This year our nation will once again spend somewhere in the area of $559 billion on addiction, potentially making it our nation’s largest health care problem (NIDA, 2008). In studies done in 2001–2002 using the DSM-IV criteria it was estimated that about 12.5 percent of the population would experience alcoholism and about 2.5 percent would experience addiction at some point in their lives (Comton, Thomas, Stinson, & Grant, 2007; Hasin, Stinson, Ogburn, & Grant, 2007).

Studies on health professionals have largely suggested this population is neither significantly less nor significantly more likely to experience such problems (Kenna, Baldwin, Trinkoff, & Lewis, 2011). However, health professionals are typically more likely to use addictive prescription medications rather than street drugs. One would assume that pharmacists, having unique knowledge of the pharmacodynamics of potentially addicting medications, would be less vulnerable to addiction than other health care professionals, but unfortunately this does not seem to be the case. In terms of addiction, the pharmacy work setting itself presents hazards on multiple levels (Merlo, Cummings, & Cottler, 2012).

Nevertheless, when pharmacists receive tailored treatment and effective monitoring and aftercare recommendations they tend to be extremely successful in recovery, with a recovery rate of 87 percent (Cross, Bologeorges, & Angres, 2013).

Regardless, addiction is a disease in at least one in seven individuals, affecting many others in many ways.
Pharmacists need to be prepared to address this common disease and its tangential impacts.

Recently, there has been a sharp increase in the number of deaths attributable to abuse of prescription analgesics (opioids). Many pharmacists face significant challenges in differentiating legitimate and appropriate prescriptions for addicting medications from scams (e.g., early refills, altered prescriptions, unbelievable excuses, inappropriate quantities or doses). Pharmacy robberies and diversion for personal use by pharmacists are additional concerns. How does the pharmacy education community address addiction prevention, education, and assistance?

**Addressing Addiction Education in Pharmacy Colleges and Schools**

While addiction remains a common and significant problem, causing considerable societal harm and frequently still being inadequately addressed in many pharmacy colleges and schools, there exists no mandate in the pharmacy education accreditation system defining the scope or content of addiction education. An additional confounding factor in providing addiction education is content expertise. Pharmacy colleges and schools may often elect not to expand their addiction education, including continuing education for practicing pharmacists, because they feel their faculty is unable to appropriately address the issues involved. These issues include:

- Addiction recognition
- Methods for addiction evaluation, diagnosis, and referral
- Addiction treatment
- Recovery processes, including relapse prevention
- Codependency and family issues and support

These areas of deficiency can often be opportunities for pharmacy colleges and schools to reach out to their student counseling programs and addiction counseling and treatment programs in their communities for guidance and assistance. According to self-reflections related to attendance of pharmacy students at open Twelve Step mutual-help groups such as Alcoholics Anonymous (AA), Narcotics Anonymous (NA) or Al-Anon, such experiences have been beneficial to their education.

**The American Pharmacists Association Academy of Pharmacy Practice and Management (APhA-APPM) established the Practice Interest Group on Addiction (Addiction PiNG) in 2000.**

In 2012, this was transitioned to the Pain, Palliative Care, and Addiction Special Interest Group (PPCA SIG). Membership in the PPCA SIG currently exceeds 3,500 pharmacy students and pharmacists. It is probable that much of the interest in membership in the PPCA SIG has been generated from student participation in the University of Utah School on Alcoholism and Drug Dependencies (Utah School). Beginning in 2015, the Utah School has been transitioned to a free-standing APhA Institute on Alcoholism and Drug Dependencies with a program and target audience very similar to the previous program (APhA, 2014).

These addiction prevention and education challenges, processes, and resources afford numerous potential opportunities for counselors—particularly those with addiction counseling expertise—to significantly interface with pharmacy colleges and schools to promote addiction education for our future pharmacists and a safer community.

### Risk Factors for Addiction in Pharmacists

Substance use disorders (SUDs) pose a significant public health problem that impacts individual and societal well-being (US Department of Health and Human Services, 2010). Among health professions, pharmacy represents a group at high risk for experiencing SUDs. Recent studies suggest several risk factors that may contribute to the development of SUD (see the text box on page 64).

Occupational hazards unique to pharmacy involve additional risk factors; these include accessibility to controlled substances, stressful and unpleasant workplace issues, lack of addiction education related to the profession, and professional shame that develops with impaired pharmacists and their family members prior to treatment (Merlo et al., 2012; Norton, 2009).

### Treatment and Reentry Differentials

Based on general population studies, it can be estimated that about one in seven pharmacists will become addicted in their professional careers (Comton et al., 2007; Hasin et al., 2007). Therefore, what type of treatments and reentry requirements are necessary to rehabilitate an addicted pharmacist?

**Differential #1: The Shame of Addiction**

Does the pharmacist understand addiction as a disease state or is addiction perceived as a moral or character issue? Do addicted pharmacists feel that they are an embarrassment to the profession? Do addicted pharmacists recover from their addictions and can they return to the practice of pharmacy? These questions are connected to an issue that the impaired pharmacist must address in treatment: the professional shame of addiction.

