

Substance Use and Addictive Disorders

Substance use disorders are related to alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives/hypnotics/anxiolytics, stimulants, tobacco, and other (or unknown) substances.

A substance use disorder involves repeated use of chemical substances, leading to clinically significant impairment during a 12-month period. Non-substance-related disorders (behavioral/process addictions) include gambling, sexual activity, shopping, social media, and Internet gaming.

Substance use and addictive disorders are characterized by loss of control due to the substance use or behavior, participation that continues despite continuing associated problems, and a tendency to relapse back into the substance use or behavior.

The defense mechanism of denial is commonly used by clients who have problems with a substance use or addictive disorder. For example, a person who has long-term tobacco use might say, “I can quit whenever I want to, but smoking really doesn’t cause me any problems.” Frequently, denial prevents a client from obtaining help with substance use or an addictive behavior.

ASSESSMENT

RISK FACTORS

- Genetics: predisposition to developing a substance use disorder due to family history
- Chronic stress: socioeconomic factors
- History of trauma: abuse, combat experience
- Lowered self-esteem
- Lowered tolerance for pain and frustration
- Few meaningful personal relationships
- Few life successes
- Risk-taking tendencies

SOCIOCULTURAL THEORIES

- Some cultures, such as Alaska natives and Native American groups, have a high percentage of members who have alcohol use disorder. **QEBP**
 - Other cultures, such as Asian groups, have a low rate of alcohol use disorder.
 - Metabolism of alcohol and cultural views of alcohol use provide possible explanations for the incidence of alcohol use within a cultural group.
- Peer pressure and other sociological factors can increase the likelihood of substance use.
- Older adult clients can have a history of alcohol use or can develop a pattern of alcohol/substance use later in life due to life stressors, such as losing a partner or a friend, retirement, or social isolation. **G**

EXPECTED FINDINGS

The nurse should use open-ended questions to obtain the following information for the nursing history. **Qpcc**

- Type of substance or addictive behavior
- Pattern and frequency of substance use
- Amount of substance used
- Age at onset of substance use
- Changes in occupational or school performance
- Changes in use patterns
- Periods of abstinence in history
- Previous withdrawal manifestations
- Date of last substance use or addictive behavior

REVIEW OF SYSTEMS

- Blackout or loss of consciousness
- Changes in bowel movements
- Weight loss or weight gain
- Experience of stressful situation
- Sleep problems
- Chronic pain
- Concern over substance use
- Cutting down on consumption or behavior

POPULATION-SPECIFIC CONSIDERATIONS

- The rate of substance use is highest in clients age 20 to 29.
- The younger the person is at the time of initial substance use, the higher the incidence of developing a substance use disorder.
- Cocaine use is decreased among adolescents. However, about half of adolescents report access to marijuana.
- According to 2013 data from the National Institute of Alcohol Abuse and Alcoholism, 86.8% of people over the age of 18 reported alcohol consumption at some point in their life with 56.4% reporting alcohol consumption in the past month.
- **OLDER ADULTS** who use substances are especially prone to falls and other injuries, memory loss, somatic reports (headaches), and changes in sleep patterns. 
 - Indications of alcohol use in older adults can include a decrease in ability for self-care (functional status), urinary incontinence, and manifestations of dementia.
 - Older adults can show effects of alcohol use at lower doses than younger adults.
 - Polypharmacy (the use of multiple medications), the potential interaction between substances and medications, and age-related physiological changes raise the likelihood of adverse effects, such as confusion and falls in older adult clients. 

