



Psychology of Addiction

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PSY 413: Psychology of Addiction

Course Description:

A study of the psychological and sociological factors relating to the problems of addiction. Special attention will be given to the effects which alcohol and other drugs have upon fetuses, children, adults, families, and communities.

Learning Outcomes:

- Examine the dominant beliefs and attitudes in our society with regard to chemical use, abuse, and addiction. **(LO1)**
- Define characteristics of the major classes of drugs. **(LO2)**
- Identify and summarize the addiction process and the characteristics thereof. **(LO3)**
- Explain the effects of addiction on individual, family, and community. **(LO4)**
- Outline and critique current intervention and treatment modalities used in the field. **(LO5)**

Chapter 1: An Introduction to Psychoactive Drugs

By the end of this chapter, you should be able to:

- Examine the dominant beliefs and attitudes in our society with regard to chemical use, abuse, and addiction. **(LO1)**
 - Define the characteristics of the major classes of drugs. **(LO2)**
-

Characteristics of Psychoactive Drugs



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Drug use disorders are addictive disorders, defined within the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5). This is used to diagnose all patients with psychological disorders. Individuals who are diagnosed with substance abuse disorders often exhibit both physical and psychological dependence. **Physical dependence** involves a change in normal bodily function; the user will also experience **withdrawal** as they eliminate the drugs from their system. Withdrawal symptoms, when abstaining, may have the opposite effects of the drug's action when

it is used. **Psychological dependence** is an emotional, rather than physical need, for the drug, because drug use may relieve some psychological distress. Another term to recognize is tolerance. **Tolerance** is related to physical dependence; when a person requires more and more of a drug in order to experience the desired effects; a frequent side effect of long term drug use.

Psychoactive drugs effect our endogenous neurotransmitter systems. Drugs can act as agonists or antagonists of a given neurotransmitter system (Baker, 2022). Agonists facilitate the activity of a neurotransmitter system, while antagonists impede neurotransmitter activity. The main categories of drugs are **depressants, stimulants, and hallucinogens**; others include opiates and hallucinogens. These will be covered below.

Drug Categories

The classification of psychoactive drugs is limited to their molecular structure. Each drug reacts in a unique way with neurotransmitters; some drugs react with more than one transmitter. Acetylcholine is the most prominent neurotransmitter effected by drug use (and abuse), but there are many others like dopamine, adenosine, serotonin, and more. Drugs change the way the brain works, disrupting how nerve cells (neurotransmitters) send, receive, and process information. Drugs have the ability to imitate the brain's natural messengers and overly reinforce positive reactions. The drugs accomplish this by crossing the blood brain barrier (Lumen). The **blood brain barrier** (National Cancer Institute, 2022), typically prevents toxic substances from entering our brains, but because drugs bear a similar molecular structure as our neurotransmitters, they are able to slip through the barrier unnoticed. Psychoactive drugs actually promote equilibrium in our brains, specifically the CNS. Drugs imitate so many of our natural processes to the point

that even brain scans cannot accurately identify drug cravings (Inaba, 2011).

There are instances however, when the drugs being used can completely shut down a person's system, resulting in unexpected death. For example, if a person with drug sensitivity uses cocaine, electrical signals from the brain to the heart cease to occur and the person dies. An individual's brain chemistry is unique, so it will determine how sensitive a person is to environmental stressors, drugs, and inheritable characteristics (SAMHSA, 2022).

Review the table below, selecting the hot spots for additional content. Select the icon in the upper right corner of the graphic to expand it to full screen.



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Beliefs and Attitudes Related to Drugs

Drug addiction is a serious psychological disorder, as shown above, it actually affects brain chemistry. There is no perfect solution to end addiction (Daniewicz, 2014). Review some of the myths of addiction, shared below. Track how many of these myths you have believed at some point. Reflect on whether you still feel that way now. These myths are from [Face it Together \(2022\)](#), an organization committed to helping those struggling with addiction. You can

select the double pointed arrow in the lower right corner to make the slides full screen.



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Throughout history, most if not all cultures have been attracted to substances that alter their brain chemistry (Lumen). And historically, governments financially exploit the use of psychoactive drugs to produce revenue. Even in recent studies, there is still a positive attitude regarding alcohol in emerging adults. Below are some statistics, related to the alcohol, tobacco and other drugs, provided by the [Substance Abuse and Mental Health Services Administration](#) (2020 data).

- Approximately 19.3 million people, 18 years of age or older, have had a substance abuse in the last year.
- In 2020, approximately 14.5 million people age 12 or older had an alcohol use disorder.
- In 2020, 57.3 million people age 12 or older use nicotine products.
- In 2020, 9.5 million people misused opioids in the next year.
- In 2019, 48.2 million people used marijuana in the last year.
- In 2019, 2 million people used methamphetamine in the last year, and over half have a meth use disorder.
- In 2019, 5.5 million people have used cocaine and nearly a million use crack.

Review the following TED Talks related to addiction, to better understand the attitudes and beliefs in society related to addiction.



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Chapter 2: The Neurochemistry and Physiology of Addiction

By the end of this chapter, you should be able to:

- Define the characteristics of the major classes of drugs. **(LO2)**
 - Identify and summarize the addiction process and the characteristics thereof. **(LO3)**
-

Addiction is Subjective

Each person has their own genetic and environmental risk factors that account for roughly half of an individual's risk for developing an addiction (Chakroborty, et al., 2016; Lazzara;). Even those who have a relatively low risk of genetic factors, may be susceptible with repeated exposure to high doses of an addictive drug. **Epigenetic genes** (CDC, 2022) and their related proteins are the key components through which environmental factors can affect the genes of an individual. They are also responsible for environmental influences on genes, meaning behavioral responses to environmental stimuli. In addiction, epigenetic mechanisms play a central role in the pathophysiology of the disease. More research is needed to know the extent to which these genes play a role in addiction and the corresponding behaviors (Herman & Roberto, 2015; Lumen).

For more on the neurochemistry and addiction, please watch this video: Drug Addiction and the Brain



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The Cycle of Addiction

Addiction is describe as the repeating cycle of three stages (shown below; select the double pointed arrow in the lower right corner to expand the graphic to full screen). Each stage is particularly associated with one of the brain regions (basal ganglia, extended amygdala, and prefrontal cortex) (APA, 2022; Fudge & Emiliano, 2003; Lipton, et al., 2019; Shackman, 2016). This three-stage model draws on decades of research and provides a useful way to recognize the cycle of addiction.

- Basal Ganglia: Involved in the Binge / Intoxication Stage
- Extended Amygdala: Involved in the Withdrawal / Negative Affect Stage
- Prefrontal Cortex: Involved in the Preoccupation / Anticipation Stage



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Theories of Addiction

Several theories or models of addiction are studied and emphasized in the world of addiction. We will be covering the following in the remainder of this chapter as well as some influencing factors.

- Addictive Disease Model
- Behavioral/Environmental Model
- Academic Model
- Diathesis Stress Theory of Addiction

Addictive Disease Model

The disease model of addiction compares and contrasts the differences between those who have an addiction and those that do not. This theory defines addiction as a disease that changes the brain structure and functioning (Butler Center for Research, 2021). This model considers addiction a disease that can never be “cured”. This is strongly related to the slides provided above the discuss the different brain structures affected by addiction (Racine, et al., 2017)

Recovery, from this perspective means that the recovering person must always refrain from use or connection to addictive substances and activities. Abstaining from these activities can be very challenging, so the theory recommends a support group, usually comprised of peers. A well-known example is Alcoholics Anonymous. It is a group of people struggling with the same addiction to alcohol. They can better understand and support each other because they too are struggling with the addiction.



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Behavioral/Environmental Model

Research suggests that environmental factors may affect substance abuse behaviors. Factors that can promote abuse behaviors can include access and exposure, racial and socioeconomic status, and barriers to treatment. If you think back to Chapter 1, and the mention of psychological reasons for addiction, this paired with environmental triggers could promote addictive tendencies. There is research to support the idea that these behavioral and environmental barriers impact addiction, but ultimately more research needs to be done to discover the where, why, and how these affect a person (Surgeon General).

