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Stephanie Collier, MD, MPH
Editor-in-Chief

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IN THIS ISSUE

Focus of the Month:
Nonpharmacologic Treatments for Older Adults

Learning Objectives

After reading these articles, you should be able to:

1. Treat common sexual health issues in older adults.
2. Identify the pros and cons of various integrative and lifestyle medicine options in older adults.
3. Distinguish common medical mimics from psychiatric disorders.
4. Summarize some of the findings in the literature regarding psychiatric treatment for older adults.

Sexual Health in Older Adults: A Primer

Neha Jain, MD, FAPA. Associate professor of psychiatry; Medical Director, Mood and Anxiety Disorders Program; Assistant Program Director, Geriatric Psychiatry Fellowship Program, University of Connecticut Health Center, Farmington, CT.

Dr. Jain has no financial relationships with companies related to this material.

Sexuality is a broad term that encompasses sexual identity, activity, attitude toward sex, intimacy, partnership, and pleasure. In this article, we cover the basics of sexual function and the effects of aging, medical comorbidities, and mental health on sexuality. We discuss sexual health in long-term care settings and in older adults with cognitive disorders and suggest an approach to commonly encountered sexual health issues.

Assessing sexual health in older adults

Older adults are sexually active, but sexual issues are often not discussed in health care settings. This may be due to patient or clinician discomfort, lack of knowledge, fear of embarrassment, or ageist beliefs (Srinivasan S et al, *Curr Psychiatry Rep* 2019;21(10):97).

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Highlights From This Issue

Feature article
Sexual dysfunction is common in older adults and can be treated with behavioral interventions, medications, and psychotherapy.

Feature Q&A
Complementary and integrative medicine is well-being driven, not disease driven, with patients participating in creating their own well-being.

Article on page 6
Medical illness can mimic psychiatric disease. We walk you through the conditions you don't want to miss.

Q&A With the Expert

Integrative Therapies for Older Adults
Helen Lavretsky, MD, MS

Professor of psychiatry; Director of the Integrative Psychiatry Program and of the Late-Life Mood, Stress, and Wellness Program and Post-COVID Clinic, UCLA Semel Institute for Neuroscience and Human Behavior, Los Angeles, CA.

Dr. Lavretsky has no financial relationships with companies related to this material.

CGPR: Please tell us about the work you do and the patients you see.

Dr. Lavretsky: I'm a geriatric psychiatrist and the director of research for the integrative medicine collaborative at UCLA. I also direct a long-COVID clinic where I use integrative medicine. Whatever I learn from geriatric psychiatry and integrative medicine, I apply to treating patients with long-COVID.

CGPR: You use the term "integrative medicine." Is this different from complementary and alternative medicine?

Dr. Lavretsky: Alternative is no longer a term we use because the use of these therapies is widely accepted. Alternative medicine refers to modalities that are not part of mainstream medicine, which may have less of an evidence base. Integrative medicine offers a new model that refers to whole-person care. We use complementary modalities along with

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Sexual Health in Older Adults: A Primer
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However, a healthy sex life is integral to the quality of life for many older adults. To assess sexual activity, I generally start by asking for permission to discuss sexuality with the patient. I then ask open-ended questions such as "What concerns or questions do you have in terms of your sexual activity?" I may also ask "Have you noticed changes in your sexual relationship with your partner over time?" Many older adults will not disclose sexual health issues if there are others in the room, so I try to ensure privacy when screening for sexual dysfunction. I ask about problems with libido, getting/maintaining an erection (for men), dryness or discomfort (for women), and difficulty achieving orgasm (for both). I also ask whether they have concerns about their partner's sexual health. For patients at risk, I recommend screening for sexually transmitted diseases. To minimize patient discomfort, I ask questions in a respectful, open-ended, but matter-of-fact manner. This allows patients to feel more comfortable sharing any other concerns they might have. I don't assume heterosexual/monogamous relationships, allowing patients to disclose their sexual preferences as they are comfortable.

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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.

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Medical comorbidities

In patients with sexual dysfunction, I always ask about medical comorbidities. Parkinson's disease, cancer, diabetes, and coronary artery disease can cause sexual dysfunction (Slack P and Aziz VM, *BJPsych Advances* 2020;26(3):173–182). I then tailor treatment recommendations to the underlying causes. I may recommend medications like sildenafil, referral to urology or sexual health counseling, or evaluation for pelvic floor physical therapy.

Medication side effects

Depression and anxiety are important risk factors for sexual dysfunction, as are the medications used to treat them. SSRIs can cause hypoactive sexual desire, erectile dysfunction, and delayed ejaculation (Slack et al, 2020). I routinely discuss sexual side effects both prior to prescribing antidepressants and on the first few follow-ups after starting a new medication. Side effects are often dose dependent and usually reversible, but they can persist after discontinuation. I sometimes recommend brief drug holidays for 24–48 hours prior to planned sexual activity. I may also switch to antidepressants less likely to cause sexual side effects, such as bupropion, mirtazapine, or vortioxetine.

Antipsychotics can reduce libido and cause erectile dysfunction and amenorrhea. First-generation antipsychotics and "prolactin-inducing" antipsychotics, such as risperidone and paliperidone, have more sexual side effects. I typically screen for sexual side effects at the first follow-up visit after starting an antipsychotic. For patients who develop sexual side effects, I may switch to aripiprazole, which has fewer sexual side effects, or I may recommend use of adjuvant sildenafil to reduce sexual dysfunction.

Treating sexual dysfunction

Sexual dysfunction increases with age. Women have lower estrogen levels after menopause, which may cause vulvovaginal atrophy and pain during intercourse. In older women experiencing sexual discomfort, I may recommend using vaginal lubricants. I often encourage women to discuss treatment options, including local and systemic hormone therapy, with their primary care physician. In older men experiencing erectile and ejaculatory dysfunction, I first let them know that their condition is common. Depending on the needs of the patient, I may discuss how to manage modifiable risk factors such as obesity, smoking, or hypertension. I may also recommend psychotherapy or a trial of a phosphodiesterase-5 inhibitor.

