

REVIEW ARTICLE

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Substance-Use Disorders in Later Life

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SUBSTANCE-USE DISORDERS HAVE BEEN DECLARED A NATIONAL PUBLIC health emergency.¹ Although the rates of substance use are generally lower among older adults than among younger people, this review focuses on older adults.² Physiological changes in hepatic metabolism that occur with aging affect the pharmacokinetics of both alcohol and other substances, leading to increased susceptibility to harmful effects. Older adults are more likely than younger people to have multiple chronic health conditions and to be using prescription medications that can interact with alcohol and other substances, putting them at increased risk for adverse consequences. To complicate matters, detecting substance-use disorders can be especially challenging in the presence of multiple coexisting medical conditions. Usual social indicators of impaired function, such as difficulty at work, driving errors, or legal charges, may be irrelevant for a person who is retired, is no longer driving, or is consuming substances at home rather than in public. Yet unrecognized substance-use disorders can cause substantial harm to older adults in the form of an increased risk of falls, confusion, cognitive impairment, and medical morbidity, which can contribute to hospitalizations and health care costs, as well as loss of independence.

Large-scale epidemiologic studies conducted over the past 25 years have provided important information about rates of substance use, but longitudinal prospective studies, which would provide data on changing patterns of use, are lacking. In addition, definitions of older age vary among studies, ranging from 45 years of age or older to 65 years of age or older, making it difficult to distinguish differences between middle-aged and older adults. This article addresses the current trends and research related to the prevalence, detection, and management of alcohol-use disorder, prescription-medication misuse, and use of illicit substances among older adults.

RECOGNITION AND DIAGNOSIS

The *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-5), does not distinguish between substance abuse and substance dependence; for substance-use disorders, it describes levels of severity that are based on impaired control and functional impairment in the workplace, school, and home.³ Older persons with substance-use disorders have difficulty cutting down on use and can have cravings. Strict application of the DSM-5 criteria may not reveal problematic substance use in older adults who are no longer working and who live apart from family members (Table 1). Because of changes in physiology and metabolism with aging, older adults may have increased sensitivity to illicit substances without evidence of tolerance.⁴ Relying on an older patient's report of the frequency and quantity of substance use as indicators of problematic use can lead to an underestimate of negative

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DSM-5 Criterion	Application of Criterion for Older Adult
Substance taken in greater amount than intended	Older adult may be impaired using the same amount taken when younger
There is persistent desire or unsuccessful effort to cut down or control use	Older adult may not realize use is problematic, especially with long-term use
There is excessive time spent to obtain, use, or recover from the substance	Same
There is craving for the substance	Same
Repeated use leads to inability to perform role in the workplace or at school or home	Role impairment is less pertinent; older adult may be retired and may be living alone
Use continues despite negative consequences in social and interpersonal situations	Same
Valued social or work-related roles are stopped because of use	Effect of substance use on social roles is less obvious if older adult is no longer working
Repeated substance use occurs in potentially dangerous situations	Same; older adult may be at increased risk for impaired driving
Substance use not deterred by medical or psychiatric complication	Same; medical consequences can be serious, including confusion, falls with injury, and psychiatric symptoms
Tolerance develops: increasing amount is needed to obtain effects	Symptomatic impairment may occur without an obvious need for increasing the amount
Withdrawal syndrome occurs or patient takes substance to prevent withdrawal	Withdrawal syndrome can occur with more subtle symptoms such as confusion

* DSM-5 denotes *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition.

consequences, especially for persons with lower levels of alcohol consumption or use of other substances. Older adults and their family members may not realize that long-term patterns of drinking or drug use can have deleterious effects with aging. Coexisting medical conditions and prescription medications heighten the risk of adverse consequences,⁵ including new or exacerbated cognitive impairment, difficulty sleeping, and increased susceptibility to falls.

