic hepatitis
  • Cirrhosis of the liver
  • Leukopenia
  • Thrombocytopenia
  • Cancer (head and neck)
  • Tuberculosis

Wernicke-Korsakoff syndrome
(Alcohol Amnestic disorder)

• Wernicke’s encephalopathy
  • Early phase of the syndrome
  • Degenerative brain disorder cause by lack of thiamine (B1)
  • Symptoms include mental confusion, vision impairment, stupor, coma, hypothermia, hypotension, and ataxia
• Korsakoff’s psychosis
  • Late phase of the disorder
  • Also caused by lack of thiamine
  • The heart, nervous and vascular system are involved
  • Symptoms include amnesia, confabulation, attention deficit, disorientation and visual impairment

Wernicke-Korsakoff Syndrome

• Treatment
  • Thiamine replacement
  • Proper hydration and nutrition
• Prognosis
  • Most symptoms can be reversed if detected and treated promptly
  • Improvement in memory function is slow and, usually, incomplete
  • Without treatment, these disorders can be disabling and life-threatening.

Medical Comorbidity

• Marijuana (Cannabis sativa)
  • Lung inflammation
  • 50% more tar than cigarettes
  • Lung cancer?
  • Increases heart rate
  • Use during gestation/lactation
  • Affects brain development in teens
  • Mental effects
  • Quality of life
  • Addictive?
Medical Marijuana

- Active ingredients
  - Cannabidiol (CBD)
  - Tetrahydrocannabinol (THC)
- FDA Approval
- Conditions of interest
  - Pain (neuropathic pain)
  - Nausea and vomiting
  - Glaucoma
  - AIDS wasting syndrome
  - Cancer
  - Multiple sclerosis
  - Seizure

Case Study: Discussion Question

Ahmed, 23, is admitted to your psych unit with a dual diagnosis of both major depressive disorder and substance abuse disorder (SUD).
1. What are some risk factors for SUDs?
2. What added risk factor does comorbidity contribute?

Case Study: Discussion

- What are some negative consequences our patient, Ahmed, may experience because of his substance abuse?

Screening Tools

- SBIRT: Screening, brief intervention, and referral to treatment
  - Good evidence base for use
- AUDIT: Alcohol use disorders identification test
- CAGE: 4 questions to identify alcohol abuse
- CAGE-AID: Same questions as CAGE but adds drug use to alcohol
- T-ACE: Tolerance, Annoyance, Cut down, Eye-opener

Screening Tools

- CAGE – AID Screening Tool
  - Have you ever felt you should Cut down on your drinking (drug use)?
  - Have people Annoyed you by criticizing your drinking (drug use)?
  - Have you ever felt bad or Guilty about your drinking (drug use)?
  - Have you ever had a drink (used drugs) first thing in the morning Eye-opener to steady your nerves or get rid of a hangover?

  One positive response indicates a possible problem; two positives indicate a probable problem; four positives indicate a definite problem.

Nursing Process

- Assessment
  - Family assessment (codependence)
  - Self-assessment
  - Diagnosis
  - Outcomes identification
- Planning
  - Identifying problem
  - Setting a goal
  - Determining the interventions that will accomplish the goal
Assessment of the Elderly
- Risk factors for older adults
- Signs of alcohol abuse in the younger adult vs. the elderly
- Treatment protocols in older adults

Codependence
- Over-responsible behaviors
- Doing for others what they could/should do for themselves
- Self-worth defined by taking care of others to the exclusion of one’s own needs
- Codependent behaviors

Enabling
- Excused or ignored behaviors of coworker
- Never told supervisor
- Accepted responsibility for co-workers unfinished work
- Believed that nurses do not use drugs or alcohol
- Liked to use drugs or alcohol also
- Exonerated a co-worker’s irresponsible behavior by covering for him or her
- Defended a co-worker when suspicious behavior was questioned

Psychological Changes
- Denial
- Depression
- Anxiety
- Dependency
- Hopelessness
- Low self-esteem
- Various psychiatric disorders

Audience Response Questions
Shortly before treatment, after crying and begging him to get help, Ahmed’s girlfriend stayed home from a planned night out with her friends to pour all the alcohol in his apartment down the drain. What type of behavior is evident?

