Children & Adolescents

- 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
  - First onset of symptoms is most likely to occur in early childhood or in early adolescence.
  - Up to 21% prevalence of psychiatric disorders is revealed in children ages 9 to 21 years.
  - 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.
- Theory
  - Genetic factors
    - Resilience
  - Biochemical factors
    - Alterations in neurotransmitters
  - Environmental factors
    - Adverse Childhood Experiences (ACE)
- Concept: Resiliency
  - Many children and adolescents grow up threatened by hardships that put them at risk for emotional or physical illness.
  - Resiliency is developed through successful transition through a previous crisis, often with guidance and support.
  - Children and youth with a high degree of resilience often have certain things in common:
    - More available resources than non-adapting children
    - Good parenting or mentoring figure
    - Neurologically less vulnerable to stress
  - Mental Health Assessment
  - Focuses on developmental stages
    - Holistic and includes:
    - Presenting problem
    - Medical and developmental issues
    - Family history
    - Physical examination
    - ACE score
    - Mental status assessment
  - In adolescents, it is also important to consider substance use, sexual activity, self-harm behaviors, and suicidal thoughts.
- Mental Health Assessment
  - Methods of Collecting Data
    - Interviewing, testing, observing, and interacting
    - Histories from parents and caregivers
    - Questions answered about life at home and school
    - Free to describe current problems

        - Games, drawings, puppets, and free play used for children unable to respond to a direct approach
        - Important observations of interactions among child, adolescent, caregiver, and siblings
- 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
    - 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 Educational Plan (IEP)
        - Federal Individuals with Disabilities Education Act (IDEA).
    - Planning Care
        - Family Involvement
        - Education
            - The scope of the client's condition
            - Realistic expectations and client potentials
            - Methods for modifying behavior as required
            - Community resources from which they may seek assistance and support
    - 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.
- 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
    - Impairment in communication and imaginative activity
    - ritualized behaviors and interests may be noted
- ASD: Diagnosis
    - Most often diagnosed between ages 2 and 3
    - Diagnosed by
        - Child psychiatrist
        - Developmental pediatrician
        - Pediatric neurologist
    - Early diagnosis and early intervention is linked with a better prognosis.
- ASD: Planning Care
    - **Speech therapist:** help with delay in speech and language skills.
    - **Occupational therapist:** help with sensory issues or stimming behaviors
    - **Physical therapist:** help with strength and coordination
    - **Psychiatric mental health nurse practitioner or child psychiatrist**
    - **School support:** smaller classroom environments or alternative forms of instruction
- Nursing Interventions
    - 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
- Outcomes & Evaluation
    - The client
        - 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?
- Pharmacological Intervention for ASD
    - Two medications approved by the Food and Drug Administration
        - Risperidone
        - Aripiprazole
    - Targeted for the following symptoms
        - Aggression
        - Deliberate self-injury
        - Temper tantrums
        - Quickly changing moods
    - Dosage is based on weight of the child and the clinical response.
    - SSRIs- Fluoxetine, Sertraline

- 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
- Assessment
    - Difficulty in performing age-appropriate tasks
    - Highly distractible with a limited attention span
    - Impulsive
    - Difficulty forming satisfactory interpersonal relationships
    - Disruptive and intrusive in group endeavors
    - Excessive levels of activity, restlessness, and fidgeting
    - Accident prone
    - Low frustration tolerance and temper outbursts
- 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
        - Examples:
            - Dextroamphetamine (Adderall),
            - Methamphetamine (Desoxyn)
            - Methylphenidate (Ritalin)

            - Side effects: Insomnia, anorexia, weight loss, tachycardia, decrease in rate of growth and development
        - Alpha Agonists
            - Examples:
                - Clonidine
                - Guanfacine