Academic Model

This model was proposed by C.K. Himmelsbach in the early 1940s. This model revolves around **allostasis**. This model suggests that pleasure, salience, and withdrawal are all linked to allostasis in addictive scenarios (De Ridder, et al., 2016; Olney, et al., 2018). For example, originally, it was thought that the amount of pleasure an addicted person experiences, decreases over time and requires increased amounts of the substance (tolerance). But more recently, research suggests that allostasis is a normal response to maintain

stability when the parameters for normal functioning are outside the “normal” range and thereby resets those parameters.

Diathesis-Stress Model of Addiction

The diathesis-stress model combines biology and psychology to predict the predisposition of a disorder (Berridge & Robinson, 2016). This ultimately suggests that people are predisposed to be a certain way when faced with stressors, like trauma, life events, abuse, etc. It's not always just biological, it can also be psychological. The key components of this model are the predisposition (diathesis) and the stress must be present for the disorder to occur.

Other Addictions

There are other addictions beyond substances like cocaine or alcohol. These can include gambling, eating, sex, pornography, computers, video games, social media, exercise, and shopping. By no means is this an exhaustive list, but it does mention a fair number that might be pertinent in your life. The “drug” of choice, be it alcohol or gambling (Gorzalanczyk, et al., 2021) is typically **goal-oriented**. The goal may be affected by the stress and withdrawal experienced by the user. Typically, individuals differ in their experience of value, due to their different risk factors. The end result, however, is that the individual experiences a minimized negative state when participating in these situations, accomplishing their goal. Below are some optional studies and information related to non-drug addictions (Szerman, 2020).

- [Gambling Dual Disorder: A Dual Disorder and Clinical Neuroscience Perspective](#)

- [Evaluation of Risk Behavior in Gambling Addicted and Opioid Addicted Individuals](#)
- [The Bergen Shopping Addiction Scale: Reliability and Validity of a Brief Screening Test](#)
- [Video Game Addiction and Emotional States: Possible Confusion Between Pleasure and Happiness?](#)

Anonymous Organizations

Below is a short list of “Anonymous” organizations that support those with addiction; these are 12-step programs. Review them as they are relevant to you.

- [Alcoholics Anonymous](#)
- [Narcotics Anonymous](#)
- [Food Addicts Anonymous](#)
- [Gamblers Anonymous](#)
- [Sex Addicts Anonymous](#)
- [Spenders Anonymous](#)

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Chapter 3: Stimulants

By the end of this chapter, you should be able to:

- Define the characteristics of the major classes of drugs. **(LO2)**
- Identify and summarize the addiction process and the characteristics thereof. **(LO3)**



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Overview of Stimulants

Stimulants are drugs that typically increase overall levels of neural activity (Lumen; Florida State College). Drugs in this category include, but are not limited to: cocaine, amphetamines, bath salts, MDMA, nicotine, and caffeine. The most common routes for using stimulants are **oral consumption**, intranasal or snorting, inhalation (usually smoking), and **intravenously** with a hypodermic syringe (Rawson, 1999; Wisconsin Technical College System). This chapter will cover some of the most common stimulants used.

Concepts to Remember:

- Many of these drugs act as **agonists** (APA, 2022) of the user system (Vosburg, et al, 2021).
- The opposite of an agonist is an antagonist, which binds the drug and the receptor and halts natural function of the receptor (Nguyen, 2018).
- Furthermore, up-regulation and down-regulation play a role in abuse but also withdrawal (and relapse). Up-regulation is when the number of receptors that are fully functioning, without drug use, increases. When the number of receptors decreases, it is called down-regulation. Relapse is so prevalent because the body does not immediately recover from drug use, it needs time to return to its natural function and balance (OpenStax, 2020).
- The **half-life** of a drug is important to understand how long a substance remains in the body (APA, 2022). Below are some slides and further information related to half-life. Select the double-pointed arrow, in the lower right corner to enlarge the slides.



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Cocaine

Cocaine is derived from a South American shrub called coca (APA,

2022). The coca leaves contain a psychoactive component which is what we know as cocaine. For thousands of years, indigenous people have chewed coca leaves to also know as “khoka” in some cultures (Biondich & Joslin, 2016). It was chewed for numerous purposes including ceremonies and other social and physiological benefits. European and American cultures began limiting their usage of cocaine once its addictive nature and side effects became more widely known (Sanvisens, et al., 2021). However, many indigenous people still chew the coca leaves for the following benefits:

1. Gastrointestinal Treatment: Relieves stomach pain, spasms, nausea, indigestion, mouth sores, tooth aches, constipation, and diarrhea.
2. Environmental Stress Treatment: Relieves symptoms of hypoxia and altitude sickness and suppresses feelings of hunger and cold.
3. Physiological Treatment: Stabilizes blood sugar.

Move the middle bar to the right to view an image of coca leaves; move the middle bar to the left to view cocaine.



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Amphetamines



“Vintage ad for amphetamines” by Tengrain is licensed under CC BY-NC 2.0.

Amphetamines are synthetic drugs that stimulate the brain and have been tricked to release **norepinephrine** (APA, 2022). First synthesized in 1887 in Germany, it became a common pharmacy drug in the early 1930s. Later, it was introduced during World War II to keep troops on both sides alert for over two full days. In modern treatments, it is used to help reduce or manage the symptoms of attention deficit hyperactivity disorder (ADHD), severe depression, and narcolepsy (IUPHAR/BPS, 2022; Lueithi & Liechti, 2020;

Reyes-Parada, et al., 2020). It has been used in the military for extreme cases, as well. Amphetamines produce a wide range of effects on the user, including several parts of the brain (Ferruci, 2019; Tait, et al. 2014; Tran, et al., 2021).

- Prefrontal Cortex: affects cognition and arousal
- Hypothalamus: affects food intake, thermoregulation, and arousal
- Limbic System: affects emotions, learning, memory, rewards, addiction
- Brainstem-Spinal Cord-Periphery: affects locomotion, cardiovascular and respiratory rhythm, pain perception

Plant-Based Stimulants

Review the following slides to learn more about plant-based stimulants (APA, 2022; Athukorala, et al., 2021; Drug Policy Alliance, 2022; Hon et al., 2021; USFS, 2022) Select the arrow in the lower right corner to expand the slides to full screen.



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Caffeine

Caffeine is a socially acceptable stimulant that is widely used to increase alertness and performance (Agoston et al., 2022; Munis, et al., 2017). It is a plant-derived, bitter substance that is found in seeds, fruits, nuts, or leaves in plants indigenous to Africa, East Asia, and South America (“Caffeine”, 2022) (APA, 2022). Caffeine acts as a defense mechanism for plants, due to its bitter taste, keeping plant-eaters away and outliving the competition. The best known source of caffeine is coffee, which millions of people consume daily (often many times daily!) (“History”, 2022). It is the most widely consumed (and sanctioned) psychoactive drug in the world because it is legal and unregulated nearly everywhere in the world (Franke et al. (2021). Caffeine has its own slew of positive and negative affects.

Review the graphic below to learn more about the pros and cons of consuming caffeine.



Nicotine



“[Nicotine label](#)” by [Alachua County](#) is marked with [Public Domain Mark 1.0](#).

Nicotine is another plant-based stimulant that is mostly derived from tobacco plants (APA, 2022). Like caffeine, it is one of the most widely used psychoactive drugs; it is the leading cause of preventable death and disease worldwide.

Nicotine, found when smoking or chewing tobacco, releases a shot of **glucose** into the system which thereby increases blood pressure, respiration, heart rate, and can lead to addiction (IUPHAR/BPS, 2022). Users are often more alert, feel more calm during stressful situations, and can also act as an appetite suppressant. However, in large doses, nicotine is toxic and can eventually result in death. Some negative effects of nicotine usages include dizziness, diarrhea, vomiting, spasms, and heart attack. (Mahajan, et al., 2021; Quach, et al., 2020)

Tobacco smoke is also deadly. Exposure to tobacco smoke, even from electronic cigarettes, can increase the risk for stroke, Alzheimer’s disease, schizophrenia, and other diseases. Even just the tiniest bit of smoke contained thousands of hazardous chemicals and is an addictive substance (Sharma, et al., 2022).

