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Prescription Medications: Misuse, Abuse, Dependence, and Addiction

How serious are prescription medication use problems?

Development and increased availability of prescription drugs have significantly improved treatment of pain, mental disorders, anxiety, and other conditions. Millions of Americans use prescription medications safely and responsibly. However, increased availability and variety of medications with psychoactive effects (see Table 1) have contributed to prescription misuse, abuse, dependence, and addiction. In 2004,[1] the number of Americans reporting abuse[2] of prescription medications was higher than the combined total of those reporting abuse of cocaine, hallucinogens, inhalants, and heroin. More than 14.5 million persons reported having used prescription medications nonmedically within the past year. Of this 14.5 million, more than 2 million were between ages 12 and 17.

Older adults are particularly vulnerable to misuse and abuse of prescription medications. Persons ages 65 and older make up only 13 percent of the population but account for one-third of all medications prescribed,[3] and many of these prescriptions are for psychoactive medications with high abuse and addiction liability.[4] Data from the National Survey on Drug Use and Health indicate that nonmedical use of prescription medications was the second most common form of substance abuse among adults older than 55.[5]

Use of prescription medications in ways other than prescribed can have a variety of adverse health consequences, including overdose, toxic reactions, and serious drug interactions leading to life-threatening conditions, such as respiratory depression, hypertension or hypotension, seizures, cardiovascular collapse, and death.[6]

Table 1: Drug Classes, Medical Uses, and Examples of Commonly Prescribed Medications

Drug Class	Legitimate Medical Uses	Examples of Medications
Opioid analgesics	Management of acute or chronic pain, relief of coughs, antidiarrheal	Codeine (Empirin®, Tylenol 1, 2, 3), Hydrocodone (Vicodin®), Hydromorphone (Dilaudid®), Meperidine (Demerol®), Methadone (Dolophine®), Morphine, Oxycodone (OxyContin®, Percodan®), Propoxyphene (Darvon®)
Sedative-hypnotics: ***Benzodiazepines***	Anxiety and panic disorders, acute stress reactions	Alprazolam (Xanax®), Chlordiazepoxide HCL (Librium®), Clonazepam (Klonopin®), Diazepam (Valium®), Lorazepam (Ativan®)
Sedative-hypnotics: ***Barbiturates***	Insomnia, anxiety, seizure control	Butalbital (Fiorinal®), Meprobamate (Miltown®), Pentobarbital sodium (Nembutal®), Phenobarbital, Secobarbital (Seconal®)
Stimulants	Attention deficit disorder and attention deficit/hyperactivity disorder (ADD, AD/HD), narcolepsy, weight loss, depression (rarely)	Amphetamine-dextroamphetamine (Adderall®), Dextroamphetamine (Dexedrine®), Methylphenidate (Ritalin®), Sibutramine (Meridia®)

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What are the differences among nonmedical use of prescriptions, misuse, abuse, physiological dependence, psychological dependence (addiction), and pseudoaddiction?

The *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition, Text Revision (DSM-IV-TR),[7] provides diagnostic criteria for substance abuse and substance dependence. Counselors working with clients who use prescription medications, however, need to distinguish among nonmedical use of substances, substance misuse, abuse, physiological dependence, psychological dependence (also known as "addiction"), and pseudoaddiction. Prescription medications that are on the Drug Enforcement Administration's list of controlled substances have high abuse potential and can lead to physiological or psychological dependence, or both, in some patients.

Nonmedical use: Use of prescription drugs that were not prescribed by a medical professional (i.e., obtained illicitly) or use for the experience or feeling a drug causes.

Misuse: Incorrect use of a medication by patients, who may use a drug for a purpose other than that for which it was prescribed, take too little or too much of a drug, take it too often, or take it for too long (misuse does not apply to off-label prescribing [prescribing a medication for a condition other than the conditions for which the Food and Drug Administration approved the medication] when such use is supported by common medical practice, research, or rational pharmacology).