- Bipolar and Mood Disorders
    - 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: Characterized by passive-aggressive behaviors
        - Stubbornness, procrastination
        - Disobedience, negativism
        - Carelessness, testing of limits
        - Resistance to directions
        - Unwillingness to cooperate
        - Running away
        - School avoidance and underachievement
        - Temper tantrums, fighting, and argumentativeness
        - 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
        - Use of projection as a defense mechanism
        - Inability to control anger
        - Low academic achievement
        - Run away from home

        - Break the law- setting fires, destroying property, breaking into property
- 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.
- Separation Anxiety Disorder
    - The essential feature of separation anxiety disorder is excessive anxiety concerning separation from those to whom the individual is attached.
    - Anxiety exceeds that which is expected for the person's developmental level and interferes with social, academic, occupational, or other areas of functioning.
    - Assessment
        - Onset may occur as early as preschool age, rarely as late as adolescence.
        - Child has difficulty separating from the mother.
        - Separation results in:
            - tantrums
            - crying
            - screaming
            - complaints of physical problems
            - clinging behaviors
        - Reluctance or refusal to attend school is especially common in adolescence.
        - Younger children may "shadow."
        - Worrying is common.
        - Nightmares may occur.
        - Specific phobias are not uncommon.
        - Fear of sleeping away from home
    - Nursing Interventions
        - Nursing care of the child with separation anxiety disorder is aimed at:
            - Helping the client maintain anxiety at a manageable level in the face of separation from significant other
            - Assisting with development of more adaptive coping strategies
            - Developing trust and demonstrating the ability to interact appropriately with others

- Substance-Related and Addictive Disorders
    - Substance use disorders
        - Significant issue in adolescence
        - Estimated to occur in 5% of youth between 12 and 17
    - Assessment, diagnosis, and implementation
        - Structured questionnaires or an informal approach
        - Provide needed education and referrals
    - Nonpharmacological Interventions for children with a mental health disorder
        - Parental involvement
        - Group therapy
        - Milieu therapy
        - Behavior modification
        - Restraints and seclusion

        - Cognitive behavioral therapy
        - Play therapy
        - Therapeutic games
        - Therapeutic drawing
        - Music therapy
        - Movement and dance therapy
        - Recreational therapy

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: A Potentially Reversible Cognitive Disorder
        - Characterized by a disturbance in level of awareness and a change in cognition
        - Develops rapidly over a short period
        - Usually begins abruptly
        - Is always secondary to another condition
        - Possible causes: medical conditions, substance use (intoxication and withdrawal), and medication or toxin exposure
        - Duration is usually brief and subsides completely on recovery from underlying determinant
    - Predisposing Factors
        - Delirium due to a general medical condition
            - Infections, febrile illness, metabolic disorders, head trauma, seizures, migraine headaches, brain abscess, stroke, electrolyte imbalance, and others
    - Symptoms
        - Difficulty sustaining and shifting attention
        - Extreme distractibility
        - Disorganized thinking
        - Speech that is rambling, irrelevant, pressured, and incoherent
        - Impaired reasoning ability and goal-directed behavior
        - Disorientation to time and place
- Symptoms
    - Impairment of recent memory
    - Misperceptions about the environment, including illusions and hallucinations
    - Disturbance in level of consciousness, with interruption of the sleep-wake cycle
    - Psychomotor activity that fluctuates between agitation and restlessness and a vegetative state
    - Emotional instability
    - Autonomic manifestations such as:
        - Tachycardia
        - Sweating
        - Flushed face
        - Dilated pupils
        - Elevated blood pressure
    - Predisposing Factors
        - Substance-induced delirium

