Mental Health Part III

Children & Adolescents

- Introduction
  - It is often difficult to determine whether a child's behavior indicates emotional problems.
  - An emotional problem exists if behavioral manifestations:
    - Are not age appropriate
    - Deviate from cultural norms
    - Interfere with adaptive functioning
- Prevalence and Comorbidity
  - 1/2 of all psychiatric illnesses begin before 14 years of age
  - 20% of children have a mental illness that cause significant impairment
  - Only about 1/5 of all young people who need mental health care are receiving the help they need.
  - Children with mental illness often meet the criteria for more than one diagnostic category.
- Brain changes in adolescence
  - The brain does not fully mature until mid 20's
    - Prefrontal cortex
    - Limbic System
  - Synaptic pruning occurs in adolescence
    - Implications in adulthood
- Risk Factors
  - Biological Factors
    - Genetics & Neurobiological
  - Psychological Factors
    - Temperament
      - Seen early in infancy
      - Attitude, mood, and behavior
  - Resilience
    - Adapt to change
    - Form relationships
    - Problem solve
    - Distance themselves from emotional chaos
  - Environmental
    - Childhood Trauma
      - Associated with adult dysfunction
  - Adverse Childhood Experiences (ACEs)
    - Emotional, Physical, Sexual
  - Nurses are required to report all cases of child abuse
- Mental Health Assessment
  - Holistic and includes:
    - Presenting problem
    - Developmental history
    - Developmental assessment
    - Medical History
    - Family history
    - Mental status assessment
      - Adapt to the child's developmental stage
- Mental Status Examination
  - Characteristics of a mentally healthy child/ adolescent
    - Trusts Others
    - Correctly interprets reality
    - Positive self concept
    - Copes well with anxiety & stress

        - Develops relationships
- Interventions
    - Behavioral
        - Reward desired behaviors
    - Play Therapy
        - Allows expression of feelings
        - Moves memories from non-verbal to verbal part of the brain
    - Art Therapy
        - Expression of feelings through drawing, painting, sculpting
    - Journaling
        - Therapeutic for teenagers
    - Music Therapy
        - Evidence- based
- Disruptive Behavior Management
    - Least restrictive environment
    - Verbal interventions
    - Medication
    - Time-out
        - Self reflection & ability to re-gain control
    - Seclusion & Restraint
        - Psychologically harmful
        - May be physically dangerous

- Autism Spectrum Disorder
    - Present with
        - Deficits in social and communication interactions
        - Repetitive patterns of behavior, interests, or activities
    - Severity based on functional ability
        - Level 1: noticeable social deficit, but language and speech are normal
        - Level 2: noticeable deficit in verbal and nonverbal social and communication skills
        - Level 3: social deficits are severe, with communication being limited and needs-based
- Assessment
    - Impairment in social interaction
        - Difficulty forming interpersonal relationships
        - Show little interest in people
        - Delayed speech or mutism
    - Impairment in communication and imaginative activity
    - Ritualized behaviors and interests may be noted
        - Repetitive patterns
    - Sensory disturbances
        - Hypersensitivity to stimuli
    - Motor signs
        - Walking on toes
- Nursing Interventions
    - Multidisciplinary
        - ST, OT, PT, School support
    - Nursing interventions for the child with ASD are aimed at
        - Protection of the child from self-harm
        - Improvement in social functioning
        - Improvement in verbal communication
    - Calming environment
    - Eye-level

- Sensory items
- Outcomes & Evaluation
  - Exhibits no evidence of self-harm
  - Interacts appropriately with at least one staff member
  - Demonstrates trust in at least one staff member
  - Is able to communicate so that he or she can be understood by at least one staff member
- Evaluation:
  - Have the nursing actions have been effective in achieving the established goals?
  - Involve the family
- Pharmacological Intervention for ASD
  - Atypical Antipsychotics- Risperidone, Aripiprazole
    - Targets: Aggression, self-injury, temper tantrums, labile mood
    - Side Effects: weight gain, DM, anticholinergic, mild EPS
    - Oral or IM
    - Start low and go slow
  - SSRIs- Fluoxetine, Sertraline
    - Targets: anger, agitation, compulsive behaviors
    - Side effects, serotonin syndrome, weight gain, suicidal ideation