Treating inappropriate sexual behavior in dementia

Indifference to sexual activity is common in Alzheimer's dementia, though disinhibited behaviors receive more attention. Sexual disinhibition can present early in frontotemporal dementia and during later stages in other dementias. There is a lack of good evidence for the use of psychotropics to address inappropriate sexual behaviors. Rather, behavioral interventions such as redirection, distraction, and reminders are more effective. Clothing such as jumpsuits and shirts with buttons in the back are sometimes used to prevent exposure, but clinicians may consider weighing the risks and benefits to determine whether this is necessary.

If behavioral interventions are not sufficient to reduce inappropriate sexual behaviors, case studies support

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the use of antidepressants, especially SSRIs, as well as antipsychotics (Black B et al, *J Geriatr Psychiatry Neurol* 2005;18(3):155–162). There is weak evidence for the use of mood stabilizers, antihypertensives, and cimetidine. Although clinicians may consider antiandrogens (cyproterone acetate) and progestins (medroxyprogesterone), these are rarely used due to ethical concerns when prescribed to patients who lack the capacity to consent to treatment. (See table for a breakdown of medications and dosages.)

Medications to Treat Inappropriate Sexual Behaviors in Dementia

Indication	Medication and Dose
Disinhibition	Citalopram 10–20 mg
Exposure	Cimetidine 600–1600 mg
Hypersexuality	Rivastigmine 3–6 mg
	• Cyproterone acetate 10 mg • Medroxyprogesterone 200–500 mg IM
Masturbation	• Haloperidol 1–2 mg • Quetiapine 25–100 mg
Masturbation and exposure	Carbamazepine 100–300 mg
Verbal comments	Pindolol 10–20 mg

Sources: De Giorgi R and Series H, Curr Treat Options Neurol *2016;18(9):41; Sarangi A et al,* Cureus *2021;13(10):e18463.*

Sexuality in long-term care

There are many barriers to healthy sexual expression in long-term care settings, including but not limited to:

- Staff bias (eg, labeling sexual behaviors as "inappropriate")
- Lack of privacy
- Practice of separating couples upon entrance to long-term care
- Concerns about consent and capacity
- Discrimination against LGBTQ adults

Risk and capacity assessment training may increase staff confidence in managing sexual behaviors and in creating spaces for residents to safely express their sexuality. Additionally, changing the environment, such as providing Do Not Disturb signs and private spaces, can make long-term care residents feel more comfortable.

Patients identifying as LGBTQ

There are high levels of discrimination against patients identifying as LGBTQ, including in long-term care settings. Older adults identifying as LGBTQ often internalize this stigma and may be reluctant to engage in conversations about sexuality. Adults identifying as LGBTQ often prefer to age in place and delay entry into long-term care settings due to concerns about stigma and autonomy, as well as fear of abuse due to their sexual orientation (Schwinn SV and Dinkel SA, *Online J Issues Nurs* 2015;20(2):7). Staff training and education can counter this stigma. Clinicians can also help by not making assumptions about the sexual preferences of older adults. Rather, they can ask open-ended questions about sexual preferences using inclusive language. Clinicians may also assist older LGBTQ adults in finding resources in their community, such as through the Services and Advocacy for LGBT Elders USA website (www.sageusa.org).

CARLAT VERDICT

Sexuality can be an important part of life for older adults, and sexual dysfunction is common. Patients often benefit when clinicians ask about their sexual health, as treatment of sexual dysfunction can improve a patient's quality of life. Treatments include behavioral interventions, psychotherapy, and medications.

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Expert Interview – Integrative Therapies for Older Adults

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mainstream modalities to achieve the same therapeutic goal.

CGPR: So, the correct term is "complementary and integrative medicine" (CIM)?

Dr. Lavretsky: Currently, yes. You may also hear about "holistic medicine" or "Whole Health," which is the philosophy of the National Center for Complementary and Integrative Health and the Veterans Administration healthcare system *(Editor's note: For more on Whole Health, please see Q&A with Dr. Phillips on page 8)*. CIM is well-being driven, not disease driven. The patient participates in creating their own well-being as a part of a dyadic decision with their clinician. This is largely absent from the Western medicine model, which often takes a patient's participation out of consideration and is more prescriptive. CIM is also more holistic, in contrast to Western medicine, which is often focused on a single organ.

CGPR: Can you share an example of how you use CIM?

Dr. Lavretsky: I treated a 68-year-old woman who was experiencing several life stressors, including contemplating retirement. She presented with anxiety, depression, insomnia, and memory complaints. After I explained the neuroplastic and stress-reducing properties of several mind-body interventions, she selected brief breathing practices and grounding exercises, as well as connecting with nature. She practiced on the weekends and at work when experiencing anxiety. To help her insomnia, she chose to start melatonin, drink valerian root tea, use lavender aromatherapy, and listen to calm music at night. After two weeks, she reported a greater sense of calm and an improved ability to regulate her negative emotions. She also experienced less fear of failing at her job.

CGPR: What are the advantages of CIM in treating mental illnesses in older adults?

Dr. Lavretsky: CIM reduces the need for polypharmacy, resulting in fewer drug interactions and side effects. Lifestyle practices, like stress reduction techniques such as meditation or yoga, can serve as lifelong tools to help patients lead healthier lives. Rather than treat acute diseases, integrative medicine helps prevent chronic diseases—including depression and anxiety—in at-risk populations, like stressed dementia caregivers (Nguyen SA et al, *Curr Psychiatry Rep* 2022;24(9):469–480).

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CGPR: What are the disadvantages of CIM?

Dr. Lavretsky: Patient involvement is crucial, but not everybody tries to participate. Some patients are skeptical given the limitations in research and regulation. And although CIM can reduce polypharmacy, supplements can be part of the treatment plan, which then may have drug interactions and side effects. Additionally, many modalities are not covered by insurance.

CGPR: For patients who are new to the idea of mind-body practices, how do you structure your introduction?

Dr. Lavretsky: I ask patients about their preferences and what they are open to. I usually start with breathing techniques, although patients with a history of trauma may be resistant to this option. I use box breathing, such as 4-4-4-4 (four-second inhale, four-second hold, four-second exhale, four-second hold). Not everybody is able to do this right away, especially patients with lung disease or heart disease, but they can build up to this practice. Just taking conscious breaths drops a patient's blood pressure and heart rate (Russo MA et al, *Breathe (Sheff)* 2017;13(4):298–309). I then explore additional treatment options based on their symptoms and interests.

CGPR: What other modalities do you offer for mood and anxiety disorders?

