

Slide 1

Click here to start the module.

Substance Use Disorders in Older Adults

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or the **Exit** button to leave the module.*

Use the forward arrow to continue.




Substance Use Disorders in Older Adults

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Learning Objectives

After this completing this module, learners will be able to:

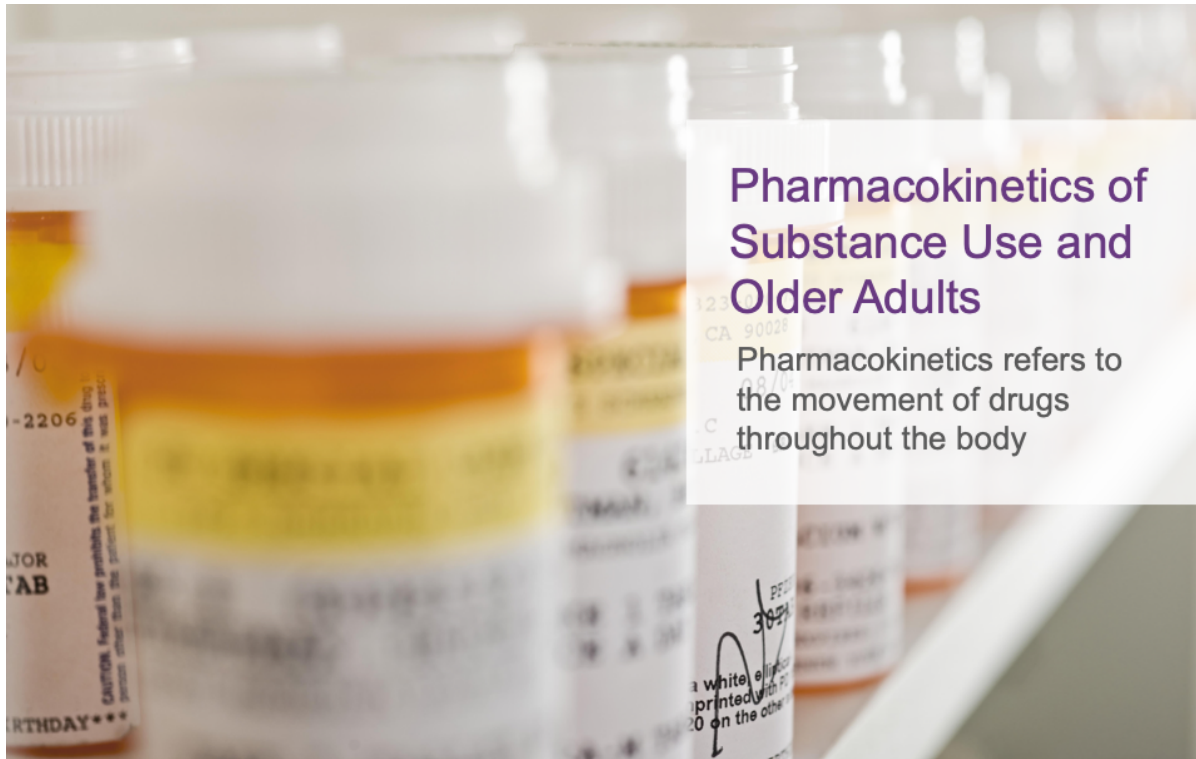
- Describe pharmacokinetics as it relates to substance use
- Provide rates and risk factors for substance use
- Discuss challenges for assessing and diagnosing substance use disorders
- Identify treatment options

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Slide 4




Pharmacokinetics of Substance Use and Older Adults

Pharmacokinetics refers to the movement of drugs throughout the body

Use the forward arrow to continue.

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Administration and Absorption

- Multiple ways to administer a substance
- Absorption refers to transportation from site of administration to bloodstream
- Administration and absorption are important factors for substance use
 - The faster a substance enters the bloodstream, the quicker and more intense the effects



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Distribution, Metabolism, and Elimination

- Once in the bloodstream, substance is distributed throughout the body
- To have a psychoactive effect must pass through the blood- brain barrier
 - Blood- brain barrier changes with age
 - May explain why older people are more sensitive to central nervous system-active drugs
- Eventually, substance will be metabolized
 - Liver, kidneys, lungs, and GI tract
- Excretion primarily occurs via kidneys

