



# Substance Use Disorders in the Aging Population

---

April Miller, PharmD  
MS Public Health Institute



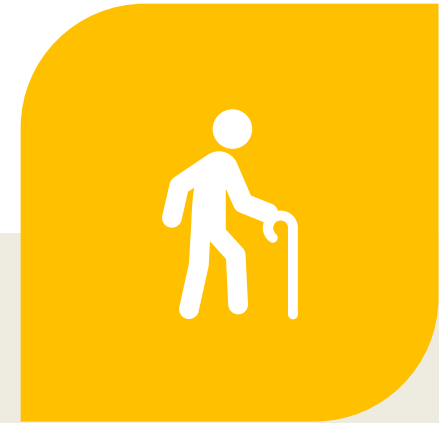
# Learning Objectives



Define the types of substance use disorders (SUD) common in older adults



Distinguish between the signs of aging, polypharmacy, and addiction, many of which overlap



Recognize the unique treatment needs of older adults

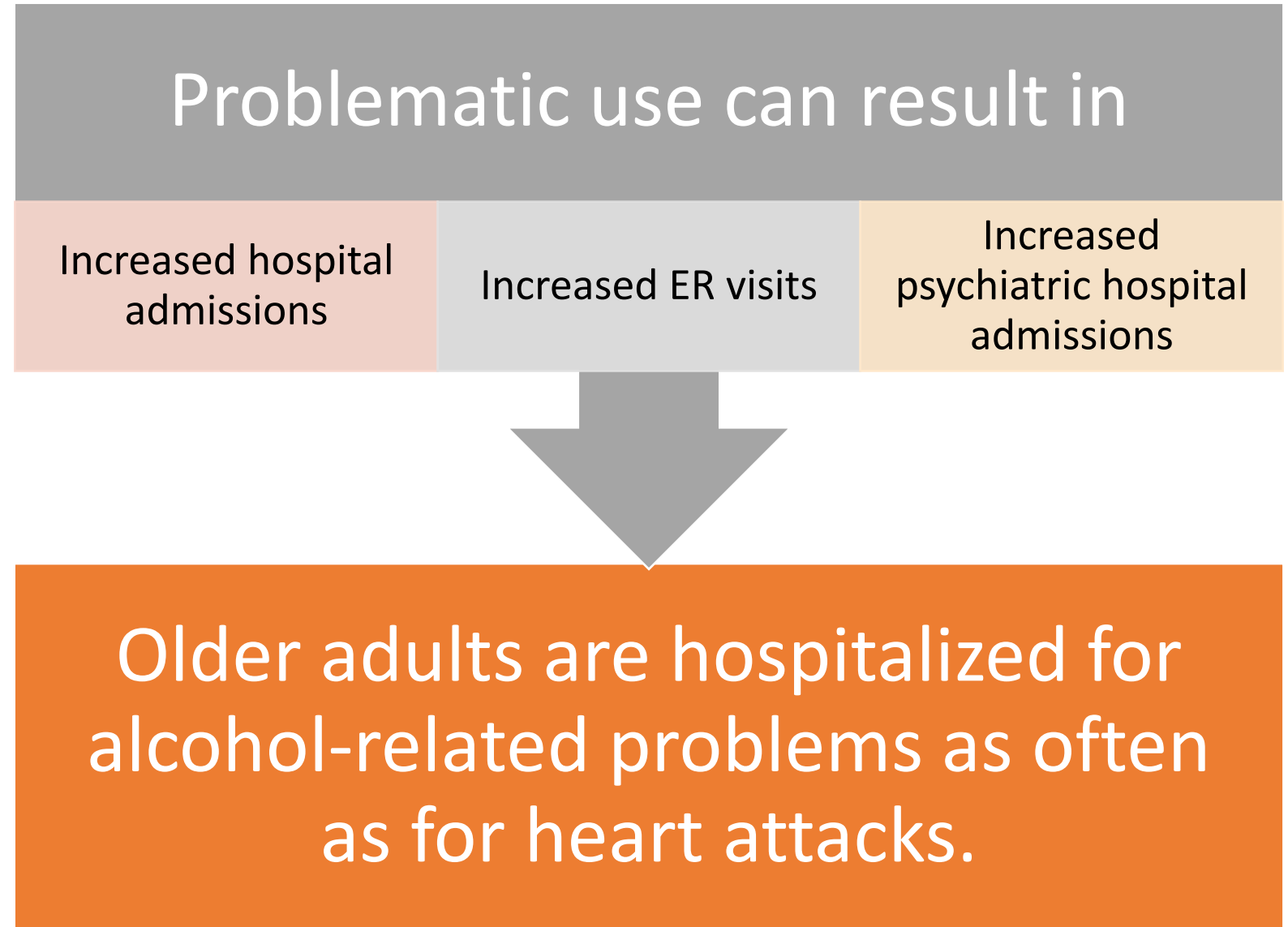


## The Aging Population

### **What constitutes the Aging population?**

- Young-old (age 65–74)
- Old (age 75–84)
- Oldest-old (age 85 and older)

# Substance Use in the Aging Population



# Why Now?



- 
- The number of people reaching retirement age is growing rapidly.
  - Approximately 50% of the boomer generation grew up experimenting with illegal substances.
  - Overprescribing of prescription pain meds in the 1990s and early 2000s contributed to this trend.
  - Older adults have been conditioned to turn to medications for relief.

