

# Anxiety in Older Adults

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MEDICINE *of* THE HIGHEST ORDER



UNIVERSITY *of*  
**ROCHESTER**  
MEDICAL CENTER

# Disclosures

I have no conflicts of interest to disclose

# Case

77 yo widowed woman with CAD, DM type 2, COPD and OA who lives independently, has 3 children, active in church and bridge, and she sees her family regularly.

Over the past few months, new behaviors:

- Prefers to watch church services online
- Leaves family gatherings early

New symptoms:

- Admits to difficulty sleeping (averaging 4-5 hours a night),
- More difficulty remembering appointments
- Not concentrating on her soap operas
- Increased use of her rescue inhaler.

Treated for anxiety in 20s- 30s, symptoms improved, stopped meds

# Different types of anxiety disorders

Generalized Anxiety Disorder

Specific phobia

PTSD

Panic disorder

Obsessive compulsive disorder

# Definitions

## Anxiety

- An unpleasant emotional state which is characterized by an intense negative emotion, physical tension symptoms and concern about the future – APA 2014

## Specific phobia

- Marked, persistent, excessive, unreasonable fear in the presence of or in anticipation of a specific trigger (person, place, situation, animal)

## Generalized Anxiety Disorder

- Excessive anxiety and worry in addition to muscle tension, increased fatigue, difficulty sleeping at night, difficulty concentrating on a task and feeling irritable or on edge for >6 months with a feeling that one cannot control their own anxiety

# Incidence and prevalence

- Typically presents in early life. Older adults with anxiety began to have symptoms or were diagnosed when they were children or younger adults
- About 50% of GAD cases in older adults are diagnosed after age 50
- Older adults are less likely to report symptoms and seek treatment than younger adults
- Prevalence rates vary widely
- Estimated to be present in 3.0- 20.0% of older adults residing in aged care facilities and 1.4- 17% of those living in the community
- GAD may be the most common anxiety disorder in older adults with a prevalence of 1.2 to 7.3%

# Prevalence

- In a 2018 study conducted by Creighton et al. the prevalence of anxiety disorders was found to be 19.4% among evaluated aged care residents in Melbourne, Australia (Creighton et al., J of Affective Disorders 2018)
- GAD was found to be the most common type of anxiety disorder present in this particular population (Creighton et al., J of Affective Disorders 2018)

# Negative consequences of anxiety disorders in older adults

If anxiety is undiagnosed or untreated, it can lead to

- Nursing home admission
- Increased caregiver burden
- Decreased quality of life
- Decline in physical functioning
- Decline in cognitive functioning

# Negative impact of anxiety disorders on cognitive functioning

In a longitudinal study performed in Mexico, community dwelling older adults with clinically significant anxiety were found be 3 times as likely to develop dementia (Santabarbara J et al. Acta Psychiatria Scandinavica 2019)

# Risk factors for anxiety disorders in older adults

Changes in life circumstances/health

Female gender

Low socioeconomic status

Disability

Loneliness

# Comorbid conditions

The presence of certain medical conditions increases the risk for anxiety disorders. Some of these conditions also have symptoms that overlap with anxiety symptoms.

- Dementia
- Neurocognitive disorders
- Parkinson's disease
- Psychiatric illnesses
- Depression
- Cardiac conditions
- COPD
- Cancers
- Thyroid disorders
- Diabetes

# Impact of comorbid condition treatment on anxiety symptoms

A meta-analysis conducted by Gordon et al. revealed that compared with usual care, COPD patients who underwent pulmonary rehabilitation had significant benefits of a moderate magnitude on anxiety symptoms (Gordon CS et al., Chest 2019)

# Anxiety in neurocognitive disorders

Anxiety in dementia patients is estimated to be 17- 25%

Difficult to determine if the anxiety is a result of the neurocognitive disorder or unrelated

Rating Anxiety in Dementia Scale and Neuropsychiatric Inventory-  
Anxiety subscale

- Measure anxiety in cognitively impaired patients

# What kind of anxieties do the elderly have?

Anxieties in the elderly can be very different from those experienced by people of other ages.