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Differences in Older Adult Pharmacokinetics



Percentage of function at 75-80 years of age
100% at age 20 years
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Take Home Message

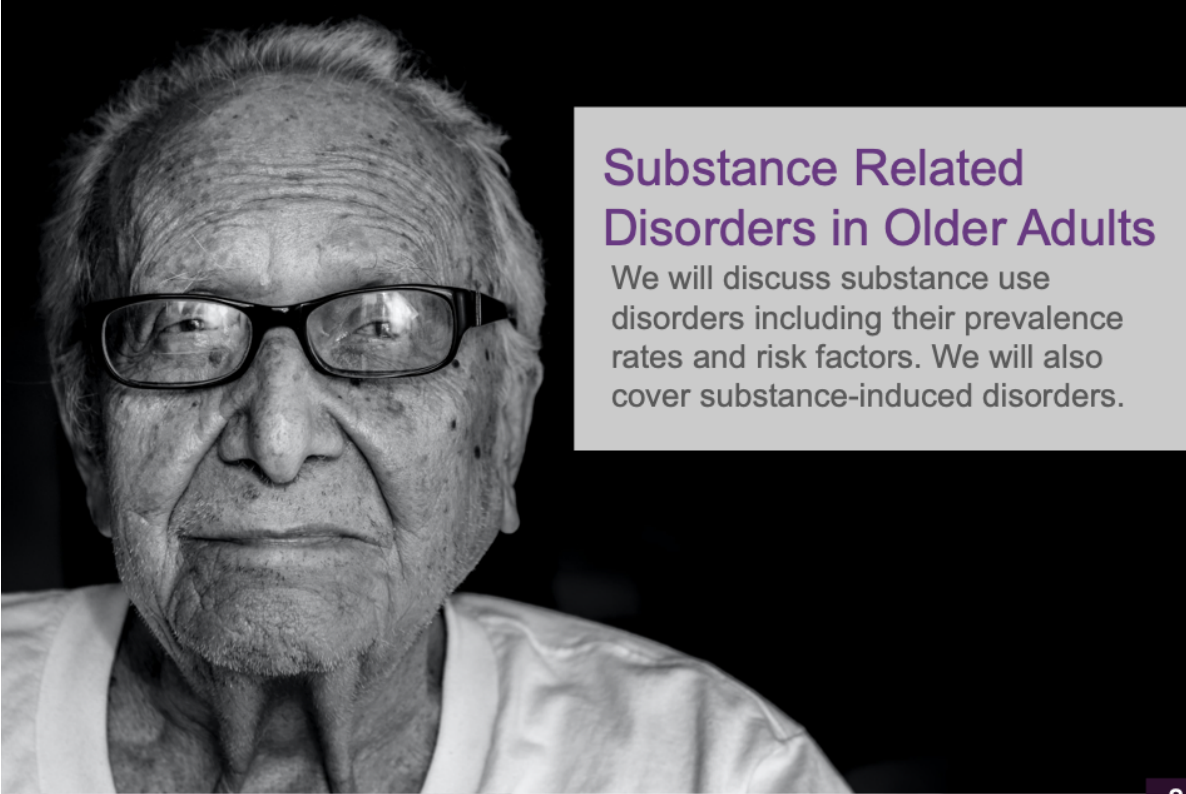
- As we age, the way that the body processes and responds to substances changes
- These age-related changes in pharmacokinetics means that certain substances will have an increased effect in later life



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Substance Related Disorders in Older Adults

We will discuss substance use disorders including their prevalence rates and risk factors. We will also cover substance-induced disorders.

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Substance Use Disorders

- DSM-5 identifies eleven classes
- Criteria for substance use disorder diagnosis
 - Continue to use a substance despite significant substance related problems
 - Inability to control use
 - Impairment in social functioning
 - Use in risky situations
 - Physiological symptoms
 - Tolerance
 - Withdrawal



Rates of Substance Use Disorders in Older Adults

- 6.3% of US older adults reported having substance use disorder in 2020
- Alcohol is most commonly misused drug among older adults in the US
- Significant increase in use of substances by older adults



Risk Factors for Substance Use Disorders

- Male gender
- White
- Low socioeconomic status
- Undergoing life transitions
 - Retirement or death of a spouse
 - Identifying as part of the LGBTQ community
 - Being socially isolated
- Experiencing health problems
- History of substance use and mental health problems



