Annals of Gerontology and Geriatrics

Article Type: Review Article

Volume 2

Differentiating dementia, alcohol misuse, and substance use disorders in older adults: Recognition, screening, and multidisciplinary management implications

Janice Collins-McNeil[1,3]*; Christopher L Edwards[2,3]; Yolanda M VanRiel[1]; Falisha Davis[1]; Marian Brown[1]

[1]North Carolina Central University Division of Nursing Durham, North Carolina, USA.

[2]Department of Psychology North Carolina Central University, USA.

[3]Kylyn Love/ Edwards' Psych Neuroendocrine and Rare Diseases Laboratory Durham, North Carolina, USA.

***Corresponding author: Janice Collins-McNeil**,
North Carolina Central University, Division of Nursing, Durham, North Carolina, USA.
Email: jcolli60@nccu.edu

Received: May 20, 2026; **Accepted:** Jun 16, 2026; **Published:** Jun 23, 2026

Annals of Gerontology and Geriatrics
www.annggr.org

Citation: Collins-McNeil J, Edwards CL, VanRiel YM, Davis F, Brown M. Differentiating dementia, alcohol misuse, and substance use disorders in older adults: Recognition, screening, and multidisciplinary management implications. Ann Gerontol Geriatr. 2026; 2(1): 1032.

Keywords: Older Adults; Dementia; Alcohol Misuse; Substance Use Disorder; Cognitive Impairment; Delirium; Medication Safety; Screening; Geriatric Nursing; Multidisciplinary Care; Pseudodementia; Korsakoff Syndrome.

Abstract

Cognitive and behavioral changes in older adults are frequently complex, multifactorial, and clinically challenging to differentiate. Memory loss, confusion, falls, sleep disturbance, mood changes, functional decline, medication mismanagement, and altered behavior may raise concern for dementia; however, these same symptoms may also reflect alcohol misuse, substance use disorders, medication adverse effects, sedative burden, delirium, depression, depression-related cognitive impairment (pseudodementia), withdrawal, intoxication, Korsakoff syndrome, or chronic disease progression. Differentiating dementia from alcohol misuse and substance use disorders is clinically important because several contributing factors are modifiable, treatable, or reversible when identified early. Older adults are uniquely vulnerable to alcohol- and substance-related harm because of physiologic aging, polypharmacy, chronic disease burden, social isolation, bereavement, chronic pain, sleep disturbance, and cognitive changes. This clinical review examines the overlap among dementia, alcohol misuse, and substance use disorders in older adults and provides evidence-informed guidance for recognition, screening, differential assessment, and multidisciplinary management. Emphasis is placed on stigma-free screening, medication reconciliation, cognitive and functional assessment, delirium recognition, depression-related cognitive impairment, withdrawal risk evaluation, thiamine deficiency and Korsakoff syndrome, caregiver engagement, harm reduction, pharmacologic treatment when indicated, behavioral health referral, and coordinated care. Nurses, primary care providers, pharmacists, social workers, behavioral health clinicians, addiction specialists, neurologists, geriatricians, caregivers, and community partners each play essential roles in improving diagnostic accuracy, reducing preventable harm, supporting patient safety, and preserving dignity in older adults with cognitive and substance-related concerns.

Introduction

Cognitive and behavioral changes in older adults are often complex and multifactorial. Memory loss, confusion, falls, functional decline, medication mismanagement, sleep disturbance, depression, irritability, and withdrawal from social activities may raise concern for dementia. However, these same symptoms may also be associated with alcohol misuse, substance use disorders, medication interactions, sedative burden, delirium, depression, dehydration, infection, metabolic abnormalities, or poorly controlled chronic disease [1-3]. For this reason, confusion or cognitive decline in an older adult should not be presumed to represent irreversible dementia without a comprehensive assessment.

Dementia is a progressive syndrome characterized by a decline in memory, thinking, behavior, and functional ability. In contrast, alcohol misuse and substance use disorders may produce cognitive impairment through intoxication, withdrawal, direct neurotoxicity, sleep disruption, nutritional deficiency, medication interactions, mood changes, falls, or traumatic injury [4,3]. These conditions may also coexist. An older adult with early dementia may use alcohol or sedatives to manage anxiety, grief, or insomnia, while alcohol or sedative use may worsen cognition, increase fall risk, impair medication adherence, and accelerate functional decline.

The clinical challenge is not simply identifying dementia, alcohol misuse, or substance use disorder in isolation. The more important task is differentiating among overlapping conditions while recognizing that several may be present simultaneously. This requires careful screening, medication reconciliation, functional assessment, collateral history, and multidisciplinary collaboration [1,5,3]. A structured clinical approach is essential because mislabeling cognitive symptoms such as dementia may delay treatment for reversible or modifiable contributors, while failure to recognize dementia may increase risk for self-neglect, unsafe medication use, falls, wandering, caregiver strain, and preventable hospitalization.

Purpose

The purpose of this clinical review is to examine the overlap among dementia, alcohol misuse, and substance use disorders in older adults and to provide evidence-informed guidance for recognition, screening, differential assessment, and multidisciplinary management. This review emphasizes potentially reversible or modifiable contributors to cognitive and functional decline, including alcohol-medication interactions, sedative burden, opioid use, cannabis use, depression, delirium, withdrawal, intoxication, and polysubstance exposure. Because these conditions may mimic, worsen, or coexist with dementia, accurate assessment requires collaboration among nurses, primary care providers, pharmacists, social workers, behavioral health clinicians, addiction specialists, neurologists, geriatricians, caregivers, and community-based partners.