- Intellectual Disability
  - Can be mild, moderate, severe, or profound.
  - Causes may be the result of:
    - Heredity (Tay-Sachs disease, fragile X syndrome)
    - Alterations in early embryonic development (Down syndrome, fetal alcohol syndrome)
    - Pregnancy or perinatal problems (fetal malnutrition, prematurity, hypoxia, infections)
    - Other factors such as trauma or poisoning
    - Environmental or social neglect
- ID: 4 levels
  - Mild (85%)
    - Independent living, academic skills- mid elementary
  - Moderate (10%)
    - Reading level- 1st-3rd grade, Communication, social, and academic skills are developed slowly
  - Severe (3-4%)
    - Minimal verbal skills, assistance with ADLs, performs simple tasks with help
  - Profound (1-2%)
    - Nonverbal, requires constant supervision, significantly reduced life expectancy
- Assessment
  - Assess:
    - Strengths
    - Limitations
  - Screening
  - Include family members in the planning and implementation of care.
  - Level of independence
    - Development of plan
  - Appropriate schooling
  - Individualized Education Plan (IEP)
  - Federal Individuals with Disabilities Education Act (IDEA).
- Outcomes & Evaluation
  - The client
    - No physical harm
    - Self-care needs fulfilled
    - Interacts with others in a socially appropriate manner

- Is able to accept direction without becoming defensive
- Adaptive coping skills

❖ Evaluation of care given to the client with ID should reflect positive behavioral changes.

❖ Attention Deficit/Hyperactivity Disorder (ADHD)
- ➢ Essential features include developmentally inappropriate degrees of:
  - Inattention
  - Problems with concentration and focus, Easily distracted, Appearing not to listen, Forgetfulness
  - Impulsiveness
  - Blurts out answers, Has difficulty waiting for own turn or being patient, intrudes in others' conversations and games
  - Hyperactivity
  - Fidgets, Runs and climbs, Constantly "on the go", Talks excessively

❖ Etiology
- ➢ Genetics
  - 30-40% of children with ADHD have a family member with the disorder.
- ➢ Biochemical Theory
- ➢ Prenatal risk factors
  - Maternal smoking/ ETOH use during pregnancy
  - Prematurity
- ➢ Psychosocial influences
  - Disorganized or chaotic family environments
  - Maternal mental disorder or paternal criminality
  - Low socioeconomic status

❖ Outcomes
- ➢ The client
  - Has experienced no physical harm
  - Interacts with others appropriately
  - Verbalizes positive aspects about self
  - Demonstrates fewer demanding behaviors
  - Cooperates with staff in an effort to complete assigned tasks

❖ Nursing Interventions
- ➢ Behavior modification therapy
- ➢ Parent training
- ➢ School accommodations
- ➢ Pharmacologic agents that address inattention and hyperactive and impulsive behaviors
- ➢ Nursing interventions for the child with ADHD are aimed at
  - Ensuring that client remains free of injury
  - Encouraging appropriate interactions with others
  - Increasing feelings of self-worth
  - Fostering motivation for compliance with tasks

❖ Psychopharmacological Intervention for ADHD
- ➢ Central nervous system (CNS) stimulants
  - Dextroamphetamine (Adderall)
  - Methamphetamine (Desoxyn)
  - Methylphenidate (Ritalin)
    - Administer after meals. Do not give after 4pm
    - Side effects: Insomnia, anorexia, weight loss, tachycardia
    - Toxicity: Dizziness, HTN, hallucinations, seizures
- ➢ Alpha Agonists
  - Clonidine
  - Guanfacine

