THE CARLAT REPORT GERIATRIC PSYCHIATRY

A CME Publication

Subscribe today! Call 866-348-9279

UNBIASED INFORMATION COVERING GERIATRIC PSYCHIATRY

Worth 2 CME credits!

Stephanie Collier, MD, MPH
Editor-in-Chief

Volume 1, Issue 7&8
October/November/December 2022
www.thecarlatreport.com

IN THIS ISSUE

Focus of the Month:
Depression in Older Adults

Learning Objectives

After reading these articles, you should be able to:

1. Identify and treat late-life depression and apathy in older adults.
2. Assess for suicide risk in older adults.
3. Evaluate the pros and cons of complementary and alternative therapies for late-life depression.
4. Summarize some of the findings in the literature regarding psychiatric treatment for older adults.

How to Identify and Treat Apathy and Late-Life Depression

Rehan Aziz, MD. associate program director, geriatric psychiatry fellowship program, Jersey Shore University Medical Center; associate professor of psychiatry and neurology, Hackensack Meridian School of Medicine, Nutley, NJ. Julia Cromwell, MD. Inpatient geriatric psychiatrist, Mass General Brigham Salem Hospital, Salem, MA.

Dr. Aziz and Dr. Cromwell, authors of this educational activity, have no relevant financial relationship(s) with ineligible companies to disclose.

Highlights From This Issue

Feature article
Differentiating between apathy and late-life depression in older adults is challenging due to symptom overlap, but we provide tips on how to make the correct diagnosis.

Q&A
Clinicians can use the 5 D's framework to structure their suicide risk assessments.

Article on page 7
Nutritional supplements are worth consideration in patients preferring natural approaches, with SAMe standing out as an alternative treatment for depression.

In this article, we will discuss apathy and how to differentiate it from major depression. We'll then review some treatment options for late-life depression and apathy.

Apathy versus late-life depression

Apathy involves a lack of motivation or interest that's independent of emotional distress. This in turn leads to fewer goal-directed behaviors, decreased cognitive activity, and blunted emotional responses. Apathy is considered the most

Continued on page 2

Q&A With the Expert

Assessing Suicide Risk in the Older Adult
Yeates Conwell, MD

Professor, vice-chair, and co-director at the Center for the Study and Prevention of Suicide and director of the geriatric psychiatry program, University of Rochester, NY. Director, Office for Aging Research and Health Services, University of Rochester Medical Center.

Dr. Conwell, expert for this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

CGPR: Can you tell us about your work?
Dr. Conwell: I'm a geriatric psychiatrist at the University of Rochester. For many years, I have been particularly interested in the issue of suicide and suicide prevention in older adults. My colleagues and I are working to address what we see as an underappreciated and misunderstood public health problem.
CGPR: Why is it misunderstood?
Dr. Conwell: Older people tend to fly under the radar. Our society minimizes older people and emphasizes youth. Suicide in older adults does not receive the same attention. There is also the issue of ageism. Beyond the changes in physical appearance, older people tend to have chronic conditions and losses. This makes some of us in our younger and middle age years uncomfortable. We want our parents and seniors to be intact, capable people and, by extension, ourselves at this older age. Giving that

Continued on page 5

How to Identify and Treat Apathy and Late-Life Depression

Continued from page 1

common behavioral and psychological symptom of dementia, and it is almost universally present in patients with severe dementia. Apathy can have a devastating impact on older adults by increasing caregiver burden, social isolation, and morbidity.

The most common causes of apathy in older adults are dementia and depression. Apathy can occur in traumatic brain injuries, strokes, schizophrenia, thyroid disorders, substance intoxication or withdrawal, and as a medication side effect (eg, with SSRIs). Various brain regions are involved in motivation, so damage to any of these regions might be linked to the syndrome (Bogdan A et al, *Front Pharmacol* 2020;10:1581).

Late-life depression (LLD) is defined as depression that begins after age 60.

EDITORIAL INFORMATION

Publisher: **Daniel Carlat, MD**

Editor-in-Chief: **Stephanie Collier, MD, MPH**

Deputy Editor: **Talia Puzantian, PharmD, BCPP,** professor at the Keck Graduate Institute School of Pharmacy in Claremont, CA

Executive Editor: **Janice Jutras**

Associate Editor: **Ilana Fogelson**

Editorial Contributors: **Rehan Aziz, MD; Julia Cromwell, MD; Neha Jain, MD**

Editorial Board:

Rehan Aziz, MD, associate program director, geriatric psychiatry fellowship program, Jersey Shore University Medical Center; associate professor of psychiatry and neurology, Hackensack Meridian School of Medicine, Nutley, NJ

Meera Balasubramaniam, MD, associate medical director, Penn Medicine Princeton House Behavioral Health, Hamilton, NJ

Karina M. Berg, MD, MS, associate professor of medicine in the Center on Aging, University of Connecticut School of Medicine, Farmington, CT

Julia Cromwell, MD, medical director, geriatric and adult inpatient psychiatrist, Mass General Brigham Salem Hospital, Salem, MA

Neha Jain, MD, assistant professor of psychiatry; medical director, mood and anxiety disorders program; assistant program director, geriatric psychiatry fellowship program, University of Connecticut Health Center

Kathryn Kieran, MSN, PMHNP-BC, instructor in psychiatric nursing, MGH Institute of Health Professions, Charlestown, MA

Rachel Meyen, MD, outpatient geriatric psychiatrist, General Mental Health Clinic, Sacramento VA Medical Center, Mather, CA

All editorial content is peer reviewed by the editorial board. Dr. Carlat, Dr. Collier, Dr. Puzantian, Ms. Jutras, Ms. Fogelson, Dr. Aziz, Dr. Balasubramaniam, Dr. Berg, Dr. Cromwell, Dr. Jain, Ms. Kieran, and Dr. Meyen have disclosed that they have no relevant financial or other interests in any commercial companies pertaining to this educational activity.

This CME/CE activity is intended for psychiatrists, psychiatric nurses, psychologists, and other health care professionals with an interest in the diagnosis and treatment of psychiatric disorders.

POSTMASTER: Send address changes to *The Carlat Psychiatry Report,* P.O. Box 626, Newburyport, MA 01950.