STANDARDIZED SCREENING TOOLS

- Michigan Alcohol Screening Test (MAST) 
- Drug Abuse Screening Test (DAST) or DAST-A: Adolescent version
- CAGE Questionnaire: Asks questions of clients to determine how they perceive their current alcohol use
- Alcohol Use Disorders Identification Test (AUDIT)
- Clinical Institute Withdrawal Assessment of Alcohol Scale, Revised (CIWA-Ar)
- Clinical Opiate Withdrawal Scale

COMMONLY USED SUBSTANCES

- Designer or club drugs, such as ecstasy, can combine substances from different categories, producing varying effects of intoxication or withdrawal.
- Improper use of prescription medications, specifically opioids, CNS depressants, and CNS stimulants, can result in substance use disorder and drug-seeking behavior.

CENTRAL NERVOUS SYSTEM DEPRESSANTS

CNS depressants can produce physiological and psychological dependence and can have cross-tolerance, cross-dependency, and an additive effect when taken concurrently.

Alcohol (ethanol)

- A laboratory blood alcohol concentration (BAC) of 0.08% (80 g/dL) is considered legally intoxicated for adults operating automobiles in most U.S. states. Death could occur from acute toxicity in levels greater than about 0.4% (400 g/dL).
- BAC depends on many factors, including body weight, gender, concentration of alcohol in drinks, number of drinks, gastric absorption rate, and the individual's tolerance level.

INTENDED EFFECTS: Relaxation, decreased social anxiety, stress reduction

EFFECTS OF INTOXICATION

- **Effects of excess:** Slurred speech, nystagmus, memory impairment, altered judgment, decreased motor skills, decreased level of consciousness (which can include stupor or coma), respiratory arrest, peripheral collapse, and death (with large doses)
- **Chronic use:** Direct cardiovascular damage, liver damage (ranging from fatty liver to cirrhosis), erosive gastritis and gastrointestinal bleeding, acute pancreatitis, sexual dysfunction

WITHDRAWAL MANIFESTATIONS

- Manifestations include abdominal cramping; vomiting; tremors; restlessness and inability to sleep; increased heart rate; transient hallucinations or illusions; anxiety; increased blood pressure, respiratory rate, and temperature; and tonic-clonic seizures.
- Alcohol withdrawal delirium can occur 2 to 3 days after cessation of alcohol. This is considered a medical emergency. Manifestations include severe disorientation, psychotic manifestations (hallucinations), severe hypertension, cardiac dysrhythmias, and delirium. Alcohol withdrawal delirium can progress to death.

Sedatives/hypnotics/anxiolytics

Benzodiazepines like diazepam, **barbiturates** like pentobarbital, or **club drugs** like flunitrazepam ("date rape drug") can be taken orally or injected.

INTENDED EFFECTS: Decreased anxiety, sedation

EFFECTS OF INTOXICATION

- Increased drowsiness and sedation, agitation, slurred speech, uncoordinated motor activity, nystagmus, disorientation, nausea, vomiting
- Respiratory depression and decreased level of consciousness, which can be fatal
- An antidote, flumazenil, available for IV use for benzodiazepine toxicity
- No antidote to reverse barbiturate toxicity

WITHDRAWAL MANIFESTATIONS: Anxiety, insomnia, diaphoresis, hypertension, possible psychotic reactions, hand tremors, nausea, vomiting, hallucinations or illusions, psychomotor agitation, and possible seizure activity

Cannabis

Marijuana or hashish (which is more potent) can be smoked or orally ingested.

INTENDED EFFECTS: Euphoria, sedation, hallucinations, decrease of nausea and vomiting secondary to chemotherapy, management of chronic pain

EFFECTS OF INTOXICATION

- Chronic use: lung cancer, chronic bronchitis, and other respiratory effects
- In high doses: occurrence of paranoia, such as delusions and hallucinations
- Increased appetite, dry mouth, tachycardia

WITHDRAWAL MANIFESTATIONS: Irritability, aggression, anxiety, insomnia, lack of appetite, restlessness, depressed mood, abdominal pain, tremors, diaphoresis, fever, headache

CENTRAL NERVOUS SYSTEM STIMULANTS

The CNS stimulation seen in some CNS stimulants is dependent on the area of the brain and spinal cord affected.

