AMERSA

Interdisciplinary Leaders in Substance Use Education, Research, Care and Policy

STR-TA Consortium

State Targeted Response Technical Assistance

Specific Disciplines Addressing Substance Use: AMERSA in the 21st Century – 2018 Update

Edited by
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Background and Introduction

In 2002, AMERSA released a comprehensive strategic plan for interdisciplinary faculty development through Project MAINSTREAM. The purpose of that strategic plan was to provide health professionals working in substance use disorder (SUD) treatment and prevention programs with an overview of the scientific literature, a review of discipline-specific perspectives on training in SUD, and a summary of "the core knowledge, attitudes, competencies, and skills needed by health professionals in all disciplines in order to effectively identify, intervene with, and refer patients with SUD."[1] The proliferation of evidence related to addressing the continuum of substance use, and within the context of the opioid epidemic, required a substantial revision of those nearly two-decade old competencies. The purpose of this document is to provide a practice guide for physicians, nurses, pharmacists, social workers, and physician assistants working with diverse populations across healthcare settings with a focus on prevention, intervention, treatment, and recovery supports for persons who are affected by substance use.

Since the publication of the AMERSA Strategic Plan, the United States has experienced a large increase in the use of heroin and other prescription opioids. While more than 42,000 people died from an opioid-involved overdose in 2016 alone,[2] between 2005 and 2013, less than one in five people with an opioid use disorder were in receipt of opioid-specific treatment.[3] The Substance Abuse and Mental Health Services

Administration (SAMHSA) funded the American Academy of Addiction Psychiatry (AAAP) to lead an interprofessional consortium of key stakeholders and partners to reduce opioid-related overdoses and address the growing opioid epidemic by enhancing access to evidence-based prevention, treatment, and recovery resources for people with opioid use disorders (OUDs).

The State Targeted Response (STR) to the Opioid Crisis Grants, funded by the Center for Substance Abuse Treatment (CSAT) and Center for Substance Abuse Prevention (CSAP) at SAMHSA will provide up to two years of funding to the Single State Authority for Substance Abuse Services in all 50 states and an additional seven territories/jurisdictions. The aim of the program is to address the opioid crisis by "increasing access to treatment, reducing unmet treatment need, and reducing opioid overdose related deaths through the provision of prevention, treatment, and recovery activities for OUDs."[4] The two-year efforts started in July 2017 and are set to conclude in June 2019.

In February 2018, SAMHSA funded AAAP to deliver customized training and intensive technical assistance (TA) to STR grantees to help the states and territories/ jurisdictions deliver evidence-based prevention, treatment, and recovery practices to better address the nation's opioid crisis. As part of this two-year project, AAAP is supporting the revision of four select chapters originally included in the 2002 AMERSA Strategic Plan – medicine, nursing, pharmacy, and social work. A chapter has been

added to this updated document specific to physician assistants and their role in these efforts. The resulting product is this practical document, consisting of five brief discipline-specific chapters, corresponding core competencies for medical professionals to identify and address substance use problems and disorders, including opioid use disorders, and a single, comprehensive bibliography. The 2018 revision provides updated evidence-based guidance to health professionals to support them in effectively assessing and treating patients who use alcohol and other drugs.

AAAP assembled a STR-TA consortium comprised of five core partner organizations – the Addiction Technology Transfer Center Network (ATTC; expertise in SUD training /TA), the Center for Social Innovation (C4; expertise in recovery), Communities for Anti-Drug Coalitions of America (CADCA; expertise in prevention), and Boston Children's Hospital (expertise in prevention), and Columbia University Medical Center (expertise in addiction and treatment), and nearly 20 additional national professional organizations.[5] The STR-TA effort will be evaluated by Research Triangle International (RTI), an expert in monitoring and evaluation.