Features of Apathy vs Late-Life Depression

Apathy (think amotivation)	Late-Life Depression (think dysphoria)	Both
• Blunted emotional response	• Dysphoric mood	• Fatigue
• Decreased initiation	• Guilt	• Hypersomnia
• Indifference	• Hallucinations/psychosis	• Limited insight
• Lack of concern	• Helplessness	• Psychomotor slowing
• Lack of motivation	• Hopelessness/despair	• Social isolation/withdrawal
• Loss of interest	• Lack of pleasure	
• Poor persistence	• Sadness	
	• Self-criticism	
	• Suicidal ideation	

Compared to depression in younger adults, LLD is less associated with mood symptoms. Patients will often have psychomotor retardation, decreased activity, and fatigue. LLD is concerning because of its association with poor quality of life and increased mortality, including from suicide.

Differentiating between apathy and LLD

Distinguishing apathy from LLD commonly presents a clinical challenge because the symptoms often overlap. There is a main differentiating feature: In apathy there is usually amotivation causing emotional indifference or "neutral" affect, while in depression there is usually dysphoric affect (Ishii S et al, *J Am Med Dir Assoc* 2009;10(6):381–393). See "Features of Apathy vs Late-Life Depression" table. Anhedonia, another core symptom of depression, can also be confused with apathy. However, anhedonia refers to the loss of pleasure in activities, while apathy refers to the loss of interest and lack of initiation in activities.

Apathy is usually diagnosed by clinical interview. In patients with preserved insight, ask questions like, "Are you doing as much as you used to? Are you still interested in old hobbies or other pursuits? Does someone have to push you to participate in activities?" Patients who have severe cognitive disease often lack the insight needed for a full assessment, so you will rely more on reports from caregivers.

It can also be challenging to distinguish apathy from symptoms caused by progressive cognitive decline. For example, decreased interest in new activities can be due to memory problems that cause new activities to seem confusing. In such cases, ask about tasks that the patient has always been able to perform, such as reading. You can ask caregivers whether the patient seems indifferent to engaging in activities throughout the day.

Questionnaires such as the Apathy Evaluation Scale-Clinician Version (AES-C; www.tinyurl.com/5aam47vf) or Geriatric Depression Scale (GDS; www.tinyurl.com/yckrm5r8) can help screen for these disorders. The GDS will walk you through a variety of mood symptoms while avoiding questions about physical symptoms, as they are frequently reported by older adults in general.

Management of apathy

The best treatment for apathy depends on the underlying diagnosis. Although many patients with apathy respond poorly to antidepressants, they are still worth trying. Go-to medications include sertraline up to 200 mg/day or escitalopram up to 10 mg/day. If SSRIs are not helpful, you can consider a bupropion trial of up to 300 mg/day because it targets dopamine pathways (Bogdan et al, 2020). If apathy is suspected to be due to SSRI treatment, it's best to switch to a different medication (Padala PR et al, *Medicine (Baltimore)* 2020;99(33):e21497). Also consider the possibility that the apathy is caused by another medication, such as a

Continued on page 3

Continued from page 2

benzodiazepine, an atypical antipsychotic, or a pain medication.

When treating apathy in a patient with dementia, we recommend first addressing any underlying medical issues. You can then encourage daily exercise and increased socialization. Patients often require an individualized approach, which may include checking hearing aids, obtaining a rolling walker, or hanging up an orientation board (Ishii et al, 2009). Creating daytime structure is crucial for these patients. The best types of activities are simple, organized, and related to something the patient had previously enjoyed, such as an exercise class.

When selecting medications, first trial a cholinesterase inhibitor (eg, donepezil up to 10 mg/day) unless the patient has frontotemporal dementia. If the patient's dementia is more advanced, you can add memantine up to 10 mg twice daily.

Due to concerns about medical comorbidities, low-dose stimulants aren't often prescribed as a first-line treatment. However, a recent clinical trial using methylphenidate 10 mg twice daily showed tolerability and a statistically meaningful decrease in apathy, but not in general quality of life (Mintzer J et al, *JAMA Neurol* 2021;78(11):1324–1332). Lastly, direct dopamine agonists, such as pramipexole and ropinirole, can be helpful for patients who have Parkinson's disease with dementia and apathy.

Antidepressants Used to Treat Late-Life Depression

Drug	Starting Dose	Dose Range	Comments
SSRIs			
Escitalopram	5 mg/day	5–20 mg/day	• Bleeding risk • Hyponatremia • Fewer drug-drug interactions
Sertraline	12.5–25 mg/day	25–200 mg/day	• Bleeding risk • Drug interactions at doses >150 mg/day • Hyponatremia
SNRIs			
Duloxetine	20 mg/day	20–60 mg/day	• Activating • Bleeding risk • Discontinuation syndrome • Dose-dependent increases in blood pressure and heart rate • Hyponatremia • Useful for co-occurring neuropathic pain
Venlafaxine ER	37.5 mg qAM	75–225 mg/day	• Similar to duloxetine
Atypical Antidepressants			
Bupropion	75 mg qAM	150 mg BID in the morning and early afternoon with SR formulation, or 300 mg QAM with XL formulation	• Activating • Don't use if history of seizures, eating disorder, head injury, or alcohol use disorder • May worsen anxiety or insomnia; might improve apathy • Smoking cessation
Mirtazapine	7.5 mg qHS	15–30 mg qHS	• Caution with renal/hepatic impairment • Sedation • Weight gain
Vortioxetine	5 mg/day	5–20 mg/day	• Bleeding risk • Hyponatremia • Nausea • Potential cognition-enhancing effects
Augmentation			
Aripiprazole	2–5 mg qAM	5–15 mg qAM	• Akathisia • Increased risk of stroke and death in patients with dementia-related psychosis • Parkinsonism
Methylphenidate	2.5–5 mg qAM	5–40 mg qAM	• Clear with cardiologist if cardiac risk factors

Management of LLD

Antidepressants

LLD is frequently accompanied by medical illness or cognitive impairment, making it daunting to treat. While both psychotherapy and medications can be effective for LLD, medications are generally used first—therapists with LLD experience are in short supply, and moderate to severe LLD generally requires a course of antidepressants to achieve a response.

Antidepressants are more effective than placebo, but the remission rate in older adults is lower than in younger patients. Several factors decrease antidepressant effectiveness in older adults. They don't work as well when depression occurs in the context of dementia. They also don't work well in patients with executive dysfunction, common in LLD.

