

## The Elderly and Prescription Drug Misuse and Abuse

By Belinda Basca

Prescription drug use is on the rise in the United States. With that comes a rise in abuse and misuse, especially among the elderly as they are more likely to be taking prescription medications. Individuals 65 years and older account for one-third of all medications prescribed, which is disproportionate to the percentage of the population that they represent, approximately 13% of the population in the United States. Furthermore, the number of people over 65 taking three or more prescription drugs increased from about one-third in 1988 to almost one-half in 2000.<sup>1</sup> Drug misuse and abuse in the elderly is of special concern because it can cause cognitive and physical impairment—putting this population at greater risk for falls, motor vehicle accidents, and making them generally less able to care for their daily needs.

Elderly individuals are particularly vulnerable to prescription drug *misuse*. Misuse is defined as non-adherence to prescription directions and can be either willful or accidental. Non-adherence may place an undue burden on social services through increased use of medical resources (physician visits, lab tests, hospital admissions etc.), and more importantly, from the individual's perspective, treatment failure can result.

There are related substances that may compound the effects of prescription misuse/abuse in the elderly including:

- Over-the-counter (OTC) drugs, whose direct effects or cross-use effects are not often considered;
- The use of alcohol in conjunction with many pharmaceuticals poses significant risks; and
- Fortified foods, dietary supplements, and “functional foods” sold with varying biological effects.

Overarching is the issue of how these substances can interact to potentate or negate each other.



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**Tactics** (Tak'tiks) n. 1. a plan for promoting a desired end. 2. the art of the possible.

Patterns of abuse, where prescription drugs that are not medically necessary are taken intentionally, are also seen in seniors. Prescription drug abuse is present in 12% to 15% of elderly individuals who seek medical attention. In addition to the toll on individuals and families, abuse places a heavy financial toll on health care systems. Health problems related to substance abuse cost Medicare \$233 million dollars in 1989, and probably account for much larger expenditures today. And, experts estimate that the issue is under-diagnosed in seniors; although 60% of substance abuse is recognized in patients younger than 60, only 37% is recognized in patients over the age of 60.<sup>2</sup>

In the first part of this Prevention Tactic series on prescription drug abuse, the focus was on youth. For youth, ages 12-17, prescription drugs have become the second most abused illegal drug behind marijuana. Whereas youth are using prescription drugs to get high, party, or as a study aid, senior citizens, the focus of this issue, are more inclined towards inadvertent misuse. Abuse or misuse of prescription drugs is second only to alcohol abuse in this over 65 demographic.

## Frequently prescribed medications are candidates for misuse and abuse

The most common prescription medications abused include opiates, central nervous system depressants, and stimulants due to their addictive qualities.<sup>3</sup> Among the elderly the primary substances of abuse include benzodiazepines for anxiety and insomnia, pain relievers for arthritis and hip fractures, as well as alcohol, and over-the-counter (OTC) medications, all of which can have adverse reactions when mixed with other drugs or alcohol.

**Opiates.** Opiates are very effective analgesics (pain relievers). They also create an intense sense of euphoria. The most commonly known prescription opiates are Vicodin® and OxyContin®. Although produced in laboratories, these medications share the same potential for addiction and medical consequences as the illegal street drug heroin.

### **Common opiates include:**

- Morphine (Kadian®, Avinza®)
- Codeine (Tylenol® #2, 3, 4)
- Oxycodone (OxyContin®, Percodan®, Percocet®)
- Hydrocodone (Lortab®, Lorcet®, Vicodin®)
- Propoxyphene (Darvon®)
- Fentanyl (Duragesic®)
- Hydromorphone (Dilaudid®)

### **Common CNS depressants include:**

- Barbiturates
  - Mephobarbital (Mebaral®)
  - Pentobarbital sodium (Nembutal®)
  - Butalbital (Fioricet®)
- Benzodiazepines
  - Diazepam (Valium®)
  - Chlordiazepoxide HCl (Librium®)
  - Alprazolam (Xanax®)
  - Triazolam (Halcion®)
  - Estazolam (ProSom®)

### **Common stimulants include:**

- Amphetamine (Adderall®)
- Dextroamphetamine (Adderall XR®, Dexedrine®)
- Methylphenidate (Ritalin® and Concerta®)

**Central Nervous System (CNS) Depressants.** Primarily used to treat anxiety and sleep disorders, there are two types of CNS depressants – barbiturates and benzodiazepines. Often referred to as sedatives, CNS depressants are substances that slow down normal brain functioning. In higher doses, some CNS depressants can be used as general anesthetics for surgery.