Addiction has been recognized for several decades as a "chronic, relapsing brain disease that is characterized by compulsive drug seeking and use, despite harmful consequences."[6,7] In 1997, Dr. Alan I. Leshner, former Director of the National Institute on Drug Abuse, authored a brief article in *Science* where he described addiction as a brain disease and made the case that the most effective treatment approaches are multi-

dimensional, and include biological, behavioral, and social-context components.[8] Similar to other diseases, such as diabetes and hypertension, if not recognized early and treated adequately, addiction can disrupt an individual's normal, healthy functioning and result in serious adverse consequences that can last a lifetime.[6,9] Moreover, as there are many evidence-based behavioral and medical treatments to assist people with diabetes, hypertension, or other heart disease to effectively manage their disease and live healthy and productive lives, there are many evidence-based behavioral interventions to address substance use. Additionally, several FDA-approved medications are available for use with persons with alcohol, nicotine, and opioid use disorders that can help them live healthy and productive lives. SAMHSA's tagline summarizes this point perfectly – "*Behavioral Health is Essential to Health, Prevention Works, Treatment is Effective, and People Recover*."[10]

With the implementation of the Affordable Care Act,[11] integrated care has become the gold standard of healthcare delivery models, and providers who previously operated in separate systems are now encouraged to provide mental health, substance use, and primary care services in a seamless, coordinated manner, regardless of a patient's entry point into the broader healthcare system.[12–14] Effective and comprehensive integrated care relies upon the development of a multi-disciplinary team. In turn, this team must possess the following four essential elements: (1) ***leadership and organization commitment*** (e.g., commitment to the philosophy of

integrated care, risk taking, vision, and team values); (2) ***team development*** (e.g., team relationships, cross training, and system and operational support); (3) ***team process*** (e.g., effective communication); and (4) ***team outcomes*** (e.g., clinical outcomes and patient satisfaction).[15]

Screening, brief intervention, and referral to treatment (SBIRT) is a useful framework for guiding the delivery of care related to the continuum of substance use. Screening tools for alcohol use and for drug use can be feasibly used in healthcare settings to detect a person's level of associated risk. Informed by the results of the screening, the healthcare provider can engage the patient in a brief intervention, that is a five to ten minute, motivationally-driven conversation that focuses on development of health behavior goals with supporting patient autonomy. While that conversation may be sufficient to motivate the patient to change, evidence-based behavioral (e.g. cognitive-behavioral treatment, motivational enhancement therapy) and/or pharmacological treatment may be indicated. Such treatments may be provided by the healthcare provider who has engaged the patient in that motivational conversation or this may require a referral to a specialty provider. In making such a referral to treatment, the healthcare provider engages the patient in conversation about possible options such as scheduling a follow-up with a specialty provider for further evaluation and/or specific treatment, recommending mutual support programs, or referring the patient to a higher level of care such as inpatient or residential substance use treatment.

The nation's opioid epidemic has further thrust the treatment of substance use disorders into the healthcare system at-large, and a significant amount of federal funding is now focused specifically on expanding access to available evidence-based behavioral and medical treatment interventions and approaches. It is unacceptable to ignore a patient's substance use when there are evidence-based tools for screening. Further, it is not appropriate to identify a patient at risk because of substance use and then do nothing. At a minimum, providers need to connect that patient with lifesaving behavioral and pharmacological interventions – alone or in combination. Professionals who represent disciplines across the continuum of care must be better equipped with the tools necessary to move beyond initial assessment and fully engage their patients in the broader healthcare system to provide them with the support they need to achieve long-term health, wellness, and recovery.

While physicians, nurses, pharmacists, social workers, and physician assistants all bring their unique perspective and a specific set of knowledge, skills, and attitudes to the multi-disciplinary healthcare team, numerous core competencies extend across multiple disciplines. The following is a list of select SUD core competencies shared by two or more disciplines (a comprehensive listing of core competencies appear at the conclusion of each discipline-specific chapter):

- Recognize the signs and symptoms of SUD

- Utilize evidence-based measures to perform age, gender, and culturally appropriate substance use screening and assessment
- Intervene with patients whose health is at-risk due to alcohol or drug use, and reinforce healthy behaviors for those who are at low risk
- Utilize established protocols to ensure safe care (CIWA-Alcohol, COWS, CIWA-Benzodiazepines)
- Prescribe medications, treatment, and therapies in accordance with the healthcare consumer's values, preferences, and needs and according to state- and federally-mandated scope of practice
- Identify and address the legal and ethical issues involved in the care of patients with SUD (e.g., 42 CFR Part 2, confidentiality, minor consent, etc.)
- Use patient-centered language to mitigate the stigma associated with substance use
- Identify referral sources and ensure linkage to treatment for those in need
- Promote the use of statewide peer assistance programs/groups and the use of alternative to discipline programs for health professionals whose practice is impaired because of substance use

In closing, the intention of this document is to serve as a practical guide to assist physicians, nurses, pharmacists, social workers, and physician assistants in community health centers (CHCs), Federally Qualified Health Centers, (FQHCs), primary care

physician offices, and other health settings in enhancing their SUD knowledge, skills, and attitudes. By doing so, they can better engage their patients in a change-oriented, bi-directional conversation to meet the patient where he/she is; help the patient understand the risk of using alcohol and other drugs; provide evidence-based treatment, and, if needed, encourage the patient to accept a referral to holistic, well-coordinated care for his/her substance use, mental health, and/or medical problems.