A. Enabling
B. Tolerance
C. Codependence
D. Use of defense mechanisms

Self-Assessment by the Nurse
- Examine your own attitudes, feelings, and beliefs about addicts and addiction. This may include examining your own use, use by your family members, or friends’ use of addictive substances.
- Avoid disapproval, intolerance, condemnation, or lack of emotional reaction to patient.
- Develop empathy and the ability to manage the manipulative behaviors and avoid power struggles with the patients.
- Be neutral-share frustrations and accomplishments with a mentor
Chemically Impaired Nurse

- The wrong choice: doing nothing.
- Without intervention or treatment the potential for patient harm increases.
- 10% to 20% of practicing nurses are chemically dependent.
- Co-worker’s responsibilities:
  - Clear documentation (dates, times, events, consequences)
  - Report facts to nurse manager
  - Nurse manager then takes facts to nursing administration
- If no action is taken by nurse manager and co-worker’s behavior continues, take facts to the next level in the chain of command.

Healthcare Stigma – A Barrier to Treatment

- Thoughts to Consider
  - Many patients suffering from addiction and mental illness are stuck in a cycle, although there are often many other factors (finances, lack of insurance etc.) there are barriers related to stigmatization and lack of empathy these patients encounter from health care workers and family members. If their own family has turned on them, where do they go? If they do not feel safe turning to the medical community, they will turn back to drugs and alcohol.
  - A Study Found...
    - those with mental illness and substance abuse are more likely to seek treatment if they feel they will receive treatment from health care providers whom actually care and are understanding, that show “acts of kindness” towards them. Clients actually would rather stay on the streets or use in times of distress than go back to facilities which made them feel stigmatized, and misunderstood (Padgett, D. K., Henwood B., Abrams C., Davis A. 2008).

Assessment Guidelines for the Chemically Impaired

- Assess for withdrawal syndrome
- Assess for overdose that warrants medical attention
- Assess for suicidal thoughts or other self-destructive behaviors
- Evaluate for physical complications related to drug abuse
- Explore interests in doing something about drug or alcohol problem
- Assess patient and family for knowledge of community resources

Effects of Alcohol

- Sedative – CNS depressant
- Absorbed in mouth, stomach, small intestine
- 95% broken down by the liver
- Excreted through lungs, kidneys, skin
- Metabolize 30 ml ETOH every 90 minutes
- Absorption varies
  - Weight, intake of food, liver function

Alcohol Intoxication

<table>
<thead>
<tr>
<th>BAL (mg %)</th>
<th>Effect in Nontolerant Drinker</th>
</tr>
</thead>
<tbody>
<tr>
<td>.01-.06</td>
<td>Change in mood, behavior, and impaired judgment</td>
</tr>
<tr>
<td>.06-.10</td>
<td>Loss of inhibition, extroversion, depth perception impaired, reasoning impaired</td>
</tr>
<tr>
<td>.11-.20</td>
<td>Stagerring, ataxia, emotional lability, reaction time/speech impaired</td>
</tr>
<tr>
<td>.21-.29</td>
<td>Stupor, blackouts, motor skills impaired</td>
</tr>
<tr>
<td>.30-.39</td>
<td>Severe depression, unconsciousness, breathing and heart rate impaired</td>
</tr>
<tr>
<td>0.40</td>
<td>Coma</td>
</tr>
<tr>
<td>0.50</td>
<td>Death from respiratory depression</td>
</tr>
</tbody>
</table>

Alcohol - Signs of Intoxication and Withdrawal

- Alcohol poisoning
  - Large amounts of alcohol consumed quickly or over time
- Alcohol withdrawal
  - Signs develop within a few hours after cessation
  - Peaks at 24 to 48 hours
- Alcohol withdrawal delirium
  - Medical emergency
  - Can result in death, even if treated
Alcohol Withdrawal vs. Alcohol Withdrawal Delirium