- Side effects: sedation, hypotension, bradycardia, weight gain

- Diagnosis of bipolar disorder in children
  - Controversial
  - Mood lability
  - Mean age 18-20
  - Disruptive Mood Dysregulation Disorder (DMDD)
    - Symptoms: angry or irritable mood, temper tantrums or outbursts atypical of age; severe symptoms impact function
    - Be aware of presentation of depression in children
    - Conduct suicide risk assessments
- Oppositional Defiant Disorder (ODD)
  - Persistent pattern of angry mood and defiant behavior
  - Occurs more frequently then in their peers
  - Interferes with social, educational, or vocational activities
- Assessment
  - Stubbornness, procrastination
  - Disobedience, negativism
  - Carelessness, testing of limits
  - Resistance to directions
  - Unwillingness to cooperate
  - Characterized by passive-aggressive behaviors
  - School avoidance and underachievement
  - Temper tantrums, argumentative
  - Impaired interpersonal relationships
- Conduct Disorder
  - Persistent pattern of behavior in which the basic rights of others and major age-appropriate societal norms or rules are violated.
  - Childhood-onset conduct disorder
    - Seen as early as 2 yrs.
    - More severe than ODD.
    - physically aggressive, has poor peer relationships, shows little concern for others, and lacks guilt and remorse
  - Adolescent-onset conduct disorder
    - Results in less aggression.
    - Acts out misconduct with peer group
    - early-onset sexual behaviors
    - drinking, substance abuse
    - risk-taking behaviors
- Assessment
  - Inability to control anger
  - Low academic achievement
  - Run away from home
  - Breaking the law
    - setting fires
    - destroying property
    - breaking into property
  - Bullies, threatens, physical fights, uses weapons to cause harm
- ODD and Conduct Disorder
  - Assessment, diagnosis, and implementation
    - Parenting classes and parent management training, including limit setting, are necessary to deal with these disorders.
    - Treatment is long term, usually several hours per week.

- Therapy includes problem-solving and social skills, controlling impulses, developing empathy, and medication to treat coexisting conditions such as ADHD, anxiety, or mood disorders.

❖ ODD and Conduct Disorder: Medications
- ❖ Selective Serotonin Reuptake Inhibitors (SSRIs)
- ❖ Fluoxetine, Sertraline
  - Decreases anger & agitation
- ❖ Central nervous system (CNS) stimulants
- ❖ *Dextroamphetamine, Methamphetamine, Methylphenidate*
- ❖ Atypical Antipsychotics
- ❖ *Risperidone, Olanzapine, quetiapine, aripiprazole*
  - Decreases aggressiveness

❖ **Neurocognitive Disorders**
- ➢ 3 Classifications
  - Delirium
  - Mild Neurocognitive Disorders
  - Major Neurocognitive Disorders

❖ Introduction
- ➢ Clinically significant deficit in cognition or memory
- ➢ Significant change from a previous level of functioning.
- ➢ The number of people with these disorders is growing
- ➢ The objective of care:
  - provide these individuals with the dignity and quality of life
  - offering guidance and support

❖ Delirium
- ➢ Acute cognitive disturbance
- ➢ Characterized by a disturbance in level of awareness and a change in cognition
- ➢ Often reversible
- ➢ Develops rapidly over a short period
- ➢ Patients >65 years old- 50%

❖ Delirium
- ➢ Usually due to an underlying physiological cause
- ➢ Risk Factors
  - Cognitive impairment
  - Older age
  - Infection
  - Polypharmacy
  - Surgery
  - Restraint use

❖ Clinical Picture
- ➢ Characterized by:
  - Inability to focus or sustain attention, distractible
  - Abrupt onset
  - Disorientation, Anxiety, Agitation
  - Poor memory, Delusional thinking, Visual hallucinations
- ➢ Can have permanent cognitive decline
- ➢ Associated with longer hospitalizations and ↑ morbidity & mortality

❖ Assessment
- ➢ Assess patient safety; risk for injury.
- ➢ Determine fluctuating levels of consciousness.
- ➢ Interview the family to determine the patient's normal level of consciousness and cognition.
- ➢ Perform a comprehensive nursing assessment