            - May be caused by intoxication or withdrawal from certain substances, such as
                - Anticholinergics, antihypertensives, corticosteroids, anticonvulsants, analgesics, and others
                - Alcohol, amphetamines, cannabis, cocaine, hallucinogens, inhalants, and others
                - Toxins, including organic solvents and fuels, lead, mercury, arsenic, carbon monoxide, and others
- Prevalence and Co-Morbidity
    - Is present in 60% of nursing home residents who are 75 years of age or older
    - Is present in 15%-53% of older individuals postoperatively
    - Approximately 75%-85% of people with a terminal illness develop delirium near death
    - 70%-87% of people in intensive care develop delirium
- Assessment Guidelines
    - 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
    - Optimize comfort
- Nursing Diagnoses
    - Risk for injury
    - Risk for acute confusion
    - Deficient fluid volume
    - Risk for self-harm
    - Risk for fear
    - Disturbed sleep pattern
    - Impaired verbal communication/social interaction
    - Self-care deficit
    - Impaired environmental interpretation syndrome
- Outcomes
    - GOAL: Patient will return to premorbid 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
        - tubes 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
        - Maintain the same staff
        - Supportive family
- Care Guidelines
    - Keep distractions to a minimum.
    - Always identify yourself.
    - Speak slowly with short, simple words.
    - Reinforce reality

        - Have the patient wear eyeglasses or hearing aids.
        - Use trained sitters to help with safety.

- Neurocognitive Disorder
    - Impairment in:
        - cognitive functions of thinking
        - reasoning
        - memory
        - learning
        - speaking

- Neurocognitive Disorder
    - Neurocognitive disorder (NCD) may be classified as *mild* or *major,* depending on the severity of symptoms.
    - *mild cognitive impairment*
    - Major NCD
        - *Dementia*
        - *Alzheimer's Disease*
    - **Primary NCDs** are those in which
        - The disorder itself is the major sign of some organic brain disease not directly related to any other organic illness
    - **Secondary NCDs**
        - Caused by or related to another disease or condition
    - Symptoms:
        - Impairment exists in abstract thinking, judgment, and impulse control.
        - Conventional rules of social conduct are disregarded.
        - Personal appearance and hygiene are neglected.
        - Language may or may not be affected.
        - Personality change is common.
            - Alteration
            - Accentuation
    - Reversible NCD may be more appropriately termed *temporary dementia*.
    - It can occur as a result of
        - Stroke
        - Depression
        - Side effects of medications
        - Nutritional deficiencies
        - Metabolic disorders
    - As the disease progresses, symptoms may include
        - Aphasia
        - Apraxia
        - Irritability and moodiness, with sudden outbursts over trivial issues
        - Inability to care for personal needs independently
        - Wandering away from the home
        - Incontinence

- Alzheimer's Disease: Irreversible and Progressive Brain Disorder
    - Alzheimer Disease Data
        - 50% to 80% of all dementias
        - Sixth leading cause of death in U.S. adults
    - Stages
        - 1 (no apparent symptoms) – 7 (very severe cognitive decline)
    - Cardinal Symptoms of AD

- Amnesia
    - memory impairment
- Aphasia
    - loss of language ability
- Apraxia
    - loss of purposeful movement
- Agnosia
    - loss of the ability to recognize objects
- Disturbances in Executive Functioning
    - Planning
    - Organizing
    - Abstract thinking
- Four Defense Behaviors
    - Denial (cover up)
    - Confabulation (making up answers in unconscious attempt to maintain self-esteem)
    - Perseveration (repetition of phrases or behavior)
    - Avoidance of questions
- Stages
    - Stage 1 (Mild)
        - In the first stage of the illness
        - Forgetfulness
        - Possible depression
    - Stage 2 (Moderate)
        - Confusion
        - Memory gaps
        - Apraxia
        - Apathy- most common behavioral problem
        - Labile mood
    - Stage 3 (moderate to severe)
        - Unable to identify familiar objects or people
        - Advanced agnosia and apraxia
        - Agraphia
        - The world becomes very frightening
    - Stage 4 (late)
        - End-stage: agraphia, hyperorality, hypermetamorphosis
        - Loses ability to perform ADLs independently
        - Forgets addresses, phone numbers, and names of close relatives
        - Can become disoriented about place and time, but they maintain knowledge about themselves
- Predisposing Factors
    - Onset is slow and insidious.
    - Course of the disorder is generally progressive and deteriorating.
    - Etiologies may include:
        - Acetylcholine alterations
        - Plaques and tangles
        - Head trauma
        - Genetic factors