Dr. Lavretsky: I offer modalities such as acupuncture and sound healing. To reduce stress, I recommend connecting with nature, such as by forest bathing *(Editor's note: For an overview of various CIM therapies, visit: www.thecarlatreport.com/CIM)*. I prescribe walking barefoot on sand or grass, which simulates a full-body massage. I recommend swimming, especially in older adults with balance problems. I suggest use of natural light and exposure to the sun, especially to improve a patient's sleep schedule (Scheuermaier K et al, *J Biol Rhythms* 2010;25(2):113–122).

"When choosing between available integrative medicine options for neurocognitive disorders, I go by patient preference. I ask what they grew up with and what they find helpful; what brings them joy. As patients age, especially with cognitive decline, it's harder to learn new information—so I use overlearned, old information."

Helen Lavretsky, MD, MS

CGPR: What do you recommend for patients with neurocognitive disorders?

Dr. Lavretsky: We have studied kirtan kriya meditation along with yoga classes in patients with mild cognitive impairment and in women with cardiovascular disease at risk for cognitive decline. It appears to have a "brain fitness" effect and can be helpful if patients are able to engage (Lavretsky H et al, *Int J Geriatr Psychiatry* 2013;28(1):57–65; Khalsa DS, *J Alzheimers Dis* 2015;48(1):1–12). In terms of enrichment activities, active therapy is more neuroplastic, although passive therapy still benefits patients. Music can reduce agitation or anxiety in dementia. Listening to music may also reduce stress in caregivers of people with dementia (Lavretsky et al, 2013). Aromatherapy, primarily lavender, can also calm anxiety and agitation associated with dementia.

CGPR: How do you choose among all these options?

Dr. Lavretsky: I go by patient preference. I ask what they have grown up with and what they find helpful; what brings them joy. If I impose my choice on them, they're not going to do it. As patients age, especially with cognitive decline, it's harder to learn new information—so I use overlearned, old information. This is also how music therapy is provided in nursing homes. Music therapists ask what music patients grew up with and compose music lists from the era when patients were adolescents or young adults. This is the music patients are most likely to respond to, as it triggers old memories and can act as a trainer to improve memory (Fang R et al, *Transl Neurodegener* 2017;6:2).

CGPR: Are the effects equal among the different therapies? What would we expect to see in terms of calming down agitation, for example?

Dr. Lavretsky: There are very few studies in that area, so I can't say that one treatment is better than another. Some reviews using the Cochrane method found mindfulness to be effective for various disorders of aging, reducing depression, anxiety, and stress (Quintana-Hernández et al, *J Alzheimers Dis* 2023;91(1):471–481). There is some evidence they benefit cognition as well (Madhivanan P et al, *Adv Geriatr Med Res* 2021;3(3):e210016). The evidence for tai chi is growing in terms of brain imaging and cognition, as much as for mindfulness and yoga (Wayne PM et al, *J Am Geriatr Soc* 2014;62(1):25–39). The effects are similar, which you would expect with mind-body therapies.

CGPR: Do you recommend intermittent fasting for memory disorders?

Dr. Lavretsky: I do for aging-related disorders, such as Alzheimer's disease, and biological aging (Longo VD et al, *Nat Aging* 2021;1(1):47–59). If the patient does not have a contraindication to intermittent fasting (such as diabetes or history of an eating disorder), I discuss the benefits on metabolism and protecting brain health, but also the side effects of hunger and fatigue. I mention that this is not a strategy for long-term weight loss (Zhao D et al, *J Am Heart Assoc* 2023;12(3):e026484). We then discuss an eating pattern in which the patient does not consume any calories for a certain amount of time.

CGPR: Are there any vitamins or nutritional supplements that you recommend to prevent or treat mental illnesses in older adults?

Dr. Lavretsky: Older adults tend to have nutritional deficiencies because of monotonous diets. They don't tend to eat the colorful array of vegetables and fruits, lean meats, and fish that are commonly found in the Mediterranean diet and are also recommended by the American Heart Association (Arnett DK et al, *Circulation* 2019;140(11):e596–e696). I would consult with a dietitian before trying supplements *(Editor's note: See "Nutritional Supplements" table on page 5)*. I recommend vitamin B complex supplementation, as this may slow cognitive decline. Vitamin D_3 is popularly studied for the

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prevention of cognitive decline, although the causal relationship is inconclusive (Sultan S et al, *J Aging Res* 2020;6097820). I recommend fish oil to treat mood disorders and to prevent cognitive decline (Saunders EFH et al, *J Clin Psychiatry* 2016;77(10):e1301–e1308; Huang Y et al, *Front Neurosci* 2022;16:910977). Depending on symptom cluster, I use other supplements with good data, like S-adenosyl methionine (SAMe) for mood disorders and melatonin and valerian root for sleep.

Nutritional Supplements for Preventing or Treating Mental Illnesses

Supplement	Dose	Possible Effects	References
B-complex (B_1, B_6, B_{12})	Varies by supplement	May slow cognitive decline	McCleery J et al, *Cochrane Database Syst Rev* 2018;11(11):CD011905
Ginkgo biloba	60–240 mg daily	May help cognitive symptoms in dementia and mild cognitive impairment	Heui S and Lavretsky H, *Int Psychogeriatr* 2012;24 Suppl 1(01):S1–2
Melatonin	1–6 mg nightly	• Insufficient evidence in insomnia • Treats sleep-wake phase disorder and jet lag	• Costello RB et al, *Nutr J* 2014;13:106 • Sateia MJ et al, *J Clin Sleep Med* 2017;13(2):307–349
Omega-3 fatty acids	1000–3000 mg daily	• May prevent cognitive decline • May treat depression in mood disorders	Varteresian T and Lavretsky H, *Curr Psychiatry Rep* 2014;16(8):456
S-adenosyl methionine (SAMe)	1600–3200 mg daily	May have antidepressant effects	Cuomo A et al, *Ann Gen Psychiatry* 2020;19:50
Valerian root	300–600 mg daily	May promote sleep	Shinjyo N et al, *J Evid Based Integr Med* 2020;25:2515690X20967323
Vitamin D_3	400–4000 IU daily	May prevent cognitive decline, although data are mixed	Sultan S et al, *J Aging Res* 2020;6097820

CGPR: Patients often worry that supplements are not regulated.