Supplement Facts

Serving Size: One Addiction

Proprietary Blend

Elation, Euphoria, Pleasure, Social Relationships Impaired, Impaired Cognition, Elevated Blood Pressure, Increased Respiration, Increased Body Temperature, Heart and Respiratory Failure, Hemorrhaging, Seizures/Convulsions, Stroke, Brain Damage

***** Daily Value Not Established**

Other Ingredients: Death

Proprietary Blend: Elation, Euphoria, Pleasure, Social Relationships Impaired, Impaired Cognition, Elevated Blood Pressure, Increased Respiration, Increased Body Temperature, Heart and Respiratory Failure, Hemorrhaging, Seizures/Convulsions, Stroke, Brain Damage

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Chapter 4: Depressants: Opiates, Opioids, and Sedatives

By the end of this chapter, you should be able to:

- Define the characteristics of the major classes of drugs. **(LO2)**
 - Identify and summarize the addiction process and the characteristics thereof. **(LO3)**
-

Overview of Depressants

Depressants are substances that are meant to reduce a function of an organ or bodily system. Depressants typically decrease the functioning of the central nervous system in the same way that stimulants increase the functioning of the central nervous system (APA, 2022). For a review from Chapter 1, it may be beneficial to watch the short video on [Depressants and Opiates](#) (Khan Academy, 2014).

Opiates and Opioids



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Opiates, are either naturally or synthetically derived from **opium** (APA, 2022). Opioids are the naturally occurring opiates (like morphine) and synthetic versions (like heroin). Users may experience positive effects, when used clinically as pain relievers, anesthesia, cough suppressants, and antidiarrheal drugs. But, as with all drugs we are discussing, opioids are prone to abuse and dependence in the long-term; symptoms include pain relief, fatigue, euphoria, respiratory depression, and reduced function in the gastrointestinal system (APA, 2022; Bahmutsky, et al., 2020).

Review the maps below regarding opioid usage in 2009 (Butler, et al., 2011). Do you think that opioid usage has grown since this data was captured? What about the centers available for treatment? Opioid have been proven beneficial for those experiencing chronic pain among other issues, but the side effects like addiction or death come along with those benefits (Abdallah, et al., 2019; Nadeau, et al., 2021; Kakko, et al., 2019). Addiction is subjective and multi-faceted (Jones, et al., 2018), it will not be a simple fix or solution, more research and data are needed in many cases to develop better solutions for the future. After viewing the content below, it may be beneficial to review some data provided by the [Centers for Disease Control and Prevention](#).

Move the bar to the right to see usage rates in 2009 and move the bar to the left to see treatment centers. Why is this important information to consider?



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Sedatives

Sedatives are drugs that relax the user, reduces feelings of anxiety, agitation, or excitement by depressing the nervous system. How much relaxation, from easing tension to sleeping, depends on the drug, the dosage, how it is administered, and the users general status (APA, 2022). Sedatives were synthesized first in 1832 by Justus von Liebig, though it was not declared a hypnotic sedative until 1869 by Oskar Liebreich (Lopez-Munoz, et al., 2005; Guina & Merrill, 2018). Since then, the drugs have been used extensively for everything from seizures or sleep medication. While they have proven to help in many ways, long term use can be toxic and harmful (Lopez-Munoz, et al. 2005). There are two sedatives that will be covered below: Barbiturates and Benzodiazepines.

Barbiturates

Barbiturates depress the functioning of the cerebellum, leading to sedation and drowsiness. Barbiturates administered orally are through an injection. Infants, pregnant and geriatric persons should avoid using these drugs. There are some fairly extreme side effects related to taking this kind of drug including but not limited to (Wisconsin Technical College):

- Suicidal thoughts and behaviors (Carlsten & Waern, 2009)
- Gastrointestinal issues
- Rashes
- Respiratory depression
- Blood disorders (potentially fatal)
- Should not be used with alcohol (can cause death)
- Addictive



"Barbiturates – Winston Products for Education" by Rusty Blazenhoff is licensed under [CC BY-NC 2.0](https://creativecommons.org/licenses/by-nc/2.0/).

Benzodiazepines



[“HP de la Demeure du Chaos DDC9890”](#) by [Abode of Chaos](#) is licensed under [CC BY 2.0](#).

Benzodiazepines are generally used to combat anxiety, seizures, and promote relaxation. Benzos that are injected are generally used for sedation while those that are consumed orally are to treat anxiety. They can also be used to treat generalized anxiety, panic disorder, withdrawal of other depressants (alcohol),

and insomnia (APA, 2022; Sanabria, et al., 2021; Guina & Merrill, 2018). Much like barbiturates, children, pregnant, and elderly people should refrain from using these sort of drugs because it can cause tremors, agitation, and even hallucinations. Moreover, as is the way of opioids, respiratory depression could dramatically affect these users including coma and death (Wisconsin Technical College; Edinoff, et al., 2021). Other side effects include drowsiness, fall risk, complications for those with liver dysfunction.

Learn more about how drugs affect pregnant from this Finnish study: [Maternal use of sedative drugs and its effects on pregnancy outcomes](#).

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Chapter 5: Other Drugs and Addictions

By the end of this chapter, you should be able to:

- Identify and summarize the addiction process and the characteristics thereof. **(LO3)**
 - Explain the effects of addiction on individual, family, and community. **(LO4)**
-

Overview

This chapter will cover a few other addictive drugs, including inhalants, sports drugs, and other miscellaneous drugs; this chapter will also cover some other types of addictions like compulsive behaviors: gambling, shopping, hoarding, eating, sex, and internet-based addictions.

Other Drugs

Inhalants



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Inhalants include a wide range of substances and side effects and are inhaled through the nose or mouth. These substances include gasoline, lacquers, spray paints, glues, aerosols, paints, and cleaning fluids. In addition to the high, intoxicating feeling, users may also experience confusion, disorientation, nausea, fatigue, and other negative side effects (Queensland Government, 2018; Verma, 2011). These substances are easy to obtain and conceal, which promotes their use and addiction. This type of substance abuse occurs worldwide, no socioeconomic class or development status left unaffected (Verma, 2011).

Sports Drugs

Sports drugs, also called performance or appearance enhancing drugs are those are consumed to promote peak performance in sports but also increase cognitive and sexual performance (Zaami, 2021). Performance enhancing drugs are generally banned for ethical, health, and legal reasons (Queensland Government, 2021). Yet, this does not stop athletes from using them. Drugs like these are used to boost performance in that never-ending quest for greatness and winning. Commonly used drugs in this category include but are not limited to steroids, diuretics, and stimulants (Zaami, 2021). For more detailed information regarding performance enhancing drugs and how they work, review this journal article: [Effects of Appearance – and Performance-Enhancing Drugs](#) (2021).

This article lists the following side effects that users of these drugs typically experience:

- Perceived power over others
- Higher self-esteem
- Better concentration
- Depression
- Anxiety (up to and including psychosis)
- Aggression
- Brain chemistry permanently altered
- Personality changes
- Abuse
- Dependence
- Body Image Disturbance

Review the five videos below to learn how drugs affect an athlete and how it is a widespread concern.



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Miscellaneous Drugs

In attempts to become high or even improve health, alternative and miscellaneous drugs have been used around the world. Some of these miscellaneous drugs include: camel dung, embalming fluid, gasoline, kava, kratom, aerosol products, strychnine, and toad

secretions (Inaba, 2011). Kava is highlighted below, but other drugs have been used in a similar manner.

Kava is a plant native to South Pacific areas. It has long been used, much like the other plant-based drugs discussed, for centuries in social events, medical treatments, and cultural situations. Typically the **rhizome** (Merriam, 2022; Bian, 2020) is mixed with water or coconut milk to produce its desired effects. It is a popular option to relieve anxiety and insomnia (Rowe, 2011; Biam, 2020). Generally, kava is well-tolerated, but it can be toxic in large doses. Kava users may experience skin reactions all over the body, headaches, tremors and twitches, seizures, and the typically upper-like feelings (Rowe, 2011; Bian, 2020). Learn more about Kava from this study out of New Zealand: [New Study on Kava Drink-Drinking Shows Impact on Brain Function](#) (2021).



