

OLDER AMERICANS BEHAVIORAL HEALTH

Issue Brief 5: Prescription Medication Misuse and Abuse Among Older Adults



Overview

Prevention works! This Issue Brief offers strategies for education, screening and early interventions for prevention of prescription medication misuse and abuse.

Prescription medication misuse and abuse are growing public health problems among older adults; these problems are associated with many serious consequences, and often go unrecognized. Misuse of prescription medications, also referred to as non-medical use of prescription drugs, is estimated to increase from 1.2 percent (911,000) in 2001 to 2.4 percent (2.7 million) in 2020—a 100 percent increase—among older adults.¹

This problem is growing because of the size of the baby boom population as well as the boomers greater acceptance of and experiences with using prescription medications and illicit drugs. One indicator of this growth is emergency department (ED) visits involving medication misuse and abuse; from 2004 to 2008, there was a 121 percent increase in ED visits involving prescription medication misuse by older Americans.²

Problematic prescription medication use by older adults is usually unintentional, and most misused medications are obtained legally through prescriptions.^{3,4} However, unintentional prescription medication misuse can progress to abuse if an older adult continues to use a medication for the desirable effects it provides. Furthermore, tolerance and physical dependence can develop in some older adults when certain psychoactive medications, such as benzodiazepines, are taken regularly at the therapeutic appropriate dose for brief periods.

Introduction

The Substance Abuse and Mental Health Services Administration (SAMHSA) and Administration on Aging (AoA) recognize the value of strong partnerships for addressing behavioral health issues among older adults. This Issue Brief is part of a larger collaboration between SAMHSA and AoA to support the planning and coordination of aging and behavioral health services for older adults in states and communities. Through this collaboration, SAMHSA and AoA are providing technical expertise and tools, particularly in the areas of suicide, anxiety, depression, alcohol and prescription drug use and misuse among older adults, and partnering to get these resources into the hands of aging and behavioral health professionals.

Prevalence of the Problem

Few studies have specifically examined the prevalence and nature of medication misuse and abuse, and the results of those studies have been mixed. These studies have varied in their definitions of substance misuse or abuse from the very broad (e.g., general medication management problems such as wrong medication or dose or lack of adherence) to the very specific (e.g., the *Diagnostic and Statistical Manual of Mental Disorders* [DSM-IV] definitions⁵ described below). Depending on the definition, estimates of the prevalence of medication misuse, abuse, and dependence among older adults range from 1 percent to 26 percent.^{4,6-8} One study found that up to 11 percent of women older than age 60 misuse prescription medications.⁴

Nature of the Problem

Older adults are among those most vulnerable to medication misuse and abuse because they use more prescription and over-the-counter (OTC) medications than other age groups. They are likely to experience more problems with relatively small amounts of medications because of increased medication sensitivity as well as slower metabolism and elimination. Older adults are at high risk for medication misuse due to conditions like pain, sleep disorders/insomnia, and anxiety that commonly occur in this population. They are, therefore, more likely to receive prescriptions for psychoactive medications with misuse and abuse potential, such as opioid analgesics for pain and central nervous system depressants like benzodiazepines for sleep disorders and anxiety.

Approximately 25 percent of older adults use prescription psychoactive medications that have a potential to be misused and abused.⁴ Older adults are more likely to use psychoactive medications for longer periods than younger adults. Longer periods of use increases the risk of misuse and abuse.³ In addition to concerns regarding misuse of medications alone, the combination of alcohol and medication misuse has been estimated to affect up to 19 percent of older Americans.^{8,9}

Definitions of Proper Use, Misuse, Abuse, and Dependence⁵

DSM-IV has defined the continuum of use of psychoactive prescription medications as follows:

- Proper use—Taking only medications that have been prescribed, for the reasons the medications are prescribed, in the correct dosage, and for the correct duration
- Misuse (by patient)
 - Dose level more than prescribed
 - Longer duration than prescribed
 - Use for purposes other than prescribed
 - Use in conjunction with other medications or alcohol
 - Skipping doses/hoarding drug
- Misuse (by practitioner)
 - Prescription for inappropriate indication
 - Prescription for unnecessary high dose
 - Failure to monitor or fully explain appropriate use

