



Addiction and substance abuse in the pharmacy professions: From discovery to recovery

American Pharmacists Association

Abstract

Objectives: To increase pharmacists' knowledge about substance use disorders in their profession, to assist them in recognizing those problems, and to suggest how they can help a colleague who may have a substance use disorder.

Summary: Pharmacy professionals are not immune to substance use disorders, including addiction. Awareness of the signs and symptoms can help pharmacists deal with a colleague who may be abusing drugs or alcohol. It is particularly important that pharmacists are aware that many resources are available to help a colleague get help and that many of these options offer confidential assistance.

Conclusion: Substance abuse among pharmacists is an important issue with serious consequences ranging from personal and professional problems to harming patients as a result of poor judgment or medication errors. Most professionals who have become impaired because of substance abuse recover and return to practice.

Keywords: Substance abuse, substance use disorder, addiction, pharmacists, impairment.

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Learning objectives

At the conclusion of this knowledge-based activity, the pharmacist will be able to:

- Summarize the issue of addiction and its prevalence in health professionals, including pharmacists.
- Describe the risk factors and behaviors associated with the disease of addiction in pharmacy professionals.
- Identify the resources available to pharmacists and technicians when a colleague in the health professions might need assistance with addiction issues.
- Summarize the general steps to seeking help and restoring the pharmacy professional to practice.
- Outline steps to foster and practice self-advocacy and self-care as a means to reduce the risk of relapse among recovering pharmacy professionals.

Preactivity questions

Before participating in this activity, test your knowledge by answering the following questions. These questions also will be part of the CPE exam.

1. **The prevalence of addiction among pharmacists is estimated to be:**
 - a. 5%.
 - b. 8% to 12%.
 - c. 11% to 15%.
 - d. >20%.
2. **Substance use disorder is the new term used to:**
 - a. Replace the term addiction.
 - b. Describe a pattern of use that results in considerable social, interpersonal, or legal problems.
 - c. Replace the terms abuse and dependence.
 - d. Define a condition that is chronic, progressive, symptomatic, fatal if left untreated, and treatable.
3. **Pharmacists who seek help for their substance use disorder voluntarily:**
 - a. Will be prosecuted under state laws.
 - b. Will lose their job automatically.
 - c. Will receive assistance and treatment confidentially.
 - d. Will be hospitalized for initial treatment.

For more than 50 years, addiction has been considered a disease by the American Medical Association and the American Psychiatric Association. It possesses the characteristics of a disease: It is chronic, progressive, symptomatic, fatal (if left untreated), and treatable.¹ Addiction is a disease that renders the victim incapable of recognizing the severity of the symptoms, recognizing the progression of the disease, or accepting any ordinary offers of help.²

The terminology used to describe this disease can be confusing. Briefly, *abuse* has referred to a pattern of use that results in considerable social, interpersonal, or legal problems or hazardous use, and *dependence* or *addiction* has referred to uncontrolled use resulting in considerable physical/psychological problems and impairment.³

As the result of the misperceptions created by the language in the previous edition of the *Diagnostic and Statistical Manual of Mental Disorders (DSM)*, the terminology and criteria presented in the fifth edition of *DSM (DSM-V)* has sought to correct the confusion. The old *DSM* listed criteria for both abuse and dependence. Abuse referred to a pattern of overuse of alcohol or other drugs (AODs) or a combination that produces many adverse results during continual use. Dependence (addiction) is medically defined as a group of behavioral and physiological

symptoms that indicate the continual, compulsive use of chemicals and self-administered doses, despite the problems related to the use of the drug.⁴ Simply put, in the older terminology, abusers could likely quit if they chose to while dependent individuals have largely lost that choice. The newer language in the *DSM-V* eliminates both abuse and dependence as descriptive terminology in favor of substance (AOD) use disorder (e.g., alcohol use disorder). Each specific substance use disorder is ranked by degree of severity (mild to moderate to severe), with each degree having a specific number of criteria. The old category of abuse would fall under “mild,” while moderate or severe would have fallen under the old category of dependence. The term addiction is now preferred over dependence.⁵

Impairment is defined as “a marked inability to perform competently and to take effective action while in a professional role because of chemical dependence, mental illness, or personal conflicts.”⁶

The changing terminology, as defined by the American Psychiatric Association, is listed in Table 1.

Prevalence

Although health professionals may take better care of themselves in general, they are not immune to addiction. In fact, many well-educated, highly trained, and experienced health care practitioners have lost their families, careers, and futures to addiction.⁷ Health professionals have been identified as a population at special risk for addictive disease. Both physicians and pharmacists are particularly vulnerable to prescription drug misuse and addiction as a result of their increased access.³ Table 2 provides estimates of prevalence from the National Institute on Drug Abuse.

In 1998, APHA reported that 19% of practicing pharmacists are occasional or regular users of controlled substances without a prescription.⁹

However, specific surveys of pharmacists have identified wider use. In a 2004 self-report survey of a random sample of health professionals, 58.7% of pharmacists reported using a nonprescribed drug at least once in their lifetime. Prevalence of drug use during the previous year was higher for pharmacists (12.8%) compared with other health professionals, as well as higher than the rates reported in the general population in the survey. Pharmacists in the survey study reported lifetime use of minor opiates, anxiolytics, and stimulants.¹⁰

A 2008 survey identified these substances misused by health professionals: alcohol, tobacco, legal medications (e.g., stimulants), major opiates (e.g., methadone, hydromorphone,

Table 1. The changing lexicon of substance use disorders

Previous	Updated: DSM-V
Abuse: any use of an illegal substance or overuse of alcohol and other drugs. Dependence: continual, compulsive use of chemicals in self-administered doses despite the problems related to their use.	Substance use disorder: specific (e.g., alcohol use disorder). Criteria: tolerance, withdrawal, loss of control. Loss of control: (1) recurrent use resulting in failure to fulfill obligations. (2) recurrent use in physically hazardous situations. (3) continued use despite social or interpersonal problems. (4) used more and longer than planned. (5) unsuccessful attempts to control or quit use. (6) excessive time spent obtaining, using, or recovering from use. (7) important social, occupational activities given up. (8) continued use despite having physical or psychological problems. (9) craving or a strong desire or urge to use a specific substance. Severity: mild, 1–3 criteria; moderate, 4–5 criteria; severe, ≥6 criteria.