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Other Addictions

Compulsive behaviors are fueled by the desire to avoid negative feelings. These behaviors are often habitual in nature and will even continue if there are negative outcomes (Choose Help, 2022)

Compulsive Gambling

There are two types of gambling addiction. The first is the problem gambler, which causes their family harm, but the person still generally has control of their behavior. (Lee, 2022). The other group is actually defined by the American Psychological Association (2022) as a impulse control disorder, called pathological gamblers. This person continues to gamble despite the negative consequence they've experiences. Typically, gambling is a progressive issue with no intervention. Research suggests that this disorder is related to dysfunction in the cognitive areas of the brain, where impulse behavior is controlled (Ioannidis, 2019; Choliz, 2021). Long-term, negative outcomes associated with pathological gambling include: reduced quality of life, increase risk of divorce (where applicable) (Holdsworth, 2013), bankruptcy/debt, and even prison (Ioannidis, 2019). Some researchers have gone so far to say that gambling, while legal, is a public health concern (Choliz, 2021).

In recent years, online or internet gambling (can also be called remote) has grown significantly. It is easily accessibly, immersive, and makes payment very simple. Internet gambling can be accessed on any device with internet availability, in nearly any location (Gainsbury, 2015). Feedback and interaction is immediate and engaging in this online world, increasing its popularity, but with it the risk of account safety and security, in addition to the other risks associated with gambling.

This disorder is consider addictive because it involves the same reward circuits as substance, to the point that the user must repeat the behavior. Moreover, it is conducted in environments that reinforce the behavior and the eventual addiction (Choliz, 2021).



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Compulsive Buying and Shopping

Compulsive buying is also known as compulsive shopping and is considered a form of an impulse control disorder. As with most addictions, the act of buying or shopping may create positive feelings for the user at first, but overtime, there will be remorse, guilt, and other repercussions like debt, impaired social relationships, and even hoarding (Lee, 2022; Muller, 2021). Typically a disorder among women, this strong buying urge becomes apparent when a person is roughly twenty years old. Those that have this disorder may have comorbidities like substance abuse, depression, anxiety, and other compulsions (Lee, 2022).

Much like gambling, online shopping or buying seems to be a growing trend and may be its own sub-type of compulsive disorder (Muller, 2021). Online shopping shares many of the same components that compulsive, in-person shopping demonstrates, with more emphasis on ease of completing the transaction.



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Hoarding

Hoarding is a compulsion that involves the gathering of items (generally trivial), storing them without clear organization. Usually collected into piles, the piles lead to a cluttered home to the point of distress or impaired functioning. The individual often feels extreme anxiety if asked to remove these items from living space (APA, 2022; Choose Help, 2022). Individuals save the items to avoid negative feelings (Vilaverde, 2017). This disorder is often present with other disorders like anxiety, depression, and obsessive-compulsive disorder (Novara, 2016). Some research suggests that occupational therapy could resolve some of the challenges of hoarding. Read more from a 2019 study: [Can Occupational Therapy Address the Occupational Implications of Hoarding?](#)



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Eating Disorders

Eating disorders are often very complex situations that all have these common components: food and weight issues. Sometimes these issues are caused by other factors including genetics, environment, peer pressure, emotional health (NAMI, 2022). Furthermore, there are conditions that make an individual pre-disposed for developing an eating disorder. Statistically, it is more likely that someone will have an eating disorder if a young female

(roughly late teens to early 20s) (Harrison, 2022; NAMI, 2022; Qian, 2022). Individuals are also more likely to have a disorder if they have family history. Dieting, stress, and specific vocations/activities can also perpetuate the pre-disposition for an eating disorder. Regardless of the condition, these disorders impact psychological, physical, and social well-being of the individual (Harrison, 2022).

- **Anorexia Nervosa.** This disorder is often characterized by maintaining body weight through starvation or excessive exercise. Generally, individuals with this disorder have a distorted body image called **dysmorphia** (APA, 2022; Lumen; NAMI, 2022).
- **Binge Eating Disorder.** This is a disorder characterized by extreme eating habits (**binges**) and then distress because of the binge (Lumen; NAMI, 2022).
- **Bulimia Nervosa.** This disorder includes the binge eating from the previous disorder followed by **purging** (Lumen; NAMI, 2022)

Resource: [National Eating Disorders Hotline Contact Information](#)



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Sex Addiction

Sexual Addiction is defined as persistent impaired functioning, where the individual is unable to control intense, repetitive sexual impulses. It becomes the focus of the individual's life, eventually

resulting in neglect of other important activities like health, hobbies, and responsibilities (Antons & Brand, 2021). (Note: **Paraphilic Disorders** are not included in this definition (APA, 2022)). Sex addiction involves pornography, masturbation, and risky sexual acquaintances in order to fulfill needs (Efrati, 2021; Edelweiss, 2021). And again, like some of the other disorders discussed in this chapter, online sexual opportunities (cyber sex) have grown in recent years (Blinka, 2022).



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Internet-based Addictions

Finally, the last addiction to discuss in this chapter. There are different sub-types within this category including internet addiction, cyber sexual addiction, cyber-relationship addiction, information addiction, and computer games addiction and other related compulsions. Internet addiction is a pattern of excessive or obsessive online behavior that can lead to distress or impairment. The condition has grown in recent years due to the increase of social media and other forms of popular internet usage. There are some sub-types identified, but more research will need to be completed to determine true sub-types within this addictive disorder (APA, 2022). The COVID-19 pandemic seems to exacerbated the growing electronic addiction, at least in the United States with those who are urban, educated, employed, married, and 18-35

suffering the worst consequences (Khubchandani, 2021). Other research suggests that internet addiction is a growing public health concern in many Asian countries, the prevalence jumping five times more than it was prior to the pandemic (Dong, 2020). Those affected by this addiction often have other disorders like alcoholism, sleep disorders, depression, and anxiety (Moreno, 2022; Bai, 2022; Dresplangely & Hutt, 2022; Zhang, 2022). Read more about [Digital Addiction and Sleep](#).

Strategies to combat this addiction include (Khubchandani, 2021):

- Set boundaries and adhere to them.
- Spend more time outside and/or with family
- Establish a healthy routine
- Regulate technology use
- Schedule technology breaks
- Find balance and practice mindfulness



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Chapter 6: Depressants: Alcohol

By the end of this chapter, you should be able to:

- Examine the dominant beliefs and attitudes in our society with regard to chemical use. **(LO1)**
- Define the characteristics of the major classes of drugs. **(LO2)**
- Identify and summarize the addiction process and the characteristics thereof. **(LO3)**



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Overview

This chapter will discuss alcohol and its relationship with addiction, other health issues, and epidemiology. Alcohol is a substance that has been in use (in some form or fashion) for many thousands of years across the world. Fermented beverages resembling alcohol, we consume by early Egyptians, Chinese, and India as far back as 7000 BC (Drug Free World, 2022). Many cultures had gods and goddesses that were worshiped through drink, usually to excess. Early civilizations and cultures in South and Central America also

had their own varieties of fermented beverages, often made from sugary produce like corn, grape, or apples (Drug Free World, 2022; Setiz & Neuman, 2021). European and North American populations have more recent, even challenging history with alcohol, including periods of temperance and prohibition (Drug Free World, 2022). It seems that no matter where an individual is located, alcohol is a prevalent part of the culture. To learn more about a the history of alcohol from this short video by Rod Phillips (2020).



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Alcohol

Alcohol is has one major psychoactive component and that is ethyl alcohol (or ethanol). It is created through the fermentation of glucose found in alcoholic beverages like beer, wine, and liquors. This substance, like other drugs, affects the central nervous system and its electronic functioning (Jurado-Barba, 2020). It generally affects mood and cognitive function, but other times with excessive use, it will also impair self-control, speech, bodily control and function (APA, 2022; Inaba, 2011; NIAAA, 2022; Wang, 2020). Additionally, despite the negative affects experienced by the user, the individual will continue to consume because of this loss of self-control (Stock, 2017). The amount of pure alcohol varies from one type of beverage to another. Review this resource provided by the

Australian Government (2022) that covers a [Standard Drinks Guide](#); Drink Calculators may also be interesting resources to explore:

- [Drink Calculator](#)
- [Drink Calculator Quiz Game](#)

Alcohol Processing

Alcohol is processed by two main enzymes. These enzymes break down the alcohol molecule into manageable pieces, that are easier for the body to eliminate (NIAAA, 2022). The rate at which alcohol is broken down depends greatly on the weight, gender, age, and additional individual characteristics. As with other substances, once the psychoactive component of alcohol crosses the blood-brain barrier, the effects are felt by the user. Women typically feel the affects of alcohol much quicker than males (Inaba, 2011). Review the usage levels below, expand with the double pointed arrow in the lower right corner for full screen.