Dr. Lavretsky: True, so I recommend patients go with respected brands, such as Standard Process or Life Extension. They can also look up ratings on Consumer Reports (www.consumerreports.org) or similar platforms. I suggest they use Costco pharmacies, which typically screen supplements for quality and have reasonable prices.

CGPR: For some supplements, the evidence is mixed. For example, the vitamin D literature suggests that supplementation doesn't improve outcomes. What's your take on this?

Dr. Lavretsky: There is no evidence that supplementation in the absence of deficiency provides any benefits. I check for deficiency in people at risk to guide supplementation decisions. For example, if a person has low levels of vitamin D (<20 ng/mL), I supplement. Zinc deficiencies are also common, especially in patients eating a vegetarian or vegan diet. Western medical research that we take as scientific evidence of efficacy tends to study groups using statistical averages that may not reflect individual variation in response. For example, no studies have shown that fish oil is helpful for treatment or prevention of dementia, but that's on average in large heterogeneous groups that were not assessed for existing deficiencies of omega-3 levels. In order to form an opinion about supplements that may be effective, we have to know the response in those with existing deficiencies. It helps to understand the characteristics of those who respond to supplements (responder analysis) in order to recommend their use to more targeted populations.

CGPR: What have you learned in terms of using CIM in older adults with cognitive impairment as a result of COVID infection?

Dr. Lavretsky: Long-COVID is a model of chronic stress, so I employ what we know about stress reduction treatment for inflammatory disease. Supplements appear to reduce the severity of neuropsychiatric and cognitive symptoms over time. I primarily use supplements such as vitamin B complex, D_3, and fish oil in those who are deficient and who can tolerate them. I individualize the use of ginkgo biloba for cognitive symptoms, as it may increase bleeding time and affect blood pressure. As chronic stress requires support for a patient's adrenals, I use ashwagandha, an adaptogen herb, as well as arctic root (or *Rhodiola rosea*), which can treat chronic fatigue (Yadav B et al, *Trials* 2021;22(1):378; Karosanidze I et al, *Pharmaceuticals (Basel)* 2022;15(3):345). Siberian or American ginseng also have literature supporting their use in chronic fatigue and cognitive impairment (Todorova V et al, *Nutrients* 2021;13(8):2861). In severe cases I use memantine, as we've shown it improves cognition in older adults with depression and cognitive decline (Lavretsky H et al, *Am J Geriatr Psychiatry* 2020;28(2):178–190). I also use breathing, yoga, tai chi, acupuncture, or Chinese medicine for self-regulation and stress reduction.

CGPR: What's your experience in treating anxiety and depression in long-COVID?

Dr. Lavretsky: Patients who were previously stable may develop treatment resistance with long-COVID. I often have to start from scratch. They may no longer tolerate SSRIs due to gut sensitivity, or they may develop new food sensitivities.

CGPR: Which CIM resources do you recommend for older adults?

Dr. Lavretsky: The National Center for Complementary and Integrative Health recently announced funding for virtual centers to house CIM resources. We have a similar initiative within the University of California to create a virtual center with CIM resources (www.tinyurl.com/2bsjx633). My website, Integrative Mental Health at UCLA, has breathing videos, exercises for COVID, and lectures about supplements for COVID (www.tinyurl.com/bddtmd7y). UCLA Mindfulness Research Center offers an app and online classes and courses (www.tinyurl.com/mrx8mn5h).

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

Medical Mimics in Geriatric Psychiatry

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Julia Cromwell, MD. Medical Director, Senior Adult Psychiatry Unit, Salem Hospital, Salem, MA.

Ms. Tsang and Dr. Cromwell have no financial relationships with companies related to this material.

Helen is a 61-year-old woman with bipolar disorder who presents to the emergency department (ED) with altered mental status (AMS). Her family reports that she has been acting increasingly bizarre for weeks, including trying to revive her grandson's dead pet rabbit and defecating on the floor. She scores a 20/30 on the Montreal Cognitive Assessment (MoCA) but has no history of cognitive impairment. There's no obvious medical reason for her symptoms, so she's admitted to inpatient psychiatry for more treatment.

It's pretty easy to mistake unidentified medical conditions for primary psychiatric disorders, especially since most psychiatric disorders are defined by symptoms without any clear diagnostic test or procedure to confirm the diagnosis. To make things even more complicated, medical conditions can both trigger and worsen psychiatric symptoms. Older adults, especially those with substance use disorders, preexisting medical issues, and no prior psychiatric history, are more likely to have a "medical mimic" (a medical condition closely imitating a primary psychiatric disorder). Failure to identify this condition can lead to delays in proper care and increased health care costs. So how can a psychiatric clinician be more vigilant in spotting these medical mimics? This article gives a quick rundown on how to evaluate and screen for possible medical conditions presenting with psychiatric symptoms.

Example Medical Mimics

Category	Examples	
Cardiovascular	• Cerebrovascular accident (CVA) • Hypertensive emergencies	• Myocardial infarction (MI) or acute coronary syndrome (ACS)
Central nervous system	• Neoplasms • Occult head injury	• Subdural hemorrhage
Drug/substance related	• Alcohol and benzodiazepine withdrawal • Allergy/cold medicines • Anticholinergics • Antiemetics (eg, metoclopramide and other dopamine-receptor antagonists)	• Benzodiazepines • Neuroleptic malignant syndrome • Opioids • Serotonin syndrome • Steroids • Stimulants • Valproic acid (check ammonia level)
Electrolyte imbalances	• Hyper- or hypocalcemia • Hyper- or hypoglycemia	• Hyper- or hyponatremia
Endocrine	• Adrenal insufficiency	• Hyper- or hypothyroidism
Infections	• HIV/AIDS • Meningitis	• Pneumonia • Urinary tract infection (UTI)
Pulmonary	• Carbon monoxide (CO) poisoning • Pneumothorax or COPD exacerbation	• Pulmonary embolism (PE)
Rare	• Huntington's disease • Intermittent porphyria • Limbic encephalitis	• Neurosyphilis • Systemic lupus erythematosus • Wilson's disease

For a more in-depth review of common medical mimics, please visit: www.thecarlatreport.com/medicalmimics.