Abbreviation used: *DSM-V*, *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*.
Source: References 4 and 5.

Table 2. Substance abuse: The numbers

Population	Condition	Estimated prevalence
General U.S. population	Chemical addiction	10%–15%
Health professionals	Substance use disorders	8%–12%
Pharmacists	Chemical addiction	11%–15%

Source: Reference 8.

fentanyl, meperidine, morphine, oxycodone), minor opiates (e.g., hydrocodone, pentazocine, codeine), anxiolytics (e.g., alprazolam), sedative-hypnotics (e.g., zolpidem, tamazepam), inhalants (e.g., nitrous oxide, amylnitrate), and tranquilizers (e.g., phenobarbital, ketamine).¹¹

Reports in the literature about substance use disorders among pharmacists and physicians have described their preferred substances to be opioids, alcohol, and methamphetamines, in that order.¹² One study of health professionals in an outpatient program for treatment of substance abuse reported that pharmacists had the highest rate of opioid use disorder (83%), higher than physicians (58%).^{12,13} Other studies have estimated that 18% to 21% of pharmacists have misused prescription drugs. In most of those cases, addiction developed after taking medications that had been prescribed for physical ailments, notably pain.³

Science of addiction

Addiction is a chronic, relapsing brain disease characterized by compulsive drug seeking and use despite harmful consequences. Drugs change the brain, both its structure and functioning.¹⁴

Drugs work in the brain by interfering with the normal function of the neurons involved in sending, receiving, and processing information. Some drugs, such as marijuana and heroin, can activate neurons because their chemical structure mimics that of a natural neurotransmitter. In other words, they can fool the receptors and lock onto and activate the nerve cells. Thus, they can lead to the transmission of abnormal messages throughout the reward system. Other drugs, such as amphetamine or cocaine, can cause the nerve cells to release abnormally large amounts of natural neurotransmitters (primarily dopamine). This disruption of communication channels produces a greatly amplified message.¹⁵

All potentially addictive drugs directly or indirectly target the brain's reward system by flooding the circuit with the neurotransmitter dopamine, which regulates feelings of pleasure (i.e., reward). The overstimulation of this primitive survival system, which rewards our natural behaviors (like hunger and thirst) produces the euphoric effects sought by people who use drugs for that reason. This alteration of the brain's normal reward system (i.e., to repeat something that is rewarding) thus dictates that the addicted individual continue using the drug.¹⁵

Effects of abused substances on the brain

Alcohol. Alcohol overuse can damage the brain and most of the body's organs. Effects include damage to higher brain functions such as problem solving and decision making, areas of the brain important for memory and learning, and movement coordination.¹⁶

Marijuana. Marijuana is the most commonly used illicit

substance. It impairs short-term memory and learning and the ability to focus attention and coordination. It also increases heart rate, can harm the lungs, and can increase the risk of psychosis in those with an underlying vulnerability.¹⁶

Cocaine. Cocaine is a short-acting stimulant, leading abusers to binge for sustained pleasure. It also can have severe medical consequences related to the heart and the respiratory, nervous, and digestive systems.¹⁶

Amphetamines. Amphetamines are powerful stimulants that can produce feelings of euphoria and alertness. Their effects are long lasting and harmful to the brain. They can lead to serious heart problems and seizures.¹⁶

Opiates. Opiates such as heroin, morphine, hydrocodone, and oxycodone, alone or in combination with pain medications such as aspirin or acetaminophen, can cause euphoria and feelings of relaxation. They also can slow respiration and have been linked to serious infectious disease, particularly when injected.¹⁶

Prescription medications. Prescription medications such as painkillers, sedatives, and stimulants increasingly are being abused or used for nonmedical purposes. This drug diversion is not just addictive; it can be fatal.¹⁶

Increased risk of developing a substance use disorder

A number of risk factors have been identified in people with addiction. Genetics play a role: heredity accounts for 40% to 60% of addiction.¹⁷ Studies of identical twins indicate that as much as one-half of an individual's risk of becoming addicted to nicotine, alcohol, or other drugs depends on his or her genes. Unlike some disorders, in which a single gene is involved, variations in many different genes contribute to the overall level of risk for addiction.¹⁸

Family history also can be a risk factor: If one parent was an abuser, the individual's likelihood of becoming dependent or addicted is 20% to 25%; that risk increases to 30% to 50% if both parents were abusers.²

Starting drug use early is another factor: Those who experiment with drugs between 8 and 10 years of age are 500% more likely to develop a dependency in their lifetime. Early childhood trauma also has been identified as a contributing factor. Chronic stress causes increased release of corticotrophin releasing factor, a hormone involved in the pathophysiology of chronic anxiety and panic, and decreased dopamine receptors in the brain.^{17,19}

Researchers have reported risk factors contributing to AOD use to be moderate or more frequent use of alcohol, feeling immune to the addictive effects (pharmaceutical invincibility), and socializing with substance abusers.¹¹

Environmental factors that are risk factors for substance abuse include a home that is chaotic and where abuse is practiced, parents' use and attitudes, peer influences and social attitudes, and poor academic achievement.¹⁷

Risk factors for substance abuse by pharmacists

Health professionals have been identified as a population at special risk for developing substance use disorders. Pharmacists and physicians are particularly vulnerable to prescription

drug abuse and dependence as a result of increased access and other job-related factors.³ Addiction has been called an occupational hazard for health care workers.^{20,21}