Substance-Induced Disorders

- Substance-induced disorders develop during course of intoxication or withdrawal
 - Depression, sleep disorders, sexual dysfunction, cognitive disorders (including delirium)
- See our module on cognition to learn more about cognitive disorders and delirium in older adults





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Take Home Message

- 6.3% of older adults reported having a substance use disorder
- Alcohol is the most commonly misused drug among older adults
- Risk factors for substance use disorder include being male, white, undergoing life transitions, identifying as part of the LGBTQ community, and being socially isolated





Alcohol and Older Adults

Alcohol is the most commonly used substance among older adults



Standards for Alcohol Consumption

- The National Institute on Alcohol Abuse and Alcoholism (NIAAA) recommended drinking limits for persons 65+
 - No more than seven standard drinks per week
 - No more than two standard drinks in one day for men/one drink or less for women
- A standard drink
 - 12 ounces of regular beer
 - Five ounces of wine
 - 1.5 ounces of distilled spirits that is 40% alcohol



Binge Drinking

- Binge drinking in older adults
 - Four or more drinks a day for older men
 - Three or more drinks a day for older women
- Older adults are at higher risk for binge pattern of drinking
 - Blacks
 - People who did not complete high school
 - Bisexual and lesbian identified women have binge drinking rates three times higher than heterosexual female counterparts



Alcohol Consumption and Health

- Mixed Research on relationship between alcohol and health
 - Light to moderate intake has been associated with lower risk of cardiovascular outcomes
 - Recent data shows that low levels of consumption can be hazardous
 - Heavy drinking/binge drinking associated with increased mortality
 - Association is questioned due to research methodology
- Clinicians should have open conversations with older adults around alcohol consumption and impact on functioning, mental, physical health



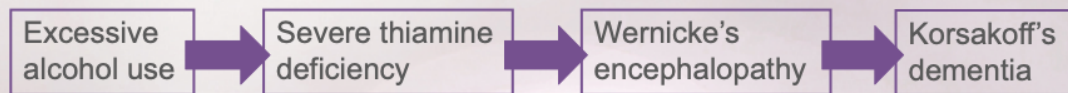
Heavy Alcohol Use and Health

- Heavy alcohol use can:
 - Impair functional abilities
 - Worsen existing health problems
 - Cause potential adverse drug-drug interactions for over-the-counter medications and prescription medications
 - Cause health problems (gastrointestinal illnesses)
- Lower tolerance for alcohol can increase risks of heavy drinking
 - Increases risk for falls, car accidents, unintentional injuries



Alcohol and Cognitive Impairment

- Alcohol use can lead to cognitive impairment



- Alcohol-related dementia
- Alcohol use can also impact brain function indirectly
 - Hepatic encephalopathy, seizure disorder, head injury, disordered sleep, cardiovascular disease



Alcohol and Mental Health

The image shows a man with a grey beard and glasses, wearing a striped shirt, sitting at a table with a glass of beer. He has a thoughtful or weary expression. To his left, a diagram illustrates a cycle between 'ALCOHOL' and 'DEPRESSION' with two curved arrows forming a loop. The background is dark, and the text 'Alcohol and Mental Health' is in the top left corner.