It is crucial for clinicians to be aware that substance-use disorders can occur in older patients. The American Psychiatric Association urges clinicians to integrate substance-use prevention and treatment into routine primary health care for older adults.⁶ In 2003, the Substance Abuse and Mental Health Services Administration's Center for Substance Abuse Treatment launched the national initiative, Screening, Brief Intervention, and Referral to Treatment (SBIRT). This program stresses a universal, stepped, screening approach, with tailored responses based on findings at each step. A recent project incorporated the SBIRT approach in screening for alcohol use, illicit-drug

use, and medication misuse among older adults in Florida.⁷ On a simple two-question prescreening test, participants were asked whether in the past year they had tried to cut down on drugs or medication and whether they used drugs or medication more than intended. Persons who responded yes to either question underwent a full screening with the Alcohol, Smoking and Substance Involvement Screening Test (ASSIST)⁸ and were referred for specific treatment according to the screening results. The authors reported a significant reduction in substance use at 6 months, showing both the feasibility and benefit of screening older adults in a variety of outpatient settings. A validated approach specifically designed to screen older adults for substance-use disorders is currently lacking. However, use of a two-question prescreening tool, such as the one described above, combined with further investigative questions from the clinician to identify possible areas of concomitant impairment in functioning, may be useful in general practice for detecting problems involving substance use. Since older patients may lack awareness that

their substance use is problematic or harmful, it is important that the assessment includes input from family members and acquaintances who know the patient well. A number of changes in an older adult's functional status may indicate problematic substance use (Table 2). Concerns about any of these changes might come from the patient or the patient's family and should trigger a candid and nonjudgmental discussion of substance use.

ALCOHOL USE

Although alcohol consumption generally decreases with advancing age,⁹ demographic trends show an increase in alcohol-use disorder among older adults in the United States,^{10,11} and 14.5% of older drinkers consume alcohol at a level above the limit recommended by the National Institute on Alcohol Abuse and Alcoholism (NIAAA) for adults 65 years of age or older, which is no more than three drinks on a given day and no more than seven drinks in a week.¹² When coexisting medical conditions such as hypertension and diabetes are factored in, 53.3% of drinkers 65 years of age or older have potentially harmful levels of consumption. The 2013 National Survey on Drug Use and Health showed heavy drinking (defined as drinking five or more drinks on the same occasion on each of 5 or more days in the past 30 days) among 4.7% of persons 60 to 64 years of age and among 2.1% of those 65 years of age or older, as well as binge drinking (defined as drinking five or more drinks on the same occasion on at least 1 day in the past 30 days) among 14.1% of persons 60 to 64 years of age and 9.1% among those 65 years of age or older.¹³ Among older drinkers, men are at higher risk than women for harmful consumption, but prevalence rates for drinking are increasing faster among older women than among older men.¹⁴

Older adults with alcohol-use disorder fall into two groups, "early onset" and "late onset," with two thirds of people falling into the early-onset group.^{15,16} People in the early-onset group have been drinking for many years, whereas those in the late-onset group frequently have had a recent stressful life event: loss of a partner, retirement, or a new impairment affecting activities of daily life. Women represent a greater

Table 2. Signs of Possible Problematic Substance Use in Older Adults.

Psychiatric symptoms: sleep disturbances, frequent mood swings, persistent irritability, anxiety, depression
Physical symptoms: nausea, vomiting, poor coordination, tremors
Physical signs: unexplained injuries, falls, or bruises; malnutrition; evidence of self-neglect, such as poor hygiene
Cognitive changes: confusion and disorientation, memory impairment, daytime drowsiness, impaired reaction time
Social and behavioral changes: withdrawal from usual social activities, family discord, premature requests for refills of prescription medications

proportion of the late-onset group than the early-onset group.

In older adults as compared with their younger counterparts, impairment and an increase in the risk of falls occur at lower levels of alcohol consumption, but there is no evidence that liver metabolism of alcohol is significantly changed with aging.^{17,18} The long-term health complications of alcohol use in older people are the same as those in younger people. However, alcohol-use disorder has been found to increase the risk of hospitalization among older adults.¹⁹ Those with alcohol-use disorder and multiple chronic health conditions are more likely to report depressive symptoms than are adults of a similar age who do not have alcohol-use disorder.²⁰ The increased risk of a harmful interaction between alcohol and prescribed medications is of clinical importance, and older adults often lack knowledge of the risks of such interactions.^{21,22}

The Center for Substance Abuse Treatment recommends that screening for substance use and alcohol disorders be part of the routine medical visit for all persons over the age of 60 years.²³ Yet the likelihood that a primary care provider has an alcohol-related discussion with a patient declines as the patient ages.²⁴ Older adults may lack awareness that their use of substances is problematic and might not bring it to the attention of the clinician. Even close family members may miss problematic consumption by an elderly relative whose drinking is occurring at home. Coexisting medical conditions, including cognitive impairment, can obscure signs of harmful use, which may be mistaken for anxiety, depression, or complications of current medical treatments.

