Review Notes

Chapter 24: Alcohol, Tobacco, and Other Drug Problems in the Community

**I. Scope of the problem**

A. Substance abuse is the number one national health problem, causing more deaths, illnesses, and disabilities than does any other health condition. One-quarter of the 2 million U.S. deaths each year are attributed to alcohol, tobacco, and illicit drug use. Substance abuse and addiction affect all ages, races, sexes, and segments of society.

B. The substance abuser not only is at risk for personal health problems but also may pose a threat to the health and safety of family members, co-workers, and other members of the community.

C. The new phrase of *alcohol, tobacco, and other drug (ATOD) problems* rather than *substance abuse* reminds us that alcohol and tobacco represent the major drugs of abuse. Substance abuse includes the abuse of illegal and legal prescription or over-the-counter drugs.

D. In many cultures, people with ATOD problems are treated through the criminal justice system. However, the harm reduction model is a new health care approach to ATOD problems. This approach began in Great Britain and other European countries. This model recognizes the following:

1. Addiction is a health problem.

2. Any psychoactive drug can be abused.

3. Accurate information can help people make responsible decisions about drug use.

4. People who have ATOD problems can be helped.

E. Harm reduction focuses on pragmatic interventions, especially education, to reduce the adverse consequences of drug use.

F. Nurses should identify the underlying roots of various health problems and plan actions that are realistic, nonjudgmental, holistic, and positive. The harm reduction model facilitates such an approach.

II. Definitions

A. Over the years in discussions of drug use and abuse, the term *drug* has come to mean only illegal drugs.

B. The phrase *alcohol, tobacco, and other drug (ATOD)* *problems* calls attention to the significant drug problems associated with alcohol and tobacco.

C. Substance abuse is the use of any substance, including foods, that threatens a person’s health or impairs his or her social or economic functioning.

D. Drug dependence is a physiological change in the central nervous system caused by regular administration of a drug; continued use of the drug is necessary to prevent withdrawal symptoms.

E. Drug addiction is a pattern of drug abuse characterized by an overwhelming preoccupation with getting and using a drug despite negative consequences.

F. Alcohol is also a drug. The disease concept of alcoholism and drug addiction identifies them as chronic, progressive diseases in which a person’s use of one or more drugs continues despite the problems it causes in any area of life—physical, emotional, social, economic, or spiritual.

III. Psychoactive drugs. Because these drugs can alter emotions, they are used in social and recreational settings and for personal use to self-medicate physical or emotional discomfort.

A. Depressants reduce a person’s energy level and sensitivity to outside stimulation. In low doses, they may produce a feeling of stimulation caused by initial sedation of the inhibitory centers of the brain. In higher doses, they lead to coma and, if vital organs shut down, death.

1. Alcohol. Alcohol is the oldest and most widely used psychoactive drug in the world. Abuse ranks third, following coronary diseases and cancer, as the major cause of death in the United States, killing approximately 125,000 persons each year. At least 65% of Americans 18 years of age and older consume alcohol, and of those, approximately 5.2% are alcohol dependent. Alcohol costs the country billions of dollars in lost productivity, property damage, medical expenses of alcohol-related illnesses and accidents, family disruptions, alcohol-related violence, and neglect and abuse of children. Chronic alcohol abuse exerts profound negative metabolic and physiological effects on all of the body’s organ systems.

a. The blood alcohol concentration is determined by the concentration of alcohol in the drink, the rate of drinking, the rate of absorption, the rate of metabolism, and a person’s weight and sex. Females cannot consume as much alcohol as males before they experience adverse effects. Chronic consumption often leads to tolerance; therefore a person can have a high blood alcohol concentration with minimal effects on the central nervous system.

2. Heroin is an opioid. This group includes natural and synthetic drugs that are highly effective for pain relief. Approximately 600,000 to 800,000 heroin addicts are in the United States, and more than 2 million persons have tried it. Tolerance and physical dependence develop quickly. Cross-tolerance to other opioids can occur. Chronic abuse of opioids causes few physiological problems except for constipation. The negative consequences primarily result from the drug’s illegal status.