- Nursing Process: Neurocognitive Disorders
    - Assessment
        - The client history
            - Areas of concern to be addressed

            - Type, frequency, and severity of mood swings
            - Personality and behavioral changes
            - Cognitive changes
            - Language difficulties
        - Physical assessment
            - Neurological examination to assess mental status, alertness, muscle strength, reflexes, sensory perception, language skills, and coordination
    - Diagnostic laboratory evaluations
        - Include blood and urine to test for:
            - Various infections
            - Diabetes or hypoglycemia
            - Electrolyte imbalances
            - Presence of toxic substances
    - Other diagnostic evaluations may include
        - ECG, CT, PET, MRI
        - Lumbar puncture to examine cerebrospinal fluid
    - Outcome Criteria
        - The client
            - Has not experienced physical injury
            - Has not harmed self or others
            - Has maintained reality orientation to the best of his or her capability
            - Participates in activities of daily living with assistance
- Planning and Implementation
    - Risk for trauma
        - Goals
            - Short term & long term- preventing injury
        - Interventions
            - Low stimuli
            - Keep in a structured setting
            - Safe enclosed spaces
    - Disturbed thought processes/impaired memory and disturbed sensory perception
        - Goals
            - Maintain reality orientation
        - Interventions
            - Clocks, calendars, signs
            - Discourage delusional thinking
            - Provide reassurance that the client is safe
    - Impaired verbal communication
        - Goals
            - Ensure client’s needs are known, anticipated, and fulfilled
        - Interventions
            - Keep interactions calm and reassuring
    - Self-care deficit
        - Goals
            - Assist the client with ADLs they can perform and fulfill needs that they cannot
        - Interventions
            - Provide guidance and support
            - Perform ongoing assessments
    - Communication Guidelines: AD
        - 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.
        - Label
        - 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
- 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
    - 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
    - Tricyclic antidepressants
        - Often avoided due to anticholinergic and cardiac side effects
    - 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
- Substance addiction
    - 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
- Classes of Psychoactive Substances
    - Alcohol, Caffeine, Cannabis, Hallucinogens, Inhalants, Opioids, Sedatives/hypnotics, Stimulants, Tobacco
- 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.
- Prevalence
    - Adolescents who start drugs before the age of 14 have a high risk of developing an addiction
    - Effects of route of substance ingestion

        - IV: Higher rate of infection, venous sclerosis, and positive HIV/AIDS; need for increasing doses for efficacy
        - Intranasal: Sinusitis, perforated nasal septum
        - Smoking: Respiratory infections; need for increasing doses for efficacy
- Opioid use in Delaware
- 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
    - Substance Use in Pregnancy
        - Alcohol:
            - Most toxic teratogen for fetuses
            - Fetal alcohol syndrome (FAS) or effects
        - Nicotine:
            - Risks of low birth weight and developmental issues (cerebral palsy, etc.)
        - Opiates:
            - Can lead to intrauterine fetal death
            - High risk of infant death
            - Infants are born opiate-dependent
        - Fetal Alcohol Syndrome
            - Learning difficulties
            - Speech and language delays
            - Intellectual disability
            - Poor reasoning skills
            - Sleep and sucking problems as a baby
            - Vision or hearing problems
            - Problems with the heart, kidneys, or bones
            - Abnormal facial features
            - Small head size
            - Shorter-than-average height
            - Low body weight
            - Poor coordination

        - Hyperactive behavior
        - Difficulty paying attention
        - Poor memory
        - Difficulty in school
- 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: Only drug for which objective measures of intoxication exist
    - Blood alcohol level (BAL): determines level of intoxication and tolerance
        - 0.08 mg %
        - Legal level of intoxication in most states
    - S/S
        - 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
    - Peaks after 24 to 48 hours
    - Symptoms continue for 5-7 days
    - Rapidly and dramatically disappears
- Minor Symptoms: Alcohol Withdrawal
    - Tremors