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Alcohol Addiction



[“The-Simpsons-Homer-To-Alcohol-C-10314164”](#) by [antoinedemorris](#) is licensed under [CC BY 2.0](#).

Alcoholism also known as alcohol dependence, is a chronic disease that has severe, significant behavioral, psychological, and psychosocial consequences. Addiction of this substance can include **cravings**, **tolerance**, **dependence** and **withdrawal** when it is no longer consumed (APA, 2022; Inaba, 2011). Research has suggested that there are many genetic predictors for alcohol abuse and other addictions, in addition to environmental factors. Pre-disposition for alcohol usage creates a vicious, repetitive cycle of use,

withdrawal, and craving (Heilig, 2021) as covered in previous chapters. An estimated 15 million people ages 12 and up have not only used alcohol but abuse it, just in the United States (SAMHSA, 2022). The National Institute on Alcohol Abuse and Alcoholism reports the following statistics for alcohol use in United States (2022):

- Prevalence of Drinking:
 - 85.6% of people aged 18 years and older report that they have tried alcohol.
 - 69.5% of these people reported drinking in the last year.
 - 54.9% of these people reported that they drank in the last month.

- Binge Drinking and Heavy Alcohol Consumption:
 - 25.8% of people reported that they engaged in binge drinking in the past month.
 - 6.3% of people reported that they engaged in heavy alcohol usages in the past month
- Other Extreme situations
 - Aggression and violence are often triggered when under the influence of alcohol.
 - Millions of drivers each year are arrested for using alcohol while driving, killing others while intoxicated, and being distracted in other ways while also intoxicated.
 - Other fatal situations like suicide, boating and industrial accidents are prevalent among alcohol users as well. Billions of dollars are spent each year due to all of these consequences of alcohol usage (Grace, 2021; Heilig, 2019; Grace, 2021; Stock 2017).

More Problems

Influences

Alcohol is usually paired with other substances or issues, rarely working alone. It is a complex situation and the individual needs proper attention and care for all of the disorders. Potential other influences include, but are not limited to:

- The majority of alcohol users report marijuana and cigarettes used with alcohol.
- It is also popular to combine alcohol with methamphetamine or cocaine to create a “speedball” to combat depression symptoms (Inaba, 2011).

- Alcohol is also prevalent in individuals with mental disorders like depression and anxiety. Alcoholism can be hidden by the mental disorders (NIAAA, 2022).
- Social influences also cause many alcohol-related experiences (Bodnar, 2021), both positive and negative.

Pregnancy

Women who consume alcohol while pregnant are more likely to experience miscarriage, stillbirth, premature birth, **SIDS**, and **FASD**. For more information regarding alcohol and pregnancy, review the information regarding [Fetal Alcohol Exposure](#) provided by NIAA (2022).

Epidemiology

Every country has different rules, regulations, or cultural expectations regarding the use (and abuse) of alcohol. Each subgroup, like age, sex, and vocation, also has its own rules and expectations.

Cultural and Ethnic Implications

Select each of the hot spots on the map below to learn a bit more about the cultural and ethical differences between cultures around the world.



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Gender Implications

Earlier in this chapter it is mentioned that women are affected by alcohol consumption more quickly than men. In addition to this, women are more likely to die of alcoholism than men (Inaba, 2011). Learn more by watching this video.



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Chapter 7: Hallucinogens

By the end of this chapter, you should be able to:

- Examine the dominant beliefs and attitudes in our society with regard to chemical use. **(LO1)**
- Define the characteristics of the major classes of drugs. **(LO2)**
- Identify and summarize the addiction process and the characteristics thereof. **(LO3)**



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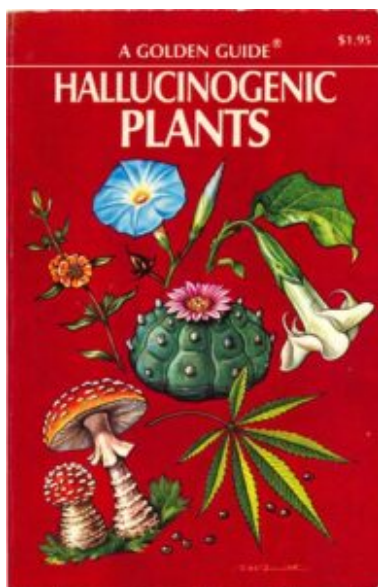
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psychologyofaddiction/?p=32#h5p-31](https://pressbooks.palni.org/psychologyofaddiction/?p=32#h5p-31)

Overview

Hallucinogens are a tricky batch of drugs that can act like stimulants or act as depressants. This group of drugs may produce a sensory effect leading to additional alternations in perception, cognition, and mood (APA, 2022). These drugs can also be called psychedelic drugs and include: LSD, psilocybin mushrooms, peyote, MDMA, ketamine, PCP, DMT, and marijuana. These drugs are generally sorted into two categories:

classic hallucinogens (like LSD) and dissociative drugs (like PCP) (NIDA, 2015). While there is a

negative stigma associated with this group of drugs, there is burgeoning research that suggests there are medical and therapeutic uses for these drugs. Generally, there is a slim chance of: toxicity, addiction, dependence, and neurological affects during or after use (Lowe, 2022; Matzopoulos et al., 2022).



[“Hallucinogenic Plants A Golden Guide”](#) by [Howard G Charing](#) is licensed under [CC BY-NC 2.0](#).

LSD (Lysergic acid diethylamide)



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LSD is very strong drug in this category that mimics neurotransmitters exerting its psychoactive effects on the user. It is unique because it interacts with both serotonin and dopamine receptors (Lowe, 2022). LSD has many aliases including but not limited to: acid, sugar cubs, trips, tabs, or

windowpanes. Derived from a fungus (shown at left), it is nearly undetectable and water soluble. The most common way to take this drug, besides orally, is for LSD-soaked paper to be cut into small, but potent, circles (NIDA, 2015).

Early in its history, LSD was used to treat alcoholism and neurosis. But more recent studies have seen improvements in users who have the following diseases or situations: Alzheimer’s disease, schizophrenia, multiple sclerosis, criminal behavior, autism, frigidity, and many others (Lowe, 2022; Oehen & Gaser, 2022).

Short-term side effects of LSD are (NIDA, 2015):

- Increased blood pressure and temperature
- Dizziness and fatigue
- Appetite suppression
- Feelings of numbness, weakness, and tremors
- Increase impulsivity and moodiness

Psilocybin Mushroom

The **psilocybin** mushrooms (shown at right) has play an integral role in cultural traditions throughout Central and South America for centuries (Matzopoulos et al., 2022; Rootman et al., 2022). The effects users experienced were considered magical up to deep religious and spiritual experiences (Lowe, 2022; NIDA, 2015; Arce & Winkelman et al., 2021). Because of its vital cultural role, it is one of the most studied psychedelic drugs. Currently, there are



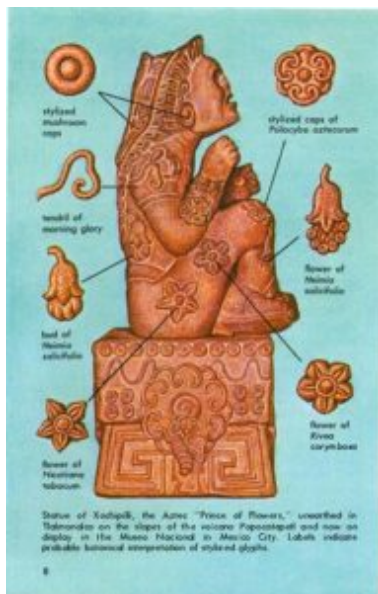
"Psilocybe Mexicana" by [Quasimondo](#) is licensed under [CC BY-NC 2.0](#).

promising therapeutic uses for psilocybin mushrooms, like treating painful conditions, heart conditions, or mood and anxiety disorders, especially in the era of the COVID-19 pandemic (Lowe, 2022; Matzopoulos et al., 2022; Nkadameng et al., 2020). The mushrooms can be consumed, orally, in a variety of ways ranging from raw to brewed with tea (NIDA, 2015); studies indicate that small doses are effective in treating symptoms without impairing regular functioning of the individual (Rootman et. al, 2022).