Because of their favorable side effect profiles and low cost, SSRIs are the first-line treatment for LLD. The best evidence is for sertraline, citalopram, and escitalopram. Many clinicians prefer escitalopram over citalopram, as citalopram carries a black box warning for QTc prolongation with doses >20 mg/day in patients older than age 60. Another popular choice is mirtazapine

Continued on page 4

How to Identify and Treat Apathy and Late-Life Depression
Continued from page 3

because its side effects can be used to address insomnia and loss of appetite/weight loss. However, mirtazapine doesn't have as much evidence supporting its use. SNRIs and bupropion are solid second-line options (see "Antidepressants Used to Treat Late-Life Depression" table on page 3).

Tricyclic antidepressants (TCAs) also have good efficacy in LLD but, along with monoamine oxidase inhibitors (MAOIs), are not recommended due to their potential for drug-drug interactions and their poor side effect profiles (Allan CL and Ebmeier KP, *Adv Psychiat Treatment* 2013;19(4):302–309).

When starting an antidepressant in older adults, we recommend discussing the risks of bleeding in patients taking NSAIDs, anticoagulants, or antiplatelet agents. We suggest reviewing drug-drug interactions (duloxetine, fluoxetine, fluvoxamine, and paroxetine are the worst offenders; drug interactions are lowest with escitalopram, mirtazapine, sertraline, and venlafaxine). Consider mentioning the risk of falls and fractures, as SSRIs decrease bone density. We recommend educating patients about symptoms of hyponatremia, including dizziness, fatigue, headaches, confusion, and seizures. Rates of hyponatremia with SSRIs/SNRIs are highest in older adults and often occur within 14 days of medication initiation. Bupropion, mirtazapine, and TCAs have lower rates of hyponatremia than SSRIs (Nelson JC, *Handb Exp Pharmacol* 2019;250:389–413). Finally, if prescribing citalopram or TCAs, we recommend reviewing the black box warnings for QTc prolongation, which can lead to sudden cardiac death.

For augmentation, two strategies stand out in LLD. Augmenting venlafaxine with aripiprazole 2–15 mg/day resulted in remission in 44% of patients compared to 29% on placebo. However, aripiprazole caused significantly more akathisia (26% vs 12%) and Parkinsonism (17% vs 2%) than placebo (Lenze EJ et al, *Lancet* 2015;386(10011):2404–2412).

Another augmentation strategy is adding methylphenidate at 5–40 mg/day. This may improve mood, boost well-being, and lead to higher remission rates. It appears to be a safe strategy, although you might consider consultation with a cardiologist when working with patients who have cardiac risk factors. There are also limited data on methylphenidate's long-term use, so consider prescribing it short-term to help "jump-start" recovery (Lavretsky H et al, *Am J Psychiatry* 2015;172(6):561–569).

Psychotherapy

Psychotherapy is comparable in efficacy to antidepressant medications, although it isn't used often due to a lack of clinicians trained to work with older adults and provide evidence-based therapies. The most beneficial treatments are:

1. Problem-solving therapy
2. Cognitive behavioral therapy
3. Interpersonal therapy

Psychotherapy can treat patients with mild, moderate, or severe depression. However, patients with moderate or severe depression will do best with both psychotherapy and medications.

Electroconvulsive therapy (ECT)

ECT is the most effective treatment for LLD. It works better in LLD than in younger depressed patients, with a remission rate of 60%–80% (Alexopoulos GS, *Transl Psychiatry* 2019;9(1):188). Regard ECT as a first-line option in major depressive episodes accompanied by any of the following:

1. Catatonia
2. Compromised level of function
3. Deteriorating physical health
4. High risk of suicide
5. Psychotic features
6. Treatment resistance

Newer techniques, using ultra-brief pulses to induce seizures, minimize side effects while maintaining efficacy. *(Editor's note: For more on using ECT in older adults, see our Q&A with Dr. Lisanby in the April/May/June 2022 issue.)*

ECT is a safe treatment even in patients with dementia or who have experienced a stroke. Headaches and temporary memory loss around the time of treatment are the most common adverse reactions. In older adults, the death rate is low, and there are very few absolute contraindications (pheochromocytoma and elevated intracranial pressure with mass effect). In one systematic review, ECT-related mortality rate was estimated at 2.1 per 100,000 treatments. In comparison, the mortality rate for general anesthesia during surgery was higher at 3.4 per 100,000, making ECT a safer procedure (Tørring N et al, *Acta Psychiatr Scand* 2017;135(5):388–397).

One downside to ECT is a high relapse rate in the months following treatment. So, patients need to be followed closely and may require maintenance medications. Some patients may do well with maintenance ECT (periodic treatments following the index ECT course).

Other brain stimulation treatments

Repetitive transcranial magnetic stimulation shows encouraging outcomes and is a well-tolerated treatment, although further research is needed regarding the optimization of treatment parameters in older adults. Few older adults have been enrolled in deep brain stimulation trials, so its effects on LLD are largely unknown. Small studies using vagus nerve stimulation for indications other than LLD suggest it is reasonably well tolerated in older adults, but there are currently insufficient data on its use for LLD.

CARLAT VERDICT

Think of apathy when an older adult presents with decreased motivation, emotional blunting, and decreased initiation of activities. Think of depression when an older adult experiences dysphoria and anhedonia. For patients with apathy, focus on treating any psychiatric comorbidities, making environmental modifications, and increasing daytime structure. For patients with apathy as a result of dementia, consider using a cholinesterase inhibitor and memantine, or prescribing a low-dose stimulant. For patients with LLD who don't respond to first-line medications, consider augmenting with aripiprazole or methylphenidate, adding psychotherapy, or referring for ECT.

Expert Interview

Continued from page 1

up is a difficult psychological process for us individually and as a society. In suicides of older adults, we think "Well, it was their choice" or "It was an understandable thing for them to want to do." The reality, of course, is much more complex.

CGPR: What is the epidemiology of suicide in older adults?

Dr. Conwell: Overall, the rate of suicide in the US is about 10–13 people per 100,000, which is a very rare event. However, this amounts to over 45,000 suicide deaths in the US every year and probably over 800,000 worldwide. In the elderly, suicide rates are driven by older White men with a rate of 48.7 people per 100,000 (Conwell Y and Thompson C, *Psychiatr Clin North Am* 2008;31(2):333–356). In men, there is a young-adult peak that levels off, which then increases again after age 65 to a peak about 10 times higher for older men than for older women. Older adult women in the US, unlike in other countries, tend to have very low suicide rates; their rate tends to rise to a peak in midlife and then drop. Suicide rates tend to be higher among the White population than the non-White population, with some exceptions (Ramchand R et al, *JAMA Netw Open* 2021;4(5):e2111563).