    - Cramps
    - Vomiting
    - Elevated heart rate, B/P, temperature
    - Anxiety
    - Insomnia
    - Headache
    - GI disturbances
- Alcohol Withdrawal Delirium {Delirium Tremens (DTs)}
        - <u>Medical emergency</u>
        - Can result in death
        - Peaks 2-3 days after cessation
        - Hallucinations, delusions, agitation, fever, perceptual and autonomic disturbances; severe disturbance in sensorium; fluctuating levels of consciousness
    - Initial Intervention
        - General support measures
        - Assessment of Vital Signs
        - Medications
            - Benzodiazepines: Diazepam/ Lorazepam
            - Replace electrolytes
            - Multivitamin therapy
            - Thiamine
        - CIWA scale
- Alcohol Withdrawal
    - Early signs within a few hours
    - Peaks within 24 to 48 hours
    - Rapidly and dramatically disappears unless it progresses to delirium
    - Irritability and “shaking inside”
    - Tremors
    - HTN, tachycardia
    - Grand mal seizures possible in 7 to 48 hours after cessation
    - Illusions
- Withdrawal Delirium
    - Medical emergency
    - Possible death
    - Peaks 2 to 3 days after cessation and reduction
    - Autonomic hyperactivity
    - Sensorial and perceptual disturbances
    - Fluctuating loss of consciousness (LOC)
    - Delusions (paranoid)
    - Agitated behaviors
    - Body temperature 100° F or higher
- Chronic use
    - Wernicke’s encephalopathy:
        - Most serious form of thiamine deficiency in alcoholic patients
    - Korsakoff’s psychosis:
        - Syndrome of confusion, loss of recent memory, and confabulation in alcoholic patients
    - Alcoholic cardiomyopathy:

        - Effect of alcohol on the heart is an accumulation of lipids in the myocardial cells, resulting in enlargement and a weakened condition.
    - Esophagitis:
        - Inflammation and pain in the esophagus
    - Gastritis:
        - Effects of alcohol on the stomach include inflammation of the stomach lining characterized by epigastric distress, nausea, vomiting, and distention
    - Pancreatitis
        - Acute:
            - Usually occurs 1 or 2 days after a binge of excessive alcohol consumption.
            - Symptoms include constant, severe epigastric pain; nausea and vomiting; and abdominal distention.
        - Chronic:
            - Leads to pancreatic insufficiency resulting in steatorrhea, malnutrition, weight loss, and diabetes mellitus
    - Alcoholic hepatitis
        - Caused by long-term heavy alcohol use
        - Symptoms:
            - Enlarged, tender liver; nausea and vomiting; lethargy; anorexia; elevated white blood cell count; fever; and jaundice. Also ascites and weight loss in severe cases.
    - Cirrhosis of the liver
        - Cirrhosis is the end-stage of alcoholic liver disease and is believed to be caused by chronic heavy alcohol use. There is widespread destruction of liver cells, which are replaced by fibrous (scar) tissue.
- Leukopenia:
    - Impaired production, function, and movement of white blood cells
- Thrombocytopenia
- Sexual dysfunction
    - In the short term, enhanced libido and failure of erection are common.
    - Long-term effects include gynecomastia, sterility, impotence, and decreased libido.
- Pharmacologic Interventions: Treatment of Alcoholism
    - 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