The professional shame of addiction is an attitude regarding addiction developed by a professional from personal, environmental, and societal beliefs.
about addiction. Several authors have defined professional shame as “a painful emotion caused by consciousness of guilt, shortcoming or impropriety.” The treatment of pharmacists must address this critical issue of professional shame. In addition, the treatment of pharmacists must include knowledge of the disease of addiction, open and honest communication, and acceptance of their disease (Milkenovich, 2013).

Once pharmacists have demonstrated a commitment to recovery and a substance-free lifestyle, reinstatement with a state pharmacy board to practice pharmacy may commence. In most cases, the state pharmacy board will require pharmacists to maintain regular contact with an assigned counselor, submit to random drug testing, and participate in support group meetings on a regular basis. In addition, a pharmacy board will very likely place pharmacy practice restrictions on pharmacists as well as require remedial training and reporting, depending on how long they have been separated from the pharmacy profession and professional practice (Milkenovich, 2013).

Differential #2: Treatment Aspects
Addressing mental health and stress-related illnesses are important issues for the rehabilitation of impaired pharmacists to avoid relapse and possible death. There is evidence that other factors also play a role in developing an addiction and depression problems. These personal and environmental factors include personal history of trauma (violent, emotional or environmental), high stress environments (the pharmacy), obsessive-compulsive traits, the need to be perfect, and the need to be in control (Norton et al., 2013).

Pharmacists who participate in these programs are generally required to sign a contract—often referred to as a Caduceus contract—that obligates them to adhere to certain rules and regulations that require them to maintain routine contact with an assigned counselor, submit to random drug testing, and attend regularly scheduled support group meetings. Impaired pharmacists need long-term care and follow-up to reduce the likelihood of a relapse, as well as assistance from family, peers, and support networks (Terrie, 2006).

Even with the success of the PRNs, reentry to the profession of pharmacy can become a somewhat difficult and slow process. Recovering pharmacists are not guaranteed a job even with advocacy of state boards and PRNs, and sometimes they may be terminated after long-term employment for past substance use transgressions. Recently, several of the major drug chains dismissed recovering pharmacists for various employment reasons unrelated to job performance or any evidence of relapse.

Relapse Issues and Prevention
Relapse prevention is a core purpose of addiction treatment. The pharmacy work setting itself presents potentially the highest risk work setting for any health care professional (Kenna, Erickson, & Tommasello, 2006). The work setting likely plays a significant role in both the initial development of addiction and in increasing the potential for relapse. The stressors associated with returning to such a setting can be significant (Merlo et al., 2012). Many community pharmacists fill upwards of four hundred prescriptions per day, often with inadequate help. This affords them four hundred opportunities each day to make a mistake which could cause patient harm and is responsible for significant stress. Late-night work shifts can impair a pharmacist’s ability to get adequate sleep. Pharmacists often suffer from “pharmaceutical invincibility,” simply meaning that they feel their knowledge of the pharmacodynamics of addicting medications will somehow keep them safe from addiction (Kenna et al., 2006). Given these considerations, as well as free access to addicting medications, the pharmacy work setting, in many ways, is a setup for addiction.

Factors that Increase Relapse Potential
Pharmacists are not immune to the pitfalls that face other recovering addicts (Merlo et al., 2012). For example, not accepting that addiction is a chronic disease can lead individuals to believe that they have “gotten better” after their
lives have returned to normal several years later. Inadequate investment in Twelve Step recovery is probably the most frequent refrain heard by counselors after a relapse. This commonly results from ineffectively shopping for AA or NA groups where they feel comfortable and connected (e.g., a home group) and/or having a sponsor in name only. Minimal acceptance of addiction frequently leads individuals to believe that they are “not as sick as those other individuals at meetings” and is often responsible for not following through with treatment recommendations. Occasionally, individuals may not buy into the concept that they are unable to safely use any mood-altering substance (e.g., “My problem was with narcotics, not alcohol”). This may lead them to drink occasionally, which in turn makes it very difficult for them to continue with Twelve Step meetings and be honest. A family support system, uneducated in the concepts of addiction and addiction recovery, can unwittingly make recovery more difficult for addicts just out of treatment. Questions may be asked like, “Do you have to go to these meetings?” or “Why can’t you have a glass of wine with me? Your problem was with a narcotic” (Angres, 2012; Cross, 2015).

In a fourteen-year outcome study published in the journal *US Pharmacist* in November 2013, 116 pharmacists were followed for two years to determine both their success rate and to study specific characteristics of the individuals who relapsed. In this study, eighteen variables were tracked, and seven of the eighteen variables tended to be the strongest predictors of relapse. For the pharmacists in this study group, having an Axis II dual diagnosis (personality disorder) placed them at 6.75 times greater risk for relapse. The most impactful variable in the study stemmed from failure to invest in Twelve Step recovery (AA/NA), placing them at 17.83 times greater risk for relapse. For those pharmacists in the study with a diagnosis of either moderate or severe alcohol use disorder, the relative risk for relapse was three times greater than for those individuals without that diagnosis.