"Thoughts of death are normative in older adults. Older adults think about their own mortality, especially as a normal response to stressors. However, thinking of death is not the same as passive suicidal ideation, so making that distinction is important."

Yeates Conwell, MD

CGPR: How does the suicide risk compare to other countries? Do you see the same increase among older White males?

Dr. Conwell: Over the last 30 years, suicide rates have decreased in many parts of the world. In the US, sadly, rates have gone up. We are an outlier in the world compared to other countries of all income levels. In every country, the difference in suicide risk between men and women gets larger with increasing age. One theory is that men, particularly the current older adult male cohort, are not good at developing close confidential relationships, leading to social isolation (Schmutte T et al, *Am J Mens Health* 2009;3(3):189–200). The culture of firearms in the US is the big story for suicide in older adulthood. There is an older adult male cohort with many veterans of the wars in Korea and Vietnam. In the US, about 70%–75% of suicides in older adults are by firearm, and 89% of firearm deaths in men over age 65 are suicides.

CGPR: What is your approach to suicide risk assessment in older adults?

Dr. Conwell: Risk factors for older people are very similar to risk factors in younger adults. However, older people may have a different way of expressing their distress than a younger person. For example, older adults with depression may deny feeling sad but present with somatic complaints. They may not have the ease of entering into a conversation about feelings.

CGPR: What about passive suicidal ideation? How do you evaluate suicide risk in older people who may have thoughts of death and even want to be dead, but haven't expressed agency or admitted to a plan to take their own lives?

Dr. Conwell: What makes this tricky is that thoughts of death are normative in older adults. Older adults think about their own mortality, especially as a normal response to stressors. However, thinking of death is not the same as passive suicidal ideation, so making that distinction is important. It starts with understanding what a person means when they talk about death and dying. You evaluate how far the person has gone in elaborating on the idea that they want to be dead. I may ask, "Have you thought about harming yourself or ending your life?" If they say yes, then I follow up with, "Have you thought of specific ways to end your life? Have you made any plans or preparations?" In the movement from passive to active suicidal ideation, people develop plans, practice, and gain access to potentially lethal means.

CGPR: Can you describe the 5 D's framework in thinking through suicide risk?

Dr. Conwell: Sure, and that's the right term; it's just a framework. It's always a complicated interaction of multiple factors that leads a person to take their own life. The 5 D's framework is best thought of as a Venn diagram wherein five domains overlap. The first D stands for depression. Although any psychiatric illness can increase the risk for suicide, depression is most commonly the driver. The other D's are disease (physical illness or pain), disability, disconnectedness, and deadly means (most commonly, access to firearms). Many older adults have a firearm in their home, but suicide is pretty rare. However, when a depressed older person lives in a home with a firearm, that combination is potentially deadly. When that person is also physically ill, in chronic pain, disabled, unable to participate in activities that had provided meaning in life, and disconnected from social supports—you can see where this leads. It's in the overlap of the domains where the risk for suicide emerges. *(Editor's note: See "5 D's Framework for Suicide Risk Assessment" table on page 6.)*

CGPR: How do you use the 5 D's framework to structure your interventions?

Dr. Conwell: An intervention in any one domain potentially reduces suicide risk. These include arranging for the firearm to be removed from the home, if only temporarily; mobilizing caregivers and supports; and initiating treatment for the underlying psychiatric illness. I want to emphasize the importance of social connectedness. Engaging with others can make a huge difference in a person's view of life, even if they remain distressed by other things. Social connectedness interventions work. For example, a cognitive behavioral approach with problem solving and behavioral activation is a useful approach to overcoming social isolation in older adults during the pandemic (Van Orden KA et al, *Am J Geriatr Psychiatry* 2021;29(8):816–827).

CGPR: You mentioned depression as a major risk factor. Which other mental illnesses increase suicide risk in late life?

Dr. Conwell: Depression is a real driver of suicide in older adults, and it tends to be about twice as common in women compared to men. Other disorders tend to be less common in older adults. These include alcohol or substance use disorders, bipolar disorder, and psychotic illnesses. Schizophrenia has a very high risk associated with it, but it is seen less in older adults, probably because of early mortality. Anxiety disorders may increase risk, although they are rarely independent of depression as risk factors for suicide. Finally, there's dementia. A person with a cognitive disorder is at greatest risk for suicide early in their

Continued on page 6

Expert Interview
Continued from page 5

decline, as mood lability and problem-solving deficits often emerge before the diagnosis is made (Conejero I et al, *Front Neurosci* 2018;12:371).

CGPR: What is the relationship between antidepressants and suicide risk in older adults?

Dr. Conwell: There is a black box warning for antidepressants due to concern about increased suicidal ideation and behavior. This is probably a real phenomenon but is rare and only applies for the younger age. It is thought that increased risk is mediated by agitation, restlessness, and irritability. After the age of 25, studies do not find an association between the use of antidepressants and increased suicide risk, and after the age of 65, antidepressants might have a protective effect against suicide (Stone M et al, *BMJ* 2009;339:b2880).

5 D's Framework for Suicide Risk Assessment

Risk Domain	Intervention Examples
Depression	Diagnosis and treatment
Disease	Access to comprehensive person-centered care
Disability	Nutrition, exercise, PT/OT
Disconnectedness	Meaningful engagement with others—individuals, family, community networks and supports
Deadly means	Reduce access to lethal means; safe storage

CGPR: I find this puzzling. Isn't the thought that older adults are more sensitive to the effects of activation or akathisia? Why wouldn't antidepressants increase their suicide risk?

Dr. Conwell: We don't know. Emergence of suicidal thinking is rare, but at a large meta-analytic level, it's a phenomenon that occurs among adolescents and among middle-aged and younger adults.

CGPR: Are any suicide risk assessment tools validated in older adults?

Dr. Conwell: The Geriatric Suicide Ideation Scale (GSIS) is an interesting scale, and it has four subscales. It addresses topics that are especially salient for older adults, such as meaning in life. The GSIS helps direct this discussion in a systematic way. The problem is that it's 30 items; not all clinicians will find such a long scale clinically useful. There are shorter screeners such as the 10-item Brief GSIS and the five-item GSIS-Screen, which are more useful tools based on their length, although they are rarely used clinically and difficult to access.