- Abuse (by patient)
 - Use resulting in declining physical or social function
 - Use in risky situations (hazardous use)
 - Continued use despite adverse social or personal consequences
- Dependence
 - Use resulting in tolerance or withdrawal symptoms
 - Unsuccessful attempts to stop or control use
 - Preoccupation with attaining or using the drug

Misuse and abuse are distinct from medication mismanagement problems, such as forgetting to take medications, and confusion or lack of understanding about proper use. Medication mismanagement problems can also have serious consequences for older adults, but they have different risk factors and typically require different types of interventions.

Who is at Risk for Psychoactive Prescription Medication Misuse and Abuse?

A number of factors have been associated with an increased risk of psychoactive prescription medication misuse/abuse among older adults:

- Female gender^{4,8}
- Social isolation^{4,8}
- History of substance abuse^{4,8}
- A mental health disorder, particularly depression^{4,8,10}

Older women are at higher risk because they are more likely to use psychoactive medications, especially benzodiazepines. This use may be associated with divorce, widowhood, lower income, poorer health status, depression, and/or anxiety.^{4,11}

Impact of the Problem on Older Adults

The potential health consequences of psychoactive medication misuse are numerous. Prolonged use of psychoactive medications, especially benzodiazepines, has been associated with depression and cognitive decline.¹²⁻¹⁴ Benzodiazepine use is associated with confusion, falls, and hip fractures in older adults.¹⁵ Use of opioid analgesics can lead to excessive sedation, respiratory depression, and impairment in vision, attention, and coordination as well as falls among older persons.^{15,16} Other negative effects of psychoactive medication misuse and abuse are loss of motivation, memory problems, family or marital discord, new difficulties with activities of daily living, declines in personal grooming and hygiene, and withdrawal from family, friends, and normal social activities.⁴

What Are Psychoactive Medications?

Psychoactive substances act primarily on the central nervous system, where they affect brain function resulting in changes in mood, cognition, behavior, and consciousness as well as block the perception of pain. Some psychoactive substances also produce euphoric effects by acting on the pleasure center of the brain. The two classes of psychoactive prescription medications that are most problematic among older adults are **opioid analgesics** (also known as narcotic analgesics) used for the treatment of pain and **benzodiazepines** (also referred to as sedatives or tranquilizers) used primarily for the treatment of anxiety/nervousness and insomnia. Listed below are common opioid analgesics and benzodiazepines.

These medications are frequently prescribed to older adults, have a high dependence and abuse potential, and interact with alcohol leading to many negative consequences. Pain relievers were the type of medication most commonly involved (43.5 percent) in older adults' ED visits involving medication misuse, followed by medications for anxiety and insomnia (31.8 percent).²

Common Benzodiazepines for anxiety, nervousness, and insomnia

- Alprazolam (Xanax®)
- Clorazepate (Tranxene®)
- Diazepam (Valium®)
- Estazolam (ProSom®)
- Flurazepam (Dalmane®)
- Lorazepam (Ativan®)
- Oxazepam (Serax®)
- Quazepam (Doral®)
- Temazepam (Restoril®)
- Triazolam (Halcion®)

Common Opioid Analgesics for pain

- Codeine (Tylenol #3®, Empirin® and Fiorinol® with codeine, Robitussin A-C®)
- Oxycodone (OxyContin®, Percocet®, Percodan®)
- Hydrocodone (Vicodin®, Lortab®, Lorcet®, Tussionex®)
- Morphine (MS Contin®, Roxanol®, Kadian®, Avinza®)
- Meperidine (Demerol®)
- Hydromorphone (Dilaudid®)
- Fentanyl (Duragesic®, Actiq®)
- Tramadol (Ultram®)
- Methadone

Interventions to Prevent Psychoactive Medication Misuse and Abuse

Early intervention is the key to preventing medication misuse and abuse among older adults. Screening, Brief Interventions, and Referral to Treatment (SBIRT) is an evidence-based program used in a variety of health care, behavioral health, and aging network settings to screen for substance misuse and abuse and to intervene if necessary. SBIRT is described in greater detail in Issue Brief #3.