ALCOHOL DEPRESSION

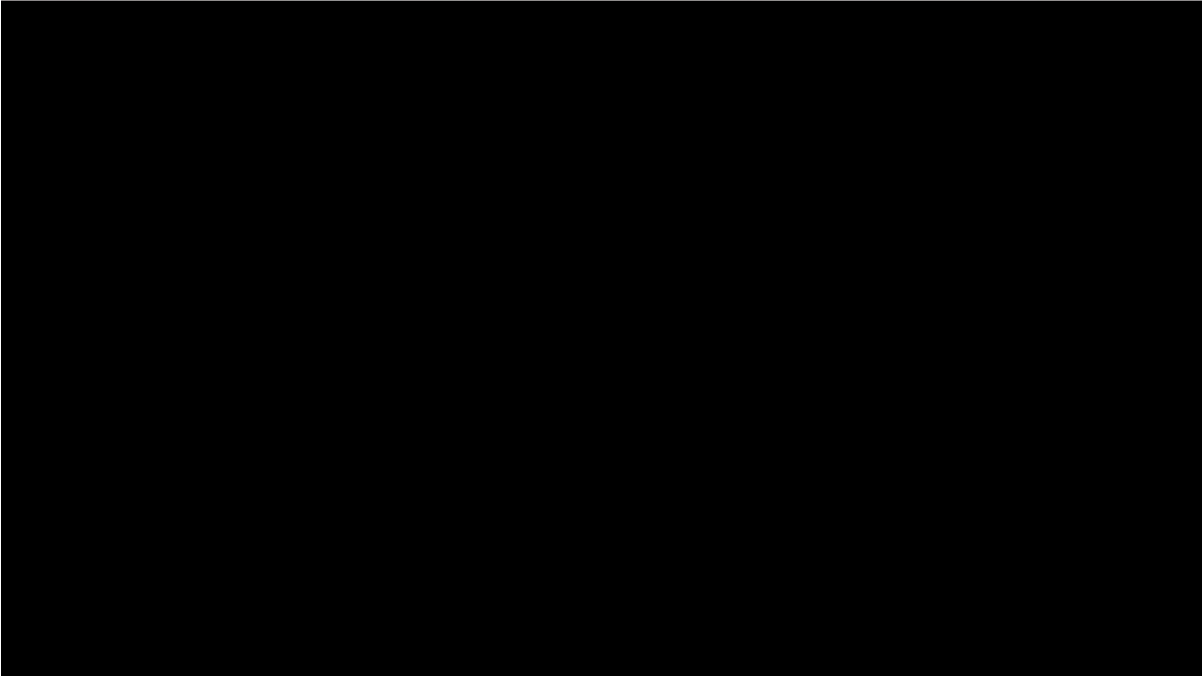
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Take Home Message

- Alcohol use becomes more problematic as people age, even if their consumption remains the same
- While it is commonly believed that mild use may be beneficial, this may not be the case for older adults, who are at increased risk for adverse effects and drug-drug interactions



Kirk Harris, MD





Cannabis and Older Adults

Cannabis is another of the most commonly used substances in older adults, often referred to as marijuana

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Medicinal Use of Cannabis

- Cannabis Sativa plant has over 60 cannabinoid compounds
- Two primary compounds are THC and CBD
- THC has psychoactive properties
 - Increasingly used for medicinal purposes
 - Benefits are largely anecdotal/have not been demonstrated in larger randomized controlled studies
- CBD lacks the psychoactive properties of THC
 - Often available over the counter
 - Anecdotal reports of impact on physical pain/anxiety
 - No methodologically rigorous research
- Majority of users obtain cannabis illegally, market is largely unregulated
- Interaction of most medications with cannabis, and impact on older adults is largely unknown



CBD's Adverse Effects

- CBD is perceived by many to be benign
 - May not be true for older adults
- Shares metabolic pathways with other substances/prescribed medications
 - Increases potential for drug-drug interactions
- May also have adverse effects
 - Sedation and somnolence



Recreational Use of Cannabis

- Recreational use of cannabis is increasing in older adults
- Increased risk for drug-drug interactions and adverse side effects



Cannabis and Cognitive Impairment

- Paucity of research on whether cannabis causes cognitive impairments
- Cannabis as a factor in cognitive impairment
 - Age at which use began
 - Frequency of use
 - Amount of cannabis used
- Potential confounds
 - Premorbid health conditions
 - Concurrent use of other substances



Cannabis and Mental Health of Older Adults

- Limited research on relationship between cannabis use and mental health in older adults
- Higher rates of mental health/substance use disorders in older cannabis users compared to former users or people who never used cannabis
 - Causative relationship in either direction undetermined
- When assessing and treating older adults with substance use and mental health disorders, a careful differential diagnosis is needed



Take Home Message

- As more states legalize cannabis, increase in use among older adults expected
- People may start using for a variety of reasons, including increase perception of its benefits and safety
- Current/future cohorts of older adults are more likely to have previously used cannabis when younger
- More health impact research is needed





Prescription Medication Misuse

Another cause of substance use disorders in older adults is the misuse of prescription psychoactive medications including opioids and benzodiazepines

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Prescription Misuse

- Defined by DSM-5
 - Taking more than prescribed
 - Taking for longer than prescribed
 - Using for purposes other than the prescribed purpose
 - Using in conjunction with other medications or alcohol
 - Purposefully skipping doses
- Misuse can also be on the part of the practitioner
 - Medication is prescribed for an inappropriate indication
 - Medication is prescribed at too high a dose
 - Medication use is not properly monitored
 - Appropriate use is not fully explained