Cocaine

Can be injected, smoked, or inhaled (snorted)

INTENDED EFFECTS: Rush of euphoria (extreme well-being) and pleasure, increased energy

EFFECTS OF INTOXICATION

- **Mild toxicity:** dizziness, irritability, tremor, blurred vision
- **Severe effects:** hallucinations, seizures, extreme fever, tachycardia, hypertension, chest pain, possible cardiovascular collapse and death

WITHDRAWAL MANIFESTATIONS

- Depression, fatigue, craving, excess sleeping or insomnia, dramatic unpleasant dreams, psychomotor retardation, agitation
- Not life-threatening, but possible occurrence of suicidal ideation

Amphetamines

Can be taken orally, injected intravenously, or smoked

INTENDED EFFECTS: Increased energy, euphoria similar to cocaine

EFFECTS OF INTOXICATION

- Impaired judgment, psychomotor agitation, hypervigilance, extreme irritability
- Acute cardiovascular effects (tachycardia, elevated blood pressure), which could cause death

WITHDRAWAL MANIFESTATIONS

- Craving, depression, fatigue, sleeping
- Not life-threatening

Tobacco (nicotine)

- Cigarettes and cigars are inhaled.
- Smokeless tobacco is snuffed or chewed.

INTENDED EFFECTS: Relaxation, decreased anxiety

EFFECTS OF INTOXICATION

- Highly toxic, but acute toxicity seen only in children or when exposure is to nicotine in pesticides
- Also contains other harmful chemicals that are highly toxic and have long-term effects
- **Long-term effects**
 - Cardiovascular disease (hypertension, stroke), respiratory disease (emphysema, lung cancer)
 - With smokeless tobacco (snuff or “chew”): irritation to oral mucous membranes and cancer

WITHDRAWAL MANIFESTATIONS: Abstinence syndrome evidenced by irritability, craving, nervousness, restlessness, anxiety, insomnia, increased appetite, difficulty concentrating, anger, and depressed mood

Opioids

Heroin, morphine, and hydromorphone can be injected, smoked, and inhaled.

INTENDED EFFECTS: A rush of euphoria, relief from pain

EFFECTS OF INTOXICATION

- Slurred speech, impaired memory, pupillary changes.
- Decreased respirations and level of consciousness, which can cause death
- Maladaptive behavioral or psychological changes, including impaired judgment or social functioning
- An antidote, naloxone, available for IV use to relieve effects of overdose

WITHDRAWAL MANIFESTATIONS

- Abstinence syndrome begins with sweating and rhinorrhea progressing to piloerection (gooseflesh), tremors, and irritability followed by severe weakness, diarrhea, fever, insomnia, pupil dilation, nausea and vomiting, pain in the muscles and bones, and muscle spasms.
- Withdrawal is very unpleasant but not life-threatening.

Inhalants

Amyl nitrate, nitrous oxide, and solvents are sniffed, huffed, or bagged, often by children or adolescents.

INTENDED EFFECTS: Euphoria

EFFECTS OF INTOXICATION: Depend on the substance, but generally can cause behavioral or psychological changes, dizziness, nystagmus, uncoordinated movements or gait, slurred speech, drowsiness, hyporeflexia, muscle weakness, diplopia, stupor or coma, respiratory depression, and possible death

WITHDRAWAL MANIFESTATIONS: None

Hallucinogens

Lysergic acid diethylamide (LSD), mescaline (peyote), and phencyclidine piperidine (PCP) are usually ingested orally, but can be injected or smoked.

INTENDED EFFECTS: Heightened sense of self and altered perceptions (colors being more vivid while under the influence)

EFFECTS OF INTOXICATION: Anxiety, depression, paranoia, impaired judgment, impaired social functioning, pupil dilation, tachycardia, diaphoresis, palpitations, blurred vision, tremors, incoordination, and panic attacks

WITHDRAWAL MANIFESTATIONS: **Hallucinogen persisting perception disorder:** Visual disturbances or flashback hallucinations can occur intermittently for years.