Checking for medical mimics

A good starting point is to think about delirium in medical inpatients, as well as ED patients and outpatients with AMS. Quick onset of symptoms, fluctuating course, and altered consciousness are key factors suggesting delirium. It's helpful to get standard screening tests for both new-onset and atypical presentations. Doing a basic mental status exam, physical exam, and neurological exam can also help to spot possible medical mimics that need further evaluation. For example, if your patient has dry mouth, constipation, urinary retention, and blurred vision, think about anticholinergic side effects. Or, if you see twitching and other motor abnormalities, consider hypocalcemia. For more examples of common medical mimics, see table.

The typical set of screening labs in older adults includes:

- Complete metabolic panel
- Liver function tests
- Complete blood count with differential
- Urine toxicology screen
- Vitamin B_{12} levels
- Folate levels
- Thyroid panel
- RPR and HIV if high risk
- Urinalysis and chest x-ray (often added in older patients presenting with confusion or respiratory symptoms)

The reasoning behind these labs is to rule out medical causes of delirium or cognitive impairment and to get baseline medical information (Welch KA and Carson AJ, *Clin Med (Lond)* 2018;18(1):80–87). Not all older adults with confusion need head imaging, but it's a good idea for those with localizing neurological signs, seizures, significant cognitive impairment not explained by delirium or intoxication, or high risk of falls. Additional workup beyond these basics depends on individual presentations rather than protocols. (See "How to Distinguish the Dementias" article in *CGPR* Jan/Feb/Mar 2022 for more.)

Before considering a transfer to psychiatry in a patient with AMS, ensure the patient has had an appropriate medical workup based on their symptoms. In practice, you may receive pushback due to clinician bias against mental illness. When you suspect the patient's psychiatric symptoms have a medical cause, it's best to communicate your specific concerns and ideas for additional workup. If a medical team is unwilling to evaluate further, consider escalating your concerns to unit leadership.

Example mimics: Respiratory system

Although medical illness affecting almost any organ system can mimic psychiatric illness, the respiratory system deserves special attention. Any difficulty breathing goes hand in hand with anxiety, but

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In Brief: Clinical Solutions When Geriatric Psychiatrists Are in Short Supply

Many patients do not have access to a geriatric psychiatrist due to cost, availability, or geography. Some current efforts to close the treatment gap include:

Telepsychiatry services

Telepsychiatry services have many advantages for older adults, including convenience, improved access to specialists, and safety. Patients can avoid the drive to appointments, which is greatly useful for people with limited mobility. Additionally, telepsychiatry allows for improved visuals and audio, as patients can see clinicians unmasked and can regulate the volume. To improve the telepsychiatry experience for older adults, clinicians can consider the following:

- Enlist support staff to help the patient get comfortable with the telepsychiatry platform prior to the appointment
- Suggest the use of a headset or voice amplifier for people with hearing/speech difficulties
- Use a neutral background and minimize any interfering sounds, such as email notifications or air conditioners
- Look directly at the camera to mimic eye contact

Who it's best for: Patients with reliable internet, comfort using a computer, and family/caregivers available to troubleshoot technological issues.

Collaborative care interventions

Collaborative care refers to the growing trend of a psychiatric clinician consulting with a primary care clinician (PCP). In practice, this often means that a psychiatrist or psychiatric NP will have an office in the same suite as a primary medical practice. This allows for more seamless communication between disciplines and makes it much easier for a PCP to refer patients for psychiatric care. While this model works best for bread-and-butter disorders such as depression or anxiety, it is also helpful for managing behavioral and psychological symptoms of dementia (Callahan CM et al, *JAMA* 2006;295(18):2148–2157).

Who it's best for: Patients established within their PCP practice with mild to moderate depression, anxiety disorders, grief, adjustment reactions, or behavioral and psychological symptoms of dementia; patients who feel more comfortable seeing a psychiatrist in a medical setting.

Smartphone applications

With the explosion of mobile applications in recent years, clinicians are flooded with technology claiming to treat depression, anxiety, sleep, and memory problems. Since older adults are increasingly using smartphones, it is important to understand the risks and benefits of these apps. Unfortunately, the majority of apps do not have good privacy policies and are meant for wellness, not treatment. However, there are a handful of apps with good safety features and evidence for their effectiveness (Kuhn E et al, *J Consult Clin Psychol* 2017;85(3):267–273; Kuhn E et al, *Behav Ther* 2022;53(3):440–457; McIntyre RS et al, *Front Psychiatry* 2020;11:546). These include CBT-I Coach for the treatment of insomnia (www.mobile.va.gov/app/cbt-i-coach) and PTSD Coach (www.mobile.va.gov/app/ptsd-coach).

Who it's best for: Patients with mild depression, anxiety, memory, or sleep issues who are comfortable using their smartphone.

Wearable technologies

Wearable technologies include smart jewelry (such as wristbands, rings, or watches), wearable sensors (such as GPS and accelerometers), and fitness trackers. They function by monitoring vital signs and activity levels, and alerting caregivers to subtle changes. While they are not designed as interventions to treat depression or anxiety, they passively collect data that can help clinicians notice early signs of decompensation. For example, wearable accelerometers map physical movement and can act as a surrogate marker for depression, as they may pick up on early warning signs, such as psychomotor retardation and disrupted sleep. They can also provide older adults with control over their actions—such as ensuring they engage in sufficient physical activity weekly.

Who it's best for: Patients interested in monitoring their daily physical activity and sleep; patients in long-term care with safety concerns (falls, wandering).

—Stephanie Collier, MD. Editor-in-Chief, Carlat Geriatric Psychiatry Report. *Dr. Collier has no financial relationships with companies related to this material.*

Medical Mimics in Geriatric Psychiatry

Continued from page 6

some respiratory conditions can be fatal if mistaken for psychiatric illness. Here are a few samples to illustrate example evaluations for conditions you don't want to miss.