Review approach

This manuscript is a clinical narrative review designed to synthesize evidence and practice guidance relevant to differentiating dementia, alcohol misuse, and substance use disorders in older adults. The review draws from geriatric prescribing standards, substance use treatment guidance, alcohol screening recommendations, and peer-reviewed literature addressing alcohol-related cognitive impairment, alcohol-medication interactions, older-adult substance use disorders, and multidisciplinary management. This manuscript is not presented as a systematic review and does not include a PRISMA search protocol, formal risk-of-bias appraisal, or reproducible evidence extraction process. Instead, it integrates clinically relevant evidence to support assessment, screening, and management implications for multidisciplinary practice.

Background and significance

Older adults are uniquely vulnerable to alcohol- and substance-related harm because of physiologic aging, chronic disease burden, polypharmacy, social isolation, bereavement, chronic pain, sleep disturbance, and cognitive changes [4,3]. Age-related changes in body composition, metabolism, renal function, hepatic function, and central nervous system sensitivity can increase the effects of alcohol and sedating medications even when use patterns have not changed substantially. Thus, alcohol or medication use that may have appeared clinically tolerated earlier in life may become increasingly hazardous with advancing age.

Alcohol is particularly concerning in later life because older adults frequently take medications that interact with alcohol. These interactions may increase sedation, dizziness, impaired coordination, falls, confusion, gastrointestinal bleeding, hypoglycemia, respiratory depression, and overdose risk [5,4]. NIAAA notes that alcohol misuse among older adults is associated with faster cognitive decline, including problems with memory, thinking, and judgment, and may worsen mental health and quality of life [4]. Alcohol misuse should therefore be included in the differential assessment of cognitive and functional decline.

Benzodiazepines and other sedating medications are also clinically significant. The American Geriatrics Society Beers Criteria identify benzodiazepines as potentially inappropriate for many older adults because they increased risk for cognitive impairment, delirium, falls, fractures, and motor vehicle crashes [1]. These medication effects may mimic dementia, worsen existing dementia symptoms, or contribute to delirium. Medication reconciliation is therefore not a secondary task; it is central to diagnostic accuracy in older adults with cognitive concerns.

Substance use disorders in older adults may involve alcohol, opioids, benzodiazepines, sedative-hypnotics, cannabis, stimulants, or polysubstance use. Some individuals have long-standing substance use disorders that continue into older adulthood, whereas others develop late-onset misuse after retirement, bereavement, chronic pain, disability, loneliness, insomnia, or loss of independence [2,6,3]. SAMHSA's Treatment Improvement Protocol 26 emphasizes that substance use disorder in older adults is frequently underrecognized because symptoms may resemble other geriatric conditions, including cognitive impairment, depression, sleep disturbance, falls, and chronic disease exacerbation [3].

Alcohol misuse, cognitive decline, and dementia risk

Alcohol misuse is clinically relevant to dementia assessment for several reasons. Alcohol may impair cognition acutely through intoxication and withdrawal, and chronically through neurotoxicity, nutritional deficiency, liver disease, sleep disturbance, vascular risk, depression, head injury, and interactions with medications [4,7]. Alcohol-related cognitive impairment may involve memory, executive function, attention, processing speed, judgment, and functional capacity. These

domains overlap with dementia presentations, making careful history and longitudinal assessment essential.

Systematic review evidence suggests that high-level alcohol consumption is associated with increased dementia risk and structural brain changes [8]. More recent literature also supports the clinical relevance of alcohol use disorder as a contributor to cognitive impairment and dementia risk, while emphasizing that causal pathways are complex and that alcohol-related cognitive impairment may not be synonymous with Alzheimer's disease [7]. These findings support the need to ask about alcohol use whenever older adults present with cognitive changes, falls, sleep disturbance, mood symptoms, medication problems, or functional decline.

The clinical message is not that every older adult who drinks alcohol has dementia or alcohol use disorder. Rather, clinicians should recognize that alcohol can mimic, worsen, or coexist with cognitive impairment. Assessment should include quantity and frequency of alcohol use, pattern of use, binge episodes, alcohol-related consequences, history of withdrawal, medication interactions, liver disease, nutritional status, falls, injuries, and caregiver concerns [4,3].

Korsakoff syndrome & alcohol-related amnestic disorder

Korsakoff syndrome should also be considered when older adults with current or prior heavy alcohol use present with prominent memory impairment. Korsakoff syndrome is a chronic amnestic disorder most often associated with severe thiamine deficiency and may follow inadequately recognized or undertreated Wernicke encephalopathy. Clinical features may include profound anterograde memory impairment, impaired learning of new information, disorientation, executive dysfunction, apathy, confabulation, and functional decline. These symptoms may be mistaken for dementia or attributed only to alcohol misuse unless clinicians specifically assess nutritional status, alcohol history, gait disturbance, ocular findings, confusion, and prior episodes of withdrawal or malnutrition [9].