In addition, of significance in this study was the disproportionate percentage of pharmacists addicted to narcotics (74 percent). The use of naltrexone as an adjunct to aftercare and safely returning pharmacists to their work setting was also of great significance in the study. Narcotic-addicted pharmacists returning to work who were not on a naltrexone regimen were eight times more likely to relapse than pharmacists on the naltrexone regimen. The naltrexone regimen lasted for only one year of the two-year outcomes study. Fifty-seven of fifty-nine pharmacists on this two-year protocol were successful. Seemingly, their success in the second year (without naltrexone) was due to compliance with their other aftercare treatment recommendations. Noninvolvement in formal monitoring (PRN programs) after treatment predicted a 10.18 times greater risk for relapse. Pharmacists with a prior history of relapse were 5.5 times more likely to relapse than individuals with no prior relapse history. For those pharmacists who were not married or in a long-term committed relationship, the relative risk for relapse was 2.94 times greater (Cross et al., 2013).

**Relapse Prevention Strategies**

Treatment programs that effectively address the aforementioned factors—factors that increase the potential for relapse both throughout the course of the individual’s treatment as well as effectively adopting a comprehensive aftercare plan (e.g., Caduceus contract) to
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maintain focus on these same factors—should optimize the chances of success (Cross, 2015; Domino et al., 2005).

Having strong family participation in education regarding addiction and their role in patients’ recovery are essential features in a well-constructed treatment program. For those individuals struggling with Twelve Step participation, directly addressing any barriers that have come up for them can be most helpful as most of them have a solution. Education is recommended regarding the effective use of such meetings, such as how to shop for meetings that will work for them over time as well as criteria they can use when looking for a sponsor (Angres, 2012; Cross, 2015).

Recovery contracts should be well thought out with the provisions in the contract discussed with pharmacists throughout treatment. They could include the following recommendations (Cross, 2015):

- Participating in a PRN program for urine monitoring, advocacy, and support
- Individual therapy, marital therapy or both
- Follow up with a psychiatrist to monitor mental health medications
- Frequent AA/NA meetings with significant sponsor involvement
- A quarterly meeting with an addictionologist
- A comprehensive section for specific “back to work” practice recommendations

These recommendations frequently include elements such as working only with another pharmacist present for six months, avoiding shift work, avoiding responsibilities for inventory control, and, when possible, working in a position without direct access to controlled substances for the first three months, and in some cases, finding a permanent position with no access (Cross, 2015).

A current and significant problem that exists for pharmacists is difficulty finding work. In the pharmacy profession there exists a judgmental atmosphere, mostly based on inadequate knowledge of addiction and recovery that may hinder pharmacist reentry and recovery. The following is a direct quote from the American Society of Addiction Medicine’s (ASAM’s) policy statement number 11:

Addictive illness is a stigmatized malady misunderstood and encumbered by myth and misinformation based on antiquated beliefs from the 18th, 19th, and early 20th centuries . . . Historically, many regulatory agencies (RAs) and the health care community have viewed addictive illness from the moral model perspective (ASAM, 2011).

This mindset continues to make it difficult for pharmacists to find work.

Resources Available to Counselors

Being confronted with someone who has a possible substance use disorder can be overwhelming—to whom does one turn for help? Where does one begin to look for answers and options?

Information regarding addictive disease is not taught in any detail in many health care professional schools such as medicine, pharmacy, nursing, and dentistry (Wood, Samet, & Volkow, 2013). Consulting a primary care provider about options can therefore be a risky proposition. There has been some recent emphasis for primary care providers to become more educated about risk, recognition, and finding a resolution to this type of a problem. Dr. Mark Willenbring, director of the Division of Treatment and Recovery Research at the National Institute on Alcohol Abuse and Alcoholism (NIAAA), recommends that physicians consult the NIAAA’s recently updated “Helping Patients Who Drink Too Much: A Clinician’s Guide” (2005; Willenbring, Massey, & Gardner, 2009). A related Journal of the American Medical Association (JAMA) article stated that the guide outlines tools for rapid screening, assessment, and management of high-risk alcohol use, including medication use. Screening, Brief Intervention, and Referral to Treatment (SBIRT) is also shown to be an effective way for primary care providers to intervene with patients who may have a problem (Saitz et al., 2013).

In addition, there is a treatment locator site available to access online at https://findtreatment.samhsa.gov/. While this treatment locator may be helpful, it is best to check with someone within your state who works with treating or monitoring addicted health professionals to get an opinion on the effectiveness of the treatment provided at a particular facility and whether it is suitable for the type of patient to be referred. Please refer to the text box on page 63 for further resources available to pharmacists online.

Acknowledgements: The authors would like to thank Suzanne Albrecht, PharmD, MSLS, for her help in preparing this document.

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