Addiction is a major problem among a minority of pharmacists. Pharmacists share many of the factors that contribute to substance use disorders in the general public such as a history of recreational drug use, iatrogenic addiction following medicinal use, and desire to relieve stress.³

The stress involved in the pharmacy work environment is a major factor in the development of substance abuse. A 2013 report in the *Journal of the American Pharmacists Association* documented a high level of dissatisfaction among community chain and independent pharmacists. Based on a survey, more than one-half of the respondents had considered quitting their current position in the previous year. Pharmacists with bachelor's degrees were more satisfied with their work life than those with doctor of pharmacy degrees, and those working in independent pharmacies were more satisfied than those in chains.²²

In a recent survey of recovering pharmacists, participants noted that easy access to the drugs encouraged them to take them and likely led to their addiction. Some reported that increased access to prescription drugs exacerbated or hastened the development of a previously existing substance use disorder.³

This is especially true for community pharmacists who reported feeling overworked and overwhelmed. They told researchers that their use of drugs made their jobs more manageable, enhancing both their mood and their performance at work. They felt that their drug use helped them deal with the boredom and monotony of their job. They acknowledged that as their addiction progressed, their work tended to suffer.³

Another primary contributor to prescription drug abuse among pharmacists is the "culture of the pharmacy" or "culture of tolerance." Respondents in this study said that they felt that taking medications from the pharmacy was an expected perk of their position. Some reported that such behavior was supported or even encouraged by their supervisors.³ These same recovering pharmacists revealed an unwritten "code of silence" in which pharmacists cover for one another in hiding inappropriate behaviors. Many pharmacists turn a blind eye to medication diversion and expect their peers to ignore such wrongdoing.³

An interview study from 1989 reveals some of the struggles experienced by pharmacists with substance abuse. The study participants were 86 pharmacists recovering from alcohol or other drug addiction. Many felt inadequately prepared to recognize or deal with warning signs of problems of addiction in themselves or others. A total of 44 had been arrested, 45 had experienced unemployment because of drinking or other drug use, and 16 lost their licenses. A total of 18 pharmacists reported suicide attempts, 13 of which were by drug overdose. Fifty had never been subject to board action because of their drinking and other drug use. The use of chemicals interfered with the pharmacists' lives long before they were consciously worried about it. For 18, recovery occurred through the assistance of mutual-help groups alone; others had a variety of treatment experiences. Fewer pharmacists reported addiction to alcohol only compared with other health professionals. Very few re-

ported addiction to parenteral drugs, which was a significant deviation from the other groups studied. Pharmacists also differed from other groups in that they were extra scrupulous in reporting acts of dishonesty associated with their addiction.²³

Lack of effective education regarding addiction in pharmacy schools is a significant contributing factor. Surveys of student pharmacists have documented substantial self-reports of recreational use, including use of marijuana (5.9%–28%), amphetamines (1.2%–6.8%), cocaine (0.5%–13%), sedatives (3%–9%), and opioids (0.7%–5.1%).²⁴

Research on attitudes regarding AOD use in three pharmacy colleges revealed that AOD use was associated with blackouts (18.2%), attending class or working under the influence (7.8%), patient care while under the influence (1.4%), lowered grades or job evaluations (5.8%), and legal charges (2.7%). The researchers recommended that student AOD prevention, assistance, and education be proactively addressed by colleges and schools of pharmacy.²⁵

Identifying pharmacist drug problems

Most corporate chain and hospital pharmacies use periodic statistical analyses to evaluate worker access to specific drugs. If a particular employee accesses controlled drugs more often than his or her peers without sufficient cause, a more formal investigation such as videotaping or site audits may be undertaken.⁴

Individuals with substance use disorders often exhibit similar aberrant behaviors. Table 3 lists professional and physical signs and symptoms that suggest a substance use problem.

Do you have a problem?

- When you drink or use a mood-altering chemical, can you predict your feelings, mood, and behavior?
- Do you experience negative effects from your use but do it anyway?
- Have you ever tried to control your use? Were you successful?
- Are you afraid that if you ask for help you will lose your job or license?
- Do you work long hours at the pharmacy? Is this your source of pharmaceuticals?
- Do you drink when you don't have your drug of choice?
- Is your family expressing concern about your attitude or isolation?
- Have you blacked out? That is, do you not remember what you have said or done or even that you were present in a given situation or location?
- Have you thought about killing yourself?
- Are you an adult child of an alcoholic parent?
- Do you find yourself looking for justification of your use?

According to Addiction Recovery Resources for the Professional, a positive answer(s) to these questions indicates that a problem exists. If you suspect that you have a problem, you can take the Phelps-Nourse online Addictiveness Test (www.lapage.com/arr/phelps.htm). You will receive a confidential score via e-mail.¹

One of the most difficult professional decisions a pharmacist can make is whether to confront or report a coworker with a suspected substance use disorder. Such a decision requires a careful analysis of the pros and cons. On one hand, getting treatment will protect the pharmacist's patients from poor judgment and the potential of medication errors, which can be life threatening.³ It can avoid legal action and damaged cred-

Table 3. Signs and symptoms of possible substance abuse in pharmacists

Professional
Work performance alternates between periods of high and low productivity
Absence from work without notice, frequent absenteeism or tardiness
Unexplained, lengthy disappearance during work hours
Sleeping or dozing while on duty
Unreliable in keeping appointments, meeting deadlines
Inappropriate prescriptions for large doses of narcotics
Heavy drug waste and/or drug shortages in the pharmacy
Sloppy record keeping, increase in medication order entry errors
Volunteering for overtime, coming to work when not scheduled
Poor interpersonal relations with colleagues, staff, and patients
Increasing personal and professional isolation
Physical
Changes in sleeping patterns, eating habits
Deterioration in appearance and personal hygiene
Changes in speech patterns (e.g., slurred, faster or slower speech)
Frequent bathroom breaks
Excessive perspiration
Confusion, memory loss, difficulty concentrating
Personality changes, mood swings
Wearing long sleeves when inappropriate
Odor of alcohol on the breath or strong odor of mouthwash or mints to mask the alcohol
Hand tremor resulting from alcohol withdrawal (as in the morning)

Source: References 4, 7, and 26.

ibility of the employer that can arise from mistakes that harm a patient.⁶ It can prevent the family, social, economic, and legal consequences of addiction in pharmacists.