The Alcohol Use Disorders Identification Test

(AUDIT) is a validated 10-item screening instrument developed by the World Health Organization that is specific for use of alcohol in the past year.²⁵ On the AUDIT, the recommended cutoff score for the indication of potentially hazardous alcohol use is typically 8 (on a scale of 0 to 40, with higher scores indicating greater alcohol use), but for older adults, a score of 5 should be the cutoff that would prompt further investigation. An alcohol screening tool specifically designed for older adults is the geriatric version of the Michigan Alcoholism Screening Test (MAST-G).²⁶ More than five “yes” answers indicates an alcohol problem, with a sensitivity of 91 to 93% and a specificity of 65 to 84%.^{27,28} The widely used four-question screening tool for alcohol use disorder, the CAGE questionnaire,²⁹ may not be a useful screening tool in older adults, since it is not designed to detect binge drinking. Older adults are also less likely than younger adults to have someone at home to “annoy” them about their drinking habits. The single screening question for alcohol-use disorder that the NIAAA recommends — “How many times in the past year have you had 5 or more drinks in a day,” for men, or “4 or more drinks in a day,” for women — should not be used in older adults because older adults are susceptible to adverse effects from fewer drinks than these screening amounts.

In older adults, the onset of the alcohol withdrawal syndrome may not occur until several days after cessation of drinking. Confusion, rather than tremor and tachycardia, is often the predominant clinical sign, and the severity and duration of withdrawal tend to increase with age.³⁰ Alcohol withdrawal should be considered as a cause of confusion in an older patient and may be manifested as new-onset confusion in a hospitalized older patient. Interviewing family members can be crucial in establishing the diagnosis and may reveal previously undetected alcohol-use disorder. For older adults who are attempting to stop drinking and who do not have a history of severe withdrawal, alcohol withdrawal can be managed at home with supportive care, as long as a family member will be present at all times. However, those with a history of severe withdrawal are best monitored in the inpatient setting. A study involving more than 1200 patients, 18 to 78 years of age, who were hospitalized for alcohol withdrawal showed no

differences in the severity of withdrawal symptoms between younger and older patients. Furthermore, patients in all age groups needed similar amounts of benzodiazepines to treat withdrawal symptoms, but for patients 50 years of age or older, there was a significant direct relationship between the duration of withdrawal and the level of alcohol consumption (i.e., a higher level of consumption before hospital admission was associated with a longer period of withdrawal); for patients younger than 50 years of age, the association between the level of consumption and the duration of withdrawal was not significant.³¹ Currently, there are no guidelines for the management of alcohol withdrawal that are specific for older patients. As with younger patients, benzodiazepines used in a symptom-triggered approach are the mainstay of treatment for alcohol withdrawal in older patients (Table 3).^{32,33}

Motivational interviewing, which is a well-regarded approach to addressing behavioral changes geared toward better health, began as a treatment approach for problematic drinking.^{34,35} Although motivational interviewing has been studied in a range of disorders, its effectiveness has not been evaluated specifically in older patients. Essentially, motivational interviewing is a structured, nonjudgmental conversation in which the clinician encourages the patient to examine his or her substance use and adopt a committed attitude toward changing the behavior. The framework is shown in Table 4. The reasons for wanting to change behaviors related to substance abuse may differ according to age, with older adults wanting to preserve their independence, improve somatic health, and maintain their cognitive abilities. These motives can be a focus of the discussion.

Studies suggest that alcohol treatment in older patients is more likely to be successful when the patients receive age-specific treatment.^{37,38} Clinicians should consider referring patients to Alcoholics Anonymous, though it may be difficult to find a group of peers in which an older adult feels comfortable. A primary care–based brief intervention, including a clinician-led discussion about the negative effects of alcohol on health, with direct advice about the need to change, has been shown to reduce the level of consumption in older adults who drink too much³⁹ and may improve health-related quality of life.⁴⁰ Older

adults may reduce alcohol consumption if they perceive a benefit from doing so.^{41,42} Treatment plans for older patients should focus on overcoming isolation and on establishing social supports.⁴³ Attendance at a senior center may be a helpful intervention for isolated older adults, promoting new interests and social contacts.