Abuse: A maladaptive pattern of substance use, leading to clinically significant impairment or distress as manifested by one or more behaviorally based criteria.[7]

Physiological dependence: Increasing tolerance for a drug, withdrawal signs and symptoms when a drug is discontinued, or the continued use of a substance to avoid withdrawal.

Psychological dependence (addiction): A set of psychological symptoms that demonstrate overall loss of control or obsessive-compulsive drug-seeking and continued use of a substance in spite of clearly adverse consequences. Symptoms *may* include specific physiological signs of dependence such as increasing tolerance or withdrawal signs and symptoms when the drug is discontinued.

Pseudoaddiction: Drug-seeking and other behavior that is consistent with addiction but actually results from inadequate pain relief. Once the pain is adequately treated, the person no longer abuses the medication.[8]

How do people become dependent on prescription medications?

Within the context of good medical care, substance misuse, abuse, physiological dependence, and dependence/addiction are potential treatment complications. For example, physiological dependence is an expected outcome of long-term use of opioid medications for pain. A minority of patients may have predisposing factors that lead to problems of psychological dependence (addiction). Drug use may quickly escalate to unintended and initially unanticipated levels beyond the initial intended use, alarming both the patient and treatment provider.

Some people obtain prescription medications illicitly and experiment with their effects. Others may find that a particular drug helps them self-medicate undiagnosed or undertreated disorders (e.g., anxiety, depression, ADD).

How can prescription medication abuse or dependence be treated effectively?

People treated with any controlled medication should be monitored closely for the development of a substance use disorder. Physiological dependence may be the first symptom of a potential problem. While physiologically dependent, people may also develop symptoms of abuse or psychological dependence. When the decision is made to stop medication therapy, a patient who is physiologically dependent should be expected to develop

Chronic pain may complicate substance abuse treatment by[9]—

- Motivating drug-seeking behavior.
- Decreasing clients' quality of life, which may increase their attraction to any drug that produces euphoria.
- Creating psychiatric problems, such as depression and anxiety. Clients whose pain is the result of trauma may have symptoms of posttraumatic stress disorder (PTSD).
- Creating functional and social disability that can impede participation and success in treatment.

withdrawal symptoms unless care is taken to slowly taper the drug using a standard detoxification or withdrawal protocol. During the detoxification or withdrawal period, symptoms of abuse or psychological dependence may emerge.

Detoxification alone is not sufficient for a person who meets DSM-IV-TR criteria for abuse or dependence. Providers should use evidence-based brief interventions such as motivational enhancement, cognitive–behavioral therapy, or 12-Step facilitation, along with referrals to an addiction medicine/psychiatry specialist for patients with more severe drug dependence.

Patients found to be drug dependent should be assessed for the correct level of care for both detoxification and treatment according to standards such as the American Society of Addiction Medicine's patient placement criteria.[10] These patients also should be considered for appropriate medication-assisted therapy by qualified, licensed providers, such as opioid treatment programs or physicians with buprenorphine waivers. Recommendations for effective treatment of substance use disorders do not differentiate between prescription drug and illicit drug use problems. Among these patients, alcohol abuse and dependence also are frequently involved and must be addressed.

The first step toward effective treatment of a substance use disorder is screening and comprehensive assessment, including—

- Evaluation of how the person began using prescription medication;
- Medical history and evaluation to determine underlying medical issues; and
- Screening for and, when indicated, assessment of mental health issues.

Frequently, a problem that begins as prescription drug misuse is complicated by illicit use of that same drug or illicit use of another drug. Sometimes, a patient's use of an illicit drug may evolve into dependence on a drug that is subsequently prescribed for him or her.

Effective counseling and medication-assisted treatments apply to all patients identified with any substance use disorder. However, to ensure treatment effectiveness, clients with ongoing pain and those with underlying anxiety disorders, ADD, AD/HD, and other mental disorders will need services beyond standard addiction counseling. *Not* providing these services ensures treatment failure.