On the other hand, reporting a colleague to the state board can be devastating to that colleague and may lead to loss of employment, either temporarily or permanently if treatment is not successful.

However, pharmacists can seek help in other nonpunitive ways.

If a manager suggests to a pharmacist that he/she enroll in a treatment program, and the pharmacist takes action, reporting to the state board is not necessary. If, on the other hand, the pharmacist refuses to seek help, then the employer must report to the state board.^{9,27}

What would you do?

If you suspect a colleague is in trouble with drugs or alcohol, what would you do? It can be a critical decision in terms of that colleague's life and career. However, some health professionals have lost their lives to addiction because those who saw the signs and symptoms refused to get involved.⁷

Individuals who become involved in helping a colleague are not just helping the colleague, they are affecting his/her safety and welfare and also are protecting patients who rely on their pharmacist for accuracy.⁷

Keep in mind that pharmacists who voluntarily seek help can do so confidentially, without involving punishment by the state board of pharmacy.

Steps to seeking help

Many professional codes of ethics mandate that the professional who is aware of a problem in his/her own life that affects client care must get help for themselves.⁶ However, many substance-abusing pharmacists feel that asking for help is the wrong thing to do. They expect punishment or prosecution when their behavior is discovered. Pharmacists in recovery programs report that they were generally unaware that confidential treatment options exist.³

Pharmacists who suffer from addiction have a wide range of options. The first step for many is to join a self-help group such as Alcoholics Anonymous, Narcotics Anonymous, or a similar 12-step program specifically designed for health professionals or pharmacists. Some seek help through spiritual programs, while others turn to clinics or hospitals that offer treatments for substance abuse, including outpatient care, intensive outpatient therapy, and residential treatment.¹²

Experts believe that the existence of nonpunitive options increases the likelihood that pharmacists will refer themselves for intervention and that colleagues will refer an impaired colleague.

For more than 50 years, employee assistance programs (EAPs) have offered help to workers with various problems, including AOD overuse, that affect their job performance negatively. Most EAPs use a rehabilitative approach to a substance use disorder in the workplace. Employees who request help receive confidential assistance. They may opt to deal with their substance abuse in a therapeutic setting while their supervisor relies solely on job performance criteria for making decisions about continued employment.⁴

The Pharmacists Recovery Network (PRN), which is a nationwide network of advisory, monitoring, and advocacy programs for pharmacists, is another option for those seeking help. Supported by state professional pharmacy associations, PRNs organize, sponsor, or support programs that offer confidential assistance to pharmacists who are impaired by substance abuse or addiction. These individuals can call their state PRN to seek confidential advice and assistance. The PRN group collects information and refers the individual for follow-up with a counselor for a chemical dependency assessment and referral to a treatment specialist.⁴

State and local PRN programs can be identified at www.usaprn.org. The site also provides extensive information about impaired and recovering pharmacists.

Pharmacy licensing boards and professional societies have assumed the responsibility of protecting the public when an impaired pharmacist is identified. Every state has a pharmacy licensing board that defines the parameters of professional activity. When a pharmacist violates those standards, he or she may be subject to punitive board action, such as license suspension or revocation.⁴ Each state's standards are listed on its board's website.

Example: California Board of Pharmacy

In California, state law requires the licensing board to operate a pharmacist recovery program to "rehabilitate pharmacists and intern pharmacists whose competency may be impaired due to abuse of alcohol, drug use, or mental illness. The intent of the

pharmacist recovery program is to return these individuals to the practice of pharmacy in a manner that will not endanger the public health and safety."²⁷

The California Board of Pharmacy describes the purpose of that state's PRN as "identification and evaluation of the nature and severity of the chemical dependency." It stipulates that the PRN will develop a treatment plan contract, monitor participation, and provide encouragement and support. Voluntary self-referral may be done by calling the state's 24-hour toll-free number. All voluntary requests for information and assistance are strictly confidential; they are not subject to discovery or subpoena. The individual will meet with a licensed professional who will make a confidential evaluation and develop a treatment plan. Pharmacists who use the program are assured that their problem and its nature will remain confidential. Employers, professional colleagues, family, and friends are encouraged to contact the PRN for information and assistance.²⁸ The state's official description of PRNs is provided in the sidebar.

Whether through board action or collegial PRN intervention, the impaired pharmacist may be taken out of practice until the impairment is resolved.¹⁰ If treatment fails, the pharmacist's license to practice will be withdrawn.

California Board of Pharmacy defines PRN²⁷

A pharmacist or intern pharmacist may enter the PRN program if:

1. The pharmacist or intern pharmacist is referred by the board instead of, or in addition to, other means of disciplinary action.
2. The pharmacist or intern pharmacist voluntarily elects to enter the pharmacist recovery program.

Individuals who voluntarily enter a PRN program shall not be subject to discipline or other enforcement action by the board solely on his or her entry into the program or on information obtained from the individual while participating in the program unless he or she would pose a threat to the health and safety of the public. However, if the board received information regarding the individual's conduct, that information may serve as a basis for discipline or other enforcement by the board.