Short-term side effects of psilocybin mushrooms are (NIDA, 2015):

- Sense of ease or relaxation
- Anxiety
- Introspection
- Poisoning due to misidentification of mushrooms

Peyote



“[Xochipilli, Aztec ‘Prince of Flowers’ – Hallucinogenic Plants A Golden Guide](#)” by [Howard G Charing](#) is licensed under [CC BY-NC 2.0](#).

Peyote is a small cactus with its main ingredient being mescaline. It has been used in Central and North America during cultural and religious experiences. The intoxicating liquid, produced when processing the cactus, that it is usually consumed via tea to tamp down the excessively bitter flavor (NIDA, 2015; APA, 2022; Hinojosa, 2018). The future of peyote is uncertain as it is not being used in a sustainable way and therefore can not regrow as quickly as it is consumed (APA, 2022; Ermakova et al., 2020). Learn more about peyote harvest and some of the practices from this

article: [Peyote Veneration in Challenging Times: Issues of Land and Access in South Texas](#) (2018) and watch the video below called [Drinking Psychedelic Peyote Juice in Mexico](#) (2021).

Short-term side effects of peyote are (NIDA, 2015):

- Increased heart rate and temperature
- Ataxia
- Significant sweating





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MDMA (Methylenedioxymethamphetamine)

This drug has an amphetamine-style experience with added hallucinations. It is typically sold as ecstasy. Individuals will experience the high very quickly and for a long time, even up to days (APA, 2022). Users of this drug may feel euphoric arousal with spiritual experiences. Research suggests that there are some long-term side effects like addiction, memory dysfunction, lack of control, and when used in high doses, it can be deadly (APA, 2022; Pantoni et al., 2022). And, other research has provided evidence that it can be beneficial in low-doses for safely treating intense disorders like PTSD (Mitchell et al., 2021; Arluk et al., 2022) and other anxiety-related experiences and disorders (Makunts et al., 2022; Oehen & Gaser, 2022)

Some side effects that can be experienced are (Oehen & Gaser, 2022)

- Pain
- Cramps
- Dissociative symptoms
- Sensory hallucinations

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Ketamine



“ketamine” by [juliankopald](#) is marked with [Public Domain Mark 1.0](#).

Ketamine, a cousin to PCP, often results in the user being disoriented and hallucinating. Typically, this drug is ingested in pill or powder form (APA, 2022). At one time, ketamine was used in veterinarian offices (NIDA, 2015), but eventually came to treat a variety of painful conditions and addiction (Carboni, 2021; Marcus & Bruchas, 2021; Pribish, 2020), but more

recently, it has been used to treat unique cases of bipolar-depression, where other treatments have proven ineffective (APA, 2022; Rawat et al., 2022; Yavi et al., 2022; Pribish, 2020). Because of its lack of odor and color, it has been used to spike drinks in order to commit sexual assault (NIDA, 2015). Ketamine is poorly understood or lacks the research to support potential benefits (Carboni, 2021; Marcus & Bruchas, 2021).

Side effects can include (Carboni, 2021):

- Hallucinations

- Nightmares or intense dreams
- Delusions
- Anesthesia (Pribish, 2020)

PCP

PCP was originally developed for surgical uses, but later it was realized that it produces hallucinogenic responses (APA, 2022) and is now sought out for recreational uses (Ryu et al., 2020). This drug can be consumed in a number of ways, though when it is smoked it is usually combined with marijuana or tobacco (NIDA, 2015).

Symptoms of use, can include (APA, 2022):

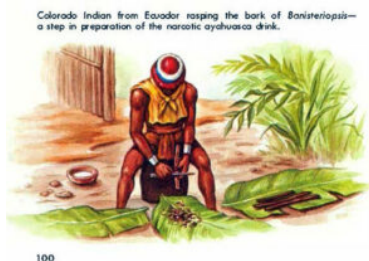
- Schizophrenia (both positive and negative symptoms)
- Agitation
- Delirium
- Disorientation
- Hallucinations



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DMT and Ayahuasca



[“Preparing Ayahuasca – Hallucinogenic Plants A Golden-Guide 102a”](#) by [Howard G Charing](#) is licensed under [CC BY-NC 2.0](#).

DMT is a powerful psychoactive ingredient found in a plant species native to the Amazon. Synthetic versions of this drug are usually a white powder that is smoked. Ayahuasca is made from similar Amazonian plants as well, but is usually consumed in the form of tea in South America (NIDA, 2015; APA, 2022). These drugs are characterized by short

periods of hallucinations (Timmermann et al., 2018; Alamia, 2020) and while it is generally safe to use, it cannot be easily broken down in the body and may negatively react with other drugs (Lowe, 2022). Ayahuasca is typically reserved for spiritual and cultural ceremonies but can also act as an aphrodisiac and in the diagnosis of other disorders (Lowe, 2022; APA, 2022). It is a trending component of South American tourism that began in the Amazon, but is spreading to other South American countries as well and beyond into North America and Europe (Lowe, 2022).

Side effects can include (APA, 2022):

- Nausea
- Vomiting
- Tinnitus
- Euphoria

Marijuana

Also known as cannabis, these species of plants make up a very popular recreational drug. In fact, globally is it the most popular controlled substance (Graves et al., 2020; Latif & Garg, 2020) The psychoactive component known as THC, is contained in the flowers of the plant (APA, 2022). This drug is typically smoked and the user feels the high for roughly three hours. Learn more about cannabis, how it effects the brain, medicine, communities, and businesses by watching the playlist below.

Side effects can include (APA, 2022):

- Euphoria
- Hallucinations
- Lack of memory or focus
- Food cravings
- Anxiety
- Tolerance
- Withdrawal

Research also suggests that there could be severe effects on the cardiovascular system by using this drug, check out this study for more information: [The Impact of Marijuana on the Cardiovascular](#)



[“Cannabis Sativa – Hallucinogenic Plants A Golden Guide”](#) by [Howard G Charing](#) is licensed under [CC BY-NC 2.0](#).

System: A Review of the Most Common Cardiovascular Events Associated with Marijuana Use (Latif & Garg, 2020).



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Chapter 8: Drug Use and Prevention

By the end of this chapter, you should be able to:

- Examine the dominant beliefs and attitudes in our society with regard to chemical use. **(LO1)**
 - Explain the effects of addiction on individual, family, and community. **(LO4)**
 - Outline and critique current intervention and treatment modalities used in the field. **(LO5)**
-



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History of Prevention

Drugs have been in use for centuries, as this book shows. And as long as they have been around, there have always be users that abused them. As groups identified the potential negative consequences with extreme and prolonged usage, there were measures put in place to try and mitigate addiction. In the United States alone, there have been periods of prohibition, attitudes that addiction is a moral failing or a criminal offense, and only in recent

years has it been considered a disease (American Addiction Centers, 2022).

Drugs like morphine and cocaine have been used for their healing potential since the 1800s. But as the years went by moving into the 1900s, there was more emphasis on stamping out illicit drug use while even more exotic drugs became available, like marijuana and hallucinogens (American Addiction Centers, 2022). The first asylum for those afflicted with alcoholism opened in 1864. As the public slowly began to accept alcoholism as a serious problem, more places like this opened. Now, there are thousands of drug rehabilitation programs that have a variety of treatment options. Care is usually best when it is tailored to the patient, so what a person experiences will vary from one individual to another (American Addiction Centers, 2022). Another option for users, that arose following the end of prohibition, is known as Alcoholics Anonymous (or AA) was founded in 1935. This has a spiritual-based way of overcoming addiction and it has evolved to create Narcotics Anonymous (NA), Cocaine Anonymous (CA), and Marijuana Anonymous (MA) (American Addiction Centers, 2022).