Fear of falling



Fear of memory loss



Fear of illnesses



Fear of break-ins  
or burglars



Fear of loneliness



Fear of being  
dependent



Fear of death

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[Whiteswanfoundation.org](http://Whiteswanfoundation.org)

# Fear of falling

Classified as a specific phobia

Prevalence is about 20.8- 85% of older adults

Around 50% have never experienced a fall

At least one fall is a risk factor

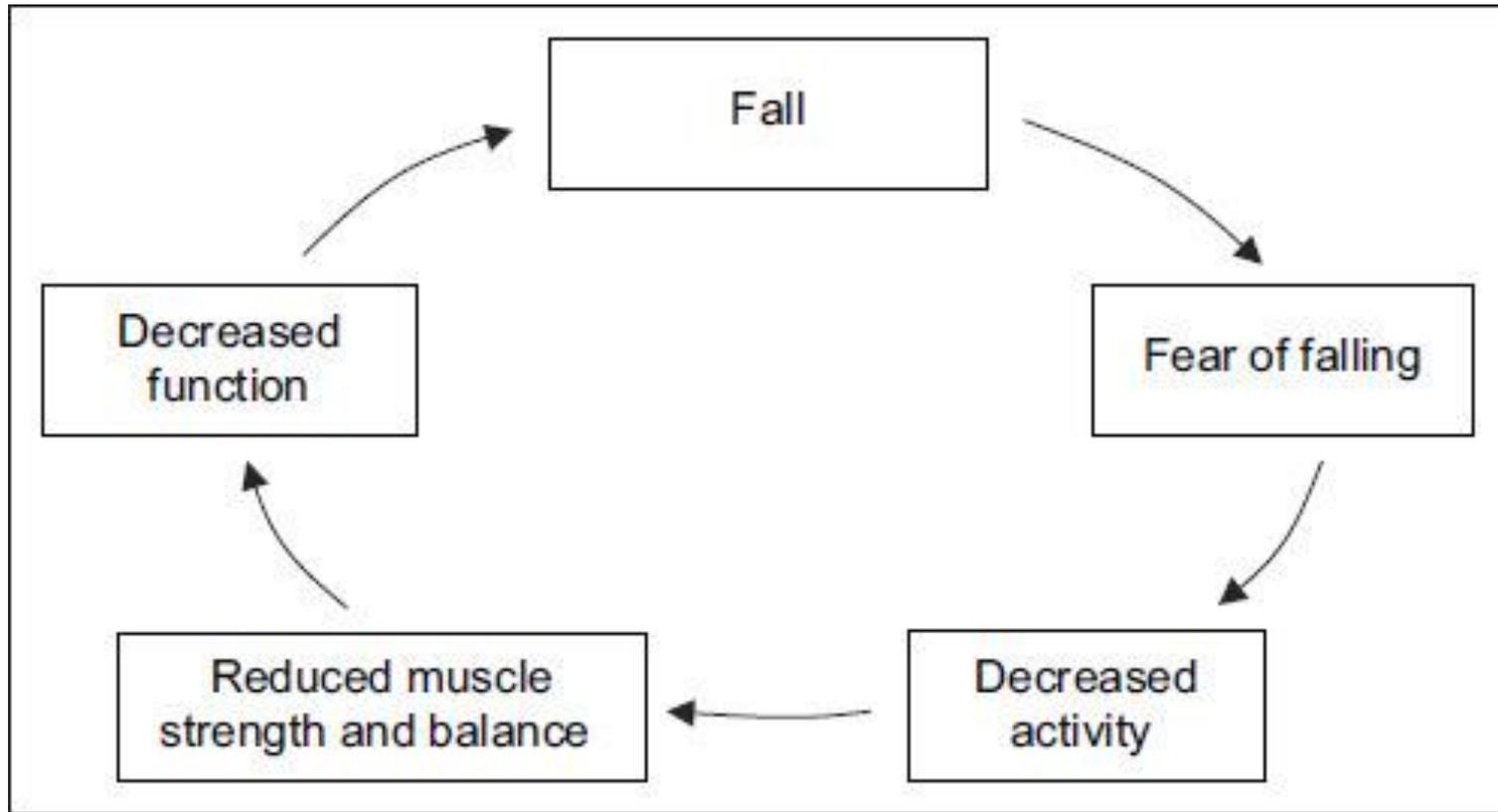
Other risk factors include female gender, dizziness, low self- rated health, depression, living alone, cognitive impairment and mobility impairment

Fear of falling after a hip fracture is associated with increased risk of nursing home admission and mortality

Leads to activity self- restriction

Management include hip protectors, exercises, tai- chi, virtual reality

# The vicious cycle of falling and anxiety



Ang GC et al., Singapore Med J 2020

# Prevalence of fear of falling

- Based on a questionnaire, 33.0% of participants in a study of over 1000 community-dwelling women 70 to 85 years old were found to have a fear of falling (Kiel DP, Uptodate)
- A study of 673 community-dwelling older adults revealed that 60.0% reported moderate activity restriction and 15.0% severe activity restriction as a result of a fear of falling (Kiel DP, Uptodate)