Withdrawal
• Early signs a few hours after decreasing alcohol
• Signs peak after 24 to 48 hours then rapidly disappear
• Signs and symptoms
  ◦ Nausea/vomiting
  ◦ Diaphoresis
  ◦ Hyperalertness, insomnia
  ◦ Tremor and jerky movements
  ◦ Irritability, anxiety
  ◦ Easily startled
  ◦ “Shaking inside”

Alcohol Withdrawal vs. Alcohol Withdrawal Delirium: Treatment
• Benzodiazepines
  • Tapering doses
• Thiamine
  • Prevents/treats encephalopathy
• Magnesium sulfate
  • Reduce seizures
• Anticonvulsants
  • seizure control
• Folic acid/multivitamins
  • Treat anemia/correct deficiencies

Alcohol Withdrawal Delirium

• Withdrawal delirium
  • A medical emergency that can result in death (10% mortality)
  • Sepsis, MI, fat embolism, peripheral vascular collapse, electrolyte imbalance, aspiration pneumonia, suicide
  • Delirium peaks at 2 to 3 days after cessation of alcohol and lasts 2 to 3 days

Alcohol Withdrawal Delirium: Continued
• Signs and symptoms:
  ◦ Tachycardia, diaphoresis, elevated blood pressure
  ◦ Disorientation and clouding of consciousness
  ◦ Visual or tactile hallucinations
  ◦ Hyperexcitability to lethargy
  ◦ Paranoid delusions, illusions, agitation
  ◦ Fever (too° F to 103° F)
  ◦ Grand Mal seizures
• To reduce patient’s anxiety
  ◦ Orient to time and place
  ◦ Clarify illusions to reduce patient’s terror

Psychopharmacology: Treatment of Alcoholism
• Naltrexone (ReVia/Vivitrol)
  • Reduces or eliminates alcohol craving
• Acamprosate (Campral)
  • Helps patient abstain from alcohol
• Disulfiram (Antabuse)
  • Alcohol-disulfiram reaction causes unpleasant physical effects
• Topiramate (Topamax)
  • Works to decrease alcohol cravings

Opium Intoxication Effects

<table>
<thead>
<tr>
<th>Opiates</th>
<th>Intoxication Effects</th>
<th>Withdrawal Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morphin</td>
<td>Yawning</td>
<td>Pancreatitis</td>
</tr>
<tr>
<td>Heroin</td>
<td>Decreased respiration</td>
<td>Insomnia</td>
</tr>
<tr>
<td>Codeine</td>
<td>Hypotension</td>
<td>Intimacy</td>
</tr>
<tr>
<td>Fentanyl</td>
<td>Bradycardia</td>
<td>Rhinorhea</td>
</tr>
<tr>
<td>Methadone</td>
<td>Slurred speech</td>
<td>Panic</td>
</tr>
<tr>
<td>Meperidine</td>
<td>Drowsiness (‘on the nod’)</td>
<td>Diaphoresis</td>
</tr>
<tr>
<td></td>
<td>Psychomotor retardation</td>
<td>Cramps</td>
</tr>
<tr>
<td></td>
<td>Initial: euphoria</td>
<td>Nausea and vomiting</td>
</tr>
<tr>
<td></td>
<td>Later: dysphoria</td>
<td>Muscle aches</td>
</tr>
<tr>
<td></td>
<td>Impaired:</td>
<td>Chills and fever</td>
</tr>
<tr>
<td></td>
<td>• Concentration</td>
<td>Laceration</td>
</tr>
<tr>
<td></td>
<td>• Judgment</td>
<td>Diarrhea</td>
</tr>
<tr>
<td></td>
<td>• Memory</td>
<td></td>
</tr>
</tbody>
</table>
Psychopharmacology: Treatment of Opioid Addiction

- **Dolophine (methadone)**
  - Synthetic opiate blocks craving for and effects of heroin
  - Only medication currently approved to treat pregnant opioid addict

- **LAAM (L-α-acetylmethadol)**
  - An alternative to methadone

- **Naltrexone (Trexan, ReVia, Vivitrol)**
  - Antagonist that blocks euphoric effects of opioids