- Assess vital and neurologic signs
- Review medications
- Physical needs

- Outcomes
  - GOAL**:** Patient will return to previous level of functioning.
  - Patient will:
  - remain safe and free from injury while in the hospital
  - oriented to time, place, and person
  - free from falls and injury
  - IV/ Foley will remain in place.
- Planning and Implementing
  - Medical management:
    - treating any underlying cause.
  - Nursing implementations:
    - directed toward patient safety.
      - Communicate in simple and concrete phrases.
      - Use reality-orientation aids
      - Supportive family
      - Sitters
- Mild & Major Neurocognitive Disorders
  - Dementia is a broad term → Progressive deterioration in cognitive functioning
  - Mild → symptoms do not interfere with ADLs
  - Major → symptoms progress & interfere with ADLs and independence
  - Collection of symptoms
    - Significant cognitive decline
    - Cognitive deficits interfere with independence
    - Deficits can not be explained by another mental health disorder.
- Alzheimer Disease Data
  - 50% to 80% of all dementias
  - 5.3 million Americans
  - 6th leading cause of death in U.S. adults
  - Stages
  - 1 (Mild- Forgetfulness) – 4 (Late- End Stage)
- Risk Factors
  - Age & Gender
    - Incidence doubles after age 65
    - AD is not a normal part of aging
    - 2/3rds are women
  - Family History
    - First-degree relatives
  - Lifestyle
    - Lack of exercise
    - Poor diet
- Neurobiological Factors
  - Beta-amyloid plaques & Neurofibrillary tangles
    - Overabundance of beta-amyloid
    - Tau protein changes
  - Anatomical Changes
    - Cortical atrophy
    - Hippocampus
    - Ventricles
- Stage1 (Mild) Forgetfulness

- Loss of energy, drive, initiative
- Difficulty learning
- Short term memory loss, Forgetfulness
- Depression is common
- Apathy
- Confusion

❖ Stage 2 (Moderate) Confusion
- Gaps in memory
- Hygiene suffers
- Apraxia
- Labile Mood: paranoia, anger, loss of interest
- May need full time care
- Withdraw

❖ Stage 3 (moderate – severe) Ambulatory dementia
- Unable to identify familiar objects or people (agnosia)
- Words must be repeated to complete a task (apraxia)
- Agraphia is evident
- Total care is needed
- Agitation, violence, paranoia, delusions
- Wondering
- Safety

❖ Stage 4 (late) End Stage
- Hyperorality
- Blunting of emotions
- Visual Agnosia
- Hypermetamorphosis
- Loss of ability to talk & walk
- Dysphasia
- Weight loss
- At risk for: dehydration, pressure ulcers, falls
- Death secondary to choking/ infection

❖ Cardinal Symptoms
- First cognitive symptom → impairment in memory & learning
- Defense Mechanisms
- Denial
- Confabulation → unconscious attempt to maintain self esteem
- Perseveration → repetition of phrases or behavior
- Avoidance of questions
- Cognitive Impairment
- Amnesia
- Aphasia
- Apraxia
- Agnosia

❖ Interventions
- Encourage independence with ADLs
- Label clothing
- Give step-by-step instructions
- Monitor intake
- Weekly weights
- Bowel and bladder program
- Maintain a calm environment
- Use medications for sleep with caution

- Communication Guidelines
  - Always identify yourself.
  - Call the person by his or her name at each meeting.
  - Speak slowly.
  - Use short, simple words and phrases.
  - Maintain face-to-face contact.
  - Be near the patient when talking, one or two arm lengths' away.
  - Have the patient wear eyeglasses or a hearing aid.
  - Keep the patient's room well lit.
  - Have clocks, calendars, and personal items in clear view.
  - Provide a daily schedule
  - Reinforce the patient's pictures, nonverbal gestures, X's on calendars, and other methods to present reality.
- Interventions for the safe environment
  - Gradually restrict the use of a car.
  - Remove throw rugs
  - If verbally upset, give support and change the topic.
  - Install safety bars in the bathroom.
  - Wandering
    - Mattress on floor
    - Locks on the top of the door
- Supporting Families
  - Transportation services
  - Supervision and care when the primary caregiver is out of the home
  - Daycare centers
  - Support groups
  - Respite and residential services
  - Meals on wheels
  - Alzheimer's Association
- Pharmacologic Intervention
  - Age alters the metabolism, absorption, and elimination of many medications, and older adults are more sensitive to these effects. In older patients, remember to
  - **Cholinesterase Inhibitors**:
    - Donepezil (Aricept)
    - Rivastigmine (Exelon)
    - Galantamine (Razadyne)
      - **Side Effects:**
        - Nausea
        - Vomiting
        - Diarrhea
        - Weight loss
        - Headache
      - Cholinergic crisis
        - Respiratory support
        - Atropine
  - Memantine (Namenda)
    - *N*-methyl-D-aspartate (NMDA) antagonist
    - Normalizes and regulates glutamate
    - Side Effects: dizziness, headache, constipation, confusion
  - Namzaric (Memantine + Donepezil)
    - Donepezil prevents breakdown of acetylcholine
    - Memantine regulates glutamate