Recognition is clinically important because Wernicke-Korsakoff presentations require prompt medical evaluation and thiamine replacement when suspected. In older adults with alcohol misuse, poor nutrition, repeated falls, confusion, or acute mental status change, clinicians should consider thiamine deficiency as a potentially preventable contributor to cognitive and neurologic injury. Ongoing care may require alcohol use disorder treatment, nutritional support, medication review, cognitive rehabilitation strategies, caregiver education, and safety planning.

Why differentiation is clinically difficult

Differentiation is difficult because dementia, alcohol misuse, substance use disorders, depression, delirium, and medication effects share many clinical features. Memory impairment may reflect dementia, alcohol-related cognitive impairment, benzodiazepine effects, depression, sleep deprivation, delirium, or metabolic disease. Falls may reflect neuropathy, visual impairment, orthostatic hypotension, alcohol use, sedative use, opioid use, cannabis use, frailty, or environmental hazards. Poor judgment may be related to dementia, intoxication, medication effects, mood disorder, financial exploitation, or acute illness.

The clinical presentation may also be shaped by stigma and underreporting. Older adults may minimize alcohol or substance use because of shame, fear of judgment, fear of losing independence, concern about family reaction, or belief that clinicians are not interested in substance use in later life [3]. Family members may also minimize symptoms, normalize drinking, conceal concerns, or attribute changes to aging. Therefore, screening must be normalized, respectful, and universal.

A practical clinical principle is that cognitive change in later life should be approached as a differential assessment rather than an automatic diagnosis of dementia. Dementia is one possibility, but alcohol misuse, medication effects, sedative burden, opioid use, cannabis use, depression, delirium, withdrawal, intoxication, and metabolic conditions must also be considered.

Distinguishing clinical features

Dementia: Dementia is typically characterized by progressive cognitive decline that interferes with independence and daily functioning. Common features include short-term memory loss, impaired executive function, difficulty managing finances or medications, language problems, disorientation, poor judgment, personality changes, and increasing dependence on instrumental or basic activities of daily living. Dementia usually develops gradually, although families may recognize the severity only after a crisis occurs.

Dementia assessment should include cognitive screening, functional assessment, medication review, depression screening, delirium evaluation, medical workup, and collateral history. Importantly, the presence of cognitive impairment does not rule out concurrent alcohol misuse, medication toxicity, depression, or substance use disorder. Coexisting conditions may worsen cognitive symptoms and increase safety risk.

Delirium: Delirium is an acute or fluctuating disturbance in attention, awareness, and cognition. It may be caused by infection, dehydration, medication toxicity, withdrawal, metabolic disturbance, pain, hypoxia, hospitalization, surgery, or environmental change. Delirium is a medical urgency because it often reflects an underlying acute illness or toxic-metabolic process. In practice, delirium is often mistaken for dementia, especially in older adults with baseline cognitive impairment.

Sudden cognitive change, fluctuating alertness, inattention, altered level of consciousness, hallucinations, agitation, or unexplained sedation should prompt evaluation for delirium and reversible causes. Alcohol withdrawal, benzodiazepine withdrawal, opioid toxicity, sedative effects, dehydration, infection, and metabolic abnormalities should be considered in the differential.

Depression: Depression in older adults may be presented with poor concentration, low motivation, sleep disturbance, appetite change, fatigue, social withdrawal, irritability, and subjective memory complaints. Depression may coexist with alcohol misuse, grief, chronic pain, dementia, and substance use disorders. Screening for depression and suicide risk is essential when older adults are present with cognitive or functional decline. Alcohol and sedative use may worsen depressive symptoms, impair sleep, and increase fall risk.

Depression-related cognitive impairment (Pseudodementia): Depression-related cognitive impairment, historically described as pseudodementia, should be included in the differential assessment of memory loss and functional

decline. The term pseudodementia is imperfect because cognitive symptoms are real and distressing; however, it remains clinically useful when describing dementia-like cognitive impairment associated with depression or other psychiatric conditions. Older adults with depression may demonstrate slowed processing, poor concentration, reduced motivation, impaired recall, low effort on testing, social withdrawal, sleep disturbance, and subjective memory complaints that resemble dementia [10].

Clinically, depression-related cognitive impairment should not be assumed to be fully reversible or benign. Depression may mimic dementia, coexist with dementia, or precede later neurocognitive decline. For this reason, assessment should include depression screening, suicide-risk assessment when indicated, medication review, cognitive testing, collateral history, functional evaluation, and follow-up after treatment of depressive symptoms. Improvement in cognition after depression treatment supports a depression-related contribution, while persistent or progressive impairment warrants additional evaluation for neurocognitive disorder, delirium, substance-related cognitive impairment, or medical causes.

Alcohol misuse: Alcohol misuse may be presented as falls, sleep disturbance, worsening mood, memory concerns, gastrointestinal symptoms, poor nutrition, missed medications, worsening hypertension, neuropathy, liver dysfunction, and family concern. Alcohol may worsen cognitive symptoms directly or indirectly through sleep disruption, depression, head injury, medication interactions, and nutritional deficiency [5,4,7].