The pharmacologic agents for long-term management of alcohol-use disorder — disulfiram, acamprosate, and naltrexone — have not been studied adequately in older adults, but their use may be considered in older patients (Table 3) and should always be combined with behavioral treatment. Naltrexone, an opioid antagonist, may limit heavy drinking by curbing the craving for alcohol but has not been shown to prevent relapse. Patients cannot be receiving opioids for pain while taking naltrexone. Acamprosate has shown limited effectiveness, and diarrhea is a common adverse effect. Disulfiram, an acetaldehyde dehydrogenase inhibitor, causes diaphoresis, flushing, and hypotension if the patient consumes alcohol while taking the medication. Drug interactions and coexisting medical conditions limit the use of disulfiram, and it should be stopped if the patient continues to drink while taking it.

MISUSE OF PRESCRIPTION MEDICATION

Nonmedical use of prescription drugs is defined as intentional or unintentional use of a prescribed medication that does not conform to prescribed directions. It includes taking more of a medication than directed or taking the medication for purposes other than the one for which it was prescribed, such as for mood-altering effects. Prescription rates for benzodiazepines and opioid medications are high among older adults. Approximately 8.7% of adults who are 65 to 80 years of age use benzodiazepines, a rate that is higher than the rates in the younger age groups,⁴⁴ and the prevalence of prescription opioid medications is 4 to 9% in adults 65 years of age or older.⁴⁵ Indeed, from 1995 to 2010, opioids prescribed for older adults during office-based medical visits increased by a factor of nine.⁴⁶ Similarly, from 2003 to 2012, primary care visits by persons 65 years of age or older for benzodiazepine prescriptions increased significantly more than

Table 3. Treatment of Alcohol-Use Disorder in Older Patients.

Indication and Medication	Onset of Action	Rate of Metabolism	Metabolized by Liver	Dose* mg
Treatment of alcohol withdrawal				
Chlordiazepoxide	Intermediate	Long	Yes	25–50
Diazepam	Fast	Long	Yes	5–10
Lorazepam	Intermediate	Intermediate	No	1–2
Oxazepam	Slow	Short	No	15–30
Long-term management†				
Naltrexone			Yes	25–50, daily
Acamprosate			No	666, three times a day
Disulfiram			Yes	500, daily

* Dosing frequency for the treatment of alcohol withdrawal should be based on assessment of alcohol withdrawal symptoms.

† Naltrexone is an opioid-receptor antagonist, acamprosate is a possible partial N-methyl-D-aspartate (NMDA) receptor agonist, and disulfiram is an acetaldehyde dehydrogenase inhibitor.

Table 4. FRAMES Approach to Brief Intervention.*

Feedback is provided from screening assessments
Responsibility for change comes from the patient
Advice for making a change comes from the clinician
Menu of options is given to the patient
Empathy characterizes the clinician's approach
Self-efficacy will enable the patient to pursue ongoing follow-up

* The information is adapted from Miller and Sanchez.³⁶

visits for antidepressants or other anxiolytic or sedative-hypnotic agents.⁴⁷

The Beers Criteria of the American Geriatrics Society identify benzodiazepines as medications that are potentially inappropriate for the elderly. Because of physiological changes related to aging, older adults are more vulnerable to the adverse effects associated with benzodiazepines, such as delirium, falls, and traffic accidents. These physiological changes include increased tissue sensitivity to benzodiazepines and decreased metabolism of long-acting forms because of decreased lean body mass, increased body fat, and decreased total body water. Data from the

2007–2010 National Ambulatory Medical Care Survey indicate that only 16% of older benzodiazepine users have received a diagnosis of a psychiatric disorder; furthermore, the proportion of visits for long-term continuation of benzodiazepine prescriptions increases with age, even among persons who are 80 years of age or older.⁴⁸

The prevalence of chronic pain is higher among older adults than the prevalence in younger age cohorts, which may explain the high frequency of prescribed opioid medications in older age groups. The clearance of most opioids is reduced in older adults, increasing the risk of adverse effects.⁴⁹ The 2015 update of the Beers Criteria added opioid medications to the list of medications that affect the central nervous system and should be avoided in persons with a history of falls or fractures.⁵⁰ A study of the Veteran's Health Administration National Patient Care Database showed that the risk of death from any cause was higher among older patients with opioid-use disorder than among younger opioid users and that deaths related to human immunodeficiency virus infection or liver disorders were more prevalent among older opioid users than among nonusers of the same age; the drug-related mortality rate did not decline with age.⁵¹