- Pharmaceutical agents for agitation, aggression, hallucinations, thought disturbances, and wandering
  - Risperidone (Risperdal)
  - Olanzapine (Zyprexa)
  - Quetiapine (Seroquel)
  - Ziprasidone (Geodon)
- Pharmaceutical agents for depression
  - Selective serotonin reuptake inhibitors
    - Often considered first-line due to favorable side effect profile
  - Trazodone (Desyrel)
    - Good choice for clients with insomnia
- Pharmaceutical agents for anxiety (should not be used routinely for prolonged periods)
  - Chlordiazepoxide (Librium)
  - Alprazolam (Xanax)
  - Lorazepam (Ativan)
  - Diazepam (Valium)

❖ **Substance-Related Disorders**
- Substance addiction
  - Chronic, relapsing brain disease
  - Attempts to cut down or control use fail
  - Intense craving for the substance
  - Long-lasting changes in the brain
  - Use of the substance causes the person difficulty with interpersonal relationships or to become socially isolated
  - Engages in hazardous activities when impaired by the substance
  - Tolerance develops and the amount required to achieve the desired effect increases
  - Substance-specific symptoms occur upon discontinuation of use
- Substance intoxication
  - Development of a reversible syndrome of symptoms following excessive use of a substance
  - Direct effect on the central nervous system
  - Disruption in physical and psychological functioning
  - Judgment is disturbed and social and occupational functioning is impaired.
- Substance withdrawal
  - Development of symptoms that occurs upon abrupt reduction or discontinuation of a substance that has been used
  - Symptoms are specific to the substance that has been used.
  - Disruption in physical and psychological functioning

❖ Prevalence
- The U.S. has one of the highest levels of substance abuse and addiction in the world
- Drug overdose is the leading cause of accidental death in the U.S.
- Opioid use is most significant in the U.S.
- Alcohol use disorder is the most common substance use problem in the U.S.

❖ Adolescents who start drugs before the age of 14 have a high risk of developing an addiction

❖ Effects of route of substance ingestion
- <u>IV:</u> Higher rate of infection, venous sclerosis, and positive HIV/AIDS; need for increasing doses for efficacy
- <u>Intranasal:</u> Sinusitis, perforated nasal septum
- <u>Smoking:</u> Respiratory infections; need for increasing doses for efficacy

❖ Predisposing Factors
- Biological factors
  - Genetics: Apparent hereditary factor, particularly with alcoholism

        - Biochemical: Alcohol may produce morphine-like substances in the brain that are responsible for alcohol addiction.
    - Biochemical factors
        - Dopamine
            - Regulates motivation, emotion, cognition, and the ability to experience pleasure
            - Plays a major role in all addictions
            - Becomes less effective, so the individual needs more drug to raise dopamine levels
                - Cycle of tolerance
    - Psychological factors
        - Personality factors: Certain personality traits are thought to increase a tendency toward addictive behavior.
        - Cognitive factors: Irrational thinking patterns have long been identified as a problem that is central in addictions.
    - Sociocultural factors
        - Social learning: Children and adolescents are more likely to use substances with parents who provide model for substance use.
        - Use of substances may also be promoted within peer group.
        - Adverse childhood experiences (ACEs)
        - Inadequate parental supervision
- Alcohol Use Disorder
    - A legal substance
    - Abbreviation ETOH
    - Primarily metabolized in the liver
    - Alcohol content varies by type of beverage
- *DSM-5* Diagnostic Criteria for Alcohol Use Disorder
    - Use in larger amounts or over long period
    - Persistent or unsuccessful efforts at control
    - Excessive time spent in procurement, use, or recovery
    - Craving
    - Recurrent use results in failure to fulfill major roles
    - Continued use despite persistent social problems
    - Loss of important activities due to use
    - Recurrent use despite physical hazards
    - Continued use despite knowledge of negative health effects
    - Tolerance (need for more; or diminished effect)
    - Withdrawal or continued use to avoid withdrawal
- What is heavy drinking?
    - For men:
        - More than 4 standard drinks on any 1 day, or more than 14 standard drinks in any 1 week
    - For women:
        - More than 3 standard drinks on any 1 day, or more than 7 standard drinks in any 1 week
- Alcohol Intoxication
    - **Intoxication**: Blood alcohol level (BAL): determines level of intoxication and tolerance. 0.08 mg % - Legal level of intoxication in most states
    - Slurred speech
    - Incoordination
    - Unsteady gait
    - Drowsiness
    - Decreased B/P
    - Disinhibition of sexual or aggressive drives
    - Impaired judgment
    - Impaired social or occupational function