Medication Mismanagement

- Medication mismanagement or error
 - Not remembering to take medication
 - Not understanding how to take it
- If mismanagement is the concern
 - Explore additional supports for the individual to better manage their medication regimen



Medication Misuse Risk Factors

- Female gender
- Having multiple providers
- Polypharmacy
- Chronic pain
- Cognitive impairment
- Physical disability
- Identifying as part of the LGBTQ community
- Social isolation
- History of substance misuse
- Current mental disorder, especially depression



Opiates and Opioids

- Opiate refers to natural compounds found in the opium poppy
 - Includes opium, morphine, codeine
- Opioid refers to the medication class that includes
 - Natural compounds: morphine and codeine
 - Synthetic compounds: fentanyl, tramadol, methadone
 - Semisynthetic compounds: oxycodone, hydrocodone, oxymorphone, hydromorphone
- Potent and effective analgesics with high potential for misuse and use disorders



Rates of Opioid Use in Older Adults

- Most research on prescription opioid misuse is in younger adults
- Adults over 50 have a much higher rate of prescribed use
- Older adults with chronic opioid use are more likely to use other medications
 - Potential for drug-drug interactions is high



Risk Factors for Opioid Misuse

- Use of other substances
- Tobacco use disorder
- History of mental health diagnoses and trauma
- Chronic or acute pain
- Recent surgery
- Amount of morphine prescribed during hospitalization



Prevention of Opioid Misuse

- Prevention for opioid misuse in older adults
 - Alternate medications for pain relief
 - Acetaminophen, NSAIDS, and topical pain agents
 - Non-pharmacologic strategies to treat pain
 - Heat or cold
 - Physical or occupational therapy
 - Behavioral pain management
 - Opioids should be started at low doses and used for brief periods
 - Prescription drug monitoring programs
 - Screening for risk of misuse or dependence



Benzodiazepines

- Medication class prescribed for a variety of indications
 - Anxiety, insomnia, muscle relaxation, sedation, seizures
- Consequences of benzodiazepine use
 - Delirium, falls, car accidents, respiratory failure, aspiration
 - Increase risk for cognitive impairment, suicide, death
- Commonly and disproportionately prescribed to older adults
- Weaning should be considered in older adults
 - Tapering medication, tapering while substituting another medication, tapering with conjunctive cognitive-behavioral therapy (most effective)
 - Develop plan to discontinue use when benzodiazepine is initially prescribed



Take Home Message

- Opioids and benzodiazepines are high risk medications for older adults
- Alternative treatments should be used instead including a variety of psychological and behavioral techniques
- If opioids or benzodiazepines are necessary, they should be prescribed cautiously





Assessing Substance Use Disorders in Older Adults

Let's now talk about how to assess for substance use disorders in older adults

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Screening for Substance Use Disorder

- Yearly substance use screening recommended for adults age 60+
- Additional screening is recommended when there a major life change
- Use valid and standardized assessment tools that have been validated with older adults whenever possible



Screening Instruments

Please select the screening measures below to learn more about each one.

MAST-G and SMAST

AUDIT and AUDIT-C

Cannabis Use Disorder Test, or CUDIT-R

SAMI

Screening Instruments

Please select the screening measures below to learn more about each one.

MAST-G and SMAST

- The Michigan Alcohol Screening Test - Geriatric Version, or “MAST-G” assesses problematic drinking in older adults.
- The MAST-G includes 24 yes/no questions.
- The SMAST-G, a shorter version of the screen, consists of 10 yes/no questions.

AUDIT and AUDIT-C

Cannabis Use Disorder Test, or CUDIT-R

SAMI

Screening Instruments

Please select the screening measures below to learn more about each one.

MAST-G and SMAST

AUDIT and AUDIT-C

- The Alcohol Use Disorders Identification Test assess frequency and quantity of alcohol use, problems with drinking, and drinking behavior.
- 10 items rating the frequency of use and consequences of drinking.
- The AUDIT-C is a three-item version of the AUDIT which asks only about frequency of use.
- These measures have been used validated in many populations, including older adults.