KEY ACTIONS

Prevention Works

Preventing psychoactive prescription medication misuse and abuse requires a coordinated system of care that integrates medical/physical health, behavioral health, and the aging services networks to fully address this growing problem. Older adults and their caregivers also play important roles in preventing the misuse of, abuse of, and dependence on psychoactive prescription medications.



Key Actions for Older Adults and Caregivers

- Carefully follow the directions for medication use; use the correct dose and only for as long as prescribed; ask about possible side effects and when to report these effects; read all medication-related information provided by doctors and pharmacists before starting a new medication.
- Inform doctors and pharmacists about all medications, including all OTC medications, that are being taken as well as alcohol use.
- Never use another person's prescription medication.
- Inform the doctor if you believe a medication is not working. This is particularly important for pain management; older adults may take opioid analgesic medication in greater doses than prescribed if they are not getting adequate pain relief, which can potentially lead to misuse and abuse. Other medications or non-pharmaceutical approaches may be more appropriate before opioid analgesic doses are increased.



Key Actions for the Aging Services Network

- Integrate screening and brief interventions into existing programs, such as medication reviews.
- Implement depression and pain management programs, such as Healthy IDEAS, PEARLS, and the Chronic Pain Self-Management Program, to address common problems among older adults that can lead to psychoactive prescription medication misuse.
- Become familiar with and build relationships with substance abuse prevention and treatment providers in your community for cross-referrals and collaborative programs.



Key Actions for the Behavioral Health Network

- Learn about the unique aspects of serving older adults with substance misuse/abuse problems.
- Screen for and intervene as appropriate for older adults at risk for psychoactive prescription medication misuse and abuse.



Key Actions for Health Care Providers

- Integrate routine screening for medication and alcohol misuse into regular medical visits with older patients. Ask about substance abuse history; current alcohol, prescription, and OTC use; and reasons for use. Provide brief interventions/counseling for those who screen positive. Medicare reimburses physicians in primary care settings for screening and behavioral health counseling to reduce alcohol misuse. For more information, see [Decision Memo for Screening and Behavioral Counseling Interventions in Primary Care to Reduce Alcohol Misuse](#).
- Note rapid increases in amount of psychoactive medication needed or frequent, unscheduled refill requests; intervene with older adults making these requests.
- Use caution when prescribing medications. Close follow-up will lead to successful treatment and management of pain, anxiety, and insomnia in older adults:
 - Monitor response to opioid analgesic medications and recommend non-pharmacologic approaches for pain management.¹⁷
 - For anxiety, prescribe only short-acting benzodiazepines if needed at the lowest effective dose.
 - For insomnia, recommend behavioral therapy initially such as sleep hygiene and relaxation therapy. Consider the non-benzodiazepine sedative-hypnotics (zolpidem/Ambien®, eszopiclone/Lunesta®), melatonin agonists (remelteon/Rozerem®), or intermediate-acting benzodiazepine at lowest effective dose for short-term use (no more than 3–4 weeks).¹⁸

Resources



- **SAMHSA Guide to Preventing Older Adult Alcohol and Psychoactive Medication Misuse/Abuse: Screening and Brief Interventions**—This guide is designed to be used by a variety of health care and social service organizations interested in implementing an early intervention program focused on older adults who are at risk for alcohol and/or psychoactive prescription medication misuse or abuse. Available fall 2012.
- **SAMHSA Get Connected Tool Kit: Linking Older Adults with Medication, Alcohol, and Mental Health Resources**—This kit provides health and social services providers in the aging services field with health promotion and health education activities to prevent substance abuse and mental health problems in older adults. (http://www.samhsa.gov/Aging/age_10.aspx)
- **National Institute on Drug Abuse Research Report Series: Prescription Drug Abuse and Addiction**—This publication attempts to increase awareness about and promote additional research on prescription drug abuse. (<http://www.drugabuse.gov/sites/default/files/rrprescription.pdf>)
- **Substance Abuse Among Older Adults: A Guide for Social Service Providers**—This concise desk reference gives social service providers an overview of alcohol, prescription medication, and OTC drug abuse by older adults. (<http://store.samhsa.gov/product/Substance-Abuse-Among-Older-Adults-For-Social-Service-Providers/SMA04-3971>)
- **Prescription and Illicit Drug Abuse**—This new topic on NIHSeniorHealth, explains why older people may abuse medications and illicit drugs and describes the possible effects of substance abuse on their health. Tips on how to prevent, recognize, and treat substance abuse in older adults are also included. (<http://nihseniorhealth.gov/drugabuse/improperuse/01.html>)



