Substance-Related Disorders NCLEX Review

Substance Abuse

- using a drug in a way that is inconsistent with medical or social norms and despite negative consequences
- The client recurrently uses substances; the client experiences recurrent, significant harmful consequences related to the use of substances
- client may have legal issues to resolve, and involvement with the legal system is common
- Screening tools are available to assess a substance abuse disorder, including Michigan Alcohol Screening Test (MAST), Drug Abuse Screening Test (DAST), and CAGE screening questionnaire

Substance dependence

- pattern of repeated use of a substance, which usually results in tolerance, withdrawal, and compulsive drug-taking behavior
- Occurs when the use of substance is no longer under control and continues despite adverse effects
- client takes substances in larger amounts and over longer periods than was intended.
- client has the desire to cut down, but efforts to decrease or discontinue use are

unsuccessful - Daily activities revolve around the use of a substance

Substance Induced-Disorder:

- Intoxication - use of a substance that results in maladaptive behavior
- Substance tolerance - the need for increased amounts of the substance to achieve the desired effect

Substance withdrawal

- refers to the negative psychological and physical reactions that occur when use of a substance ceases or dramatically decreases
- occurs when an individual experience a decrease in blood levels of a substance to which the individual is physiologically dependent.

II. Etiology

- Activation of Brain-Reward System
    - Factors to consider in a client with a substance-related disorder:

        1. Rebellion and peer group pressure in adolescence may contribute to the onset of substance use.
        2. Substance use may become a coping mechanism for decreasing physical and emotional pain.
        3. Depression may precede or occur as a result of or in association with substance use.
        4. Grief and loss may be associated with substance use.

III. Assessment

Dysfunctional behaviors related to substance abuse:

1. Preoccupation with obtaining and using substance
2. Manipulation to avoid consequences of behavior
3. Impulsiveness
4. Anger, including physical and verbal abuse
5. Avoidance of relationships
6. Sense of self-importance and requiring special treatment
7. Denial—blaming everything but the substance use for problems

8. Use of rationalization and projection to justify unacceptable behavior
9. Likely to be involved in codependent relationships whereby a significant other also unknowingly serves as a significant enabler
10. Low self-esteem k. Depression

IV. Alcohol Abuse

- Alcohol is a central nervous system (CNS) depressant affecting all body tissues.
- Physical dependence is a biological need for alcohol to avoid physical withdrawal symptoms, whereas psychological dependence refers to craving for the subjective effect of alcohol.

Note: Alcohol use during pregnancy causes dysmorphic prenatal and postnatal difficulties and central nervous system dysfunction.

A. Risk factors:

1. Biological predisposition; genetic and familial predisposition may also be a risk factor.
2. Depressed and highly anxious characteristics
3. Low self-esteem
4. Poor self-control
5. History of rebelliousness, poor school performance, delinquency
6. Poor parental relationships

B. Assessment:

- Slurred speech
- Uncoordinated movements
- Unsteady gait
- Restlessness
- Belligerence
- Confusion
- Sneaking drinks, drinking in the morning, experiencing blackouts
- Binge drinking
- Arguments about drinking o Missing work
- Increased tolerance to alcohol
- Intoxication, with blood alcohol levels of 0.1% (100 mg alcohol/dL blood) or greater

Note: Part of the assessment should include the type of alcohol, how much consumed, and for how

many years.

Psychological symptoms

- Depression
- Hostility
- Suspiciousness
- Rationalization
- Irritability
- Isolation

C. Complications Associated with Chronic Alcohol Use

1. Vitamin deficiencies
    - Vitamin B deficiency, causing peripheral neuropathies
    - Thiamine deficiency, causing Korsakoff's syndrome
        - Korsakoff's syndrome is a chronic memory disorder
2. Alcohol-induced persistent amnesic disorder, causing severe memory problems
3. Wernicke's encephalopathy, causing confusion, ataxia, and abnormal eye movements d. Hepatitis; cirrhosis of the liver
4. Esophagitis and gastritis
5. Pancreatitis
6. Anemias
7. Immune system dysfunctions
8. Brain damage
9. Peripheral neuropathy k. Cardiac disorders

D. Alcohol Withdrawal

- Early signs develop within a after cessation of alcohol intake. Symptoms of withdrawal usually begin 4 to 12 hours after cessation or marked reduction of alcohol intake
    - Early Signs of Alcohol Withdrawal
        - Anorexia (nausea and vomiting may occur)
        - Anxiety
        - Easily startled
        - Hyperalertness
        - Hypertension
        - Insomnia
        - Irritability
        - Jerky movements
        - Tachycardia
        - Tremors
- Severe or untreated withdrawal may progress to transient hallucinations, seizures, or

delirium— called delirium tremens (DTs).