# Signs and symptoms of anxiety in older adults

- Feelings of restlessness
- Difficulty concentrating
- Decrease in memory
- Insomnia
- Fatigue
- Changes in appetite
- Irritability
- Social withdrawal
- Chest pain, palpitations
- Nausea
- Shortness of breath
- Headaches

# Assessment

New anxiety symptoms later in life should prompt workup to rule out medical or neurocognitive condition

Review of current medications to rule out side effects

Rule out drug and alcohol use with urine toxicology

# Conditions to rule out in anxiety symptom workup

System	Specific disease
Neurological	Stroke, Parkinsonism, Epilepsy, MS, tumors
CVS	Angina, mitral valve prolapse, cardiac arrhythmia, acute asthmatic attack
GI	IBS
Metabolic/endocrine	Hypoglycemia, hyperthyroidism, pheochromocytoma, hyperparathyroidism, carcinoid syndrome, uremia, hepatic failure, hyper/hypocalcemia
Deficiency states	Vits B1, B6, B12, folic acid

Subramanyam AA et al., Indian J Psychiatry 2018

# Studies to consider in anxiety workup

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## Baseline

CBC,  
Blood sugar  
Urea ,  
Creatinine  
Thyroid levels  
If indicated Sodium,  
Potassium and  
Calcium levels

## Imaging if required

Chest Xray  
ECG  
Echo Doppler

## Based on individual case

Pulse oximetry  
Urine analysis and  
Drug screening

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Subramanyam AA et al., Indian J Psychiatry 2018

# Screening tools

Specific to older adults

- Geriatric Anxiety Scale
- Geriatric Anxiety Inventory
- Adult Manifest Anxiety Scale
- Rating Anxiety in Dementia (includes caregiver interview)
- CIDI65+ (Composite International Diagnostic Interview)- assesses for panic disorder, agoraphobia, GAD, social and specific phobias, OCD and PTSD

# Screening tools

Developed for use in younger patients but validated in older adults

- State Trait Anxiety Inventory
- Beck Anxiety Inventory
- Penn State Worry Questionnaire

# Geriatric Anxiety Scale

30 item questionnaire in which each item is scored from 0 (not at all) to 3 (all of the time)

Focuses on the time period of the past week

First 25 items are scored and the last 5 items assess for common specific anxieties in older adults such as being perceived as a burden

Maximum score of 75

3 subscales- cognitive, mood and somatic symptoms

10 item short form is also available

# Screening considerations

Reliance on somatic symptoms may yield false positive results in medically ill older adults

Longer screening tools can cause fatigue

# Screening for anxiety in older adults with comorbid conditions

A 2019 study by Segal et al. determined that the GAS is a reliable anxiety screening tool in older adults with multiple medical comorbidities (Segal DJ et al., J of Anxiety and Depression Forecast 2019)

# Management of anxiety disorders in older adults calls for a collaborative approach

Geriatricians

Geriatric psychiatrists

Neurologists

Neuropsychologists

Therapists

Social workers

Family and caregivers

Pharmacist



# Management strategies

Treat comorbid conditions

Stop medications that may be contributing to anxiety if able

# Nonpharmacologic interventions

Structure day with activities

Physical activity

Sleep

Relaxation therapy

Cognitive behavioral therapy (CBT)

Mindfulness

# Effects of CBT on anxiety and sleep

- Brenes et al. conducted a study comparing the effects of CBT and yoga on anxiety in older adults (Brenes G et al., Depression & Anxiety 2020)
- Both treatments were found to be effective, but CBT was found to improve sleep quality more (Brenes G et al., Depression & Anxiety 2020)

# Medications as anxiety disorder treatment

Due to lack of research in older adults, recommendations are often based on research done in younger patients

## SSRI

- Escitalopram, citalopram, sertraline, paroxetine

## SNRI

- Venlafaxine, duloxetine

## Mirtazapine

# SSRI side effects in older adults

GI bleeds

Bone mineral density loss

Hip fractures

Hyponatremia due to SIADH

QTc prolongation

# Side effects of specific SSRIs and SNRIs

## Citalopram

- Caution in those over 65 with cardiovascular conditions due to risk of abnormal conduction
- No higher than 20 mg a day