Substance use disorders: Substance use disorders in older adults may involve prescribed, nonprescribed, or illicit substances. Opioids, benzodiazepines, sedative-hypnotics, cannabis, and alcohol are particularly important because they can impair cognition, increase sedation, worsen balance, and interact with other medications [1,3]. Cannabis use among older adults warrants particular attention, as past-month use among adults 65 and older increased from under 1% in 2005 to approximately 7% in 2023, paralleling expanded legalization and changing risk perceptions [11]. Current evidence suggests cannabis use may negatively affect executive function and processing speed in older adults, though effects on longitudinal cognitive decline remain mixed and further research is needed [11]. Prescription medication misuse may occur unintentionally when older adults take more medication than prescribed, combine medications, use old prescriptions, borrow medications, or misunderstand dosing instructions.

Screening and assessment: Screening should be routine, normalized, and integrated into clinical workflows. The U.S. Preventive Services Task Force recommends screening adults in primary care for unhealthy alcohol use and providing brief behavioral counseling interventions to individuals engaged in risky or hazardous drinking [12]. Screening is especially important in older adults because substance-related problems may not be obvious and may be mistaken for dementia, depression, or normal aging [3].

A clinically useful opening statement is: "I ask all patients these questions because alcohol, medications, and other substances can affect memory, balance, sleep, mood, and safety. How often do you drink alcohol or use medications for pain, sleep, anxiety, or relaxation?" This type of normalizing language reduces stigma and frames the conversation around safety rather than blame.

Assessment should include cognitive screening, delirium screening, alcohol screening, substance use screening, medication reconciliation, functional assessment, safety assessment, and collateral history when appropriate. Validated tools may include the AUDIT-C, full AUDIT, CAGE-AID, DAST-10, SBIRT workflows, Mini-Cog, Montreal Cognitive Assessment, PHQ-9, GAD-7, Confusion Assessment Method, fall-risk tools, and structured medication review [3,12]. The AUDIT and AUDIT-C have been validated for detecting hazardous drinking specifically in community-dwelling older adults, supporting their use in geriatric screening workflows [13]. Research using large-scale primary care electronic health record data also confirms that AUDIT-C screens have excellent test-retest reliability when administered in routine care settings, across demographic subgroups, and across modalities [14]. A positive screening result should not be interpreted as a diagnosis by itself; rather, it should trigger further assessment.

Alcohol screening should include frequency, quantity, binge episodes, drinking context, duration of use, consequences, attempts to cut down, withdrawal symptoms, and readiness to change. Substance use screening should include prescribed opioids, nonprescribed opioids, benzodiazepines, sedative-hypnotics, cannabis, stimulants, over-the-counter medications, supplements, and use of old or borrowed prescriptions. Medication review should include all prescribers, all pharmacies, adherence, duplicate medications, renal dosing, anticholinergic burden, sedative burden, and alcohol-medication interactions.

Collateral history may be essential when cognition is impaired or when symptoms are minimized. With appropriate consent and attention to confidentiality, family members or caregivers may provide information about missed medications, hidden alcohol use, falls, unsafe driving, wandering, personality changes, financial vulnerability, poor nutrition, sleep disruption, or functional decline. Collateral information should be used to enhance safety and diagnostic accuracy while preserving the older adult's dignity and autonomy.

Medication reconciliation and polypharmacy: Medication reconciliation is one of the most important interventions in differentiating dementia, alcohol misuse, and substance use disorders. Polypharmacy can mimic or worsen cognitive impairment. Benzodiazepines, sedative-hypnotics, opioids, anticholinergics, muscle relaxants, antihistamines, antipsychotics, and some antidepressants may contribute to confusion, falls, sedation, urinary retention, constipation, and functional decline [1].

Alcohol adds another layer of risk. Alcohol-medication interactions may increase sedation, impaired coordination, falls, injuries, overdose, and memory impairment in older adults [5,4]. Therefore, clinicians should assess alcohol use whenever reviewing medications, especially in patients with falls, confusion, sleep problems, pain, or mood symptoms. Patients may not consider alcohol relevant to medication safety unless clinicians ask directly and explain the connection.

Pharmacist involvement is especially important when older adults use multiple medications, multiple prescribers, or high-risk medication classes. Pharmacists can identify drug-drug interactions, alcohol-medication interactions, duplication, anticholinergic burden, sedative burden, renal dosing

concerns, adherence barriers, and deprescribing opportunities. Deprescribing should be individualized and medically supervised. Abrupt discontinuation of benzodiazepines, alcohol, or opioids may cause withdrawal and serious clinical harm.

Differential assessment framework: A structured differential assessment can help clinicians avoid premature conclusions. When an older adult presents with cognitive change or functional decline, the multidisciplinary team should consider the timing of symptom onset, medication and substance exposure, functional impact, safety risks, and caregiver observations.

The timing of cognitive or functional change is clinically important. Acute or fluctuating changes raise concern for delirium, intoxication, withdrawal, infection, dehydration, hypoxia, metabolic disturbance, medication toxicity, or acute neurologic events. Gradual progressive decline raises concern for dementia, but does not exclude alcohol-, medication-, or substance-related contributors.

Medication and substance exposure should be reviewed carefully. The team should assess alcohol, opioids, benzodiazepines, sedatives, cannabis, anticholinergics, sleep aids, antihistamines, supplements, and nonprescribed substances. The timing of symptom onset should be compared with medication changes, dose escalation, new prescriptions, hospitalization, surgery, bereavement, or increased isolation.