CGPR: Do longer screening tools actually improve outcomes? Why not just ask, "Have you had thoughts of suicide, and can you tell me about them?"

Dr. Conwell: I'm skeptical that screening tools change outcomes. There's so much that we don't know about suicide prevention in older adults because it's a rare outcome. In younger and middle-aged people, we use suicide attempts and suicidal ideation as a proxy, which is reasonable. The problem in older adults is that suicide attempts are much less common. We estimate that there are between two and four recognized suicide attempts per completed suicide in elderly patients—but in the general population it's much more, probably 20 or 40 attempts, and in younger women up to 200 suicide attempts (Conwell Y, *Focus* 2013;11(1):39–47).

CGPR: What role do protective factors have in suicide risk?

Dr. Conwell: Protective factors don't get the attention they deserve. The protective factor isn't the absence of risk factors; it's one that interacts with one or more of the 5 D's to alter their impact. Connectedness and meaning in life, for example, may reduce the likelihood that a disability will lead to development of a suicidal state. People with spiritual lives (with or without organized religion) have a lower suicide risk. Being part of a faith community also seems to be protective. We need to ask our patients what's important to them, specifically what has kept them from ending their life. Understanding this piece can be the starting point in ensuring that their protective factor is in place.

CGPR: Thank you for your time, Dr. Conwell.

In Brief: What to Make of the Beta-Amyloid Scandal

Drama surrounding Alzheimer's research on beta-amyloid continues to make headlines. First, there was the controversy surrounding the FDA's surprise decision to approve aducanumab (Aduhelm) against the recommendations of its own advisory committee. Now, a scandal involving fraudulent data is challenging the beta-amyloid hypothesis. The allegations come from a six-month investigation that found image tampering in the DNA bands presented in researcher Sylvain Lesné's influential 2006 study in *Nature*. The study claimed that one type of amyloid, Aβ*56, resulted in cognitive decline in an animal study—one of the first pieces of evidence that associated beta-amyloid with cognitive decline (Lesné S et al, *Nature* 2006;440(7082):352–357). However, several scientists who later reviewed the article reported that the images of DNA bands appeared to have been constructed from several images to make them look more impressive.

Does this mean researchers have been wasting their efforts chasing the amyloid hypothesis as the leading cause of Alzheimer's disease? Not necessarily. Although Lesné's paper was highly influential, its thesis was not that novel. The paper went along with the hypothesis held by many researchers at the time: that amyloid plays a central role in the pathogenesis of Alzheimer's disease.

As clinical trials are not directed at the Aβ*56 oligomer specifically, the *Nature* study has not made a huge impact on Alzheimer's drug development. And in terms of research, there hasn't been strong evidence supporting the amyloid hypothesis to begin with. However, amyloid—whether in oligomer or plaque form—is still part of Alzheimer's disease pathology, and researchers and drug developers will continue to study it.

For now, keep your eyes open for the results of two new anti-amyloid drug trials that should be released later this year: lecanemab and donanemab.

—Stephanie Collier, MD. Editor-in-Chief of The Carlat Geriatric Psychiatry Report

Complementary and Alternative Therapies for Late-Life Depression

Neba Jain, MD. Assistant professor of psychiatry; medical director, mood and anxiety disorders program; assistant program director, geriatric psychiatry fellowship program, University of Connecticut Health Center.

Dr. Jain, author of this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

Anywhere from a quarter to a third of older adults use complementary and alternative medicine (CAM) for late-life depression (LLD). Several CAM approaches have a long history, but the research is either lacking or misunderstood. In this article, we describe the CAM interventions most commonly used for LLD. See the table on page 8 for a quick summary of efficacy levels.

Nutritional supplements

Vitamin B12 and folate

Many researchers have described the association of low vitamin B12 and folate levels with depression in older adults (Petridou ET et al, *Aging Ment Health* 2016;20(9):965–973). Fewer studies have looked at the effect of supplementing low levels of B12 and folate in LLD, and the research that does exist shows questionable benefit. I routinely check for and treat B12 and folate deficiency since they are associated with neurological symptoms in older adults, but I do not expect treatment of deficiency to help with a patient's depression.

Vitamin B12 levels are considered to be low below 200 pg/mL, and folate levels are considered to be low below 2 ng/mL. High-dose vitamin B12 supplements (1000–2000 mcg/day) can often compensate for an older adult's poor absorption, whereas older adults with folate deficiency often require a folic acid supplement of 1–5 mg/day. At this time, routine supplementation of normal levels is not advised. Regardless of folate levels, L-methylfolate 15 mg/day can be considered as an adjunctive treatment in patients who do not respond to antidepressants, especially in patients with obesity or inflammation.

Vitamin D

Similar to vitamin B12 and folate deficiencies, low vitamin D levels (often defined as <50 nmol/L or <20 ng/mL) are associated with LLD (Okereke OI and Singh A, *J Affect Disord* 2016;198:1–14). However, vitamin D supplementation does not appear to improve or prevent symptoms of depression (Okereke OI et al, *JAMA* 2020;324(5):471–480). Nonetheless, it is reasonable to check for and correct vitamin D deficiency with the goal of improving a patient's bone and metabolic health. Vitamin D supplementation may be particularly beneficial in patients prescribed SSRIs, as these medications are associated with a higher risk of osteoporosis in older adults. For most older adults, a supplement of vitamin D3 1000 IU daily can help prevent low vitamin D levels and fractures.

Omega-3 fatty acids

Omega-3 fatty acids appear to be beneficial for treatment of LLD both as monotherapy and as add-on agents. However, they do not prevent depression (Okereke OI et al, *JAMA* 2021;326(23):2385–2394). EPA:DHA ratios of 3:2 or greater produce the strongest antidepressant effects. I recommend a dose of 1000 mg/day with reputable brands such as OmegaBrite or OmegaVia. I also consider the freshness and source of omega-3 fatty acids, as they have a limited shelf life and lose potency with time.

S-adenosyl-L-methionine (SAMe)

SAMe has many clinical trials supporting its efficacy in the treatment of depression, but not specifically in older adults. SAMe can be used in doses between 800 mg/day and 1600 mg/day, though I recommend starting low and going slow (Sharma A et al, *J Clin Psychiatry* 2017;78(6):e656–e667). SAMe can cause mild GI distress, anxiety, insomnia, and mania, but it can also benefit bone and joint health.