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Concepts of Prevention

Prevention strategies have a wide reach, from terrifying scare tactics to abstinence to resiliency training. There are two iterations

that will be briefly discussed here, the first is from the CDC (n.d.) and the other is the public health model from the National Institute on Drug Abuse (2022).

3 Part Prevention Model

This model has three levels of prevention categorized by primary, secondary, and tertiary prevention activities (CDC). There is cons

- **Primary Prevention:** This form of prevention takes place before drugs are taken (non-users). There is clear agreement that this is the most important part of this model (Kempf et al., 2017). This largely involves education.
- **Secondary Prevention:** Here users are screened to identify any predisposition for a disease with preventative health care; this is also known as intervention.
- **Tertiary Prevention:** This is managing the disease or treatment, after the effects have been experienced by the user. Usually this means to slow or stop the progression.

Four Strategic Goals

The National Institute on Drug Abuse aims to support and continue to research drug use, prevention, and treatment. There are four goals and four priority focus areas. To read more detailed information, follow this link to the [NIDA Strategic Plan \(2022\)](#).

Goals:

- **Goal 1:** Identify the causes of drug use and addiction across a lifespan
- **Goal 2:** Develop new strategies to prevent drug use and its

consequences.

- Goal 3: Develop new treatments to help individuals achieve and maintain recovery.
- Goal 4: Increase the impact of public health programs and research.

Focus Areas:

- Examine the interactions of drug use and factors influencing use.
- Increase the development rate of treatments.
- Address real-world problems.
- Advance relationships between research, science, and public health.

Pregnancy and Birth

Substance use and abuse during pregnancy is a major concern. Drugs cross the placental barrier and will affect the fetus. Moreover, when they are born, they will experience the effects of withdrawal (Stone, 2015; Inaba, 2011). Drug



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usage may also interact negatively with other health problems. Additionally, it has been found that sometimes pregnancy is the reason for drug usage, using drugs to cope with the stressors associated with unexpected pregnancy (Mburu et al., 2020)

In many cases, pregnant addicts do not have prenatal care or the post-natal care required to manage the addiction appropriately (Inaba, 2011; Stone, 2015). Interviews conducted by Rebecca Stone (2015), showed that many women use alcohol or drugs during

pregnancy. Those interviewed experienced isolation while hiding from health care or criminal justice personnel. The barriers to treatment, in addition to the isolation, was challenging for these individuals and often discouraged them from seeking the appropriate treatment during their pregnancy. Kristin Trainor and her study: [Material Substance Abuse Disorder: A Look at Provider Stigma, Attitudes, and Beliefs](#) (2022) provided information regarding the beliefs and attitudes exhibited by care workers toward women with substance abuse disorder. Follow the link to read the full study and review the chart on page 12 to see the results.

Fetal alcohol spectrum disorder (FASD) includes other conditions like **fetal alcohol syndrome** (APA, 2022), alcohol-related neurodevelopmental disorder and alcohol-related birth defects (Inaba, 2011).



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Youth and School

Alcohol is a prominent issue in schools, though tobacco and marijuana are not far behind in their use and abuse (Sanchez-Puertas et al., 2022) and substance abuse among youth has grown due to the pandemic (Layman et al., 2022). Prevention is effective when taught in schools (Inaba, 2011), especially when using materials that are adapted to the specific age group like adolescents or college students. Some studies suggest that real information should be

used, but to not use scare tactics or vulgar content in order to frighten students away from using the drugs (Tahlil & Auyub, 2021). A suggested route for drug use prevention in schools include (Tahlil & Auyub, 2021):

- Train students how to say no to drug use, providing them with skills that can be generalized.
- Create relevant policies to decrease the supply available to students.
- Reduce the consequences of using substances by providing appropriate treatment and counseling.

It may be beneficial to make the content engaging and use different forms of media to promote student confidence and resilience. Offering engaging materials may also shift their views about drugs and promote the effectiveness of the overall prevention program (Murah et al., 2020) Moreover, school-based programs that promote the effective use of social skills and the education they receive, will see the most benefits (Sanchez-Puertas et al., 2022).

Adulthood and Drugs

Drugs have permeated many different components of adult life, including sex, work, military, and as humans age. Each of the following sub-categories provide a brief glimpse into how drugs have played a role.

Love, Sex, and Drugs

Some drugs have permanently shifted the attitudes toward sexuality, like Viagra or Cialis (Inaba, 2011). But all drugs have the

capacity to affect users either by lowering inhibitions or changing sexual functioning. Many drugs used for sexual experiences do not effect the user outside sex, but sometimes drugs can trigger aggression or violence that is sexual in nature (Inaba, 2011; Simmons & Singer, 2006). Other drugs, like those administered with needles can spread sexually transmitted diseases, which affect millions of people (Saing et al., 2022).



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Work and Drugs

Substance abuse can occur as a technique to manage the workplace experience and associated stressors (Osei-Nimo et al., 2022). Drugs can be used to feel relaxed or even to increase cognitive functioning (Baum et al., 2021). Substance abuse costs employers billions of dollars each year due to decrease in productivity and increases in healthcare costs (Inaba, 2011). In some cases, like in laborer positions in manufacturing or construction, using drugs while working poses a terrible safety risk both for the user and other employees. (Deria & Lee, 2020). And while the workplace may not be the place to resolve these challenges, it can be a place to educate and share prevention programs, to help mitigate these situations (Smook et al., 2014).

Military and Drugs



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Elderly and Drugs

Inappropriate medication use by elderly people is a public health problem and varies greatly, often called polypharmacy (Guaraldo et al., 2011; Chang et al., 2020). There is an urgent need to correct this problem, but it is a complex problem with many potential ways to combat the issue (Kurczewska-Michalak, 2021). Street drug usage drops dramatically after the age of 65, but the use of alcohol and prescription drug use are proven issues in this community. The elderly often experience stronger side effects than their younger counterparts, but often the signs of abuse are missed by healthcare professionals (Inaba, 2011).

Drug Testing

It is not uncommon for workplaces to require drug testing prior to beginning employment. But they can also require random, periodic, or incident-related drug testing as well. Tests can range from saliva to urine to hair to more advanced drug tests.



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Chapter 9: Mental Health and Drugs

By the end of this chapter, you should be able to:

- Examine the dominant beliefs and attitudes in our society with regard to chemical use. **(LO1)**
 - Explain the effects of addiction on individual, family, and community. **(LO4)**
 - Outline and critique current intervention and treatment modalities used in the field. **(LO5)**
-

Overview



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It is not unusual for there to be co-occurring mental health programs for those with substance abuse disorders. In fact, it is quite common that a patient will enter psychiatric services because of a complication with a substance abuse disorder (Prodromou, 2018). And, a combination of

drug and mental health issues increases the likelihood that they will be arrested (Woodhouse et al., 2016; Rossheim, 2018). Unfortunately, there is a gap in services that provide for individuals in these unique scenarios (Prodromou, 2018; Hakobyan et al., 2020) despite the fact that much research has been completed on this topic. Clear

treatment guidelines have not necessarily been formed (Larson et al., 2022). This chapter will discuss the this relationship and potential treatment options.

Dual Diagnosis

Definition

Dual diagnosis is the identification of two disorders occurring simultaneously (APA, 2022). For example, alcohol abuse coexisting with depression. This can also be called comorbidity and can include other psychiatric conditions like learning



disabilities (Carvalho & Garner, 2019). Dual diagnosis is well-documented in research, greater than 50% of users having both types of disorders (substance abuse and mental illness) (Saddichha et al., 2015); over eight million people documented to have a dual diagnosis in the United States alone (Carvalho & Garner, 2019).

Dual diagnosis is a complex condition that requires similarly complex treatment options, tailored to the needs of the individual. Some research suggests medical non-compliance and substance abuse often predicted how well treatment went, noting that that depressive disorders were more common with substance abuse than other mental health disorders further research is needed to better understand how these different disorders interact. (Davis et al., 2022).

Epidemiology

Epidemiology is the “incidence and distribution of diseases and disorders” (APA, 2022), in this case dual diagnosis. Review the slides and statistics below to see the distribution of dual diagnosis for a 2021 study (Ferrer-Farre et al.). Use the arrow in the lower right corner to expand to full screen.