In summary, counselors treating individuals with prescription medication-related problems must use their established approaches and resources, modified or expanded to address the specific issues identified in this *Advisory*.

Resources for Additional Information

Substance Abuse and Mental Health Services Administration (SAMHSA)
http://www.samhsa.gov

SAMHSA: Prevent Prescription Drug Abuse
http://www.samhsa.gov/rxsafety

National Institute on Drug Abuse (NIDA)
http://www.nida.nih.gov

U.S. Food and Drug Administration (FDA) Safe Use Initiative
http://www.fda.gov/Drugs/DrugSafety/SafeUseInitiative/default.htm

Programs treating clients with addictions to prescription medications need to ensure that they have access to the following resources or professionals, either on site or through appropriate referral sources:

- Appropriate dose-tapering or other detoxification services
- Physicians, physician's assistants, or nurse practitioners with expertise in pain management and/or pain clinics
- Psychiatrists with expertise in addiction treatment and psychotropic medication management
- Addiction counselors, social workers, and/or psychiatric nurses with experience and training in providing cognitive–behavioral therapy and other approaches for treating anxiety and panic disorders, PTSD, ADD, AD/HD, and eating disorders

Programs also need to ensure that clients in recovery have adequate information about working with physicians if and when pain or other psychoactive prescription medications are needed.

Notes

[1]Office of Applied Studies. *Results from the 2004 National Survey on Drug Use and Health: National Findings.* Rockville, MD: Substance Abuse and Mental Health Services Administration, 2005.

[2]The National Survey on Drug Use and Health (NSDUH) defines prescription drug abuse as using "any prescription (pain reliever, sedative, stimulant, tranquilizer) that was not prescribed for you or that you took only for the experience or feeling it caused." (See note 1.)

[3]National Institute on Drug Abuse. *Prescription Drugs: Abuse and Addiction.* NIDA Research Report Series, NIH Publication No. 05-4881. Printed 2001, revised August 2005.

[4]Blow, F.C. Special issues in treatment: Older adults. In: Graham, A.W., Schultz, T.K., Mayo-Smith, M.F., Ries, R.K., and Wilford, B.B., eds. *Principles of Addiction Medicine*, 3d Edition. Chevy Chase, MD: American Society of Addiction Medicine, Inc., 2003, pp. 581–607.

[5]Office of Applied Studies. *The NSDUH Report: Substance Use Among Older Adults—2002 and 2003 Update*. Rockville, MD: Substance Abuse and Mental Health Services Administration, November 2005.

[6]Clark, H.W., and Bizzell, A. A federal perspective on the abuse of prescription stimulants. *Psychiatric Annals* 35(3):254–256, 2005.

[7]American Psychiatric Association. *Diagnostic and Statistical Manual of Mental Disorders*, 4th Edition, Text Revision. Washington, DC: American Psychiatric Association, 2000.

[8]Savage, S.R. Opioid medications in the management of pain. In: Graham, A.W., Schultz, T.K., Mayo-Smith, M.F., Ries, R.K., and Wilford, B.B., eds. *Principles of Addiction Medicine*, 3d Edition. Chevy Chase, MD: American Society of Addiction Medicine, Inc., 2003, pp. 1451–1463.

[9]Trafton, J.A., Oliva, E.M., Horst, D.A., Minkel, J.D., and Humphreys, K. Treatment needs associated with pain in substance use disorder patients: Implications for concurrent treatment. *Drug and Alcohol Dependence* 72:23–31, 2004

[10]Mee-Lee, D., ed. *ASAM PPC-2R: ASAM Patient Placement Criteria for the Treatment of Substance-Related Disorders*, 2d Edition. Chevy Chase, MD: American Society of Addiction Medicine, 2001.

Substance Abuse Treatment Advisory

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