St. John's wort (SJW)

SJW has been largely studied in Europe, and it is approved for the treatment of mild to moderate depression in Germany. Some studies show positive effects of SJW with fewer side effects compared to SSRIs in general adult populations, while other studies are mixed. The available preparations for SJW vary in pharmaceutical quality and likely vary in efficacy as well. Some tested supplements were found to contain none of the active ingredients (hyperforin and hypericin). SJW is an inducer of CYP3A4 and can interact with other medications, including alprazolam, bupropion, certain chemotherapy and immunosuppressive medications, opioids, and warfarin. SJW also increases the risk for serotonin syndrome when taken with serotonergic antidepressants. I ask about SJW when checking for drug interactions. If patients choose to proceed with this medication, I recommend dosing 300 mg three times a day or 450 mg twice daily.

Physical activities

Group-based physical activity programs

Group-based and social aerobic physical activity programs, including walking and swimming groups, are highly effective in treating mild to moderate depression, with an effect size comparable to medication. Exercise has many benefits, such as providing a pleasant distraction, increasing levels of beta-endorphins, and improving quality of sleep, with aerobic activities having the best evidence for benefit. Programs like SilverSneakers allow older adults to participate in group exercise activities with minimal financial cost (https://tools.silversneakers.com/). I recommend a minimum of 150 minutes of physical activity weekly, which translates to a little over 20 minutes of physical activity daily. To overcome restrictions during the pandemic, I suggest taking advantage of online exercise classes. For patients who are concerned about physical limitations, I suggest discussion with their primary care clinician or consultation with a physical therapist.

Continued on page 8

Complementary and Alternative Therapies for Late-Life Depression
Continued from page 7

Yoga
Yoga is a mindful physical exercise that has demonstrated evidence in the treatment for depression in the elderly. It additionally provides benefits to a patient's physical health, mindfulness, and stress perception. I recommend yoga as a useful and overall beneficial intervention for depressive symptoms. To get started, I recommend Yoga for Seniors (www.tinyurl.com/yd38aapb) or Yoga Alliance (www.tinyurl.com/2d4bh2n3). For patients who prefer home versus group settings, many yoga classes are now offered virtually.

Tai chi
A mind-body exercise, tai chi is a moving meditation with gentle exercises and is considered to be more dynamic than yoga. Similar to yoga, a few studies show that tai chi can benefit depressive symptoms in the elderly. Benefits may be conferred by tai chi's effects on physical health, as well its meditative quality. Both tai chi and yoga focus on enhancing attention and separating the person's identification with negative thoughts. People who are experienced practitioners of yoga and tai chi often describe both exercises as promoting a state of "transcendental consciousness." You can find beginner tai chi classes at community centers and recreation centers like the YMCA, and the Tai Chi for Health Institute (https://taichiforhealthinstitute.org/instructors/) lists instructors available to conduct online classes.

Other interventions
Art
Art therapy, which includes techniques such as drawing, painting, and sculpting, allows for self-expression and provides creative satisfaction. There are a few studies supporting the use of art therapy for mild to moderate depression, and I recommend using this approach for patients who are interested in or familiar with art.

Massage
Massage therapy, which may be combined with aromatherapy, has limited evidence in LLD and can cause physical harm. As it is not regulated, I advise patients to seek out licensed and qualified massage therapists if they're interested in massage, though I typically do not recommend it as a treatment option for depression.

Complementary and Alternative Treatments for Late-Life Depression

Intervention	Evidence
Nutritional supplements	
Omega-3 fatty acids	Fair
S-adenosyl-L-methionine	Good
St. John's wort	Good
Vitamin B12 and folate	Limited
Vitamin D	Limited
Physical activities	
Group physical activity	Fair
Tai chi	Fair
Yoga	Fair
Other interventions	
Art	Limited
Massage	Limited
Music	Limited
Religion/spirituality	Fair

Music
A few studies support music therapy as an add-on agent in LLD. Active music therapy involves playing an instrument, singing, or dancing. Receptive music therapy involves listening to music based on a patient's preferences and experiences. Music also provides a way for older adults to express their feelings and can help create a bond between a patient and a clinician. I usually ask about the importance of music in the depressed older adult's life and encourage reconnecting with music, either as a creator or as a listener. Although many elements of music therapy do not require a music therapist, patients can find trained music therapists through this resource: www.musictherapy.org/about/find/. Sessions generally last between 30 and 60 minutes and can be in person or virtual.

Religion/spirituality
Many older adults prefer to include religion and spirituality in their treatment, particularly in psychotherapy for LLD (Stanley MA et al, *Aging Ment Health* 2011;15(3):334–343).

I ask about a person's previous and current relationship to religion and spirituality before recommending a religion-based approach. A person may use religion to rationalize or universalize negative events, or they might think of these events as a punishment for their sins. These factors can have a positive or negative impact on treatment.

CARLAT VERDICT

Although data are sparse for most CAM approaches in LLD, we can be comfortable recommending physical activity as a first-line intervention for all patients. Nutritional supplements may be worth considering in patients who prefer natural approaches. SAMe stands out with good evidence and a low risk of drug interactions or side effects. Other interventions, such as art and music therapy, can be considered for interested patients. Although vitamin supplements may not treat depression, correcting deficiencies may positively affect physical health and cognition.

Research Updates IN PSYCHIATRY

ECT

Do White Matter Hyperintensities Predict Memory Loss With Electroconvulsive Therapy?

Dax Volle, MD. Dr. Volle, author of this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

REVIEW OF: Wagenmakers M et al, *Am J Geriatr Psychiatry* 2021;29(11):1117–1128

TYPE OF STUDY: Naturalistic prospective study

We know that a subset of patients with late-life depression (LLD) who are treated with electroconvulsive therapy (ECT) develop transient cognitive impairment (TCI). Is there any way to predict which patients will experience the most memory loss? Some studies have linked white matter hyperintensities (WMH), which represent brain damage generally associated with small vessel disease, with an increased risk for TCI in ECT patients (Oudega ML et al, *Am J Geriatr Psychiatry* 2014;22(2):157–166). This latest study sought to replicate this finding.