Treatment options

Addiction can be successfully treated. In a survey of impaired pharmacists in pharmacist treatment programs, more than 88% successfully completed treatment and returned to practice.⁴

In addition to stopping the substance abuse, goals of addiction therapy include reduction or elimination of denial, increased self-care, and treatment of medical and psychiatric problems.²

Effective treatment of addiction combines medications with behavioral therapy. Increasing understanding of the science of addiction has led to advances in drug abuse treatment. Medications are used to treat withdrawal, help the brain adapt to the absence of the abused substance, and prevent relapse.²⁹ Medications commonly used for alcohol dependence include disulfiram, naltrexone and naltrexone depot, and acamprosate. Those with opioid dependence may be given naltrexone, methadone, or buprenorphine.⁴

Behavioral therapies are used to help engage participants in their treatment and to modify attitudes and behaviors related to substance use disorders. This approach helps patients learn to handle stressful circumstances and environmental cues

that may trigger intense cravings. Behavioral therapies can enhance the effectiveness of medications and help people remain in treatment longer.²⁹

Different behavioral therapy techniques are designed to address specific needs.

Cognitive behavioral therapy. Cognitive behavioral therapy helps patients to recognize, avoid, and cope with the situations in which they are most likely to abuse drugs.

Motivational incentives. Motivational incentives may be used, providing rewards or privileges for remaining drug free, complying with medications, and for attending and participating in counseling sessions.

Motivational interviewing. Motivational interviewing employs strategies designed to evoke rapid and internally motivated behavior change to stop drug use and facilitate entry into treatment.

Group therapy. Group therapy helps patients face their abuse realistically, acknowledge its harmful consequences, and boost their motivation to stay drug free. They learn how to solve their emotional and interpersonal problems without resorting to drugs.

Because addiction can affect so many aspects of a person's life, treatment must address the needs of the whole person to be successful. The most successful programs incorporate a variety of rehabilitative services into their comprehensive treatment regimen. Treatment counselors select the services that will best meet the needs (e.g., medical, psychological, social, vocational, legal) of each patient's recovery efforts.²⁹

The course of treatment depends on the program that the pharmacist selects. Table 4 provides a description of treatment modalities.

Recovery

No cure exists for addiction. Substance abuse is a complex disorder, and the recovery process also is complex. Speaking at the 2012 annual conference of the University of Utah School on Alcoholism and Other Drug Dependencies, Mary Christine Parks, Executive Director of the North Carolina Pharmacist Recovery Network, defined recovery in terms of remaining free from abused substances, which is a lifelong process. Behavioral indicators of recovery include setting boundaries, asking questions, admitting mistakes, and being open to feedback. The recovering patient has strong relationships and a strong support network, is connected to the community, and uses appropriate coping skills.³⁰

Parks articulated that two important components of the recovery process are cultivating self-care and self-advocacy practices.

Self-care. Self-care is an important component of recovery. Deterioration of health and appearance often is associated with addiction. Elements of self-care include regular exercise, healthy eating, getting sufficient sleep, recreation, and making time for oneself. Socialization and spiritual practice are part of self-care, as are having annual medical check-ups and not being reluctant to ask for help when needed.¹⁷

In the pharmacy environment, practical self-care suggestions are delegating, sitting down to take a break, practicing deep breathing exercises, and using available sick and vaca-

Table 4. Treatment for substance abuse

Modality	Patient type	Duration	Therapeutic elements
Detoxification	Individuals displaying or at risk of severe alcohol or opioid withdrawal distress	Alcohol: 3–5 days inpatient; opioid: 10–180 days	Alcohol: benzodiazepine tapering; opioid: methadone or buprenorphine
Partial hospitalization (PHP)	Most common level of care for health professionals	3–5 weeks	Often live on site (residential PHP)
Intensive outpatient therapy	Those recently discharged from PHP or detoxification or who require aggressive initiation of therapy	3–5 weeks	Patients live off site; attend therapy for 4–6 h/day
Aftercare program, commonly called Caduceus aftercare group	Those discharged from intensive outpatient therapy	2 years	1–2 h group therapy/week
Individual and family outpatient therapy	Those discharged from intensive outpatient therapy or aftercare who need continued recovery support (most patients) and those deemed able to establish sobriety with minimal intervention	6–24 months	Hourly sessions once a week to deal with issues related to disease
Education and information programs	Mild substance use disorders (not involving addiction); those who may respond to information and reason	4–6 weeks	Classes provide information about addiction and its consequences
Therapeutic community (extremely rare for health professionals)	Individuals who were court referred or otherwise coerced into treatment; have usually failed more conventional therapeutic approaches	12–36 months	Patients reside at the facility, entering with no status and earning privileges as their recovery progresses
Inpatient treatment center	Patients suffering from more serious addictions with or without physical dependency; those who were unsuccessful in intensive outpatient treatment or partial hospitalization or are first admissions who are deemed unlikely to succeed in outpatient care	1–4 weeks; some may stay longer	Patients reside at a live-in facility where they are immersed in recovery activities and philosophy; may include on-site alcohol or opioid detoxification
Halfway house	Recovering patients who have been unable to sustain sobriety or are homeless	≥1 year	Focus on recovery; support for each other's sobriety; many are based on 12-step traditions
Opioid maintenance in certified treatment programs	Patients with at least 1-year history of addiction and who are physically dependent on an opioid	≥180 days	Daily oral dosing with methadone or buprenorphine
Opioid maintenance in office-based practice	Patients deemed by the physician to be in need of pharmacotherapy for opioid use disorder	Ongoing	Authorized primary care physician prescribes buprenorphine, which is dispensed by local pharmacy

Source: Reference 4.

tion days. Extending to work responsibilities, the pharmacist should keep up with required documentation, prioritize tasks, and check them off when complete.¹⁷

Self-advocacy. Self-advocacy is another important trait needed by recovering individuals. This term is used to describe an individual's ability to effectively communicate, convey, negotiate, or assert his or her interests, desires, needs, and rights. It involves making informed decisions and taking responsibility for those decisions.¹⁷

In the context of pharmacy practice, self-advocacy involves refraining from whining or playing the blame game and not acting purely in a self-serving manner. Instead, one should address a problem by selecting the appropriate individual in the hierarchy with whom to talk, gathering evidence, and considering all sides of the issue. Proactively suggesting solutions typically is well received.¹⁷