- Impaired attention
- Irritability

❖ Alcohol Withdrawal
- Tremors
- Cramps
- Vomiting
- Elevated heart rate, B/P, temperature
- Anxiety
- Insomnia
- Headache
- GI disturbances

❖ Alcohol Withdrawal Delirium
{Delirium Tremens (DTs)}
- Medical emergency
- Begins 48-96 hours after the last drink
- Lasts 1-5 days
- Hallucinations, delusions, agitation, fever, tachycardia, HTN, agitation, fluctuating levels of consciousness
- Hyperventilation → respiratory alkalosis → ↓cerebral blood flow
- Hypokalemia, hypomagnesemia, hypophosphatemia
- Can result in death → dysrhythmias

❖ Initial Intervention
- General support measures
- Assessment of Vital Signs
- Medications
  - Benzodiazepines
  - Phenobarbital
  - Replace electrolytes
  - Multivitamin therapy
  - Thiamine
- CIWA scale

❖ Chronic Use
- Wernicke-Korsakoff syndrome → Thiamine!
- Alcoholic cardiomyopathy
- Esophagitis
- Gastritis
- Pancreatitis
- Alcoholic hepatitis → Cirrhosis
- Thrombocytopenia

❖ Pharmacologic Interventions: Long term Treatment
- **Naltrexone** (*ReVia, Vivitrol*)
  - Reduces or eliminates alcohol craving.
- **Acamprosate** (*Campral*)
  - Helps patient abstain from alcohol.
- **Disulfiram** (*Antabuse*)
  - Reaction causes unpleasant physical effects.

❖ Types of Treatment
- Conventional

- Psychotherapy
- Group therapy
- Cognitive-behavioral therapy (CBT)
- Motivational interviewing
- Recovery Model
  - **12-Step Programs:**
    AA, Al-Anon, Ala-Teen
  - **SMART**—self-management and recovery training
  - **Programs:**
  - Residential intensive outpatient
  - Outpatient drug-free
  - Employee assistance
- Barriers to Treatment

❖ Opium
- Opium → Morphine → Heroin
- Morphine is 10X more powerful than Opium
- Heroin is 2-5X more potent than morphine
- Opioids of natural origin: Opium, Morphine
- Opioid derivatives: Heroin, Hydromorphone, Oxycodone, Hydrocodone
- Synthetic opiate-like drugs: Methadone, Fentanyl

❖ Opioid Use Disorder
- Patterns or use/ abuse
  - Effects on the body
    - CNS effects: euphoria, mood changes, mental clouding, drowsiness, pain reduction
    - Gastrointestinal effects: n/v, decrease GI motility
    - Cardiovascular effects: ↓ pain (MI), ↓BP
- Intoxication
  - Symptoms last for several hours
    - euphoria
    - apathy
    - dysphoria
    - psychomotor agitation or retardation
    - impaired judgment
  - Constricted pupils, ↓ respirations, ↓ BP, Slurred speech
  - Severe opioid intoxication
    - respiratory depression, coma, and death.
- Withdrawal
  - From ultra-short-acting meperidine
    - Symptoms begin quickly, peak in 8 to 12 hours, and subside in 4 to 5 days.
  - From short-acting drugs (heroin)
    - Symptoms occur within 6 to 8 hours, peak within 1 to 3 days, and gradually subside in 5 to 10 days.
  - From long-acting drugs (methadone)
    - Symptoms occur within 1 to 3 days, peak between days 4 and 6, and subside in 14 to 21 days.
- Symptoms of opioid withdrawal
  - nausea/vomiting
  - lacrimation or rhinorrhea
  - pupillary dilation
  - Piloerection/ chills
  - sweating
  - abdominal cramping
  - diarrhea