Caffeine

Includes cola drinks, coffee, tea, chocolate, energy drinks

INTENDED EFFECTS: Increased level of alertness and decreased fatigue

EFFECTS OF INTOXICATION: Intoxication commonly occurs with ingestion of greater than 250 mg. (One 2 oz high-energy drink can contain 215 to 240 mg caffeine.) Tachycardia and arrhythmias, flushed face, muscle twitching, restlessness, diuresis, GI disturbances, anxiety, insomnia.

WITHDRAWAL MANIFESTATIONS

- Can occur within 24 hr of last consumption
- Headache, nausea, vomiting, muscle pain, irritability, inability to focus, drowsiness

PATIENT-CENTERED CARE

NURSING CARE

- Personal views, culture, and history can affect the nurse's feelings regarding substance use and addictive disorders. Nurse must self-assess their own feelings because those feelings can be transferred to clients through body language and the terminology nurses can use in assessing clients. An objective, nonjudgmental nurse approach is imperative.
- Safety is the primary focus of nursing care during acute intoxication or withdrawal. **Qs**
 - Maintain a safe environment to prevent falls; implement seizure precautions as necessary.
 - Provide close observation for withdrawal manifestations, possibly one-on-one supervision. Physical restraint should be a last resort.
 - Orient the client to time, place, and person.
 - Maintain adequate nutrition and fluid balance.
 - Create a low-stimulation environment.
 - Administer medications as prescribed to treat the effects of intoxication or to prevent or manage withdrawal. This can include substitution therapy.
 - Monitor for covert substance use during the detoxification period.

- Provide emotional support and reassurance to the client and family. Educate the client and family about codependent behaviors.
- Begin to educate the client and family about addiction and the initial treatment goal of abstinence.
- Educate the client and family regarding removing any prescription medications in the home that are not being used. Encourage the client not to share medication with someone for whom that medication is not prescribed.
- Begin to develop motivation and commitment for abstinence and recovery (abstinence plus developing a program of personal growth and self-discovery).
- Encourage self-responsibility.
- Help the client develop an emergency plan: a list of things the client would need to do and people he would need to contact.
- Encourage attendance at self-help groups.

MEDICATIONS

Alcohol withdrawal: Diazepam, carbamazepine, clonidine, chlordiazepoxide, phenobarbital, naltrexone

Alcohol abstinence: Disulfiram, naltrexone, acamprosate

Opioid withdrawal: Methadone substitution, clonidine, buprenorphine, naltrexone, levo-alpha-acetylmethadol

Nicotine withdrawal from tobacco use: Bupropion, nicotine replacement therapy (nicotine gum and nicotine patch), varenicline, bupropion

Nicotine abstinence: Varenicline, rimonabant

NURSING CONSIDERATIONS

- Monitor vital signs and neurological status.
- Provide for client safety by implementing seizure precautions. **Qs**

CLIENT EDUCATION

- Encourage the client to adhere to the treatment plan.
- Advise clients taking disulfiram to avoid all alcohol.

INTERPROFESSIONAL CARE

Dual diagnosis, or comorbidity, means that an individual has both a mental health disorder, such as depression, and a substance use or addictive disorder. Both disorders need to be treated simultaneously and require a team approach.

INDIVIDUAL PSYCHOTHERAPIES

- Cognitive behavioral therapies, such as relaxation techniques or cognitive reframing, can be used to decrease anxiety and change behavior.
- Acceptance and commitment therapy (ACT) promotes acceptance of the client's experiences and promotes client commitment to positive behavior changes.
- Relapse prevention therapy assists clients in identifying the potential for relapse and promotes behavioral self-control.

GROUP THERAPY: Groups of clients who have similar diagnoses can meet in an outpatient setting or within mental health residential facilities.