Embracing these practices is important for raising one's self-esteem and building confidence. Individuals who do not use these practices, regardless of whether they have a substance

use disorder, may find that their physical, emotional, and spiritual health suffers. Their relationships are likely characterized by distance, resentments, and isolation. They may experience burnout and make mistakes in their career.¹⁷

Preventing relapse

Most recovering substance-impaired pharmacists must commit to long-term treatment, participation in 12-step meetings and weekly monitoring group meetings, and random urine drug screening.³ The importance of AA or NA programs was confirmed in a recent study of pharmacists in an addiction treatment program. Only 9 of 116 participants did not attend AA or NA meetings; all 9 were in the group of relapsers.³¹ Contracts with state monitoring programs typically last for 5 years; they may be extended in cases of noncompliance and/or documented relapse.³

Like others suffering from addiction, recovering pharmacists face a continuing challenge to remain drug or alcohol free. They understand that they are chemically dependent and want

to stay sober.³²

Relapse is a threat for major illnesses, and addiction is no exception.³² In the pharmacy context, it is generally defined as the use of any unauthorized, potentially addicting substance. A one-time, short-lived relapse would be considered a “slip,” which is less consequential for a PRN program in terms of their need to report it to a pharmacy board.³⁰

Relapse involves much more than just returning to use; it is the progressive process of a once-stable recovery program becoming so dysfunctional that returning to substance use has become a viable option.¹³

Relapsers have trouble for a variety of reasons. They may not have fully accepted their addiction or have not resolved their inner conflict about being an addict. They may have comorbidities such as depression, bipolar disorder, or personality disorders that are not managed or treated effectively. They may still face relationship issues that have not been resolved. Table 5 provides a checklist of symptoms leading to relapse.

Not every recovering individual experiences slips or relapse. If these occur, interventions and education are available to help improve a person’s program of recovery.³⁰

Monitoring

As with many diseases, monitoring is an important part of treatment. Hence, patients in treatment for the disease of addiction are monitored, with the goals of providing support and a structure and offering opportunities for learning. Monitoring also produces evidence for the patient’s fitness and safe return to practicing pharmacy.³⁰ Research has shown that monitoring for addiction is successful.³⁰ In a study of pharmacists in a treatment program, the relative risk for relapse was more than 10 times greater for those who were not in an effective monitoring program.³¹ The sidebar provides a description of one state’s PRN monitoring program.

Monitoring in the North Carolina PRN³⁰

Progress is monitored while in treatment, and discharge planning begins as the client nears the end of treatment. Within 24 hours of discharge, the client meets with North Carolina PRN (NCPRN) staff to review the policies and procedures of the program in detail. Then, the client signs a 5-year monitoring contract. The client agrees to:

- Call in or log in daily to the administrator’s system; participants can expect to be tested 36 to 48 times per year.
- Complete documentation monthly for NCPRN review.
- Meet weekly with an individual therapist or a professionals group.
- Attend an NCPRN function in their geographic area once a year.
- Meet face-to-face with NCPRN staff at least once a year and attend other meetings requested by either party.
- Attend the NCPRN conference annually.

In some programs, medication use is monitored using the Talbott Medication Guide (www.talbottcampus.com/index.php/resources/medication-guide). This resource provides categorized products (prescription and OTC medications) that should be taken only with the approval and the knowledge and consent of the addiction recovery physician.³⁴ All Class A and B medications must be approved by an addiction specialist. Every NCPRN client is required to establish a relationship with an

addiction specialist, or addictionologist.³⁰

Compliance, which is defined as following the policies and procedures set forth by a monitoring program, is required for successful recovery.³⁰ Different programs measure compliance in different ways and rely on different data sources. An essential measure is drug screening, which often is more than a simple positive or negative test. Both quantitative and qualitative behavior is assessed, and monthly reports are completed by the patient, the therapists, a work monitor, and peers.³⁰

A patient is considered compliant if he/she attends required meetings, turns in paperwork and pays fees on time, calls into the program as required, participates in treatment, submits prescriptions by appropriate health professional, and generally follows the restrictions set forth in the contract. Of particular importance is consistency in drug testing.³⁰

Resources for information and help

- Addiction recovery resources for the professional: A diagnosis of addiction? (www.lapage.com/arr/thumbnail.htm)
- Alcoholics Anonymous (www.aa.org)
- American Society of Addiction Medicine (www.asam.org)
- CASAColumbia: National Center on Addiction and Substance Abuse at Columbia University (www.casacolumbia.org)
- Narcotics Anonymous (www.na.org)
- National Institute on Alcohol Abuse and Alcoholism, National Institutes of Health (NIH) (www.niaaa.nih.gov)
- National Institute on Drug Abuse, NIH (www.drugabuse.gov)
- Opiate addiction (www.opiates.com/opiate-addiction.html)
- Talbott Medication Guide (www.talbottcampus.com/index.php/resources/medication-guide)
- University of Utah School on Alcoholism and Other Drug Dependencies (www.medicine.utah.edu/uas)
- USA Pharmacists Recovery Network (<http://usaprn.org>)

Summary

Addiction is a major problem among a minority of pharmacists. In fact, it has been called an occupational hazard for the profession. In addition to the risk factors common to all substance abusers, pharmacists’ risk is heightened by their easy access to drugs. Pharmacists who are familiar with the signs and symptoms of substance use disorders are in a better position to help their colleagues get help before the health and safety of patients are threatened.

Although no cure exists for addiction, many professionals whose practice is impaired due to substance use can and do get better with help. Numerous resources are available to help the pharmacist get on the road to recovery, and many of them are not punitive (i.e., they offer confidential treatment and support). Among the options for seeking help, the nationwide PRN offers a range of support and treatment that has helped many professionals to keep their licenses, jobs, and lives.