Functional impact should also be assessed. Dementia is defined by cognitive decline that interferes with daily functioning. However, functional impairment may also result from intoxication, withdrawal, depression, falls, pain, medication effects, or poor sleep. Clinicians should assess instrumental activities of daily living, such as finances, transportation, shopping, cooking, medication management, and appointment keeping, as well as basic activities of daily living.

Safety risks require immediate attention regardless of the final diagnosis. Falls, unsafe driving, medication errors, wandering, cooking accidents, self-neglect, overdose risk, firearm access, and financial exploitation should be assessed and addressed promptly.

Caregiver observations may provide essential clinical context. Caregivers may identify patterns that are not visible during a clinic visit, including evening confusion, hidden drinking, missed medications, escalating sedation, personality changes, or unsafe behaviors.

Multidisciplinary management: Multidisciplinary management is essential because no single discipline can address the full clinical, behavioral, functional, social, and safety needs of older adults with cognitive and substance-related concerns. Nurses, primary care providers, pharmacists, behavioral health clinicians, addiction specialists, neurologists, geriatricians, social workers, caregivers, and community partners each play important roles in screening, diagnosis, treatment planning, safety monitoring, and continuity of care [3].

Nursing: Nurses are central to early recognition. Nursing responsibilities include screening, medication reconciliation, fall-risk assessment, patient education, withdrawal monitoring, therapeutic communication, caregiver education, safety planning, and care coordination. Nurses often identify subtle changes in function, cognition, mood, medication use, and caregiver strain before these issues are formally diagnosed. In acute care, nurses should consider alcohol, sedatives, opioids, withdrawal, and delirium in older adults presenting with falls, confusion, agitation, oversedation, poor pain control, or repeated admissions.

Primary care: Primary care providers coordinate diagnostic evaluation, laboratory testing, medication review, chronic disease management, screening, brief intervention, and referrals. Primary care is also a critical setting for longitudinal monitoring because older adults may present with evolving symptoms over time. Primary care clinicians can monitor cognitive trajectory, evaluate reversible causes, initiate alcohol or substance use interventions, and coordinate specialty referral when needed.

Pharmacy: Pharmacists evaluate medication appropriateness, alcohol-medication interactions, sedative burden, anticholinergic burden, renal dosing, duplication, adherence barriers, and deprescribing options. Pharmacist involvement is especially important when benzodiazepines, opioids, sleep medications, antipsychotics, anticoagulants, diabetes medications, or multiple prescribers are involved.

Behavioral health and addiction specialists: Behavioral health clinicians assess depression, anxiety, trauma, grief, insomnia, coping, and readiness for change. Addiction specialists support the diagnosis and treatment of alcohol use disorder, opioid use disorder, sedative use disorder, stimulant use disorder, and polysubstance use. Evidence-based management may include motivational interviewing, counseling, mutual-help supports, harm reduction, relapse prevention, and medications when appropriate [3,15].

Neurology, psychiatry, and geriatrics: Neurologists and geriatricians assist with the evaluation of dementia, mild cognitive impairment, delirium risk, functional decline, neurodegenerative disorders, and complex differential diagnosis. Geriatric psychiatry may be especially useful when cognitive symptoms coexist with depression, anxiety, psychosis, trauma, sleep disturbance, or substance use.

Social work and case management: Social workers and case managers assess social isolation, housing instability, transportation, food insecurity, financial vulnerability, caregiver stress, elder mistreatment, advance care planning, guardianship concerns, and access to community resources. They also assist with treatment linkage, home support, respite care, and long-term care planning.

Caregivers and family: Caregivers often provide essential collateral history. They may notice hidden alcohol use, missed medications, unsafe driving, falls, personality changes, confusion, poor nutrition, or financial problems. Caregiver involvement should respect the older adult's autonomy, privacy, and consent while recognizing that caregiver observations may be crucial for safety planning.

Management strategies

Use nonjudgmental communication: Stigma can prevent disclosure and treatment engagement. Clinicians should use person-first language and avoid labeling older adults as "alcoholics" or "addicts." A therapeutic approach emphasizes safety, health, autonomy, and dignity. Useful language includes, "Alcohol can affect balance, memory, and medication safety. I want to understand whether it may be contributing to what you are experiencing," or "Some medications that help with sleep or anxiety can also increase confusion and fall risk. Let's review

them together."

Address delirium and urgent medical causes first: Sudden confusion, rapid decline, hallucinations, fluctuating attention, severe agitation, sedation, hypoxia, fever, dehydration, or suspected overdose requires urgent medical evaluation. Withdrawal from alcohol or benzodiazepines can be life-threatening and should be medically managed. Clinicians should avoid advising abrupt cessation of alcohol, benzodiazepines, or opioids when physiologic dependence is possible.