- **Prometa**
  - Targets craving and reduces relapse

- **Clonidine (Catapres)**
  - Nonopioid suppressor of opioid withdrawal symptoms
  - Effective somatic treatment when combined with naltrexone

Treatment of Opioid Addiction

**Continued**

- **Buprenorphine (Subutex)**
  - Partial opioid agonist
  - Blocks signs and symptoms of opioid withdrawal

- **Naloxone/buprenorphine (Suboxone)**
  - Partial opioid agonist/antagonist

Nursing Process

- **Implementation**
  - Promoting safety and sleep: first-line interventions
  - Reintroduce good nutrition and hydration
  - Support for self-care (hygiene)
  - Exploring harmful thoughts and spiritual distress

Naloxone for Overdose

- For acute opiate overdose

- Naloxone auto-injector (Evzio)

- Naloxone nasal spray (Narcan nasal spray)

- Can be administered by family, friends, caregivers

- Provides verbal instructions similar to an automated defibrillator

CNS Depressants: Benzodiazepines, Sedative-Hypnotics, Barbiturates, ETOH

- **Intoxication**
  - Slurred speech, incoordination, ataxia, drowsiness, disinhibition of sexual and aggressive impulses (GABA effect), impaired judgment, attention and memory disturbances

- **Overdose**
  - Cardiovacular or respiratory depression
  - Coma
  - Shock
  - Convulsions
  - Death
CNS Depressants:
Benzodiazepines, Sedative-Hypnotics, Barbiturates, ETOH (Continued)

- Withdrawal
  - Nausea, vomiting
  - Tachycardia
  - Diaphoresis
  - Anxiety, irritability
  - Tremors (hands, fingers, eyelids)
  - Grand mal seizures
- Treatment
  - Carefully titrated detox with similar drug
  - Caution: abrupt withdrawal can lead to death

CNS Stimulants: Cocaine and Crack

- Extracted from leaf of coca bush
- When smoked takes effect in 4 to 6 seconds; a 5- to 7-minute euphoric high follows, then a deep depression if not repeated
- Feel confident, sociable, “in control”
- Two main effects on body
  - Anesthetic
  - Stimulant
- Produces imbalance in neurotransmitters - increased then decreased DA
- Crashing
- Rapid psychological dependence

CNS Stimulants: Cocaine, Crack, Amphetamines

- Intoxication
  - Dilated pupils
  - Tachycardia, elevated blood pressure
  - Nausea, vomiting
  - Insomnia
  - Assaultiveness, potential for violence
  - Impaired judgment, social and occupational functioning
  - Euphoria, paranoia, delusions, hallucinations, psychosis
  - Severe to panic levels of anxiety
- Overdose
  - Respiratory distress
  - Ataxia
  - Hyperpyrexia
  - Convulsions
  - Coma
  - Stroke, Myocardial Infarction
  - Death

CNS Stimulants: Cocaine, Crack, Amphetamines (Continued)

- Withdrawal
  - Fatigue, lethargy
  - Depression
  - Agitation, disorientation
  - Apathy
  - Anxiety
  - Sleeplessness
  - Craving
- Treatment
  - Symptomatic, supportive

Hallucinogens

- Lysergic acid diethylamide (LSD or acid)
- Mescaline (peyote)
- Psilocybin (magic mushroom)
- Phencyclidine piperidine (PCP, angel dust, horse tranquilizer, peace pill)

Hallucinogens

- Overdose
  - Psychosis
  - Brain damage
  - Death
- Treatment
  - Supportive, anxiolytics
  - Minimal stimuli
  - Have one person stay with patient to “talk down” and reassure
  - Speak slowly and clearly in a low voice
Hallucinogens
Continued
PCP

- Intoxication
  - Vertical or horizontal nystagmus
  - Increased BP, pulse, temperature
  - Ataxia
  - Muscle rigidity, chronic jerking
  - Seizures
  - Belligerence, assaultiveness, impulsiveness, lability
  - Impaired judgment, social, occupational function
  - Hallucinations, paranoia
  - Bizarre behavior, regression