**Stimulants.** Stimulants are a class of drugs that enhance brain activity. These medications are used to treat narcolepsy and attention deficit hyperactivity disorder (ADHD). They increase alertness, attention, and energy as well as elevate blood pressure, heart rate, and respiration.

## Trends in prescription drug misuse and abuse among the elderly

### *Prevalence*

In the vast majority of cases, seniors take prescription drugs for legitimate health problems which are correctly prescribed by a doctor. The elderly make up the largest consumer segment for legal drugs in the United States. More specifically, elderly individuals use prescription drugs approximately three times as frequently as the general population. The estimated annual expenditure on prescription drugs by the elderly in the United States is \$15 billion. By comparison, this equals the annual budget of a small- to mid-sized state.

Of the current population, 83% of older adults, people age 60 and over, take prescription drugs. Older adult women take an average of five prescription drugs at a time, for longer periods of time, than men. And studies show that half of those drugs are potentially addictive substances, like sedatives, making older females more susceptible to potential abuse issues.

### *Contributing factors*

The life changes that occur as one reaches their twilight years are significant. Elderly patients can experience a mixture of social-emotional, physical, and functional changes that may encourage addiction. Physiological contributors include high rates of co-morbid illnesses, changes in metabolism (that affect drug potency), and shifting hormone levels, for example changes in melatonin levels resulting in altered sleep/wake cycles. Mental health concerns also arise, especially with those experiencing major health problems. Though not considered a normal part of aging, depression is a specific concern that can initiate or exacerbate a decline in function and overall health. Physically, some seniors slow down and become compromised in their mobility and dexterity. If unable to engage socially or participate in activities-of-daily-living as they are accustomed to, seniors may turn to using medications that ease this reality or that appear to make life easier. Often, doctors prescribe “coping” drugs to help patients with anxiety, depression, or sleeplessness, many of which are addictive.

Some factors to consider when examining this issue include:

- The elderly are more likely to be prescribed several different medications at once and for a prolonged duration of time.
- Social factors, such as limited English language proficiency, and low health literacy impede adherence.
- Screening for drug abuse in the elderly can be complicated. Symptoms can be masked by normal or perceived signs of aging, the elderly may deny symptoms of abuse, and may be unaware of their misuse.
- The elderly do not fit the typical drug abuser profile or stereotype and therefore awareness and services for this population are lacking.

### **Growing Age Cohort**

The elderly are one of the fastest-growing sectors of American society. Currently one in eight Americans is 60 and over, but one in three will be so by 2030. The first wave of baby boomers will turn 60 over the next decade. For the first time, there will be more people 65 and older than 14 and under in the United States.

--McElhaney. Drug Misuse & Abuse: Concerns for the Elderly.

### *Elderly drug misuse and abuse: a hidden issue*

Elderly drug misuse and abuse has largely been a hidden issue that has only recently been given attention in the health field. Some reasons for this include the following:

- **Many of the symptoms of misuse and abuse mirror common signs of aging in general. These symptoms may obscure diagnosing a substance abuse problem. Some of these perceptions include:**
  - Memory loss
  - Disorientation
  - Lack of balance
  - Shaky hands
  - Mood swings
  - Depression
  - Chronic boredom
- **Medical care providers are not always coordinated in their care and treatment, and this can confuse the patient and cause potential adverse drug interactions.** It is not uncommon for a person to have multiple prescriptions for different conditions, without any single prescriber knowing the entire set of drugs being used. Therefore, healthcare providers are not alerted to look for, and do not recognize signs of misuse or abuse.
- **Often the elderly, their families, and their service providers are uninformed about the potential for misuse and abuse of prescription drugs.** This includes awareness of problems associated with taking multiple drugs and their potential interactions.

### *Access*

Between 1992 and 2002, the number of prescriptions written for controlled substances (those with an addictive quality) increased more than 150%. This contrasts with the 56% increase in prescriptions written for non-controlled medications. As with other populations, seniors who are using these medications for their psychoactive effects rather than medical utility may eventually turn to the following methods to continue use:

**(1) Prescription Fraud** - This ranges from forging or altering prescriptions, to impersonating physicians over the phone, to producing counterfeit prescriptions.

**(2) "Doctor Shopping"** - This occurs when individuals visit several different primary care doctors, psychiatrists, dentists, or medical specialists in an attempt to obtain multiple prescriptions for a drug. The individual then has these prescriptions filled at different pharmacies to avoid suspicion of illegal activity.