Pneumothorax or COPD exacerbation

Patients with a pneumothorax or COPD exacerbation might present with sudden shortness of breath or pleuritic chest pain, but they might also experience anxiety or confusion. Findings such as tachypnea may be wrongly attributed to hyperventilation from a panic attack. Additional factors that should make you consider further evaluation (eg, a chest x-ray) include:

- Smoking history
- Home oxygen usage
- Changes in sputum production or baseline breathing patterns

Pulmonary embolism

Patients with a pulmonary embolism (PE) might also present with anxiety or a feeling of apprehension or doom. Think about PE especially when anxiety is accompanied by tachycardia, dyspnea, or pleuritic chest pain. The following factors should prompt further workup (eg, a chest CT):

- Hypercoagulable state
- A recent surgery
- Prolonged immobilization
- Trauma
- Cancer
- Family history of PE

Carbon monoxide poisoning

A patient with carbon monoxide (CO) poisoning might present with headache, nausea, dizziness, weakness, and dyspnea, but they could also present with confusion, poor concentration, and irritability. CO poisoning can easily mimic

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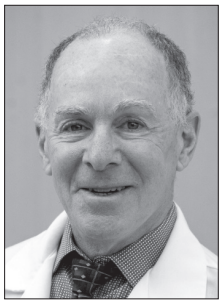
Q&A With the Expert

Lifestyle Medicine: How to Promote Healthy Change in Older Adults

Edward M. Phillips, MD

Whole Health Medical Director, VA Boston Healthcare System; Founder and Director, Institute of Lifestyle Medicine, Spaulding Rehabilitation Hospital; Associate Professor, Physical Medicine & Rehabilitation, Harvard Medical School, Boston, MA. Co-author of Food, We Need to Talk *(New York, NY: St. Martin's Press; July 2023) and co-host for the associated podcast: www.foodweneedtotalk.com/about*

Dr. Phillips has no financial relationships with companies related to this material.



CGPR: Can you explain lifestyle medicine and the role of health coaching?

Dr. Phillips: Lifestyle medicine focuses on enhancing health behaviors to address chronic conditions. It involves optimizing exercise, nurturing relationships, balancing diet and sleep, adjusting substance use, and managing stress. Instead of simply fixing what's broken, as in traditional American medicine, lifestyle medicine aims to prevent and redirect potential issues. Health coaching has emerged alongside lifestyle medicine, with tens of thousands of board-certified health coaches available to consult with clients, primarily over the phone. This anonymity can be beneficial for some people. However, as health coaching is a relatively new field, many coaches also practice without certification. The field does not yet require certification, so there is variability in quality. There are also automated health coaching apps and phone-based groups. Employers often offer health coaching services, as they have been shown to positively impact employee health and ultimately benefit their business (Musich S et al, *Am J Health Promot* 2015;29(3):147–157). When considering working with a health coach, I recommend finding a coach certified by the National Board for Health and Wellness Coaching.

CGPR: How did you develop an interest in lifestyle medicine?

Dr. Phillips: The driving question for me is "If exercise is so good, why doesn't everyone do it?" That has been my academic question for about 20 years. If you look at disease, premature death, and health care costs, up to 65% are attributable directly to our health behaviors (Kaplan RM and Milstein A, *Ann Fam Med* 2019;17(3):267–272). If it's that important, why isn't it the main subject in medical school?

CGPR: So, what have you learned? Why doesn't everyone exercise?

Dr. Phillips: There are many factors affecting behavior change, and in lifestyle medicine, the burden of change falls primarily on the individual. But society has created systemic factors that sustain barriers to health and that more privileged populations do not have to worry about. These include safety concerns due to violence, as well as environmental barriers, such as a lack of sidewalks.

"Always relate the patient's symptoms to the health behavior you are trying to achieve. You create a shared goal, literally shake on it, and then check in after they do an experiment. Once I realize that my patient is motivated and able to participate, then I can ask for help to get them on board."

Edward M. Phillips, MD

CGPR: As someone who works at a Veterans Affairs (VA) hospital, can you discuss how lifestyle medicine is used to treat mental illness there?

Dr. Phillips: A large number of veterans at the VA are aging and dealing with significant mental health issues. With around eight to nine million enrolled veterans, the VA is essentially a closed system, making veterans our lifelong patients. The "Whole Health" system, developed in 2011, is arguably the largest and most successful experiment in lifestyle medicine to date. Recently, it was recognized by the National Academies as a pioneering approach (National Academies of Sciences, Engineering, and Medicine. *Achieving Whole Health: A New Approach for Veterans and the Nation*. Washington, DC: The National Academies Press; 2023). Our aim is to achieve a cultural transformation where every conversation and clinical intervention focuses on understanding what matters most to the patient and their purpose in life. We also integrate complementary and integrative medicine practices such as mindfulness, massage, meditation, tai chi, and yoga. Early results from the Whole Health approach at the VA showed that patients involved in the program experienced a decrease in opioid use three times faster than other veterans (www.tinyurl.com/ms2f2cb9).

CGPR: Change is hard for many older adults with mental illnesses. Patients who have engaged in problematic behaviors for decades may be resistant or may return to unhealthy behaviors when their mood decompensates. What have you found helpful for older adults in making lasting changes?

Dr. Phillips: The secret to making changes in health behavior is to attach the change to something that's of vital importance to a patient. We seek to have every interaction with a patient go back to that individual's mission, aspiration, and purpose. One of my patients was an older Vietnam veteran with peripheral neuropathy and trouble standing. I asked him what improving his balance would do for him. And he said, "Doc, you remember I told you about my boat? If I can feel the floor and I can improve my balance, I'm going to go on the boat at night; that's when the magic happens." I asked what the chances were that he would start balance exercises. He replied: "I'm starting tonight, now that I'm focused on a prize."

CGPR: That is impressive. When a patient shares their goal, you could approach it from many angles. How do you choose where to start?

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Dr. Phillips: In short, we go where the patient wants to go and support them on their journey. Within the Whole Health context, there's a "Circle of Health." It has eight domains: 1) movement; 2) recharging and refreshing; 3) surroundings; 4) spirituality; 5) personal development; 6) friends, families, and coworkers; 7) relaxing and healing; 8) food and drink (www.tinyurl.com/bj2775uk). We can hand a physical copy of this circle to the patient, watch their eyes go around, and ask "Which one catches your attention?" We invite the patient to do a personal health inventory, which involves ranking these domains on a scale from 1 to 5. We ask "Where are you with your exercise? Where would you like to be?" We look at an individual's strengths, then we look at challenges, and then we go back to what matters most to them and what they want to do. We then use their strengths to help their weaknesses.

CGPR: Can you describe an example of how you combine a patient's strengths and weaknesses to achieve a goal?