In a naturalistic prospective study, 80 elderly patients with severe unipolar depression were followed before and after a course of ECT. All patients started with right unilateral ECT, although approximately one-third required a switch to bilateral ECT due to clinical worsening. Patients had a median age of 73 years and 67.5% were female. All received an MRI, and their cognitive functioning was assessed before and after ECT with the Folstein Mini Mental Status Exam (MMSE). Patients with comorbid psychiatric and neurological illness (including dementia) were excluded and did not differ in baseline cognitive functioning. The goal was to see if there was an association between certain structural brain abnormalities and TCI.

Although MMSE scores dropped significantly during ECT by an average of two points in all participants, scores improved above baseline post-ECT by two to three points and remained stable six months later, independent of structural brain abnormalities. Patients with severe WMH had lower MMSE scores at all stages compared to patients without severe WMH, but the trajectory was similar for both groups. Regardless of the brain finding—such as WMH, medial temporal atrophy (MTA), or global cortical atrophy (GCA)—there was no significant association with degree of cognitive impairment.

CARLAT TAKE

Clinicians often worry about the effects of ECT on cognition, especially in patients with known structural brain abnormalities. This study is encouraging, as cognition returned to baseline levels post-ECT independent of the severity of WMH, MTA, or GCA. As ECT is the most effective treatment for LLD, we can continue to recommend ECT in patients with severe WMH and cognitive impairment.

DEMENTIA

Trazodone Probably Not Effective for Dementia

Susan L. Siegfreid, MD. Dr. Siegfreid, author of this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

REVIEW OF: Sommerlad A et al, *Int J Geriatr Psychiatry* 2021;37(1):10

STUDY TYPE: Retrospective cohort study

Trazodone is often used to address insomnia and agitation in patients with dementia. Small randomized controlled trials have not found trazodone to be helpful in improving cognition or reducing the incidence of dementia. Nonetheless, recent mouse model studies have suggested trazodone might reverse aggregation of pathologic proteins found in dementia. Could this be a mechanism to protect against neurodegeneration? And could trazodone have a similar disease-modifying effect in humans?

To test out this theory, researchers conducted an observational cohort study using three UK mental health service registers. This was a retrospective study in which records of patients with dementia were reviewed to see if trazodone use correlated with improved dementia outcomes, as measured by Folstein Mini Mental Status Exam (MMSE) scores.

The study period varied by site between 2006 and 2016. Individuals were included if they had dementia and were prescribed one of three antidepressants (trazodone, citalopram, or mirtazapine) for at least six weeks. All 2,199 study participants (average age of 79.3 + 3.0 years old; 65.3% female) had ICD-10 diagnostic codes for dementia. The predominant dementia subtype (78.8%) was neurodegenerative, nonvascular dementia. Average baseline MMSE score was 18.8 + 2.6. The average daily dose of trazodone was 101.8 mg/day (range 50–300 mg/day).

Participants were followed until the last date of study medication use, date of death, or predetermined end of the study period. Participants taking both trazodone and either citalopram or mirtazapine were included in the trazodone group. When trazodone was switched to either citalopram or mirtazapine during the study, only data during trazodone use were analyzed. Individuals taking both mirtazapine and citalopram were excluded from the study, although the authors did not explain their rationale for this decision.

The primary outcome was a change in MMSE scores over time. Disappointingly, no statistically significant cognitive benefit could be attributed to trazodone compared to citalopram or mirtazapine. After adjustment for dementia subtype, dementia severity at baseline, and severity

Continued on page 10

Continued from page 9

of neuropsychiatric symptoms, these results remained nonsignificant.

This was an observational, unblinded, nonrandomized study with baseline clinical differences between groups (including a much smaller trazodone group with significantly lower MMSE scores). As the researchers used a secondary mental health care database, we also don't know about medication indications, concurrent medications, comorbid medical/psychiatric conditions, or the participants' level of functioning.

CARLAT TAKE

This large observational study revealed no signal that trazodone might protect against neurodegeneration. However, the study had a number of severe limitations, including opaque methodology and unequal groups at baseline, which may have influenced the results. The only way to know for sure whether trazodone is ineffective for dementia is to do a controlled clinical trial, but it's unlikely that such a study will be conducted given these unpromising findings. However, trazodone remains useful as an off-label, adjunctive treatment for behavioral and psychological symptoms of dementia, and it remains a relatively safe medication to help with sleep.

Can Pimavanserin Treat Psychosis in Patients With Dementia?

James Black, MD. Dr. Black, author of this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

REVIEW OF: Tariot PN et al, *NEJM* 2021;385(4):309–319

STUDY TYPE: Randomized double-blind placebo-controlled trial

In the never-ending search for a safe and effective antipsychotic in dementia, the newest kid on the block is pimavanserin (Nuplazid), an antipsychotic with a unique mechanism of action based on 5-HT2A inverse agonism/antagonism and no effect on dopamine receptors. As a reminder, atypical antipsychotics (which are dopamine/serotonin antagonists) are modestly effective for treating agitation and psychosis in dementia, but they are saddled with a black box warning regarding increased incidence of mortality vs placebo. Though the absolute risk is small—about 4% mortality on antipsychotics vs 2% on placebo—the warning has caused regulatory authorities to create policies that have limited the use of antipsychotics in this population.

Enter pimavanserin, which was approved for psychosis in Parkinson's disease in 2016. Although it carries the same black box warning, there wasn't evidence that it increased mortality in dementia-related psychosis early on. Its manufacturer, Acadia, has been funding clinical trials for psychosis in dementia. Thus far, one study was published showing no benefit over placebo at 12 weeks for patients with psychosis and Alzheimer's disease residing in long-term care settings (Ballard C et al, *Lancet Neurol* 2018;17(3):213–222).

The latest study (the HARMONY trial) enrolled patients with any type of dementia, not only Alzheimer's disease. In this study, 392 patients with dementia-related psychosis were initially enrolled in an open-label trial of pimavanserin (20–34 mg/day). The primary end point was relapse of psychosis. Of these patients, 217 responded to the medication with symptom reduction and were then enrolled in a double-blind phase—105 were randomized to continuing pimavanserin, and 112 were switched to placebo. This phase was supposed to last 26 weeks, but it was terminated early because an interim analysis showed that pimavanserin was clearly more effective than placebo. Specifically, a relapse of psychosis occurred in 12 of the 95 patients assigned to pimavanserin (13%) and 28 of the 99 patients assigned to placebo (28%). Of note, only 44 patients in the pimavanserin group and 35 patients in the placebo group completed the 26-week trial. Pimavanserin and placebo were comparable in terms of side effects, though asymptomatic QTc prolongation occurred more frequently in patients who received pimavanserin.