Table 5. Symptoms suggestive of relapse

Exhaustion
Dishonesty
Impatience
Argumentativeness
Depression
Frustration
Self-pity
Cockiness
Complacency
Expecting too much from others
Letting up on disciplines
Use of mood-altering chemicals
Omnipotence
Minimization
Misrepresentation
Neglect of responsibilities
Rationalizing behavior
Lack of engagement
Defensiveness
Self-isolation

Source: References 30 and 33.

References

- Addiction Recovery Resources for the Professional. A diagnosis of addiction? www.lapage.com/arr/thumbnaill.htm. Accessed May 4, 2013.
- Fingerson B. Addiction in the pharmacy profession: part I. Presentation at University of Utah School on Alcoholism and Other Drug Dependencies, Pharmacy Section, Salt Lake City, UT, June 17–22, 2012.
- Merlo L, Cummings S, Cottler L. Recovering substance-impaired pharmacists' views regarding occupational risks for addiction. *J Am Pharm Assoc.* 2012;52(4):480–91.
- Kenna GA, Erickson C, Tommasello A. Understanding substance abuse and dependence by the pharmacy profession. *US Pharm.* 2006;5:HS-21–33.
- American Psychiatric Association. Diagnostic and statistical manual of mental disorders. 5th ed. Washington, DC: American Psychiatric Association; 2013.
- Pooler D, Sheheen F, Davidson J. Professional impairment: a history and one state's response. *J Addict Dis.* 2009;28(2):113–23.
- Drug Enforcement Administration, Department of Justice. Office Of Diversion Control: drug addiction in health care professionals. www.deadiversion.usdoj.gov/pubs/brochures/drug_hc.htm. Accessed April 21, 2013.
- North Carolina Pharmacist Recovery Network. Homepage. www.ncprn.org. Accessed August 2, 2012.
- Milano C. Prospects brighten for pharmacists in recovery. www.nasw.org/users/milanocarol/recovery.html. Accessed May 4, 2013.
- Kenna GA, Wood MD. Prevalence of substance use by pharmacists and other health professionals. *J Am Pharm Assoc.* 2004;44(6):684–93.
- Kenna GA, Lewis DC. Risk factors for alcohol and other drug use by healthcare professionals. *Subst Abuse Treat Prev Policy.* 2008;3:3.
- Rojas JI, Jeon-Slaughter H, Brand M, Koos E. Substance abuse patterns and psychiatric symptomatology among three healthcare provider groups evaluated in an out-patient program for impaired healthcare professionals. *J Addict Dis.* 2013;32(1):99–107.
- Cross W. Relapse prevention in pharmacists and other health professionals. Presentation at University of Utah School on Alcoholism and Other Drug Dependencies, Pharmacy Section, Salt Lake City, UT, June 17–22, 2012.
- National Institute on Drug Abuse. Drug abuse and addiction. www.drugabuse.gov/publications/science-addiction/drug-abuse-addiction. Accessed May 1, 2013.
- National Institute on Drug Abuse. Drugs and the brain. www.drugabuse.gov/publications/science-addiction/drugs-brain. Accessed May 1, 2013.
- National Institute on Drug Abuse. Addiction and health. www.drugabuse.gov/publications/science-addiction/addiction-health. Accessed May 1, 2013.
- Parks MC. Addiction in the pharmacy profession: part III. Presentation at University of Utah School on Alcoholism and Other Drug Dependencies, Pharmacy Section, Salt Lake City, UT, June 17–22, 2012.
- National Institute on Drug Abuse. Genetics: the blueprint of health and disease. www.drugabuse.gov/publications/topics-in-brief/genetics-addiction. Accessed July 11, 2013.
- Shekhar A, Truitt W, Rainnie D, et al. Role of stress, corticotrophin releasing factor (CRF) and amygdala plasticity in chronic anxiety. *Stress.* 2005;8(4):209–19.
- Pharmacists Recovery Network. The pyramid of addiction. www.usaprn.org/recovery-articles/the-pyramid-of-addiction.html. Accessed May 2, 2013.
- Domino KB, Hornbean TF, Polissar NL, et al. Risk factors for relapse in healthcare professionals with substance use disorders. *JAMA.* 2005;293(12):1453–60.
- Munger MA, Gordon E, Hartman J, et al. Community pharmacists' occupational satisfaction and stress: a profession in jeopardy? *J Am Pharm Assoc.* 2013;53(3):282–96.
- Bissell L, Haberman PW, Williams RL. Pharmacists recovering from alcohol and other drug addictions: an interview study. *Am Pharm.* 1989;NS29(6):19–30.
- Baldwin JN. The addicts among us. *Am J Pharm Educ.* 2009;73(7):article 124.
- Baldwin JN, Scott DM, DeSimone EM 2nd, et al. Substance use attitudes and behaviors at three pharmacy colleges. 2011;32(1):27–35.
- Baldisseri MR. Impaired healthcare professional. *Crit Care Med.* 2007;35(2 suppl):S106–16.
- California Board of Pharmacy. 2013 lawbook for pharmacy: article 21. www.pharmacy.ca.gov/laws_regs/lawbook.pdf. Accessed May 2, 2013.
- California Department of Consumer Affairs Board of Pharmacy. Pharmacist recovery program. www.pharmacy.ca.gov/licensing/pharmacist_recovery.shtml. Accessed May 2, 2013.
- National Institute on Drug Abuse. Treatment and recovery. www.drugabuse.gov/publications/science-addiction/treatment-recovery. Accessed May 1, 2013.
- Parks MC. Compliance vs. recovery: does it really work if you work it? Presentation at University of Utah School on Alcoholism and Other Drug Dependencies, Pharmacy Section, Salt Lake City, UT, June 17–22, 2012.
- Cross W, et al. Issues and data associated with chemical dependency in pharmacists. *US Pharm.* In press.
- Pharmacists Recovery Network. The truth about relapse. Available at www.usaprn.org/recovery-articles/the-truth-about-relapse.html. Accessed May 2, 2013.
- Pharmacists Recovery Network. A checklist of symptoms leading to relapse. www.usaprn.org/recovery-articles/a-checklist-of-symptoms.html. Accessed May 2, 2013.
- Talbot Recovery. Recovery programs medication guide. www.talbotcampus.com/index.php/resources/medication-guide. Accessed June 21, 2013.