Dr. Phillips: I had this delightful older woman who was not getting enough exercise. I suggested a walk after dinner, and she replied "Doctor, you have no idea where I live. I would not know which way to get away from which gunshot." I then asked what her strength was, and she told me "I'm a churchgoer. I'm all about relationships, all about worship." I asked her why she wanted to walk, and she mentioned it would help her be strong enough to take care of her grandchildren. I asked her what ideas she had (because any idea I suggested would not be as meaningful). She suggested walking to church on Sundays. I asked her about the violence, to which she replied "The bad people are asleep on Sunday mornings." She decided to call her friend to walk, rather than drive, to church together the following Sunday.

CGPR: This is a great example of how societal barriers to healthy engagement, such as racism and socioeconomic deprivation, can affect a patient's goals.

Dr. Phillips: Right, these additional burdens can prevent healthy lifestyles amongst racially and economically minoritized persons.

CGPR: After patients tell you what's most important to them, what are your next steps?

Dr. Phillips: The key is to always relate the patient's symptoms (what is holding them back) to the health behavior. You create a shared goal, literally shake on it, and then check in after they do an experiment. Once I realize that my patient is motivated and able to participate, I have a fish on the line. At that point, I can ask for help to get them on board. When a patient is leaning in, I say "Would you like to talk more?" I then help them set goals about their behaviors and let them know we have groups that can provide assistance. If they don't like groups, I set them up with a health coach.

CGPR: If the fish are biting but they're not holding on, do you have tricks or tips about how to keep them on the line?

Dr. Phillips: Yes. It can help when clinicians share their personal efforts to improve their health. Even though it's not a reciprocal relationship, it can be highly motivating to patients when you reveal that you're engaged in the same process. For example, leaving a bicycle helmet and apple on your desk can improve a patient's confidence or pique their interest. If they notice it during a visit, you can say "Oh, this bicycle helmet? That's because I bike to work. It's only 20 minutes and I get my exercise time in. And this apple? Well, you know, an apple a day…" And then patients find your advice more believable and will be more likely to engage in similar behavior. Another tip to help with motivation may be to talk about other patients. For example, you could say "I learned from another patient recently that they too didn't want to use a cane, but this guy said he uses hiking poles!" It's a combination of sharing that you're trying and then sharing the successes of other patients, how they overcame their challenges. I think groups, community, and connection really help patients stay motivated.

CGPR: What are the main limitations to lifestyle medicine? Are there times when you don't recommend it?

Dr. Phillips: Although rapidly growing, lifestyle medicine is a relatively new field with a still-evolving infrastructure of education and support. Clinicians may not have all the necessary resources to engage and optimally treat the patient with lifestyle medicine. Also, in instances such as urgent medical care, the focus is on reducing pain and danger more than discussing the patient's health goals. Lifestyle modifications are largely unsuccessful at helping individuals with obesity achieve a "normal" BMI (without surgery). However, lifestyle medicine can help modestly reduce weight, which improves metabolic biomarkers even if the patient remains overweight or obese. Also, the patient may pursue other beneficial behaviors such as improved sleep, more physical activity, or improved nutrition despite limited change in their weight.

CGPR: Loneliness is associated with multiple mental illnesses, including depression and anxiety. In lifestyle medicine, what can clinicians do to help older adults suffering from loneliness?

Dr. Phillips: The US Surgeon General, Dr. Vivek Murthy, wrote a lovely book, *Together* (Murthy V. *Together: The Healing Power of Connection in a Sometimes Lonely World.* New York, NY: HarperCollins; 2020). We've survived over the millennia because we're social beings. When we lack that social element, loneliness negatively impacts our health. Loneliness was an epidemic even before COVID. Whenever I ask my patients about their social connections, I also ask about how interested they are in joining a group, although this must be a patient-driven and personalized decision. Sometimes I simply tell patients "Going to that church dinner is not just about getting dinner; it actually helps your health." People need to hear or feel that. When I have an anxious patient who's not sold on exercise, I tell them "Go for a walk for 10 minutes and see how you feel after. Give me a number before and after." Or I may say "So you took five minutes to call someone or to spend an extra couple of minutes with them—how does that make you feel?" It doesn't have to be going to the big event; even micro-connections can help.

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

Research Updates IN PSYCHIATRY

COGNITION

Can Physical Activity Offset Cognitive Decline?

Susan L. Siegfreid, MD. Dr. Siegfreid has no financial relationships with companies related to this material.

REVIEW OF: Desai P et al, *JAMA Netw Open* 2021;4(8):e2120398

STUDY TYPE: Population-based cohort study

Does exercise prevent—or at least slow down—dementia? It's a tantalizing but still unanswered question. Many studies have shown a correlation between physical activity and better cognitive functioning, but correlation does not equal causation. Higher cognitive capacity could just as easily encourage people to be more physically active, or cognitive impairment could result in a reduced ability to exercise.

The latest study to weigh in on this issue still doesn't help us with the causality question—but it did measure biomarkers in addition to mental status, which adds "harder" data to the exercise-cognition connection. This study measured blood levels of tau, as high levels of tau have been associated with cognitive decline and progression from mild cognitive impairment to Alzheimer's disease.

Researchers used data from 1,159 older adults who participated in the Chicago Health and Aging Project between 1993 and 2012. Participants were Black and White, and older than 65 years without Alzheimer's at study entry. Participants were included if they had a baseline blood sample measuring total serum tau concentrations and at least two cognitive assessments. The average age of participants was 77 years old, and they were predominantly female (63%) and Black (60%) with a mean educational level of 12.6 years. Participants were divided into three groups by self-reported duration of physical activity: little (no exercise), medium (<150 minutes/week), and high (>150 minutes/week). Cognitive function was measured by the East Boston Memory Test, the Symbol Digit Modalities Test, and the Mini Mental State Examination.

All results were adjusted for demographic factors, including baseline APOE4 status and chronic medical conditions. Participants with high total tau at baseline had a slower rate of cognitive decline if they reported high or medium physical activity compared to those who reported no exercise. Participants with low tau levels experienced a smaller benefit in the rate of cognitive decline, although those with high physical activity levels still had a statistically significant slower cognitive decline than their sedentary counterparts.

Drawbacks of this study include limited generalizability, as the study only included White and Black participants. Information on participants' physical activity levels lacked details on type and intensity, and self-reporting can introduce bias into the data.