FAMILY THERAPY

- This therapy identifies codependency, which is a common behavior demonstrated by the significant other/family/friends of an individual with substance or process dependency, and assists the family to change that behavior. The codependent person reacts in over-responsible ways that allow the dependent individual to continue the substance use or addiction disorder. For example, a partner can act as an enabler by calling the client's employer with an excuse of illness when the client is intoxicated.
- Families learn about use of specific substances.
- The client and family are educated regarding issues such as family coping, problem-solving, indications of relapse, and availability of support groups. **Qpcc**

CLIENT EDUCATION

- Teach the client to recognize indications of relapse and factors that contribute to relapse.
 - Teach cognitive-behavioral techniques to help maintain sobriety and create feelings of pleasure from activities other than using substances or from process addictions.
 - Assist the client to develop communication skills to communicate with coworkers and family members while sober.
- Encourage the client and family to attend a 12-step program, such as Alcoholics Anonymous (AA), Narcotics Anonymous, and Gambler's Anonymous, and family groups like Al-Anon or Ala-Teen. **QEBP**
 - These programs will teach clients the following.
 - Abstinence is necessary for recovery.
 - A higher power is needed to assist in recovery.
 - Clients are not responsible for their disease but are responsible for their recovery.
 - Other people cannot be blamed for the client's addictions, and they must acknowledge their feelings and problems.

PRACTICE Active Learning Scenario

A nurse is caring for a client who has cocaine use disorder and is experiencing severe effects of intoxication. Use the ATI Active Learning Template: System Disorder to complete this item.

ALTERATION IN HEALTH (DIAGNOSIS)

EXPECTED FINDINGS: Identify three expected findings.

NURSING CARE: Describe two nursing interventions.

INTERPROFESSIONAL CARE: Describe two forms of nonpharmacological therapy.

CLIENT EDUCATION: Identify two client outcomes.

Application Exercises

1. A nurse is planning a staff education program on substance use in older adults. Which of the following is appropriate for the nurse to include in the presentation?
 - A. Older adults require higher doses of a substance to achieve a desired effect.
 - B. Older adults commonly use rationalization to cope with a substance use disorder.
 - C. Older adults are at an increased risk for substance use following retirement.
 - D. Older adults develop substance use to mask manifestations of dementia.
2. A nurse is assessing a client who has alcohol use disorder and is experiencing withdrawal. Which of the following findings should the nurse expect? (Select all that apply.)
 - A. Bradycardia
 - B. Fine tremors of both hands
 - C. Hypotension
 - D. Vomiting
 - E. Restlessness
3. A nurse is planning care for a client who is experiencing benzodiazepine withdrawal. Which of the following interventions should the nurse identify as the priority?
 - A. Orient the client frequently to time, place, and person.
 - B. Offer fluids and nourishing diet as tolerated.
 - C. Implement seizure precautions.
 - D. Encourage participation in group therapy sessions.
4. A nurse is caring for a client who has alcohol use disorder. The client is no longer experiencing withdrawal manifestations. Which of the following medications should the nurse anticipate administering to assist the client with maintaining abstinence from alcohol?
 - A. Chlordiazepoxide
 - B. Bupropion
 - C. Disulfiram
 - D. Carbamazepine
5. A nurse is providing teaching to the family of a client who has a substance use disorder. Which of the following statements by a family member indicate an understanding of the teaching? (Select all that apply.)
 - A. "We need to understand that she is responsible for her disorder."
 - B. "Eliminating any codependent behavior will promote her recovery."
 - C. "She should participate in an Al-Anon group to help her recover."
 - D. "The primary goal of her treatment is abstinence from substance use."
 - E. "She needs to discuss her feelings about substance use to help her recover."