Treat alcohol use disorder when present: Management may include brief intervention, motivational interviewing, behavioral therapy, mutual-help groups, harm reduction, and pharmacotherapy. A systematic review of brief alcohol interventions with older adults found these approaches effective in reducing alcohol consumption in at-risk populations, supporting their routine integration into clinical care [16]. Medication options for alcohol use disorder may include naltrexone, acamprosate, or disulfiram, depending on medical status, liver function, renal function, cognition, adherence, contraindications, and medication interactions [17]. A systematic review and meta-analysis confirmed that oral naltrexone and acamprosate combined with psychosocial interventions are effective first-line pharmacotherapies for alcohol use disorder, and that acamprosate's renal excretion profile makes it a safer option for patients with hepatic impairment [18]. For older adults, medication selection must account for frailty, fall risk, hepatic and renal function, cognitive status, social support, and the ability to adhere safely to the treatment plan.

Treat opioid use disorder when present: Older adults with opioid use disorder should be offered evidence-based treatment rather than abrupt discontinuation or stigma-based care. Medications for opioid use disorder include buprenorphine, methadone, and naltrexone [15]. Medicare data show that use of medications for opioid use disorder among adults 65 and older increased substantially from 4.8% in 2017 to 15.0% in 2022, though significant disparities persist by race, sex, and rurality [19]. Treatment planning should consider pain, sedation, respiratory risk, falls, renal and hepatic function, transportation, cognition, and caregiver support. Naloxone education and overdose prevention should be incorporated when opioids are present or when overdose risk is identified.

Reduce sedative and anticholinergic burden: Benzodiazepines and other sedating medications should be carefully reviewed because of risks for cognitive impairment, delirium, falls, fractures, and motor vehicle crashes in older adults [1]. A systematic review of benzodiazepine receptor agonist deprescribing in older adults found that both written and verbal educational interventions can support successful deprescribing, with success rates varying widely across settings and populations [20]. Clinic-based benzodiazepine deprescribing quality improvement programs in primary care settings have demonstrated feasibility, with patient engagement and provider prompting both supporting medication reduction [21]. Anticholinergic medications should also be evaluated because they may worsen confusion, constipation, urinary retention, blurred vision, and functional decline. When deprescribing is appropriate, tapering should be individualized and medically supervised.

Apply harm reduction: Harm reduction is appropriate when immediate abstinence is not realistic or when the patient is ambivalent about change. Strategies may include reducing alcohol intake, avoiding alcohol with sedating medications, using medication organizers, providing naloxone when opioids are present, preventing falls, improving nutrition and hydration, avoiding driving after alcohol or sedative use, and developing an emergency plan. Harm reduction does not mean ignoring substance use. It means reducing preventable harm while continuing to support treatment engagement and recovery.

Support cognitive and functional safety: For patients with dementia or cognitive impairment, management should include medication simplification, caregiver education, home safety assessment, fall prevention, driving evaluation, advance care planning, financial safeguards, and monitoring for wandering, self-neglect, and exploitation. Safety planning should be individualized and should balance autonomy with risk reduction.

Nursing implications: Nurses are positioned to bridge the gap between recognition and action. In acute care, nurses should consider alcohol, sedatives, opioids, withdrawal, medication toxicity, and delirium in older adults presenting with falls, confusion, agitation, oversedation, poor pain control, or repeated admissions [1,3]. In primary care, nurses can implement screening workflows, brief interventions, medication review, and referral pathways. In home health, nurses can observe medication storage, alcohol availability, nutrition, safety hazards, and caregiver strain. In long-term care, nurses can monitor behavioral changes, sleep medication use, pain management, falls, and transitions from hospital to facility.

Nursing education and clinical practice should prepare nurses to differentiate dementia from potentially reversible or modifiable contributors such as delirium, alcohol misuse, medication effects, depression, and substance use disorders. This differentiation is essential because mislabeling cognitive change as dementia may delay treatment for reversible causes, while failure to recognize dementia may increase safety risks and caregiver burden. Nurses should also be prepared to use therapeutic communication, de-escalation, motivational interviewing, harm reduction, and caregiver education.

Caregiver and family engagement: Caregivers often notice early warning signs before clinicians do. They may report missing medications, hidden alcohol, falls, confusion, personality changes, unsafe driving, financial problems, or increased isolation. Caregiver input can be valuable, but the older adult's autonomy and confidentiality must be respected. When the older adult consents, caregiver observations may improve diagnostic accuracy and safety planning.

Caregiver education should include signs of intoxication, withdrawal, overdose, and delirium; medication and alcohol interaction risks; fall-prevention strategies; safe medication storage; naloxone education when opioids are present; when to seek emergency care; and how to communicate without shaming. Caregivers also need support for their own stress because caring for an older adult with cognitive impairment and substance-related concerns can be emotionally exhausting.

Health equity considerations: Differentiating dementia, alcohol misuse, and substance use disorders in older adults also requires attention to health equity. Older adults from historically underserved communities may experience delayed diagnosis, limited access to geriatric specialty care, stigma, transportation barriers, inadequate insurance coverage, mistrust of health systems, and reduced access to culturally responsive behavioral

health or addiction treatment. Language barriers, disability, rural residence, and caregiver burden may further complicate recognition and management.