B. Stimulants. These drugs make people feel more alert or energetic by activating or exciting the nervous system. However, these drugs do not give the person more energy; they only make the body expend its own energy sooner and in greater quantities than it normally would. If used carefully, stimulants are useful and have few negative health effects. The body must be allowed time to replenish itself after use of a stimulant. Many persons abusing stimulants avoid the down feeling by taking another dose, and they become physically dependent on the stimulant to function.

1. Nicotine. One in five deaths in the United States is attributed to cigarettes. The Centers for Disease Control and Prevention estimate that 437,000 deaths per year are caused by complications of cigarette smoking. Nicotine, the active ingredient in the tobacco plant, is a toxic drug, and smokers quickly develop a tolerance to it. Sidestream smoke contains greater concentrations of toxic and carcinogenic compounds than does the mainstream smoke. Diseases and conditions associated with smoking include cancer, cardiovascular and pulmonary problems, and perinatal effects. Nicotine is also used as chewing tobacco or snuff.

2. Cocaine. Cocaine produces a feeling of intense euphoria, increased confidence, and a willingness to work for long periods. Cocaine administered by the intranasal route has been a popular drug among the rich and famous. The cheaper “crack” form of the drug has become popular among the African-American population. The smokable form of cocaine gives intense effects because the drug reaches the brain through the blood vessels in the lungs. Cocaine’s interaction with dopamine seems to be the basis for the addictive patterns. High doses can cause extreme agitation, paranoid delusions, hypothermia, hallucinations, cardiac dysrhythmias, pulmonary complications, convulsions, and death.

3. Caffeine. Caffeine is one of the most widely used psychoactive drugs in the world. It is found in coffee, tea, chocolate, soft drinks, and various medications. Moderate doses (100 to 300 mg per day) increase mental alertness and probably have little negative effect on health. High doses can lead to insomnia, irritability, tremulousness, anxiety, and headaches. Regular use of high doses can lead to physical dependence, and the withdrawal symptoms may include headaches, slowness, and occasional depression.

4. Amphetamines. Although these drugs are very similar to cocaine, the effects last much longer and the drugs are cheaper. When taken intravenously, they quickly induce an intense euphoric feeling. “Ice,” a smokable form of crystallized methamphetamine, was introduced in the late 1980s as an alternative to crack because it can be easily manufactured and the effects last up to 24 hours.

C. Marijuana. Marijuana is the most widely used illicit drug in the United States. Estimates of the number of regular users range from 20 to 30 million Americans. Up to 60% of those between the ages of 18 and 25 have tried marijuana at some time. Marijuana has very little toxicity; however, because of its illegal status, there is no quality control, and a user may consume contaminated marijuana. Users enjoy a mild euphoria, a relaxed feeling, and an intensity of sensory perceptions. Adverse reactions may include anxiety, disorientation, and paranoia. The greatest physical concern for chronic users is possible damage to the respiratory tract. The medicinal value of marijuana has been acknowledged, but the federal government refuses to allow legal access. Some states have passed laws allowing clients to use marijuana as medicine when recommended by their physician, and some health care organizations support access to marijuana as a medication.

D. Hallucinogens. Also called *psychedelics* (mind vision), these drugs are capable of producing hallucinations. Many of these drugs have been used for centuries in religious ceremonies and healing rituals, to produce euphoria, and to act as aphrodisiacs. Two chemical families of hallucinogens exist.

1. Indole hallucinogens are related to hormones produced by the pineal gland. These include psilocybin, mushrooms, morning glory seeds, and LSD (lysergic acid diethylamide), which is the most well-known drug in this category.

2. The second group lacks the indole ring chemical structure. These include peyote, mescaline, and MDMA (Ecstasy). Ecstasy is a semisynthetic drug first widely used in the 1970s, when it was prescribed to facilitate psychotherapy. It is classified as a mood elevator that produces feelings of empathy, openness, and well-being. Ecstasy has gained current popularity as a club drug at “rave” parties. Deaths have occurred at these parties secondary to overheating, because it raises the body’s temperature, pulse rate, and blood pressure.