**(3) The Internet** - This is quickly becoming a major source of both legal and illegal prescription medications. Many elderly individuals are turning to internet pharmacies for discount price prescription drugs. Internet pharmacies are unregulated and can be unsafe, with some dispensing medication without a prescription, doctor's consultation, or even verifying the individual's age.

**(4) Sharing** - Some elderly individuals obtain prescription drugs from family members or friends. Thinking they are helping the elderly with their prescription costs or just passing on something that has worked well for them, family and friends knowingly share drugs left over from legitimate prescriptions they did not completely consume themselves.



## Strategies for communities to address misuse and abuse

A problem of this scale and consequence requires a collaborative approach. Community leaders, law enforcement officers, health care practitioners—such as physicians, pharmacists, and nurses, as well as community-based programs and coalitions—all play critical roles.<sup>4</sup>

### *Provide information*

- Create and disseminate promotional materials (make it available in large print) that specifically target older adults. Examples include prescription diaries that allow individuals to list the medications they are taking, easy-to-read, comprehensive booklets on how to take prescription drugs wisely, tips for keeping medications secure, and a list of questions that elders should ask about their medications when they go to the doctor or pharmacist.
- Ensure that media coverage about a particular drug abuse problem accurately reports the facts, and tells how people can get involved in the solution.
- Encourage pharmacists to provide clear information and advice about how to take medications properly and any possible drug interactions. Also, encourage pharmacists to be aware of fraud or diversion by looking for false or altered prescription forms as well as being aware of potential “doctor shopping.”
- Create programs and activities during Prescription Awareness Month, held in October each year.

### *Educate the elderly*

- Create a consumer education program that specifically targets older adult concerns, including an ongoing wellness discussion series and activities.
- Recruit older adults as spokespersons for your efforts.
- Ensure that substance abuse prevention and treatment professionals are included in the preparation and launching of all educational activities. They are an excellent source of help, especially for speakers, intervention strategies, and materials.

*“We are only beginning to realize the pervasiveness of substance abuse among older adults.”*

—Charles G. Curie, M.A., A.C.S.W., Administrator, U.S. Substance Abuse and Mental Health Services Administration (2005)

- Collaborate with existing senior services such as In Home Support Services, Senior Centers, Meals on Wheels, and City Parks and Recreation programs.

### *Enhance screening and brief intervention skills of health care clinicians*

- Clinicians can properly assess their patients including assessing the risk of abuse in an individual, proper diagnosis, and proper record keeping.
- Clinicians can also screen for any type of substance abuse using standardized screening tools and during routine history taking with questions about what prescriptions and over-the-counter medications patients are taking and why. Screening also can be performed if patients present specific symptoms associated with problem use of a medication.
- Clinicians are in a unique position to implement brief intervention skills to identify prescription drug abuse when it exists and help patients recognize the problem, set goals for recovery, and seek appropriate treatment when necessary.

### *Form community coalitions*

- Bring all of the players to the table, including local health care practitioners, community health systems, law enforcement personnel, pharmaceutical companies, senior housing representatives, social service organizations, and families.
- Partner with local Retired Senior Volunteer Programs, the American Association for Retired Persons (AARP), Area Agencies on Aging, Departments of Health, community centers, retirement homes, and the faith community.
- Reinforce the importance of collaboration in all of your activities—success depends upon a cadre of community resources working together to combat and prevent prescription drug misuse and abuse.

- Establish a memorandum of understanding (MOU) among state and local agencies to better ensure their commitment to this issue that involves pharmaceutical companies, pharmacies, and medical professionals. Encourage these partners to come to the table and create programs and activities that address prescription drug abuse, particularly among the elderly.

## What are others doing to address prescription drug misuse and abuse among the elderly in their communities?

### *Training and Education*

- **American Society on Aging (ASA)** - Under contract to the California Department of Alcohol and Drug Programs, ASA offers free training and technical assistance on abuse and misuse of Alcohol and Other Drugs (AOD) for providers in nonprofit and governmental agencies in California to help them better serve their older clients. ASA carries out a wide range of activities, such as formal training sessions and conferences, coalition building, and telephone and on-site TA. [www.asaging.org/AOD](http://www.asaging.org/AOD)
- **Adult “Meducation”** - The American Society on Aging (ASA) and the American Society of Consultant Pharmacists (ASCP) Foundation have collaborated on the development of Adult Meducation: Improving Medication Adherence in Older Adults, a web-based program to educate ASA and ASCP members on important aspects of medication adherence in older adults. <http://www.adultmeducation.com/index.html>