Cannabis Use Disorder Test, or CUDIT-R

SAMI

Screening Instruments

Please select the screening measures below to learn more about each one.

MAST-G and SMAST

AUDIT and AUDIT-C

Cannabis Use Disorder Test, or CUDIT-R

- This eight-item screening measure assesses for problematic cannabis use
- Likert-style items about frequency of behaviors.

SAMI

Screening Instruments

Please select the screening measures below to learn more about each one.

MAST-G and SMAST

AUDIT and AUDIT-C

Cannabis Use Disorder Test, or CUDIT-R

SAMI

- 5-item screener that includes a checklist of symptoms and open-ended questions about alcohol use.

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Assessing Substance Use Disorders in Older Adults

- DSM-5 diagnostic criteria challenges when working with older adults
 - Using more than intended
 - Tolerance
 - Social or interpersonal problems
 - Use in risky situations
 - Activities given up to use
- Careful clinical assessment using screening measures validated with older adults is required to make an accurate diagnosis



Older Adults and At-Risk Substance Use

- Lower levels of substance use have greater impact on older adults
 - Assess frequency and quantity of use in the context of individual factors
 - Don't miss the broader impact of the spectrum of substance use concerns on older adult health and well-being



Ageism and Detecting and Diagnosing Substance Use Disorders

- Substance misuse in older adults often goes undetected by clinicians
 - Clinicians may not ask about substance use due to the perception that it is a young person's problem
 - Providers may inappropriately attribute symptoms of substance misuse to the aging process
 - Limited time in an office visit
 - Some clinicians are uncomfortable talking about substance use with their older patients
- Incorporate substance use screening into clinical practice

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Recognizing Substance Use Disorders

- Family members/friends may have difficulty recognizing substance misuse
- Particularly challenging to detect when older person lives alone
- Red flags for possible substance use
 - Self-neglect, falls, sleep disturbance, lethargy, unexplained adverse medication reactions, poorly controlled medical conditions
- Direct care workers providing assistance in the home can attend to rate of empty bottles or drug use paraphernalia



Communicating about Substance Use with Older Adults

- Use nonjudgmental and non-stigmatizing terms
- Normalize the discussion of substances by talking about it in the context of other health concerns
- Shame and guilt make self-identification problematic
- Obtaining collateral information from family/close friends may be necessary
 - Balancing confidentiality and autonomy with safety is critical



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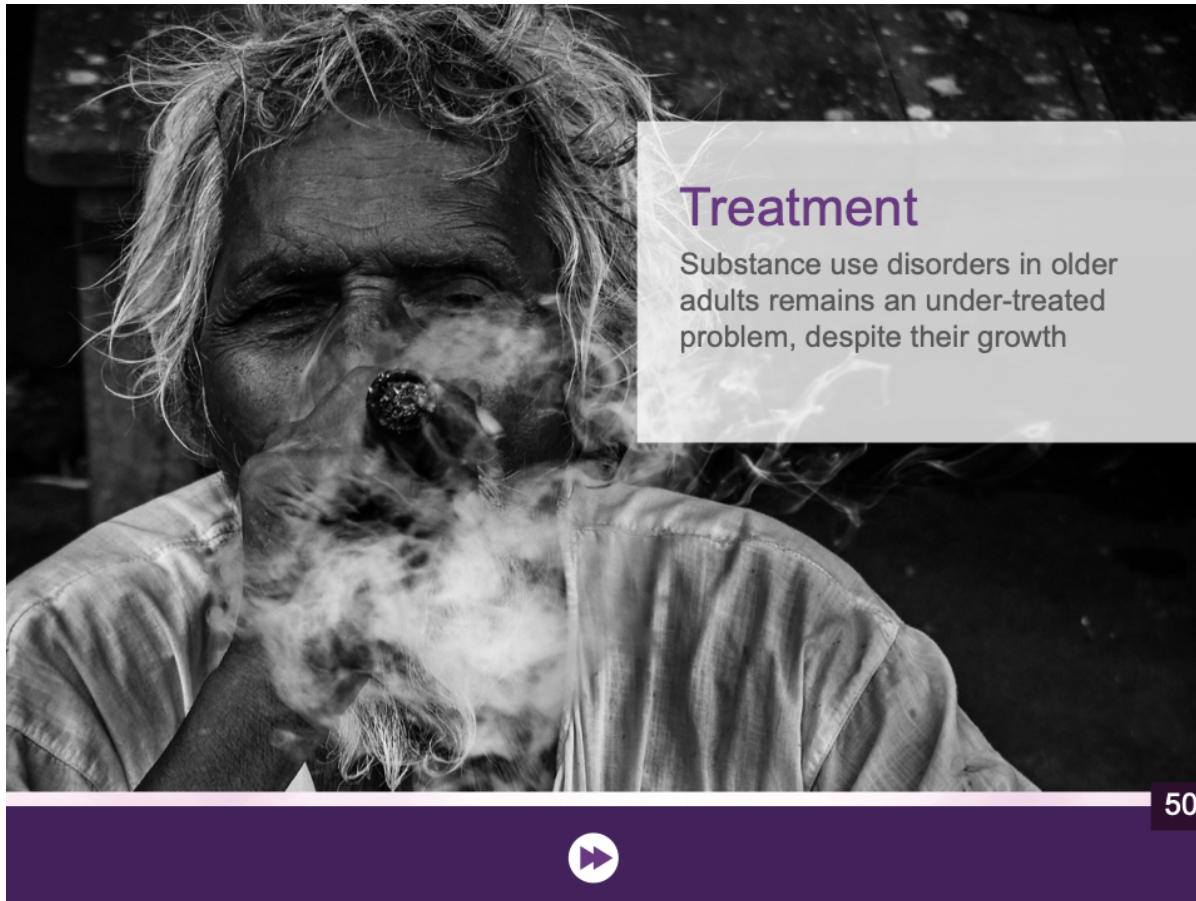