Note: Withdrawal delirium is a medical emergency. Death can occur from myocardial infarction, fat emboli, peripheral vascular collapse, electrolyte imbalance, aspiration pneumonia, or suicide.

E. Nursing Interventions:

1. Provide care in a nonjudgmental manner.
2. Check the client frequently.
3. Monitor vital signs and neurological signs (every 15 minutes) and provide one-to-one supervision.
4. Provide a quiet, non-stimulating environment; encourage a family member (one at a time) to stay with the client to minimize anxiety.
5. Orient the client frequently.
6. Explain all treatments and procedures in a quiet and simple manner.
7. Initiate seizure precautions.
8. Administer sedating or anticonvulsant medication as prescribed.
9. Provide small, frequent, high-carbohydrate foods (administer antiemetic before meals as needed).
10. Monitor intake and output.
11. Administer vitamins (multivitamin, vitamin B complex including thiamine, and vitamin C)
12. Assist client with activities of daily living and assist with ambulation if stable.
13. Allow client to express fears.

F. Treatment and Management for Alcohol Withdrawal:

- Chlordiazepoxide (Librium) - is the most commonly prescribed medication for acute alcohol withdrawal and is usually given orally, unless a more immediate onset is required
- Safe withdrawal can also be accomplished with the administration of other benzodiazepines such as lorazepam (Ativan) or diazepam (Valium) to suppress the withdrawal symptoms.

G. Disulfiram (Antabuse) therapy/Aversion therapy

- Disulfiram is an alcohol-deterrent that may be prescribed for alcoholic dependence
- The medication sensitizes the client to alcohol, so a disulfiram-alcohol reaction occurs if alcohol is ingested.
- The client must abstain from alcohol for at least 12 hours before the initial dose is administered.
- Adverse effects usually begin within several minutes to ½ half after consuming alcohol and may last ½ to 2 hours.
- The client must avoid drinking alcohol for 14 days after disulfiram therapy has been discontinued; otherwise, the client is at risk for a disulfiram-alcohol reaction.

Adverse reactions:

1. Facial flushing
2. Sweating
3. Throbbing headache
4. Neck pain
5. Nausea and vomiting
6. Hypotension
7. Tachycardia
8. Respiratory distress

Client education:

- Educate about the effects of the medication.
- Ensure that the client agrees to abstain from alcohol and any alcohol-containing substances.
- Instruct the client that the effects of the medication may occur for several days after discontinuance.
- Other medications used to assist with cravings include acamprosate calcium (Campral) and naltrexone (ReVia)

NOTE: Instruct the client who is on disulfiram (Antabuse) therapy to avoid the use of substances that contain alcohol, such as cough medicines, rubbing compounds, vinegar, mouthwashes, and after shave lotions. The client needs to read the labels of all products.

H. Dealing with the Client Who Abuses Alcohol

- Direct the client’s focus to the substance abuse problem.
- Identify situations that precipitate angry feelings with the client.
- Set limits on manipulative behavior and verbal and physical abuse.
- Hold the client firmly to reasonable limits, consistently reinforcing rules, with reasonable consequences for breaking rules.
- Hold the client accountable for all behaviors.
- Assist the client to explore strengths and weaknesses.
- Encourage the client to focus on strengths if the client is losing control.
- Encourage the client to participate in group therapy and support groups.