Although national data on the prevalence of benzodiazepine and opioid misuse among older adults are lacking, various studies have shown increasing rates of misuse-related emergency department visits.⁵² A recent study analyzed 184,136 cases involving intentional misuse of prescription opioid medications that were reported between 2006 and 2013 to U.S. poison control centers participating in the Researched Abuse, Diversion, and Addiction-Related Surveillance (RADARS) System. The data showed an increasing linear trend in mortality rates among adults who were 60 years of age or older, with a significant linear increase in rates of opioid misuse with suicidal intent.⁵³ The same authors also analyzed 57,681 cases of unintentional misuse of prescription opioids that were reported between 2006 and 2014 to U.S. poison control centers participating in the RADARS System. The analysis showed that population rates of unintentional opioid misuse and serious medical outcomes were higher for adults who were 60 years of age or older than for those who were 20 to 59 years of age.⁵⁴

The American College of Physicians (ACP)⁵⁵ and the Centers for Disease Control and Prevention⁵⁶ have released guidelines for prescribing practices to help prevent and reduce prescription-medication misuse in older adults. The ACP supports implementation of a national prescription-drug monitoring program to standardize and coordinate current state programs, in an effort to reduce prescription misuse due to multiple prescriptions from different providers.

Cessation of opioid use can be achieved by slowly tapering the opioid dose over a period of a few weeks or months. Tapering should be done with close follow-up and family involvement, with the total daily dose generally reduced by approximately 10 percent per week. For patients with opioid-use disorder, long-term treatment with buprenorphine, provided by a licensed prescriber, is appropriate.

Benzodiazepine withdrawal can be achieved by slowly tapering the dose on an outpatient basis over a period of weeks or months. Dose tapering for both opioids and benzodiazepine requires a high level of commitment and adherence by the patient. Patient education and medication review, with provision of feedback to prescribers, have been used to decrease use of opioids and benzodiazepines. However, supervised withdrawal with psychotherapy support has been found to be more effective than these other interventions.^{57,58}

USE OF ILLICIT SUBSTANCES

Rates of illicit-substance use are substantially lower for older adults than for younger adults.⁵⁹ Members of the “baby boomer generation,” born between 1946 and 1964, are a sizable demographic population. By 2030, adults 65 years of age or older will account for 20% of the population.⁶⁰ Aging baby boomers constitute a cohort with high rates of illicit-drug use dating back to their early adult years,^{61–63} and they continue to use illicit drugs at higher rates than previous generations of older persons.⁶⁴ This has led to concerns that these persons may have higher rates of substance use as they age than did aging people of earlier generations. Indeed, it has been projected that substance-use rates among people 50 years of age or older will rise from 2.8 million in 2006 to 5.7 million in 2020.⁶⁵

Between 2002 and 2012, the prevalence of illicit-drug use increased from 3.4 to 7.2% among persons 50 to 54 years of age and from 1.9 to 6.6% among persons 55 to 59 years of age. Between 2003 and 2012, illicit-drug use among people 60 to 64 years of age increased from 1.1 to 3.6%.¹³ A study of data from the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC) and the 2012–2013 NESARC III showed that rates of lifetime heroin use were higher in 2012–2013 in all three age groups studied (18 to 29 years of age, 30 to 44 years, and 45 years or older).⁶⁶ A study of first-time admissions for substance-abuse treatment between 1998 and 2008 showed that the proportion of older adults (≥55 years of age) admitted for substance abuse was higher than the proportion of younger adults admitted⁶⁷ and that a greater proportion of older adults with a first-time admission had a long-standing history of substance use. The authors also noted an increase in the numbers of older adults seeking treatment for heroin or cocaine use.

An analysis of data from the national Treatment Episode Data Set showed that the proportion of admissions for substance-abuse treatment among adults 55 years of age or older more than doubled from 2000 to 2012, from 3 to 7%, and the percentage of adults in this age group who had a history of substance abuse treatment increased from 39 to 46%.⁶⁴ In addition, the proportion of admissions for alcohol use alone decreased, whereas admissions for use of illicit drugs and for use of drugs in combination with alcohol nearly doubled.