CARLAT TAKE

This study tells us that if patients with dementia and psychosis respond well to pimavanserin over 12 weeks, then they should probably be continued on the medication to prevent relapse. However, there are a couple of flaws that shake our confidence in the study's results. First, it's possible that the "relapses" in the placebo group were in part just withdrawal symptoms from having discontinued pimavanserin. Second, the fact that different subtypes of dementia patients were enrolled makes it hard for us to decide which patients will respond to the drug. We will have to wait for more data for clarity, especially given pimavanserin's high cost, which insurance will likely not cover for an off-label use. For now, the FDA has declined to approve the drug for this indication.

Less Sleep Correlated With Dementia

Talya Shahal, MD. Dr. Shahal, author of this educational activity, has no relevant financial relationship(s) with ineligible companies to disclose.

REVIEW OF: Sabia S et al, *Nat Commun* 2021;12(1):2289

STUDY TYPE: Prospective cohort study

How is sleep related to dementia? Prior studies among middle-aged and older adults found that both longer and shorter sleep durations are associated with an increased dementia risk. However, as the follow-up duration of these studies was less than 10 years, it is challenging to determine whether sleep irregularities contributed to dementia or reflected its early symptoms.

This study used data from 7,959 participants of the Whitehall II cohort study in the UK to examine the association between sleep duration at ages 50, 60, and 70 with incident dementia over the following 25 years. 521 participants developed dementia over this time period at an average age of 77.

The researchers found that sleeping less than six hours over the span of ages 50, 60, and 70 was associated with

Continued on page 12

CME Post-Test

To earn CME or CE credit, log on to www.TheCarlatReport.com to take the post-test. You will be given two attempts to pass the test. You must answer 75% of the questions correctly to earn credit. Tests must be completed within a year from each issue's publication date. The Carlat CME Institute is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. Carlat CME Institute maintains responsibility for this program and its content. Carlat CME Institute designates this enduring material educational activity for a maximum of two (2) *AMA PRA Category 1 Credits*™. Physicians or psychologists should claim credit commensurate only with the extent of their participation in the activity. This page is intended as a study guide. Please complete the test online at www.TheCarlatReport.com. Learning Objectives are listed on page 1.

1. What are the two most common causes of apathy in older adults (LO #1)?
   - [ ] a. Dementia and depression
   - [ ] b. Thyroid disorder and stroke
   - [ ] c. Substance intoxication and traumatic brain injury
   - [ ] d. Side effect burden of SSRIs and substance withdrawal

2. What is the association between the use of antidepressants and suicide risk for individuals over the age of 25 (LO #2)?
   - [ ] a. High
   - [ ] b. Medium
   - [ ] c. Small
   - [ ] d. No association

3. According to a 2011 study of late-life depression, which intervention do older patients prefer to incorporate into their treatment, particularly in psychotherapy (LO #3)?
   - [ ] a. Art therapy
   - [ ] b. Music therapy
   - [ ] c. Massage therapy
   - [ ] d. Religion/spirituality

4. In a 2021 study of dementia, what was the effect size of trazodone compared to citalopram or mirtazapine in terms of cognitive benefit (LO #4)?
   - [ ] a. Small
   - [ ] b. Medium
   - [ ] c. Large
   - [ ] d. There was no statistically significant cognitive benefit

5. What main feature differentiates apathy from depression (LO #1)?
   - [ ] a. Apathy involves a dysphoric affect, while depression leads to a lack of initiation in activities
   - [ ] b. Apathy involves symptoms of anhedonia, while depression causes emotional indifference
   - [ ] c. Apathy causes emotional indifference, while depression usually involves a dysphoric affect
   - [ ] d. There is no difference between apathy and depression

6. According to a 2021 study, which intervention has been shown to be useful in helping older adults overcome social isolation during the pandemic (LO #2)?
   - [ ] a. Mobilizing caregivers and supports
   - [ ] b. Initiating treatment for underlying psychiatric illnesses
   - [ ] c. A cognitive behavioral approach using behavioral activation and problem solving
   - [ ] d. Removing firearms from the home

7. What are additional benefits of using S-adenosyl-L-methionine (SAMe) in the treatment of depression (LO #3)?
   - [ ] a. Decreased anxiety
   - [ ] b. Improved sleep
   - [ ] c. Decreased mania
   - [ ] d. Improved bone and joint health

8. According to a 2021 study of patients with white matter hyperintensities, what was concluded regarding the effects of electroconvulsive therapy (ECT) on transient cognitive impairment (TCI) (LO #4)?
   - [ ] a. ECT moderately improved TCI
   - [ ] b. ECT significantly improved TCI
   - [ ] c. ECT significantly worsened TCI
   - [ ] d. There was no significant association between ECT and TCI

THE CARLAT REPORT
GERIATRIC PSYCHIATRY
P.O. Box 626
Newburyport, MA 01950

This Issue:
Depression in Older Adults
October/November/December 2022

Next Issue:
Bipolar Disorder in Older Adults
January/February/March 2023

Your subscription expires:

Renew or extend online at
www.thecarlatreport.com
or by check using the order form below.

Research Updates

Continued from page 10

a 30% increased dementia risk compared to those getting normal sleep (defined as seven hours). The study controlled for sociodemographic, behavioral, cardiometabolic, and mental health factors (such as depressive symptoms or central nervous system drugs) that might affect sleep and dementia risk.

The number of long sleepers (eight or more hours) was too small in this study to associate with dementia risk. Additional limitations of this study include the use of electronic records to assess dementia cases, which might misclassify milder cases, and incomplete data on the types of dementia that participants developed.

CARLAT TAKE

We know there is an association between sleep and cognitive function, likely related to the role of sleep in learning and memory, synaptic plasticity, and waste clearance from the brain. This study supports the association between a short sleep duration in middle life and an increased risk for dementia. This is only a correlation, and a randomized clinical trial assigning patients to poor vs normal sleep and following them for 10–20 years would not be possible. Nonetheless, these findings are suggestive, and we should encourage our patients to practice good sleep habits, particularly those at higher risk for dementia.

To learn more and earn additional CMEs, search for "Carlat" in your favorite podcast store and subscribe to our weekly podcast.