I. Therapies for Clients with Substance Abuse and Their Families

- Behavior therapy, aversion conditioning with disulfiram (Antabuse) or another medication o Hospitalization
- Psychotherapy (individual, group, family)
- Support groups such as Alcoholics Anonymous; Narcotics Anonymous; Pills Anonymous; Al-Anon, Al-a-Teen, or Narc-Anon (for family members and friends of alcoholics or addicts); and Adult Children of Alcoholics
- Transitional living programs (halfway houses and Sober living homes)
- Both are group homes for people who are recovering from addiction issues.
- The biggest difference between sober living houses and halfway houses in the United States is that halfway houses generally require that residents either have already completed or are actively enrolled in some type of formal rehabilitation treatment program; sober living homes do not.

V. CNS Depressants

- CNS depressants include alcohol, benzodiazepines, and barbiturates and act as a depressant, sedative, or hypnotic.
- Intoxication: Central Nervous System Depressants
    - Drowsiness
    - Hypotension
    - Impairment of memory, attention, judgment, and social or occupational functioning
    - Incoordination and unsteady gait
    - Irritability
    - Slurred speech
- Overdose can produce cardiovascular or respiratory depression, coma, shock, seizures, and death.
    - If the client is awake, vomiting is induced and activated charcoal is administered;
    - if the client is comatose, establishment and maintenance of an airway and gastric lavage with activated charcoal are the priorities; seizure precautions are indicated.
    - Flumazenil (Romazicon) intravenously may be used for benzodiazepine overdose to reverse the effects.
- Withdrawal effects include nausea, vomiting, tachycardia, diaphoresis, irritability, tremors, insomnia, and seizures; withdrawal must be treated with a carefully titrated similar drug (abrupt withdrawal can lead to death);
- Withdrawal from CNS depressants such as barbiturates is generally treated with a barbiturate such as phenobarbital or a long-acting benzodiazepine.
- Tapering, or administering decreasing doses of a medication, is essential with barbiturates to prevent coma and death that will occur if the drug is stopped abruptly

VI. CNS Stimulants

- include substances such as amphetamines, cocaine, and crack; drugs that stimulate or excite the central nervous system
- Intoxication:
    - Central Nervous System Stimulants

    - Dilated pupils
    - Euphoria
    - Hypertension
    - Impairment of judgment and social or occupational functioning
    - Insomnia
    - Nausea and vomiting
    - Paranoia, delusions, hallucinations
    - Potential for violence
    - Tachycardia
- Overdose can produce respiratory distress, ataxia, hyperpyrexia, seizures, coma, stroke, myocardial infarction, and death.
- Overdose is treated with antipsychotics and management of associated effects.
- Withdrawal effects include fatigue, depression, agitation, apathy, anxiety, insomnia, disorientation, lethargy, and craving.
- Withdrawal is treated with antidepressants, a dopamine agonist, or bromocriptine (Parlodel); withdrawal is primarily supportive, particularly when dealing with the severe depression and suicidal ideation that accompanies stimulant withdrawal.

VII. Opioids

- desensitize the user to both physiologic and psychological pain and induce a sense of euphoria and well-being
- include substances such as opium, heroin, meperidine (Demerol), morphine sulfate, codeine sulfate,methadone (Dolophine),hydromorphone (Dilaudid), OxyContin (oxycodone), hydrocodone (Lortab), and fentanyl (Sublimaze)
- Intoxication: Opioids
    - Constricted pupils
    - Decreased respirations
    - Drowsiness
    - Euphoria
    - Hypotension
    - Impairment of memory, attention, and judgment
    - Psychomotor retardation
    - Slurred speech
- Overdose can produce respiratory depression, shock, coma, seizures, and death.
- Overdose is treated with an opioid antagonist such as naloxone (Narcan).
- Withdrawal effects include yawning, insomnia, irritability, rhinorrhea, diaphoresis, cramps, nausea and vomiting, muscle aches, chills, fever, lacrimation, and diarrhea.
- Withdrawal may be treated by methadone detoxification or tapering dosage with other opioids.
- Clonidine (Catapres), an a-adrenergic blocker, assists in reducing the severity of sympathetic nervous system–generated withdrawal discomfort,
- Specific measures for symptom management may also be used, such as bismuth subsalicylate (Kaopectate) for diarrhea and acetaminophen (Tylenol) for muscle aches.