In 2012, 4.6 million adults 50 years of age or older reported having used marijuana within the previous year, whereas fewer than 1 million reported use of cocaine, inhalants, hallucinogens, heroin, or methamphetamine within the previous year.⁶¹ The NESARC showed that the prevalence of marijuana use among older adults increased between 2002–2003 and 2012–2013, from 1.6 to 5.9% for persons 45 to 64 years of age and from 0.0 to 1.3% for persons 65 years of age or older.⁶⁸ Older marijuana users are likely to have started use in their teen years and may have long-term or frequent use. Data from the 2012–2013 NESARC showed that 80% of persons 50 years of age or older who reported marijuana use in the previous year also had other substance-use disorders,

and nearly 50% had one or more other mental disorders in their lifetime. Increased use of marijuana among adults older than 50 years of age has been attributed to a more receptive attitude toward marijuana use than in previous generations.

Qualitative studies have shown that older persons who use marijuana often report using it for relaxation or social recreation,^{69,70} but it is also frequently seen as a safer alternative to prescription medications for chronic pain.⁷¹ Little is known about the long-term consequences of marijuana use in older adults, but short-term use in all age groups has been correlated with impairment in short-term memory, coordination, and driving, as well as increased risks of injury, paranoia, and psychosis. The chemical composition of marijuana is complex, and its effects on brain function and other physiological processes in older adults have not been sufficiently studied. Older adults with coexisting chronic medical conditions who use marijuana may be at risk for cognitive changes, falls, and interactions with prescription medications. Given that more states are making marijuana legal for medicinal or recreational use, marijuana use among older adults is likely to increase. Research is needed to understand the effects of long-term cannabis use in older adults.

Individual therapy and group therapy are beneficial in treating substance-use disorders, and cognitive behavioral therapy is effective for older adults.⁷² Support groups such as Narcotics Anonymous can be helpful, but as with Alcoholics Anonymous, finding an appropriate group for the older patient may be difficult. The Substance Abuse and Mental Health Services Administration's Treatment Improvement Protocol Series 26 includes recommendations calling for an age-specific approach, a focus on rebuilding social support networks, linkage with medical services and case management as needed, and staff with expertise and an interest in working with older adults.²³

Little is known regarding best models of care for older adults with substance-use disorders. A review of 25 studies of treatment for substance abuse among older adults, performed over the past 30 years, showed that both age-specific and mixed-age group programs are effective. Treatment outcomes are heterogeneous, and rates of abstinence are similar to those in younger co-

horts, but older patients have better results with a longer duration of treatment.⁷³ Both methadone and buprenorphine are effective pharmacologic agents for opioid-use disorder, but most of the data do not specifically address older adults, and these agents should be used with behavioral therapy. A number of small studies involving patients in methadone maintenance programs indicate that older adults are more likely to have chronic medical problems than younger adults, have a longer history of treatment for substance abuse,^{74,75} and are more likely to have coexisting mental disorders such as major depressive disorder, generalized anxiety disorder, and post-traumatic stress disorder.⁷⁶ Treatment programs specifically targeting older adults with substance-use disorders are rare.

SUMMARY AND RECOMMENDATIONS

Alcohol-use disorder, prescription-drug misuse, and illicit-drug use are growing health problems in later life yet may be overlooked by health care providers. All clinicians who care for older

adults must be alert for possible signs and symptoms of substance-use disorders in their patients. Use of prescription-drug monitoring programs will help identify persons who obtain multiple prescriptions for medications with high misuse potential. Although opioid abuse is growing among older adults, marijuana is currently the most frequently used illicit substance in this age group. However, alcohol-use disorder remains the most prevalent substance-use disorder in later life. The fact that rates of alcohol-use disorder are increasing among older adults is cause for alarm. Research is needed to develop targeted screening methods and to identify the best treatment models for substance-use disorders in older adults. Treatment plans must encompass care for older patients with coexisting medical and psychiatric illnesses. New models of care may need to be created that allow for both coordination of services in integrated health care settings and treatment programs tailored for older patients.

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Disclosure forms provided by the authors are available with the full text of this article at NEJM.org.

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