3. PCP. Phencyclidine is in a class by itself. It is a potent anesthetic and analgesic with CNS depressant, stimulant, and hallucinogenic properties.

E. Inhalants. This group of psychoactive drugs includes gases and solvents. Young people, especially between the ages of 7 and 17, are the most frequent inhalant users. The four categories of inhalants are volatile organic solvents, aerosols, volatile nitrites, and gases. These substances are inhaled from bottles, aerosol cans, or soaked cloth or put into bags or balloons to increase the concentration of the inhaled substance. “Sudden sniffing death” may occur; it appears to be related to acute cardiac dysrhythmia.

IV. Predisposing factors. In addition to the specific drug being used, set and setting influence the particular drug experience. Set refers to the individual using the drug and the person’s expectations. A person’s current health, genetic disposition, or an underlying mood disorder may influence use. Setting is the influence of the physical, social, and cultural environment within which the use occurs.

V. Primary prevention

A. The harm reduction approach to substance abuse focuses on health promotion and disease prevention.

B. Drug education. ATOD problems extend further than abuse of psychoactive drugs. It has been estimated that prescription drugs are involved in almost 60% of all drug-related emergency department visits and 70% of all drug-related deaths. Nurses can be most effective in drug education by teaching clients that no drug is completely safe and help persons make informed decisions about their drug use to minimize harm. Harm reduction recognizes that people consume drugs and that they need to know about the use of drugs and risks involved to make responsible decisions about their drug use. Drug education should begin by reviewing the client’s prescription medications. Polysubstance use (the mixing of drugs) can cause various drug interactions. Basic drug education programs for young people should combine efforts to increase resiliency factors along with drug education.

VI. Secondary prevention

A. Assessing for ATOD problems. Assessing for substance abuse problems should be done with all basic health assessments. The client’s reason for the drug use and the pattern of drug use should be determined. It should also be determined whether drug use is causing any negative health consequences or problems with relationships, employment, finances, or the legal system. A history of withdrawal symptoms will help determine the presence of physical dependence, and a progression in drug-use patterns and related problems will alert the nurse to the possibility of addiction. Denial is a primary symptom of addiction.

B. Drug testing. Preemployment or random drug testing in the workplace became popular in the 1980s. Drug testing can be done by testing a person’s urine, blood, saliva, breath, or hair. Drug testing that follows documented impairment may be helpful in substantiating the cause of the impairment. It can also be used with recovering addicts to ensure continued abstinence. Urine testing is the most common method of drug screening; however, it only indicates past use of a drug, not intoxication. Alcohol, the most common drug of abuse in the workplace, is not always included in a urine drug screen.

1. Employee assistance programs (EAPs). These programs identify health problems among employees and offer counseling or referral to other health care providers as necessary. Nurses frequently develop and run these programs.

C. High-risk groups

1. Adolescents. The younger a person is when beginning intensive experimentation with drugs, the more likely dependence will develop. Heavy drug use during adolescence can interfere with development. Family-related factors appear to be the greatest variable influencing substance abuse among adolescents.

2. Older adults (those age 65 years and older) represent 13% of the U.S. population and consume more prescribed and OTC medications than does any other age-group. Such factors as slowed metabolic turnover of drugs, age-related organ changes, enhanced drug sensitivities, a tendency to use drugs over long periods, and more frequent use of multiple drugs all contribute to greater negative consequences from drug use among the elderly.

3. Injection drug users. In addition to the problem of addiction, injection drug users (those who self-administer intravenously or subcutaneously) are at risk for other health complications. There is a great risk for overdose, contamination by other chemicals, and emboli secondary to particles present in the solution. HIV, hepatitis C, and other blood-borne diseases can be transmitted through shared needles, and infections and abscesses can occur secondary to dirty needles and poor techniques. For addicts unwilling to treat their addiction, nurses can provide education about the use of bleach to clean needles or can assist in needle-exchange programs.