Works Cited

- ¹ Colliver J.D., W.M. Compton, et al. (2006). Projecting drug use among baby boomers in 2020. *Annals of Epidemiology*, 16,:257-265.
- ² Center for Behavioral Health Statistics and Quality. (2010). Drug-related emergency department visits involving pharmaceutical misuse and abuse by older adults. In *The DAWN Report*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- ³ Center for Substance Abuse Treatment. (1998). *Substance abuse among older adults. Treatment Improvement Protocol 26*. HHS Publication No. 98-3179. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- ⁴ Simoni-Wastila L, Yang HK. (2006). Psychoactive drug abuse in older adults. *American Journal of Geriatric Pharmacotherapy*, 4:380-394.
- ⁵ American Psychiatric Association. (2000). *Diagnostic and statistical manual of mental disorders* (4th edition, text revision). Washington, DC: Author.
- ⁶ Center for Behavioral Health Statistics and Quality. (2009). Illicit drug use among older adults. In *The National Survey on Drug Use and Health Report*. Rockville, MD: Substance Abuse and Mental Health Services Administration.
- ⁷ Schonfeld L, King-Kallimanis BL, et al. (2010). Screening and brief intervention for substance misuse among older adults: The Florida BRITE project. *American Journal of Public Health*, 100(1):108-114.
- ⁸ Jinks MJ, Raschko RR. (1990). A profile of alcohol and prescription drug abuse in a high-risk community-based elderly population. *The Annals of Pharmacotherapy*, 24(10):971-975.
- ⁹ National Institute on Alcohol Abuse and Alcoholism. (1995). Diagnostic criteria for alcohol abuse. *Alcohol Alert*, 30 (PH 359):1-6.
- ¹⁰ Solomon K, Manepalli J, et al. (1993). Alcoholism and prescription drug abuse in the elderly: St. Louis University grand rounds. *Journal of the American Geriatrics Society*, 41(1):57-69.
- ¹¹ Closer M, Blow F. (1993). Recent advances in addictive disorders, Special populations: Women, ethnic minorities, and the elderly. *Psychiatric Clinics of North America*, 16:199-209.
- ¹² Dealberto MJ, McAvay GJ, et al. (1997). Psychotropic drug use and cognitive decline among older men and women. *International Journal of Geriatric Psychiatry*, 12(5):567-574.
- ¹³ Hanlon JT, Horner RD, et al. (1998). Benzodiazepine use and cognitive function among community-dwelling elderly. *Clinical Pharmacology and Therapeutics*, 64(6):684-692.
- ¹⁴ Hogan D, Maxwell C, et al. (2003). Prevalence and potential consequences of benzodiazepine use in senior citizens: Results from the Canadian Study of Health and Aging. *The Canadian Journal of Clinical Pharmacology*, 10(2):72-77.
- ¹⁵ Leipzig RM, Cumming RG, Tinetti ME. (1999). Drugs and falls in older people: A systematic review and meta-analysis: I. Psychotropic drugs. *Journal of the American Geriatrics Society*, 47(1):30-39.
- ¹⁶ Ray WA, Thapa PB, Shorr RI. (1993). Medications and the older driver. *Clinics in Geriatric Medicine*, 9(2):413-438.
- ¹⁷ American Geriatrics Society. (2002). The management of persistent pain in older persons. *Journal of the American Geriatrics Society*, 50(6, Suppl):S205-S240.
- ¹⁸ Reuben DB, Herr KA, et al. (2011). *Geriatrics at your fingertips*, 13th edition. New York: American Geriatrics Society.



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