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Mental Health vs Substance Abuse

Mental health and substance abuse are both ever-changing pieces of human-centered work. Professionals in these fields can have a pivotal impact in patient lives. Mental disorder is a broad term to describe issues related to emotion, behavior, and mental states. There several difference between mental health treatment and substance abuse treatment. Here are a few to consider:

- The mental health focus believes that if the mental illness is treated properly, the substance abuse will disappear. The substance abuse focus believes the opposite is true (Inaba, 2011).
- The mental health focus believes in partial recovery, while substance abuse focuses on permanent abstinence (Inaba, 2011).



[“Satisfaction”](#) by [Christopher Read Photography](#) is licensed under [CC BY-NC-ND 2.0](#).

Some studies show a high rate of satisfaction by individuals who receive treatment for their dual diagnosis, especially those with integrated treatment options (Schulte et al., 2011). The integrative approach involves varied disciplines and services, but this is a complicated

approach to take with no clear guidelines. One study suggested an enactive approach which applies theory rather than just explaining it (Larsen et al., 2022). Enactive psychiatry views disorders as “mosaics” of combined disciplinary elements, like biology, psychology, and sociology. These “mosaics” may provide insight on how the individual needs to be treated in order to promote rehabilitation and healing (Larsen et al, 2022).

Dual diagnosis requires that the patient be treated for both things simultaneously, that integrates different disciplines and strategies. There are several treatment options that have proven successful in dual diagnosis, as provided by National Institute for Drug Abuse (2020). Learn more by going to this website: [What are the treatments for comorbid substance use disorder and mental health conditions?](#)

- Cognitive Behavioral Therapy
- Dialectical Behavioral Therapy
- Assertive Community Treatment
- Therapeutic Communities
- Contingency Management or Motivational Incentives
- Exposure Therapy
- Integrated Group Therapy
- Seeking Safety
- Mobile Medical Application

Psychiatric Disorders

The following psychiatric disorders are the most often co-occurring disorders (Inaba, 2011; Bogucki). It would be beneficial to read more about these from the following resource provided by [Ferris State University](#).

- Schizophrenia spectrum and other psychotic disorders
- Bipolar and related disorders
- Depressive disorders
- Anxiety disorders
- Obsessive-compulsive and related disorders
- Trauma and stress related disorders
- Personality disorders
- Feeding and eating disorders
- Substance-related and addictive disorders

Substance-Induced Mental Disorders

Substance-induced mental disorders refer to “depressive, anxiety, psychotic, or manic symptoms” that occur after using drugs either illegal or medical in nature (Revadigar & Gupta, 2021). The most common substance-abuse mental disorders are alcohol, stimulant, and cannabis induced. Symptoms may be experienced during use, while intoxicated, or even in a state of



“[3 1 10 Bearman Cartoon Cannabis Skunk Hallucinations](#)” by [Bearman2007](#) is licensed under [CC BY-NC-ND 2.0](#).

withdrawal. Learn more about substance-induced disorders from this website: [PAX Memphis](#) (2019).

Psychopharmacology

Psychopharmacology studies the relationships between mental, emotional, and behavioral processes and drugs. It explores how substances affect different areas of the brain (APA, 2022). Watch the following videos to learn more about psychopharmacology and the big categories of drugs used to treat mental illness: antidepressants, antipsychotics, anxiety medications, and mood stabilizers.



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Chapter 10: Treatment

By the end of this chapter, you should be able to:

- Identify and summarize the addiction process and the characteristics thereof. **(LO3)**
 - Outline and critique current intervention and treatment modalities used in the field. **(LO5)**
-

Principles and Goals of Treatment

Treatment is a complex and challenging component of recovery. The [National Institute of Drug Abuse](#) (2018) lists this principles for effect treatment of drug addiction:

- **Addiction is a complicated, but treatable disease; it affects an individual's brain and behavior.** There is a possibility that the changes will continue to affect the person long after ceasing to be actively addicted.



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- **There is not one way to treat addiction.** Treatment varies greatly by person, by drug, by needs. So, proper treatment needs to adapt to the individual. It is also possible that there will be dual diagnoses, so care an attention should be given to those scenarios as well.
- **Treatment needs to be available.** Treatment is not going to happen if the users cannot access it. It should be accessible to those who need it, because it is more likely the individual will have a positive outcome.
- **Treatment needs to be tailored.** Effective treatment needs to attend to all of the needs of the person, not just the substance abuse. Inclusive practices will better serve the individual. Moreover, this should be adapted and re-evaluated over time, because the individual will change over time.
- **Treatment needs to be completed** or at least mostly completed. Research suggests that at least three months is needed for a reduction in addictive behaviors, but this will be different for everyone. Strategies should be used that engage the patient and prevent relapse. It is important to note that treatment does not have to be voluntary to be effective; there may be a greater buy-in to treatment if it is voluntary, but there are proven cases where mandatory treatment is successful.
- **Treatment should include behavioral therapies.** There are many options in this category, to meet the needs of the user, but research has shown that this form of therapy is beneficial.
- **Medications may play a vital role.** When combined with therapy, medications may play a pivotal role in the recovery process.



Selecting a Program and

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Beginning Treatment

Selecting the right program in order to begin treatment is an important step in addiction recovery. Review the hot spots below to learn more about how to select a program (Addiction Center, 2022; NIDA, 2018)



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Treatment Continuum



The first stage is **medical detox**. This is when the individual needs to experience some level of withdrawal in order to move on to treatment options. The detox protocols will vary from one person to another, one addiction to another (Oxford Treatment Center, 2022). Those experiencing withdrawal may

be safer and more comfortable if completed within a program that is experienced with detoxification.

The next stage may be **inpatient hospitalization and rehabilitation**, which is where the highest level of care care be

given to those who need it. It is important to note that this may not be feasible for all individuals. There are options of partial hospitalization programs and intensive outpatient programs, where someone can be in the program but stay in their homes (The Recovery Village, 2022).

Third is **outpatient recovery**, which generally consists of therapy sessions of varying length over a period of time. And now, with the influence of the COVID-19 pandemic, this can include virtual options (The Recovery Village, 2022). This also includes a plan for the individual to implement sober living, like how to cope with cravings, managing triggers, and discovering new ways to cope with stress, family, work, and friends (St. Joseph Institute for Addiction, 2018).

The final stage is **aftercare** and **post-treatment support**. Treatment may be complete, but there is still a phase of recovery maintenance. The individual has to continue to implement the plan developed for them and execute the coping strategies (Oxford Treatment Center, 2022).

Revisit as needed the different stages, if there is relapse or obstacles in someone's recovery. In some ways, individuals who have experienced addiction may never be free of it, because they will always be fighting triggers and using coping methods. But, it may be more extreme, like relapse. In those cases, the individual may have to start over with detoxification.



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Individual vs. Group Therapy

Individual therapy is also known as individual psychotherapy or counseling. In this situation the person meets with a counselor one to one, usually for an hour. The frequency of these meetings will depend entirely on the situation. The sessions will provide an opportunity for individuals to share their experiences, feelings, thoughts, goals, and so on. The counselor will help them develop a plan to achieve goals (Lumen Learning).

Group therapy is when the counselor meets with several clients with related problems. Group therapy has some limitations, because not everyone will want to share their experiences. Or there may be personality conflicts. But the benefit is a supportive group who understands the struggle in a way that others will not and it is a safe space to confront problems (Lumen Learning).

Which type of therapy is beneficial will depend entirely on the person, it may also be beneficial to have a combination of group and individual therapy. An honest, thoughtful look at the needs of the individual will guide this decision making process.

Treatment and the Family

Learn more about the family, their influence on someone's recovery, and family therapy by watching the following videos.



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Obstacles

Obstacles are a common issue with recovery and treatment of addictions. It will take commitment to overcome these items, but it is possible! (Duffy & Baldwin, 2013; Best et al., 2021; Rizzo et al., 2022)

- Lack of funds to pay for treatment
- Lack of access to treatment
- Lack of support network
- Untreated other issues
- Family and work challenges
- Lack of education
- Embarrassment or other emotional barriers

Below is a graphic of feedback provided by patients on their experience in treatment and their barriers to treatment (Rizzo et al., 2022)



Barriers to Treatment (Rizzo et al., 2022)

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