CPE assessment

Instructions: This exam must be taken online; please see “CPE information” for further instructions. The online system will present these questions in random order to help reinforce the learning opportunity. There is only one correct answer to each question.

- The prevalence of addiction among pharmacists is estimated to be:**
 - 5%.
 - 8% to 12%.
 - 11% to 15%.
 - >20%.
- Substance use disorder is the new term used to:**
 - Replace the term addiction.
 - Describe a pattern of use that results in considerable social, interpersonal, or legal problems.
 - Replace the terms abuse and dependence.
 - Define a condition that is chronic, progressive, symptomatic, fatal if left untreated, and treatable.
- A study of health professionals reported that pharmacists in a treatment program had which of the following rates of opioid use?**
 - 15%
 - 21%
 - 58%
 - 83%
- Which of the following is the most commonly used illicit substance?**
 - Marijuana
 - Prescription medication
 - Amphetamine
 - Alcohol
- Substance abuse by both parents increases the risk of addiction in individuals by which of the following percentages?**
 - <10%
 - 20% to 25%
 - 30% to 50%
 - >50%
- An interview study of 86 pharmacists recovering from addiction revealed:**
 - 60 had been arrested.
 - 35 had attempted suicide.
 - A majority had lost their license to practice pharmacy.
 - 45 had experienced unemployment as a result of their substance use.
- Pharmacy recovery networks provide confidential information and assistance to:**
 - Family members.
 - Employers.
 - Pharmacists who voluntarily seek help.
 - Pharmacists referred by the state board of pharmacy.
- Besides damaging the brain, which of the following drugs also increases the risk of infectious diseases?**
 - Cocaine
 - Opiates
 - Amphetamines
 - Stimulants

CPE information

To obtain 2.0 contact hours (0.2 CEUs) of CPE credit for this activity, you must complete the online Assessment and Evaluation. A Statement of Credit will be awarded for a passing grade of 70% or better on the Assessment. You will have two opportunities to successfully complete the CPE Assessment. Pharmacists who successfully complete this activity before June 1, 2016, can receive CPE credit. Your Statement of Credit will be available upon successful completion of the Assessment and Evaluation and will be stored in your ‘My Training Page’ and on CPE Monitor for future viewing/printing.

CPE instructions:

- Log in or create an account at pharmacist.com and select LEARN from the top of the page; select Continuing Education, then Home Study CPE to access the Library.
- Enter the title of this article or the ACPE number to search for the article, and click on the title of the article to start the home study.
- To receive CPE credit, select Enroll Now or Add to Cart from the left navigation and successfully complete the Assessment (with randomized questions), Learning Evaluation, and Activity Evaluation.
- To get your Statement of Credit, click “Claim” on the right side of the page. You will need to provide your NABP e-profile ID number to obtain and print your Statement of Credit.

Live step-by-step assistance is available Monday through Friday from 8:30 am to 5:00 pm ET at APhA Member Services at 800-237-APHA (2742) or by e-mailing education@aphanet.com.

9. Pharmacists who seek help for their substance use disorder voluntarily will:
- Be prosecuted under state laws.
 - Lose their job automatically.
 - Receive assistance and treatment confidentially.
 - Be hospitalized for initial treatment.
10. The intent of the California Pharmacy Recovery Network is to:
- Return the pharmacist to the practice of pharmacy.
 - Punish the pharmacist for endangering patients.
 - Revoke the pharmacist's license.
 - Report the pharmacist to the state board of pharmacy.
11. According to the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition*, an individual's substance use disorder is severe if the individual:
- Meets two or three of the diagnostic criteria.
 - Continues using despite physical or psychological problems.
 - Meets six or more of the diagnostic criteria.
 - Has unsuccessfully tried to quit their use.
12. Which of the following medications is commonly used to treat alcoholism?
- Buprenorphine
 - Acamprosate
 - Methadone
 - Zolpidem
13. Which of the following symptoms may be suggestive of relapse?
- Self-isolation
 - Manic episodes
 - Abdominal pain
 - Increased thirst
14. Successful treatment and return to practice:
- Are unachievable goals for most pharmacists with addiction.
 - Can be accomplished after the addiction has been cured.
 - Occur in a minority of pharmacists in treatment programs.
 - Have been attained in nearly 90% of pharmacists in a treatment program.
15. An individual's ability to communicate and negotiate is a characteristic of:
- Self-care.
 - Motivational interviewing.
 - Self-advocacy.
 - A healthy lifestyle.
16. A client in the North Carolina Pharmacist Recovery Network can expect to be tested:
- Weekly.
 - Monthly.
 - 25 times/year.
 - Up to 48 times/year.
17. Participants in the North Carolina Pharmacist Recovery Network can take Class A or B medications:
- Only with approval by an addiction specialist.
 - With approval of their primary care physician.
 - With assent from the Pharmacist Recovery Network director.
 - Participants may not take any Class A or B medications.
18. Monitoring contracts for recovering addicts:
- Typically last for 5 years.
 - Are usually used for relapsing pharmacists.
 - Usually have a duration of 1 year.
 - Are instituted only for nonadherent patients.
19. Individuals who have failed conventional therapeutic approaches to addiction are:
- Sent to a halfway house.
 - Institutionalized at a therapeutic community.
 - Admitted to intensive outpatient therapy.
 - Ordered to attend group or family behavioral therapy.
20. Intensive outpatient therapy usually lasts for:
- 180 days.
 - 6 to 24 months.
 - 3 to 5 weeks.
 - 1 to 4 weeks.