## Paroxetine

- Highest anticholinergic activity of the SSRIs

## Venlafaxine

- Increases BP

## Duloxetine

- Can cause LFT abnormalities

# Use with caution

## Busprione

- Lack of studies in older adult population

## TCA's

- Hypotension, falls, confusion, urinary retention

## MAOIs

- Orthostatic hypotension, falls, hypertensive crisis

## Antipsychotics

- Black box warning in those with dementia- increased mortality

AGS recommends benzodiazepines be avoided in patients over age 65. If necessary, choose one with short half life and no active metabolites such as lorazepam or oxazepam

# Why benzodiazepines must be avoided

## Side effects

- Ataxia
- Confusion
- Weakness
- Dizziness
- Syncope

Significantly increases fall risk

Risk of physiologic and psychologic dependence

Recent medical literature as linked benzodiazepine use with the development of Alzheimer's disease

# Benzodiazepine use and the development of cognitive decline

- In a case control study by Billioti de Gage et al., it was found that over a 10 year follow up period that patients who took >90 daily doses of benzodiazepine had an increased risk of developing Alzheimer's disease, with the risk increasing with longer term use (Picton et al., Am J of Health- System Pharmacy 2018)
- The Caerphilly Prospective Study found that men who had regularly taken benzodiazepines during their life had a significantly increased risk of developing dementia (Picton et al., Am J of Health- System Pharmacy 2018)

# Deprescribing of benzodiazepines

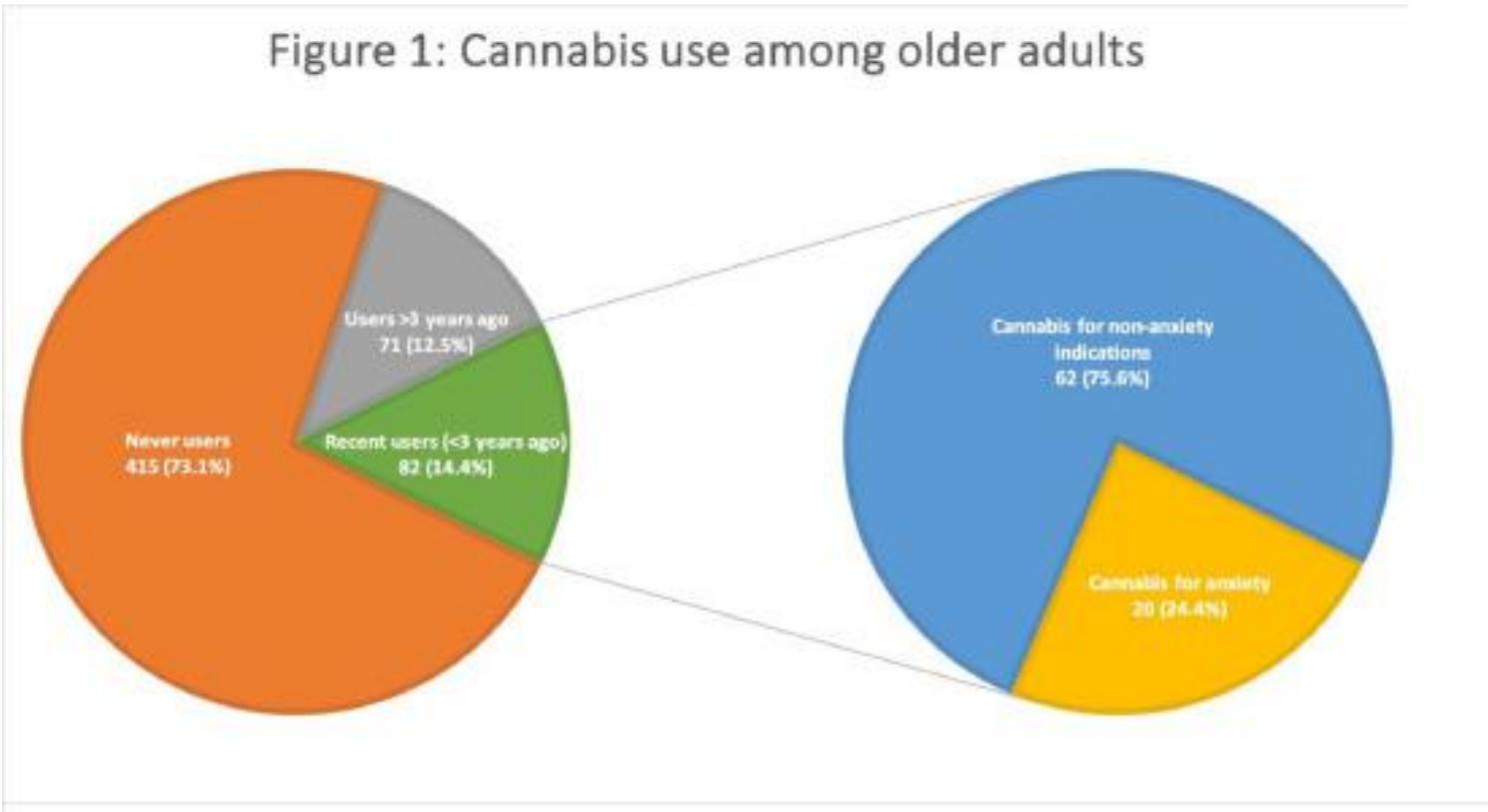
If an older adult is already taking a benzodiazepine, a slow taper is recommended