Clinicians should avoid assumptions based on age, race, socioeconomic status, housing status, or prior substance use history. Screening should be universal rather than selectively applied. Care plans should be culturally responsive, trauma-informed, and aligned with the older adult's goals, values, social context, and support system. Cognitive and behavioral concerns among older African Americans should be interpreted within a culturally responsive and psychosocially informed assessment framework. Subjective memory complaints may reflect perceived cognitive change, psychological well-being, stress, and social context rather than objective memory performance alone [22]. Research among older African Americans also suggests that personality and other individual-difference factors contribute to variability in cognitive performance, reinforcing the need for comprehensive assessment rather than premature attribution of memory concerns to dementia, alcohol misuse, or substance use alone [23]. In addition, perceived stress, depression, social support, and hypertension are interrelated in African American adults, supporting the importance of evaluating cognitive and functional concerns within broader psychosocial and cardiometabolic contexts [24].

Future research

Further research is needed to clarify best practices for differentiating dementia, alcohol misuse, and substance use disorders in older adults. Priority areas include validation of screening workflows in geriatric settings, outcomes of integrated dementia and addiction care models, medication treatment outcomes in older adults, alcohol-medication interaction prevention, caregiver-supported interventions, telehealth models, and culturally responsive approaches for diverse older adults.

Several clinically important gaps remain. The literature on pharmacologic treatment of alcohol use disorder, specifically in adults over 65, remains very limited. Most existing studies of naltrexone, acamprosate, and disulfiram have been conducted in mixed-age adult populations, and dosing, safety, and efficacy data specific to frail older adults are largely absent. Evidence on cannabis use and dementia risk in older adults is also insufficient to draw firm conclusions; existing studies are largely cross-sectional, rely on self-report, and show mixed findings across cognitive domains [11].

Additional gaps include the limited number of prospective studies evaluating integrated dementia-substance use disorder care models, which leaves clinicians without a strong evidence base for coordinating these complex conditions. Benzodiazepine deprescribing research in older adults with comorbid cognitive impairment or substance use is also limited, with most studies excluding these populations despite their high clinical relevance [20]. The evidence bases for brief interventions targeting alcohol misuse in adults over 75 is particularly sparse, and additional age-stratified research is warranted [16]. These gaps represent priority areas for geriatric, addiction, and nursing research.

Nursing research can contribute by testing screening protocols, multidisciplinary care pathways, caregiver education programs, harm-reduction interventions, and transitional care models designed to reduce falls, hospitalizations, medication-related harm, untreated substance use disorders, and delayed dementia diagnosis. Mixed-methods studies may be especially useful because they can measure clinical outcomes while also capturing patient, caregiver, and clinician experiences.

Conclusion

Differentiating dementia, alcohol misuse, and substance use disorders in older adults is a clinical priority. Cognitive change in later life may reflect dementia, but it may also reflect alcohol use, medication effects, sedative burden, opioid use, cannabis use, depression-related cognitive impairment sometimes described as pseudodementia, delirium, withdrawal, intoxication, vitamin B12 deficiency, Wernicke-Korsakoff syndrome, alcohol-related cognitive impairment, or polysubstance exposure. These conditions may mimic one another, worsen one another, or coexist.

A careful, multidisciplinary approach is required. Screening, medication reconciliation, cognitive and functional assessment, collateral history, delirium recognition, and substance use assessment are essential to diagnostic accuracy and patient safety. Nurses, primary care providers, pharmacists, behavioral health clinicians, addiction specialists, geriatricians, neurologists, social workers, caregivers, and community partners each play important roles. With early recognition and coordinated management, older adults can receive safer, more accurate, more compassionate care that protects function, dignity, and quality of life.

Declarations

Artificial intelligence: During the preparation of this work, the authors used ChatGPT 4.0 to improve readability, polish the language, and enhance the manuscript's flow. After using this tool, the authors reviewed and edited the content as needed and take full responsibility for the publication's content.

Conflict of interest statement: The authors declare no conflicts of interest.

Funding statement: No external funding was received for this manuscript.

Author note: All authors contributed to the development, review, and approval of this manuscript and take responsibility for the integrity and accuracy of the work.

References

1. American Geriatrics Society Beers Criteria Update Expert Panel. American Geriatrics Society 2023 updated AGS Beers Criteria® for potentially inappropriate medication use in older adults. Journal of the American Geriatrics Society. 2023; 71(7): 2052-2081. https://doi.org/10.1111/jgs.18372

2. Jaqua E E, Nguyen V, Scherlie N, Dreschler J, Labib W. Substance use disorder in older adults: Mini review. Addiction & Health. 2022 ; 14(1): 62-67. https://doi.org/10.22122/ahj.v14i1.1311

3. Substance Abuse and Mental Health Services Administration. Treating substance use disorder in older adults (Treatment Improvement Protocol [TIP] Series No. 26; SAMHSA Publication No. PEP20-02-01-011). U.S. Department of Health and Human Services. 2020. https://library.samhsa.gov/product/tip-26-treating-substance-use-disorder-older-adults/pep20-02-01-011

4. National Institute on Alcohol Abuse and Alcoholism. (n.d.). Aging and alcohol. National Institutes of Health. https://www.niaaa.nih.gov/alcohols-effects-health/aging-and-alcohol

5. Moore A A, Whiteman E J, Ward K T. Risks of combined alcohol/medication use in older adults. The American Journal of Geriatric Pharmacotherapy. 2007; 5(1): 64-74. https://doi.org/10.1016/j.amjopharm.2007.03.006