# Substance Use in the Aging Population



Can be unleashed by innocent consumption of prescription medications



Gradual increase in alcohol and/or marijuana use



Can be masked by normal symptoms of aging, including the need to medicate chronic pain

What Are They  
Using?

## Alcohol

12.8% binge drinking

3.2% heavy drinking

## Marijuana

9.9%

## Any illicit drug use

12.1%

## Opioid Misuse

2.3%

# Substance Use in the Aging Population

---

**10 million** engaged in **binge drinking**

---

**2.5 million** engaged in **heavy drinking**

---

**9.5 million** used **illicit drugs**

---

**7.7 million-** used **marijuana**

---

**1.8 million-** misused **opioids**



No use

Experimental use

Social or occasional use

Medication used as required

Harmful use

Dependence

The continuum of substance use  
**WHERE DO YOU SEE YOURSELF?**

The person does not use alcohol or other substances

The person tries a substance out of curiosity and may or may not use it again

The person uses the substance in an amount or frequency that is not harmful

The person uses a medication as prescribed, under medical supervision. The risk of harm is minimized

The person experiences negative consequences of medication or substance use (e.g. health problems, family, school, work, or legal problems)

The person is psychologically and/or physically dependent on a prescribed or non-prescribed substance and use continues despite the experience of serious problems

# SUD Diagnosis Criteria from DSM-5

1. Taking the substance for long periods of time or in larger amounts than intended.
2. Being unable to cut down or stop substance use.
3. Spending a lot of time obtaining, using, and recovering from the effects of the substance.
4. Experiencing cravings, or intense desires or urges for the substance.
5. Failing to fulfill obligations at home, work, or school due to substance use.

# SUD Diagnosis Criteria from DSM-5

6. Continuing substance use despite having interpersonal or social problems that are caused or worsened by substance use.
7. Giving up social, recreational, or occupational activities due to substance use.
8. Using the substance in risky or dangerous situations.
9. Continuing substance use despite having a physical or mental problem that is probably due to substance use.
10. Tolerance, or needing more of the substance to achieve previous effects.
11. Withdrawal, meaning that unpleasant symptoms occur when you stop using your substance of choice.

# The 3 C's of DSM-5 Criteria

Loss of Control

Negative Consequences

Cravings

# Aging, Polypharmacy, and Substance Use Disorders

Sign/Symptom	Aging	Polypharmacy	Substance Use Disorder
<b>Neglecting responsibilities</b>	Too tired or depressed to maintain home	Too high to realize	Alcohol or substance use is more important
<b>Engaging in dangerous activities</b>	Driving to keep independence	Driving Under the Influence (DUI)	DUI
<b>Getting into legal trouble</b>	Traffic violation or accident while sober	Disorderly conduct due to confusion or paranoia	DUI

# Aging, Polypharmacy, and Substance Use Disorders

Sign/Symptom	Aging	Polypharmacy	Substance Use Disorder
<b>Problems in Relationships</b>	Isolating to grieve the loss of a spouse	Isolating because drugs are affecting cognition and awareness	Isolating to hide drinking or drug use
<b>Forgetfulness</b>	Onset of dementia	Bad drug combination/interactions	Too much of a drug
<b>Changes in sleep patterns</b>	Becomes a light sleeper	Sleeps excessively or very little	Trouble falling asleep

# Aging, Polypharmacy, and Substance Use Disorders

Sign/Symptom	Aging	Polypharmacy	Substance Use Disorder
<b>Abandons once joyful activities</b>	Lacks energy or is no longer interested	Medications may cause fatigue	More interested in using drug of choice
<b>Tremors, slurred speech, impaired coordination</b>	Neurological condition	Bad drug combination	Drunk or high
<b>Deterioration of physical appearance</b>	Dementia	Bad drug combination	Indifference

# Opioid Pharmacokinetics in Aging Population

- Organ activity system changes
  - **Kidney function:** Renal clearance declines by 1% per year after the age of 50, leading to reduction of most opioid clearance. This can result in a build-up of metabolites, which are often active and/or neurotoxic.
  - **Hepatic function:** Metabolic activity of the liver is impacted and reduced due to decrease in size and blood flow. Decrease in first-pass metabolism can increase the bioavailability of certain orally administered opioids like morphine.