- Opioid Use Disorder
    - Origins of Opium
        - Opium, was refined to create morphine
        - Morphine was refined to create heroin
        - Morphine is 10x more potent than opium
        - Heroin is 2x to 5x more potent than morphine
    - A profile of the substance:
        - Opioids of natural origin
            - Opium, Codeine
        - Opioid derivatives
            - Heroin, Hydromorphone, Oxycodone, Hydrocodone
        - Synthetic opiate-like drugs
            - Methadone, Fentanyl
    - 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 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.
        - From ultra-short-acting meperidine
            - Symptoms begin quickly, peak in 8 to 12 hours, and subside in 4 to 5 days.
    - Symptoms of opioid withdrawal
        - Dysphoria
        - muscle aches
        - nausea/vomiting
        - lacrimation or rhinorrhea
        - pupillary dilation
        - piloerection,
        - sweating
        - abdominal cramping
        - diarrhea
        - yawning
        - fever
        - insomnia
    - Emergency Care for Opioid Overdose
        - Perform/assist with induced emesis, or gastric lavage, if ordered
        - Infuse IV fluids;

        - Maintain airway
        - Administer naloxone
        - Maintain patient safety, and institute seizure precautions as necessary
        - Monitor VS, cardiac output, neurological status
    - 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
    - Effects on the body
        - CNS effects: tremors, restlessness, anorexia, insomnia, agitation
        - Cardiovascular effects
        - Pulmonary effects
        - Gastrointestinal and renal effects
    - Prolonged use of Methamphetamine can lead to cracked teeth, skin infections, stroke, lung disease, kidney and liver damage and even death
    - Intoxication: Amphetamine and cocaine intoxication produce
        - euphoria
        - impaired judgment
        - confusion
        - dilated pupils
        - tachycardia
        - HTN
        - Caffeine intoxication: > 250 mg
        - Restlessness
        - insomnia
    - Withdrawal
        - Amphetamine & Cocaine:
        - Dysphoria
        - Fatigue
        - Sleep disturbances
        - Cravings
        - Suicidal ideation
        - Caffeine:
        -
        - Headache
        - Fatigue
        - Drowsiness
        - Irritability
        - Muscle pain and stiffness
        - Nausea and vomiting
    - Symptoms of an Overdose (Amphetamines & Cocaine)
        - Cardiac arrhythmias
        - Convulsions
        - Respiratory failure
        - Coma → Cardiac arrest → Possible death
- Cannabis Use Disorder
        - Marijuana

        - Hashish
        - Tetrahydrocanniol (THC) is the active ingredient
        - Smoked or Ingested
        - Effects on the body
    - 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
    - Profile of the substance
        - Naturally occurring hallucinogens
        - Synthetic compounds
    - Naturally occurring hallucinogens:
        - Mescaline, Psilocybin, salvia
    - Synthetic compounds:
        - LSD, ketamine, MDA, PCP
    - Patterns of use
        - Use is usually episodic
    - Hallucinogens: Effects on the Body
        - Physiological
            - Nausea/vomiting
            - Chills
            - Pupil dilation
            - Increased blood pressure, pulse
            - Loss of appetite
            - Insomnia
            - Elevated blood sugar
            - Decreased respirations
        - Psychological
            - Heightened response to color, sounds
            - Distorted vision
            - Sense of slowed time
            - Magnified feelings
            - Paranoia, panic
            - Euphoria, peace
            - Depersonalization
            - Derealization
            - Increased libido

- Treatment
    - Low stimuli… minimal light, sound, activity
    - Attempt to “talk down” patient
    - Stay with the patient
    - Speak slowly and clearly in low voice
    - Give Diazepam for anxiety

- Inhalant Use Disorder
    - Aliphatic and aromatic hydrocarbons found in substances such as 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
            - Symptoms include:
                - Dizziness, ataxia, muscle weakness
                - Euphoria, excitation, disinhibition, slurred speech
                - Nystagmus, blurred or double vision
                - Psychomotor retardation, hypoactive reflexes
                - Stupor or coma

- 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
        - SBIRT
    - 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
        - 1. In the last year, have you ever drunk or used drugs more than you meant to?

        - 2. 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
    - Nursing Focus on Substance Abuse
        - 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.