VIII. Hallucinogens

- substances that distort the user's perception of reality and produce symptoms similar to psychosis including hallucinations (usually visual) and depersonalization
- include substances such as lysergic acid diethylamide (LSD), mescaline (peyote), psilocybin (mushrooms), and phencyclidine (PCP)
- Intoxication: Hallucinogen
    - Agitation and belligerence
    - Anxiety and depression
    - Bizarre behavior, regressive behavior, or violent behavior
    - Blank stare
    - Diaphoresis
    - Dilated pupils
    - Elevated vital signs including blood pressure
    - Hallucinations
    - Impairment of judgment and social and occupational functioning
    - Incoordination
    - Muscular rigidity and chronic jerking
    - Paranoia
    - Seizures
    - Tachycardia
    - Tremors
- Overdose effects of LSD, peyote, and psilocybin include psychosis, brain damage, and death; effects of PCP include psychosis, hypertensive crisis, hyperthermia, seizures, and respiratory arrest.
- Treatment (LSD, peyote, psilocybin) involves low environmental stimuli (speak slowly, clearly, and in a low voice) and medications to treat anxiety.
- Treatment (PCP) involves possible gastric lavage (if alert); treatment to acidify the urine to assist in excreting drug; and interventions to treat behavioral disturbances, hyperthermia, hypertension, and respiratory distress.
- Withdrawal is primarily supportive and may include medications to target particular problem behaviors, such as agitation.

IX. Inhalants

- include gases or liquids such as butane, paint thinner, paint and wax removers, airplane glue, nail polish remover, and nitrous oxide
- Intoxication: Inhalants
    - Enhancement of sexual pleasure
    - Euphoria
    - Excitation followed by drowsiness, lightheadedness, disinhibition, and agitation
    - Giggling and laughter
- Overdose can cause damage to the nervous system and death.
- Management of withdrawal is mainly supportive including treating affected body systems.

X. Marijuana (Cannabis sativa)

- generally is smoked, but can be ingested.
- causes euphoria, detachment, relaxation, talkativeness, slowed perception of time, anxiety, and paranoia.
- Long-term dependence can result in lethargy, difficulty concentrating, memory loss, and possibly chronic respiratory disorders.
- Withdrawal management is mainly supportive

XI. Initial/Immediate Nursing Care for Withdrawal in General

- Obtain information regarding the type of drug and amount consumed.
- Assess vital signs.
- Remove unnecessary objects from the environment.
- Provide one-to-one supervision if necessary.
- Provide a quiet, calm environment with minimal stimuli.
- Maintain client orientation.
- Ensure client's safety by implementing seizure precautions.
- Use security devices if necessary and prescribed to prevent client from harming self and others.
- Provide for physical needs.
- Provide food and fluids as tolerated.
- Administer medications as prescribed to decrease withdrawal symptoms.
- Collect blood and urine samples for drug screening.

XII. Interventions for Withdrawal in General

- Initiate seizure precautions.
- Hydrate the client.
- Monitor vital signs every hour.
- Monitor intake and output.
- Orient the client frequently.
- Maintain minimal stimuli.
- Approach the client in an accepting and nonjudgmental manner.
- Direct the client's focus to the substance abuse problem.
- Assist the client with identifying situations that precipitate angry feelings.
- Assist the client to deal with emotions.
- Limit the client's placing blame or rationalizing to explain the substance abuse problem.
- Assist the client to use assertive techniques rather than manipulation to meet needs.
- Set limits on manipulative behavior and verbal and physical abuse.
- Maintain firm and reasonable limits, consistently reinforcing rules, with reasonable consequences for breaking rules.
- Hold the client accountable for all behaviors.
- Assist the client to explore strengths and weaknesses.
- Encourage the client to focus on strengths if the client is losing control.

- Encourage the client to participate in unit activities.
- Encourage the client to participate in group therapy and support groups.

ADDITIONAL KEY POINTS:

? Substance abuse is a family illness, meaning that it affects all members in some way. Family members and close friends need education and support to cope with their feelings toward the abuser.

? Health care professionals have increased rates of substance use problems particularly involving opioids, stimulants, and sedatives. Reporting suspected substance abuse in colleagues is an ethical (and sometimes legal) responsibility of all health care professionals.