Application Exercises Key

1. A. Requiring higher doses of a substance to achieve a desired effect is a result of the length and severity of substance use rather than age.
B. Denial, rather than rationalization, is a defense mechanism commonly used by substance users of all ages.
C. **CORRECT:** Retirement and other life change stressors increase the risk for substance use in older adults, especially if there is a prior history of substance use.
D. Substance use in the older adult can result in manifestations of dementia.
N NCLEX® Connection: Psychosocial Integrity, Chemical and Other Dependencies/Substance Use Disorder
2. A. An expected finding of alcohol withdrawal is tachycardia rather than bradycardia.
B. **CORRECT:** Fine tremors of both hands is an expected finding of alcohol withdrawal.
C. An expected finding of alcohol withdrawal is hypertension rather than hypotension.
D. **CORRECT:** Vomiting is an expected finding of alcohol withdrawal.
E. **CORRECT:** Restlessness is an expected finding of alcohol withdrawal.
N NCLEX® Connection: Psychosocial Integrity, Chemical and Other Dependencies/Substance Use Disorder
3. A. Reorienting the client is an appropriate intervention. However, it is not the priority.
B. Providing hydration and nourishment is an appropriate intervention. However, it is not the priority.
C. **CORRECT:** The greatest risk to the client is injury. Implementing seizure precautions is the priority intervention.
D. Encouraging participation in therapy is an appropriate intervention. However, it is not the priority.
N NCLEX® Connection: Safety and Infection Control, Accident/Error/Injury Prevention
4. A. Chlordiazepoxide is indicated for acute alcohol withdrawal rather than to maintain abstinence from alcohol.
B. Bupropion is indicated for nicotine withdrawal rather than to maintain abstinence from alcohol.
C. **CORRECT:** The nurse should expect to administer disulfiram to help the client maintain abstinence from alcohol.
D. Carbamazepine is indicated for acute alcohol withdrawal rather than to maintain abstinence from alcohol.
N NCLEX® Connection: Pharmacological and Parenteral Therapies, Expected Actions/Outcomes
5. A. Clients are not responsible for their disease but are responsible for their recovery.
B. **CORRECT:** Families should be aware of codependent behavior, such as enabling, that can promote substance use rather than recovery.
C. Al-Anon is a recovery group for the family of a client, rather than the client who has a substance use disorder.
D. **CORRECT:** Abstinence is the primary treatment goal for a client who has a substance use disorder.
E. **CORRECT:** Clients must acknowledge their feelings about substance use as part of a substance use recovery program.
N NCLEX® Connection: Psychosocial Integrity, Chemical and Other Dependencies/Substance Use Disorder

PRACTICE Answer

Using the ATI Active Learning Template: System Disorder

ALTERATION IN HEALTH (DIAGNOSIS):
Cocaine use disorder involves the repeated use of cocaine, leading to clinically significant impairment over a 12-month period.

EXPECTED FINDINGS

- Objective: Seizures, extreme fever, tachycardia, hypertension
- Subjective: Hallucinations, chest pain

NURSING CARE

- Perform a nursing self-assessment.
- Maintain a safe environment.
- Implement seizure precautions.
- Orient the client to time, place, and person.
- Create a low-stimulation environment.
- Monitor the client's vital signs and neurological status.

N NCLEX® Connection: Psychosocial Integrity, Chemical and Other Dependencies/Substance Use Disorder

INTERPROFESSIONAL CARE

- Cognitive behavioral therapies decrease anxiety and promote a change in behavior.
- Acceptance and commitment therapy promotes acceptance of the client and promotes a commitment to change.
- Relapse prevention therapy assists clients in identifying relapse and promotes self-control.
- Group therapy allows clients who have similar diagnoses to work together toward recovery.
- Family therapy allows the client and family members to work together toward recovery.
- Narcotics Anonymous provides a 12-step program to promote recovery and abstinence from future substance use.

CLIENT EDUCATION: Client outcomes

- The client will verbalize coping strategies to use in times of stress.
- The client will remain substance-free.
- The client will remain free from injury.
- The client will attend a 12-step program regularly.