# Opioid Pharmacokinetics in Aging Population

- Organ activity system changes continued:
  - **Body Fat:** Increase body fat percentage can lead to delay in the elimination of lipophilic agents such as fentanyl and methadone, both which accumulate in subcutaneous tissue.
  - **Total body water:** Decrease in total body water volume can lead to an increase in concentration of water-soluble metabolites.
  - **Neurotransmitters:** changes due to aging in dopamine, glutamine and serotonin systems can reduce the therapeutic index, thereby increasing the likelihood of adverse effects associated with opioid use in older adults



# Barriers to Identifying SUD in the Aging Population

- Ageism and complacency
- Diagnosis difficulty
- Hiding the truth



# What is Ageism?

“Prejudice or discrimination against a particular age-group and especially against the elderly”



# Complacency May Sound Like...

- It's the only pleasure left at this age.
- He worked hard all his life; let him enjoy himself!
- She's in too much pain to abstain from painkillers.
- He has nothing else to do.
- Who is she harming?
- Since Dad passed, it's the only thing that helps with the loneliness.
- He's too confused for treatment to work.

# Considerations

---



AWARENESS



OBSERVATION



MONITORING



CONVERSATION

# Awareness

- What are the signs of aging?
- What are the signs of polypharmacy?
- What are the signs of addiction?
- Does addiction run in the family?
- Did the person use drugs as a teen?
- How many doctors does the person see?
- What health conditions are they being treated for?

# Observation

- How many pills is the person taking daily?
- How many alcoholic drinks is the person having?
- Are there prescription bottles from multiple pharmacies?
- Has your loved one lost interest in activities they used to enjoy?
- Has your loved one exhibited any changes in mood recently?
  - Depressed?
  - Anxious?
  - Withdrawn?
  - Secretive?



# Monitoring

- How regularly is your loved one being checked on?
- If I'm not around, who can I get to monitor his behavior?
- How often does he/she go to the doctor?
- How much does he/she drink?
- Does he forget he took his medications?
  - Danger of doubling up or missing crucial medication doses



# Conversation

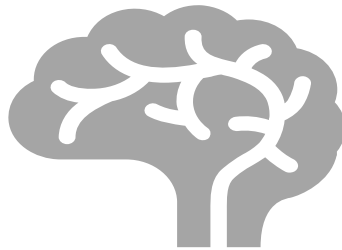
- Casually bring up the topic of drug use and behaviors in a non-judgmental way
- How many pills is she taking?
- Is each of her doctors aware of the others and what medications they have prescribed?
- Has he/she been drinking?
- Is he/she feeling ok?
- Does he/she noticed a change in their own behaviors?

# But Which One Is It?

---



Dementia



Drugs that can  
mimic dementia



Medical conditions  
that can mimic  
dementia



# Dementia

- Memory loss/forgetfulness
- Impaired judgement
- Poor reasoning
- Inappropriate behavior
- Loss of communication skills
- Disorientation to time and place
- Gait, motor, or balance problems
- Lack of personal care and hygiene
- Hallucinations, paranoia, agitation



# Drugs that can mimic dementia

- Antidepressants
- Antihistamines
- Anti-parkinson drugs
- Anti-anxiety medications
- Cardiovascular drugs
- Anti-convulsants
- Corticosteroids
- Hypnotics
- Narcotics
- Sedatives
- Stimulants

# BEERS CRITERIA

---

Updated in 2023

---

Criteria for Potentially Inappropriate  
Medication Use in Older Adults

---

List of medications that cause side effects in  
the elderly due to physiological changes of  
aging

---

Full document available @  
<https://geriatricscareonline.org/>

# Medical conditions that can mimic dementia

- Alcoholism
- Depression
- Sleep disorders
- Neurodegenerative diseases (Parkinson's & Huntington's)
- CNS infections
- Vitamin B deficiency
- Brain tumors
- Thyroid disorders
- Hydrocephalus
- Subdural hematoma



# Unique Treatment Needs in the Aging

- Complex/chronic health conditions
- Doctor appointments
- Caregiving roles
- Transportation issues
- Dementia or Other mental health issues
- Finances



# Unique Treatment Program Needs and Issues

- Qualified treatment team (onsite medical facility ideal)
- Flexible schedule
- Long scheduled breaks to rest or nap
- Extended periods of socializing with other older adults
- Group meetings and activities with other older adults



# Treatment Options in Mississippi

- Pinegrove- Legacy program (Hattiesburg, MS)- ages 55+
- Brentwood- Milestones program (Flowood, MS)- ages 65+
- [FindTreatment.gov](http://FindTreatment.gov)
- [Odfree.org](http://Odfree.org)



# Knowledge Check Question # 1

Which of the following has the highest rate of misuse in elderly individuals?

- a) Heavy alcohol consumption
- b) Opioids
- c) Stimulants
- d) Binge drinking

# Knowledge Check Question # 2

Which of the following drugs can cause side effects that mimic dementia symptoms?

- a) metformin
- b) diphenhydramine
- c) amoxicillin
- d) hydrochlorothiazide

# Knowledge Check Question # 3

Which of the following is an example of a unique treatment need in older adults when considering inpatient residential treatment options for substance use problems?

- a) Having chronic hypertension currently controlled with HCTZ/lisinopril
- b) Recent diagnosis of Alzheimer's stable on donepezil
- c) Age related vision impairment that makes driving potentially dangerous
- d) Age related fatigue, requiring more frequent rest and break periods

# THANK YOU!!!

Please Scan QR code for short survey!

Your feedback is very important to us & helps with continued funding to provide services such as this training.

**Post-Training Survey**