        - yawning
        - fever
        - Insomnia
        - Panic
- Emergency Care for Opioid Overdose
    - Support respirations/ maintain airway
    - Infuse IV fluids
    - Administer naloxone
    - Maintain patient safety, and institute seizure precautions
    - Monitor VS, cardiac output, neurological status
    - Death → Respiratory Depression
- Long-Term Pharmacologic Management
    - **Methadone** (Dolophine)
        - Most effective; opioid agonist that blocks the craving.
    - **Buprenorphine**, **Suboxone**
        - Blocks the signs and symptoms of opioid withdrawal.
    - **Naltrexone** (ReVia, Vivitrol)
        - Antagonist that blocks the euphoric effects of opioids.
- Stimulant Use Disorder
    - A profile of the substance
        - Amphetamines: Ecstasy, methamphetamine
        - Synthetic stimulants: Bath salts
        - Methylphenidate (Ritalin)
        - Cocaine (crack)
        - Caffeine
        - Nicotine
    - Highly Addictive
    - Dopamine, Serotonin, Norepinephrine
    - Intoxication
        - Euphoria, decreased appetite
        - impaired judgment, confusion
        - Tachycardia, HTN
        - Hyperthermia
    - Withdrawal
        - Sleep disturbances, fatigue
        - Cravings
        - Dysphoria → Suicidal ideation
    - Long Term Abuse
        - Neurotoxicity & Psychosis
        - Cracked teeth, skin infections, lung/ kidney/ liver damage
    - Symptoms of an Overdose (Amphetamines & Cocaine)
        - Cardiac arrhythmias
        - Seizures
        - Extreme psychosis
        - Cardiac arrest → Possible death
    - Emergency Treatment
        - Activated Charcoal
        - Fluids
        - Physical or Chemical restraints
        - Benzodiazepines
        - Quiet Environment
- Cannabis Use Disorder

- Most widely used drug in the world
- Tetrahydrocanniol (THC) is the active ingredient – mind altering effects
- Smoked or Ingested
- Can be detected up to 4 weeks after use

- Effects on the body
  - Cardiovascular:
    - tachycardia, hypotension
  - Respiratory:
    - laryngitis, bronchitis, cough
  - Reproductive:
    - ↓ sperm count, motility, and structure in men. Suppression of ovulation and alteration in hormone levels in women.
  - CNS:
    - euphoria, relaxed inhibitions, disorientation, depersonalization, and relaxation. Impairment in judgment, alteration in memory and learning ability. Amotivational syndrome.
- Intoxication
  - Impaired motor coordination, euphoria, anxiety, sensation of slowed time, and impaired judgment.
  - Physical symptoms include
    - increased appetite
    - dry mouth
    - tachycardia
  - Impairment of motor skills lasts for 8 to 12 hours.
- Withdrawal
  - Symptoms occur within a week following cessation of use.
  - Symptoms include:
    - Irritability, anger, or aggression
    - Nervousness, restlessness, or anxiety
    - Sleep difficulty
    - Decreased appetite or weight loss
    - Depressed mood
    - Physical symptoms
- Hallucinogen Use Disorder
  - Naturally occurring hallucinogens (plants & mushrooms):
    - Mescaline, Psilocybin, salvia
  - Synthetic compounds:
    - LSD, ketamine, PCP
  - Effects on the Body
    - Physiological
      - Nausea/vomiting
      - Chills
      - Pupil dilation
      - Increased blood pressure, pulse
      - Insomnia
      - Elevated blood sugar
      - Decreased respirations
    - Psychological
      - Heightened response to color, sounds
      - Paranoia, panic
      - Euphoria
      - Depersonalization/ Derealization
      - Hallucinations → stimulation of the SNS
  - Treatment