### *Programs and Services*

- **The IMPACT program** - IMPACT (Improving Mood—Promoting Access to Collaborative Treatment for Late Life Depression) is a program in which a depression care manager (usually a nurse, social worker or psychologist) works closely with the patient’s primary care physician (PCP) and a consulting psychiatrist to treat depression in the patient’s regular primary care clinic. This fosters communication between the

care manager and the PCP. There is collaborative care between the patient, care manager, and PCP to develop a treatment plan. Electronic tracking and reminder systems are also developed to evaluate depressive symptoms and prompt clinicians to revisit the treatment plan.

- **The Gatekeeper Program** - This program seeks to identify isolated older adults who are at-risk for developing substance abuse and mental health problems. The Gatekeeper Program is a collaborative effort between community services (such as a local adult day care center or Adult Protective Services) and individuals in the community. Individuals who commonly come in contact with the elderly — like meter readers, utility workers, librarians, and postal carriers — are trained by the community service agencies to recognize signs indicating an older person may need help. Upon noticing these signs, volunteers make a single phone call to a local provider’s office. The office then contacts the elderly person, assesses his/her needs, and gets whatever help is required from the appropriate health or social service organization.
- **Screening, Brief Intervention, Referral and Treatment (SBIRT)** – SBIRT is a federally-funded program, originally piloted in Florida under the name Brief Intervention for Elders (BRITE). SBIRT is now being implemented on a large scale throughout the United States. SBIRT involves implementation of a system within community and/or medical settings—including physician offices, hospitals, educational institutions, and mental health centers—that screens for and identifies individuals with or at-risk for substance use-related problems. Screening determines the severity of substance use and identifies the appropriate level of intervention. The system provides for brief intervention or brief treatment within the community setting. It may also motivate and refer those identified as needing more extensive services to a specialist setting for assessment, diagnosis, and appropriate treatment.

## Conclusion

The use of prescription medications for non-medical use is increasing at an alarming rate. Nationally, prescription drugs are the second most widely misused and abused substance. There are three classes of prescription medication that are commonly abused:

- Opiates (e.g., Vicodin® & OxyContin®)
- Stimulants (e.g., Adderall®)
- CNS depressants, which includes sedatives or tranquilizers (e.g., Valium® & Xanax®)

Regardless of demographics, there are some universal prevention measures that could have a widespread benefit. Anyone with a prescription for medication should be informed on how to secure, count, and properly dispose of unused medication. Doctors and pharmacists can be trained on predictors of medication non-adherence, as well as “doctor shopping” and other forms of fraud. Any well-rounded effort will address the factors that drive all substance abuse: dose, route of administration, co-administration with other drugs, context of use, and expectations. Moreover, for the older adult population, addressing the factors related to willful and inadvertent misuse of prescription medication is a necessary part of prevention and early intervention.

## Other Resources

Older Adults: Depression and Suicide Facts (2007). National Institute of Mental Health, Publication No. 4593. <http://www.nimh.nih.gov/health/publications/older-adults-depression-and-suicide-facts.shtml>

Overview, Medication Adherence—Where Are We Today? (2006). American Society on Aging and American Society of Consultant Pharmacist Foundation. <http://www.adultmeducation.com/index.html>

<sup>1</sup> Prescription Drug Trends. (2007). Kaiser Family Foundation. [http://www.kff.org/rxdrugs/upload/3057\\_06.pdf](http://www.kff.org/rxdrugs/upload/3057_06.pdf)

<sup>2</sup> Meyer, C. (2005). Prescription Drug Abuse in the Elderly: How the Elderly Become Addicted to their Medications. The People's Media Company. July 18, 2005. [http://www.associatedcontent.com/article/5731/prescription\\_drug\\_abuse\\_in\\_the\\_elderly.html](http://www.associatedcontent.com/article/5731/prescription_drug_abuse_in_the_elderly.html)

<sup>3</sup> Prescription Drugs: Abuse and Addiction. (2005). National Institute on Drug Abuse Research Report Series. U.S. Department of Health and Human Services. National Institutes of Health. <http://www.drugabuse.gov/PDF/RRPrescription.pdf>

<sup>4</sup> Strategizer 38. Prescription Drug Abuse Prevention: Where Do We Go From Here? Community Anti-Drug Coalitions of America. <http://cadca.org/PrescriptionDrugAbuse/Strat38.pdf>



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