6. Lin J, Arnovitz M, Kotbi N, Francois D. Substance use disorders in the geriatric population: A review and synthesis of the literature of a growing problem in a growing population. Current Treatment Options in Psychiatry. 2023; 10: 313-332. https://doi.org/10.1007/s40501-023-00291-9

7. Zahr N M. Alcohol use disorder and dementia: A review. Alcohol Research: Current Reviews. 2024; 44(1): 01. https://doi.org/10.35946/arcr.v44.1.01

8. Wiegmann C, Mick I, Brandl E J, Heinz A, Gutwinski S. Alcohol and dementia: What is the link? A systematic review. Neuropsychiatric Disease and Treatment. 2020; 16: 87-99. https://doi.org/10.2147/NDT.S198772

9. Arts N J M, Walvoort S J W, Kessels R P C. Korsakoff's syndrome: A critical review. Neuropsychiatric Disease and Treatment. 2017; 13: 2875-2890. https://doi.org/10.2147/NDT.S130078

10. Mouta S, Fonseca Vaz I, Pires M, Ramos S, Figueiredo D. What do we know about pseudodementia? General Psychiatry. 2023; 36(4): 100939. https://doi.org/10.1136/gpsych-2022-100939

11. D'Souza D C, Gupta P, Schnakenberg Martin A M, Stevens M C, Pearson G D. Cannabis, aging and cognition: An urgent need for research. Cannabis and Cannabinoid Research. 2026; 11(1): 1-4. https://doi.org/10.1177/25785125251394916

12. U.S. Preventive Services Task Force. Screening and behavioral counseling interventions to reduce unhealthy alcohol use in adolescents and adults: U.S. Preventive Services Task Force recommendation statement. JAMA. 2018; 320(18): 1899-1909. https://doi.org/10.1001/jama.2018.16789

13. van Gils Y, Franck E, Dierckx E, van Alphen S P J, Saunders J B, Dom G. Validation of the AUDIT and AUDIT-C for hazardous drinking in community-dwelling older adults. International Journal of Environmental Research and Public Health. 2021; 18(17): 9266. https://doi.org/10.3390/ijerph18179266

14. Simon C B, McCabe C J, Matson T E, Oliver M, Bradley K A, et al. High test-retest reliability of the Alcohol Use Disorders Identification Test–Consumption (AUDIT-C) questionnaire completed by primary care patients in routine care. Alcohol: Clinical and Experimental Research. 2024; 48(2): 302-308. https://doi.org/10.1111/acer.15245

15. Substance Abuse and Mental Health Services Administration. Medications for opioid use disorder (Treatment Improvement Protocol [TIP] Series No. 63; Publication No. PEP21-02-01-002). U.S. Department of Health and Human Services. 2021. https://store.samhsa.gov/product/tip-63-medications-opioid-use-disorder/pep21-02-01-002

16. Purser G L, Lemieux C M. Brief alcohol interventions with older adults: A systematic review of literature. Journal of Social Work Practice in the Addictions. 2022; 22(2): 120-136. https://doi.org/10.1080/1533256X.2021.1935146

17. Substance Abuse and Mental Health Services Administration. Medication for the treatment of alcohol use disorder: A brief guide (HHS Publication No. SMA 15-4907). U.S. Department of Health and Human Services. 2015. https://store.samhsa.gov/product/medication-treatment-alcohol-use-disorder-brief-guide/sma15-4907

18. McPheeters M, O'Connor E A, Riley S, Kennedy S M, Voisin C, et al. Pharmacotherapy for alcohol use disorder: A systematic review and meta-analysis. JAMA. 2023; 330(17): 1653-1665. https://doi.org/10.1001/jama.2023.19761

19. Kuo Y-F, Westra J R, Harvey E P, Raji M A. Use of medications for opioid use disorder in older adults. American Journal of Preventive Medicine. 2025; 68(5): 1015-1021. https://doi.org/10.1016/j.amepre.2025.01.019

20. McEvoy A M, Langford A V, Yoong S L, et al. Deprescribing benzodiazepine receptor agonists in older adults and people with cognitive impairment: A systematic review. Journal of the American Geriatrics Society. 2025; 73(9): 2905-2913. https://doi.org/10.1111/jgs.19512

21. Chae S, Lee E, Lindenberg J, Shen K, Anderson T S. Evaluation of a benzodiazepine deprescribing quality improvement initiative for older adults in primary care. Journal of the American Geriatrics Society. 2024; 72(4): 1234-1241. https://doi.org/10.1111/jgs.18728

22. Sims R C, Whitfield K E, Ayotte B J, Gamaldo A A, Edwards C L, et al. Subjective memory in older African Americans. Experimental Aging Research. 2011; 37(2): 220-240. https://doi.org/10.1080/0361073X.2011.555640

23. Aiken-Morgan A T, Bichsel J, Allaire J C, Savla J, Edwards C L, et al. Personality as a source of individual differences in cognition among older African Americans. Journal of Research in Personality. 2012; 46(5): 465-471. https://doi.org/10.1016/j.jrp.2012.04.006

24. Heard E, Whitfield K E, Edwards C L, Bruce M A, Beech B M. Mediating effects of social support on the relationship among perceived stress, depression, and hypertension in African Americans. Journal of the National Medical Association. 2011; 103(2): 116-122. https://doi.org/10.1016/S0027-9684(15)30260-1