CARLAT TAKE

This study suggests that staying physically active in old age may slow cognitive decline, especially in older adults with biomarkers of neurodegeneration. We should encourage physical activity in our older patients, as moderate to high physical activity improves brain health.

DEMENTIA

Do Psychosocial Interventions Improve Quality of Life in Advanced Dementia?

Thomas Jordan, MD. Dr. Jordan has no financial relationships with companies related to this material.

REVIEW OF: Hui EK et al, *Int J Geriatr Psychiatry* 2021;36(9):1313–1329

STUDY TYPE: Systematic review of randomized controlled trials

There are several psychosocial treatments that may improve quality of life in patients with advanced dementia. A recent review analyzed research on psychosocial treatments specifically for patients with moderate to severe dementia.

The authors reviewed randomized controlled trials published from 2000 to 2020 studying psychosocial interventions, including physical, cognitive, or social activities, that aimed to improve functioning and well-being in people diagnosed with moderate to severe dementia (a Mini Mental State Examination score of ≤20; most common diagnoses were Alzheimer's disease, vascular dementia, or mixed dementia). A total of 14 studies including 1,161 adult participants were analyzed in this review. The intervention techniques included six multisensory stimulation programs, five multicomponent programs (interventions with more than one type of program, such as exercise and music), two exercise programs, and one program with reminiscence therapy. Median duration of the interventions was 12 weeks.

Of all the types of programs, only aromatherapy (a multisensory stimulation intervention involving essential oils, such as lemon balm, provided by diffusion or massage) and reminiscence therapy showed significant improvements in quality of life ratings ($p=0.01$ and $p<0.01$). One study of robotic pets also showed significant improvements in quality of life on subgroup analysis of people with moderate to severe dementia ($p=0.01$), although the subgroup was too small to be convincing. Both the aerobic exercise programs and one of the multicomponent programs (involving aerobic exercise, memory games, and music therapy) had significant improvements in cognition scores ($p=0.01$, <0.001, and <0.05), but all were either insufficiently powered or had low-quality design. The aerobic exercise was low intensity, like cycling 15 minutes daily or walking 30 minutes daily.

CARLAT TAKE

This review reports evidence that aromatherapy and reminiscence therapy may improve quality of life in moderate to severe dementia. The effect of aerobic exercise in this population is still unanswered and will require larger clinical trials. To learn more about aromatherapy and reminiscence therapy, please visit the following websites: www.tinyurl.com/4xftahn2 and www.tinyurl.com/29ujp992.

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1. What is the first-line treatment for inappropriate sexual behavior in dementia (LO #1)?
   - [ ] a. Antipsychotic medication
   - [ ] b. Antidepressant medication
   - [ ] c. Use of jumpsuits
   - [ ] d. Redirection, distraction, and reminders

2. According to Dr. Lavretsky, which statement about intermittent fasting is true (LO #2)?
   - [ ] a. Intermittent fasting is a good strategy for long-term weight loss
   - [ ] b. Intermittent fasting may harm memory
   - [ ] c. Intermittent fasting slows body metabolism over time
   - [ ] d. Intermittent fasting protects brain health

3. Which medical condition can mimic anxiety and present with dyspnea, tachycardia, and pleuritic chest pain (LO #3)?
   - [ ] a. Carbon monoxide poisoning
   - [ ] b. Hypothyroidism
   - [ ] c. Adrenal insufficiency
   - [ ] d. Pulmonary embolism

4. According to a 2021 study, how did patients with a high total tau at baseline after high or medium levels of physical activity compare to patients engaging in no physical activity (LO #4)?
   - [ ] a. Patients with high baseline tau experienced a slower rate of cognitive decline
   - [ ] b. Patients with high baseline tau experienced a higher rate of cognitive decline
   - [ ] c. There was no change in rate of cognitive decline
   - [ ] d. Only patients engaging in high levels of physical activity experienced a slower rate of cognitive decline

5. Which medication can be used to treat masturbation and exposure in patients with dementia (LO #1)?
   - [ ] a. Levetiracetam
   - [ ] b. Carbamazepine
   - [ ] c. Valproic acid
   - [ ] d. Lithium

6. According to Dr. Phillips, what percentage of disease, premature death, and health care costs is attributed to health behaviors (LO #2)?
   - [ ] a. 26%
   - [ ] b. 43%
   - [ ] c. 65%
   - [ ] d. 83%

7. For which of the following patients should clinicians order head imaging (LO #3)?
   - [ ] a. All older adults presenting with confusion
   - [ ] b. Older adults presenting with depression
   - [ ] c. Older adults with significant cognitive impairment not explained by delirium or intoxication
   - [ ] d. Older adults with catatonia

8. What can clinicians recommend for patients taking antidepressants in cases where sexual activity is planned (LO #1)?
   - [ ] a. Discontinuation of antidepressants
   - [ ] b. A brief drug holiday for 24–48 hours prior to planned sexual activity
   - [ ] c. Abstention from sexual activity
   - [ ] d. Consumption of an additional dose of antidepressant 24 hours prior to planned sexual activity

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Medical Mimics in Geriatric Psychiatry

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anxiety, depression, or even psychosis. Some patients develop a delayed neuropsychiatric syndrome, characterized by neurological deficits, personality changes, and cognitive problems, weeks after the initial poisoning. Chronic CO poisoning is frequently seen in the winter due to faulty heating systems and poorly ventilated appliances. Common sources include gas heaters, ovens, and wood/gas fires. The yearly incidence of CO poisoning is estimated to be 50,000 (or 16 cases/100,000 population) in the US (Rose JJ et al, *Am J Respir Crit Care Med* 2017;195(5):596–606). A failure to recognize this diagnosis can be catastrophic.

Back to Helen's story: On inpatient psychiatry, Helen's nurse practitioner gets worried after Helen reports headaches and nausea, which have been going on for weeks. She's transferred back to the medical floor, and an arterial blood gas confirms CO poisoning. She starts hyperbaric oxygen therapy. After a couple weeks of treatment, her bizarre behaviors resolve and her repeat MoCA score improves by 10 points.

CARLAT VERDICT

"Medical mimics" are not as rare as you might think, especially in the elderly. Learn about the common mimics and get in the habit of judiciously ordering labs so that you don't miss them.

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