4. Use during pregnancy. Because of the risk for negative effects on the fetus, the use of any drug during pregnancy should be discouraged unless medically necessary. Nicotine and alcohol are among the top three drugs used during pregnancy. Fetal alcohol syndrome (FAS) has been identified as the third leading cause of birth defects and the most preventable form of mental retardation in the United States. Pregnant women may not receive help for their substance abuse problems because of ignorance, poverty, lack of concern for the fetus, lack of available services, or fear of criminal prosecution for illegal drug use.

5. Use of illicit drugs. The strategy of “just say no” to drugs is both simplistic and misleading. Indiscriminate use of “good” drugs has caused more health problems from adverse reactions, drug interactions, dependence, addiction, and overdoses than has use of “bad” drugs. However, the war on drugs focuses on illicit drugs and punishes illicit drug users.

D. Codependency and family involvement. Codependency is a stress-induced preoccupation with the addicted person’s life, leading to extreme dependence and excessive concern with the addict. Codependents try to meet the addict’s needs at the expense of their own. Enabling is the act of shielding the addict or preventing the addict from experiencing the consequences of the addiction. Thus the addict is “enabled” to continue to use. Whether or not the addict is willing to get treatment, the nurse can assist family members in identifying the problems and can provide counseling and information on available support services.

VII. Tertiary prevention. Nurses can help addicts and their families and find ways to improve the quality of care clients receive.

A. Detoxification. The process of clearing the drug(s) from the person’s body and the management of withdrawal symptoms is called *detoxification*. Withdrawal symptoms vary depending on the drug used and can range from uncomfortable to life threatening. Such drugs as alcohol and barbiturates can produce life-threatening withdrawal symptoms, and medical management may be necessary to ensure a safe withdrawal. A general rule in detoxification is to wean the person off the drug by gradually reducing the dosage and frequency of administration.

B. Addiction treatment. Addiction treatment focuses on the addiction process. Health care providers must help clients recognize the addiction as a chronic disease and must assist them to make lifestyle changes that will halt the progression of the disease process.

1. Controlled use. For those addicts unwilling or unable to completely abstain from psychoactive drugs, other drugs have been used to assist clients in abstaining from their drug of choice. For example, methadone has been used for treatment of heroin addiction by producing a cross-tolerance and decreasing the craving for heroin.

2. Total abstinence. Total abstinence is the recommended treatment for ATOD addiction. Treatment may be inpatient or outpatient, generally depending on the stage of the illness. Education about the disease, counseling, and group interaction are provided to assist clients in making the necessary lifestyle changes. In addition, education and counseling are provided for the family of the addict. Treatment is becoming more specialized to meet the needs of various client populations. Relapses may occur during recovery.

3. Smoking-cessation programs. Nicotine replacement therapy can help smokers withdraw from nicotine while breaking the psychological craving and habit. Four types of nicotine replacement products are available: nicotine gum and skin patches are available over the counter, and nicotine nasal spray and inhalers are available by prescription. Other treatments include smoking-cessation clinics, hypnosis, and acupuncture. The most effective way to get people to stop smoking and prevent relapse involves multiple interventions and continuous reinforcement. Most smokers require several attempts at cessation before they are successful.

C. Support groups. The success of Alcoholics Anonymous (AA) has led to the development of other support groups, such as Narcotics Anonymous (NA) for narcotic addicts, Pills Anonymous for polydrug addictions, Overeaters Anonymous, and Gamblers Anonymous. AA and NA consist of 12-step programs of recovery to guide alcoholics and addicts and provide a social network that offers support, encouragement, and fellowship. Al-Anon, Alateen, and Adult Children of Alcoholics are self-help groups that have been developed for the family members of alcoholics. Other support groups for alcohol and drug addiction are Women for Sobriety and Rational Recovery.