Take Home Message

- Substance use disorders in older adults may be subtle and can be mistaken for signs of aging
- It is important to screen all older adults regularly using age-sensitive questions or screening tools

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Treatment

Substance use disorders in older adults remains an under-treated problem, despite their growth

Treatment Rates



24% of older adults with a substance use disorder received treatment

while only **16.8%** of those with alcohol use disorder received treatment



Brief Interventions

- SBIRT (Screening, Brief Intervention, and Referral to Treatment)
 - Evidence-based approach to identify people who are using substances at unsafe/risky levels
 - Designed to prevent or reduce consequences of substance use
 - Easily implemented in healthcare and community settings
 - Can produce positive changes in use behavior



More Intensive Interventions

- Effective treatment options
 - Cognitive Behavioral Therapy
 - Motivational Enhancement Therapy
 - Behavioral treatment based on Motivational Interviewing principles
 - Used specifically for substance use disorders
 - Highly appropriate for older adults
 - Person-centered approach that increases motivation by helping the person identify the benefits of reducing substance use



Additional Treatment Considerations

- Identify contributing factors, such as depression, loss, or loneliness
- Collaborate to rebuild or increase their social support network
- Self-management involves using behavioral techniques to improve control over behavior and the environment
- Cognitive-behavioral approaches can help identify and modify maladaptive thoughts that could contribute to substance use



Specialized Treatment for Older Adults

- Older adults are just as likely to benefit from intensive treatment as younger individuals
- Only 23% of substance use disorder treatment programs in the United States are specifically designed to accommodate older adults
- Resources for locating treatment
 - National Institute on Alcohol Abuse and Alcoholism's Alcohol Treatment Navigator
 - Department of Veterans Affairs Substance Use Disorder Program Treatment Locator
 - SAMHSA's National Directory of Drug and Alcohol Abuse Treatment Facilities
 - Seniors In Sobriety is associated with Alcoholics Anonymous





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Take Home Message

- Older adults may engage in unsafe substance use unintentionally
- Many can benefit from brief psychoeducation
- Evidence-based assessments and interventions tested with older adults are encouraged
- Older adults are as likely to benefit from interventions as younger adults



In Summary

In this module, we learned:

- ✓ Stronger effects of substances in older people
- ✓ Most commonly used substances by older adults: Alcohol, cannabis, opioids
- ✓ Older adults can misuse prescribed medications intentionally or accidentally
- ✓ Older people who use/misuse substances are at risk for cognitive impairment, falls, health-related issues
- ✓ Screening tools available
- ✓ Brief interventions are often effective





Next Steps

- Please see the reference list for more information about substance use and older adults

[Click here to end presentation](#)

Then click the close button to proceed to the post test

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