        - Low stimuli… minimal light, sound, activity
        - Attempt to “talk down” patient
        - Stay with the patient
        - Speak slowly and clearly in low voice
        - Antipsychotics or benzodiazepines
- Inhalant Use Disorder
    - fuels, solvents, adhesives, aerosol propellants, and paint thinners
    - Pattern of use:
        - Highest usage in ages 12-17
        - Methods: huffing, bagging, inhaled directly from the container or sprayed in the mouth/ nose
    - Effects on the body
        - CNS effects:
            - ataxia, neuropathy, speech problems, tremors
        - Respiratory effects:
            - wheezing, dyspnea, emphysema, pneumonia
        - Gastrointestinal effects:
            - abdominal pain, n/v
        - Renal system effects:
            - acute and chronic renal failure
    - Intoxication
        - Develops during or shortly after exposure
            - Dizziness, ataxia, muscle weakness
            - Euphoria, excitation, disinhibition, slurred speech
            - Nystagmus, blurred or double vision
            - Psychomotor retardation, hypoactive reflexes
            - Stupor or coma
    - Treatment
        - Support respirations
        - May have psychotic response → hours - weeks
        - Haloperidol for agitation
- Application of the Nursing Process
    - Nurses must begin relationship development with a substance abuser by examining their own attitudes and personal experiences with substances.
    - Motivational Interviewing
- Nursing Process: Assessment
    - Various assessment tools are available for determining the extent of the problem a client has with substances.
    - Drug history and assessment
    - Clinical Institute Withdrawal Assessment of Alcohol Scale
    - Michigan Alcoholism Screening Test (MAST)
    - CAGE Questionnaire
        - Have you ever felt you should **C**ut down on your drinking?
        - Have people **A**nnoyed you by criticizing your drinking?
        - Have you ever felt bad or **G**uilty about your drinking?
        - Have you ever had a drink first thing in the morning to steady your nerves (**E**ye-opener)?
- Interview Questions
    - In the last year, have you ever drunk or used drugs more than you meant to?
    - Have you felt you wanted or needed to cut down on your drinking or drug use in the last year?
- Interview Guidelines
    - Matter-of-fact
    - Nonjudgmental fashion
    - Specific details need to include:

        - Drug used
        - Drug route
        - Drug quantity
        - Time of last use
        - Usual pattern of use
    - SBIRT Training
- Discover the uniqueness of each patient
    - Learn patient's family history and personal interests
    - Encourage discussion of values and ideals
    - Assist the patient to identify problems in life
    - Assist the patient to identify interests that are not drug-related
- Substance Use and Health Care Workers
    - 10% to 20% of all nurses in the United States are estimated to be addicted to some type of illegal or controlled substance
    - Many nurses with a substance use disorder are under identified, underreported, untreated, and may continue to practice
    - If indicators of impaired practice are observed or suspected, there is an ethical obligation to report
- Dual Diagnosis
    - Clients with a coexisting substance disorder and mental disorder may be assigned to a special program that targets the dual diagnosis.
    - Program combines special therapies that target both problems.
- Interventions
    - Provide safe and supportive environment.
    - Administer substitution therapy.
    - Develop trust.
    - Identify maladaptive behaviors or situations.
    - Establish trust.
    - Set limits.
    - Positive reinforcement
    - Involve the family
- Harm Reduction
    - A set of practices that can reduce the impact of specific drug-using behaviors
    - Goal: To buffer the community from the full impact of addiction
    - Examples:
        - Methadone maintenance program
        - Needle exchange program
        - Easy availability of naloxone
- Relapse Prevention Strategies
    - Basics
        - Keep the program simple at first.
        - Review the instructions with health team members.
        - Write down important information and telephone numbers.
    - Skills
        - Provide CBT to increase coping skills.
    - Relapse Prevention Groups
        - Join the appropriate therapeutic groups.
    - Enhancement of Personal Insight
        - Become involved in group, individual, and/or family therapy.