- Overdose
  - Psychosis
  - Hypertensive crisis
  - Respiratory arrest
  - Hyperthermia
  - Seizures

- Treatment
  - Acidify urine (cranberry juice, ascorbic acid, ammonium chloride)
  - Minimal stimuli
  - Do not attempt to talk down!
  - Speak slowly, clearly, low voice
  - Administer diazepam (muscle spasms, seizure risk), haloperidol (psychotic behavior)
  - Medical interventions: hyperthermia, hypertension, respiratory distress, hypertension
  - Caution: gastric lavage may cause laryngeal spasms or aspiration

Inhalants

- Volatile solvents
  - Spray paint
  - Glue
  - Cigarette lighter fluid
  - Propellant gases used in aerosols
- Intoxication
  - Excitation followed by drowsiness, disinhibition, staggering, lightheadedness, and agitation
- Overdose
  - Damage to CNS
  - Sudden death (V-fib)
- Treatment
  - Supportive

Rave and Techno Drugs/Club Drugs

- Common drugs
  - Ecstasy (3,4-methylenedioxymethamphetamine), also called MDMA, Adam, yaba, XTC
  - MDE (3,4-methylenedioxyethylamphetamine) or "Eve"
- Side effects
  - Euphoria, increased energy
  - Increased self-confidence
  - Increased sociability
  - Feeling of closeness to others
- Adverse effects
  - Hyperthermia, heart failure, kidney failure, acute dehydration

Date Rape Drugs

- Flunitrazepam (Rohypnol or "roofies")
- γ-Hydroxybutyric acid (GHB)
- Colorless, tasteless, odorless
- Rapidly produces (within minutes): Disinhibition, Relaxation of voluntary muscles, Anterograde or localized amnesia

Audience Response Questions

A person has recently abused morphine. The person’s pupils would most likely be

A. dilated.
B. constricted.
C. asymmetrical.
D. unresponsive to light.
Communication Guidelines

- Behaviors to be addressed:
  - Dysfunctional anger
  - Manipulation
  - Impulsiveness
  - Grandiosity
  - Make abstinence and sobriety worthwhile for patient
  - Communicate in culturally appropriate ways

Nursing Process (continued)

- Implementation
  - Brief interventions
    - FRAMES
    - Counseling
  - Relapse prevention
  - Psychobiological interventions
    - Pharmacological
  - Health teaching and health promotion

Intervention Strategies

- Primary prevention: health teaching
  - FRAMES
    - Feedback of personal risk
    - Responsibility of the patient
    - Advice to change
    - Menu of ways to reduce substance use
    - Empathetic counseling
    - Self-efficacy or optimism of the patient

Audience Response Question

A nurse is assigned the care of four patients who are detoxifying from alcohol. The patient with which symptom would be the nurse’s highest priority?

A. Fine motor tremors
B. Diaphoresis
C. Diarrhea
D. Hallucinations and delusions

Nursing Process

- Care continuum for substance abuse
  - Detoxification (detox)
  - Rehabilitation
  - Halfway houses
  - Sober living
  - Partial hospitalization
  - Intensive outpatient (IOP) treatment
  - Outpatient treatment
  - Alcoholics Anonymous (AA)
  - Relapse prevention

Intervention Strategies

Continued

- Risk reduction/harm prevention
  - Alcoholics Anonymous
    - Al-Anon
    - Alateen
    - Nar-Anon
    - Families Anonymous
    - Gamblers Anonymous
  - SMART (Self-management and recovery training) Recovery
  - Rational Recovery
  - Women for Sobriety
  - Celebrate Recovery
Case Study: Discussion

Ahmed is getting ready to be discharged.

• For the substance abuse treatment plan to be successful, what factors should be considered?

Case Study Discussion

Ahmed is being discharged with a prescription for disulfiram (Antabuse) to help maintain a medical aversion to alcohol.

• What patient teaching about this medication should the nurse provide?

Evaluation

• Increased time in abstinence
• Decreased denial
• Acceptable occupational functioning
• Improved family relationships
• Ability to relate comfortably to other individuals