Taper schedule depends on specific medication and dosage, indication and length of treatment

Consider consulting a pharmacist when planning a benzodiazepine taper

# Cannabis

Figure 1: Cannabis use among older adults



Yang et al., J Geriatric Psychiatry 2020

# Alcohol

- Studies have shown that almost 50% of those being treated for problematic alcohol use also meet diagnostic criteria for at least one anxiety disorder (Anker JJ et al., Alcohol Res 2019)
- In those with both diagnoses, anxiety preceded the alcohol use in up to 75% of cases (Anker JJ et al., Alcohol Res 2019)

## Back to the case

Patient saw her PCP and scored 50/75 on GAS

Started on Lexapro 5 mg daily

Started to see a therapist weekly

Started taking daily walks around her apartment complex as well as weekly water aerobics classes

She started to practice good sleep hygiene techniques

# Take home points

- Anxiety disorders are common in older adults, and presentation is often similar to symptoms of various medical conditions
- Fear of falling is a common specific phobia in older adults
- Several screening tools are available to aid in the diagnosis of anxiety disorders in older adults
- Benzodiazepines, which are commonly prescribed for anxiety symptoms in older adults, have multiple adverse consequences including increased risk of falls and increased risk of cognitive decline

# References

- Aggarwal R et al. Anxiety in later Life. Focus (Am Psychiatr Publ) 2017; 15: 157- 161.
- Anker JJ et al. Co- Occurring Alcohol Use Disorder and Anxiety. Alcohol Res 2019; 40: e1- e12.
- Balsamo M et al. Assessment of anxiety in older adults: a review of self- report measures. Clin Interv Aging 2018; 13: 573- 593.
- Brenes G et al. Comparison of cognitive- behavioral therapy and yoga for the treatment of late- life worry: A randomized preference trial. Depression & Anxiety 2020; 37: 1194- 1207.
- Canuto A et al. Anxiety Disorders in old Age: Psychiatric Comorbidities, Quality of Life, and Prevalence According to Age, Gender, and Country. Am J Geriatr Psychiatry 2018; 26: 174- 185.
- Corocco EA et al. Pharmacological Management of Anxiety Disorders in the Elderly. Curr Treat Options Psychiatry 2017; 4: 33- 46.
- Creighton AS et al. The prevalence, reporting, and treatment of anxiety among older adults in nursing homes and other residential aged care facilities. J of Affective Disorders 2018; 227: 416- 423.
- Goodarzi Z et al. Detection of anxiety symptoms in persons with dementia: A systematic review. Alzheimers Dement (Amst) 2019; 11: 340-347.
- Gordon CS et al. Effect of Pulmonary Rehabilitation on Symptoms of Anxiety and Depression in COPD: A Systematic Review and Meta- Analysis. Chest 2019; 156: 80- 91.
- Kiel DP. Falls in older persons: Risk factors and patient evaluation. Uptodate. Last updated 02/22/21.
- Neugroschl J. Anxiety Disorders. Geriatric Review Syllabus 10<sup>th</sup> Edition, 413- 418.
- Pary R et al. Anxiety in geriatrics. Postgraduate Medicine 2019; 131: 330- 332.
- Picton J et al. Benzodiazepine use and cognitive decline in the elderly. Am J of Health- System Pharmacy 2018; 75: e6- e12.
- Santabarbara J et al. Clinically significant anxiety as a risk factor for dementia in the elderly community. Acta Psychiatrica Scandinavica 2019; 139: 6- 14.
- Segal DL et al. Evidence of Validity of the Geriatric Anxiety Scale for Use Among Medically Ill Older Adults. J of Anxiety and Depression Forecast 2019; 2: 1- 3.
- Subramanyam AA et al. Clinical practice guidelines for Geriatric Anxiety Disorders. Indian J of Psychiatry 2018; 60: S371- S382.