Beth A. Rutkowski, MPH, Editor

UCLA Integrated Substance Abuse Programs

Chapter 1: Medicine

Introduction

Alcohol, tobacco, and other drug use are a significant public health concern in the United States,[7] and several public health strategies have been developed to identify and reduce high-risk drinking and drug use. Since unhealthy substance use can have a significant negative impact on health, and only a small percentage of individuals with unhealthy substance use seeks help for these conditions, medical care is an important touch point for identifying and addressing such use, and physicians play a critical role in this process.[7,28] Twenty years ago, CSAT developed guidelines recommending that physicians screen all patients for high risk alcohol and drug use, conduct brief interventions with those who can be treated in primary care, and refer those with the most severe disorders to substance use treatment.[29] This framework is referred to as SBIRT. An evaluation of 15 studies found screening and brief intervention with adults to be cost-effective in addressing risky alcohol use, with the most favorable cost-benefit ratio in primary care.[30] In 2013, the U.S. Preventive Services Task Force (USPSTF) supported the recommendation for universal SBIRT to address alcohol use in primary care.[31]

By advancing the integration of mental and behavioral health services, recent healthcare system changes have furthered efforts to have physicians routinely address substance use as part of medical care. The American Academy of Pediatrics

recommends that pediatricians provide anticipatory guidance regarding substance use beginning at a prenatal visit,[32] and that screening begin in early adolescence.[33] The American College of Obstetrics and Gynecology recommends that obstetrician-gynecologists routinely screen all patients for substance use disorders using validated screening tools.[34] At the other end of the spectrum, a recent study documented that 77.8% of patients age 65 years or older report exposure to alcohol while taking alcohol interactive medications,[35] underscoring the need for physicians to continue conversations about substance use throughout the lifespan. Thus, medical knowledge about the health effects of psychoactive substances and facility in discussing substance use is recommended for all physicians who provide routine medical care.

Core Values

Patient-centered approaches that focus on an individual's personal health and wellness goals and values are optimal for physicians to engage patients in their own treatment. Patient-centered motivational interventions are among the most effective strategies to help patients modify health risk behaviors, including unhealthy substance use.[36] Patient-centered care is a hallmark of quality healthcare delivery and has been shown to significantly improve health outcomes, including the treatment of SUDs.[37,38] Shifting away from the disease-centered model, patient-centered care recognizes patients in a more holistic manner and promotes patient agency through shared-decision making and health education. Drawing on this model, targeted counseling

and treatment plans tailored to fit individual patient needs and preferences are the hallmark of brief interventions. Becoming skillful at patient-centered approaches is also in alignment with core competencies outlined by the Accreditation Council for Graduate Medical Education (ACGME) including professionalism and interpersonal communication skills.

Practice Setting

The Medicine Core Competencies recognize three levels of physician-patient contact based on specialty and practice setting, and recommend a specific set of knowledge and skills for each level. The most basic set of core competencies (Level 1) is recommended for ALL practicing physicians, regardless of setting, and include a knowledge base regarding the impact of substance use on health.

The intermediate level (Level 2) is recommended for the majority of physicians with regular patient contact, including both primary and specialty care, and expands the competencies to include basic skills in screening, assessment, diagnosis and case formulation, and use of evidence-based medication treatment for patients with nicotine, alcohol and opioid use disorders.

Substance use has a dramatic, bi-directional impact on health. Patients who use substances, even those whose behaviors do not meet criteria for an SUD, are more likely to develop acute and chronic medical problems.[39] At the same time, patients with chronic medical conditions are vulnerable not only to typical risks of substance use, but

also to substance use directly worsening underlying disease and/or treatment adherence.[40,41] While screening, assessment, counseling and medication management of addiction are often considered components of primary care, this complex, intertwined relationship requires medical subspecialists to have expertise in understanding the impact of substance use on chronic disease and counseling skills to help support behavior change. Relevant information and advice regarding the intersection between substance use and chronic disease may indeed be most motivating when delivered by a specialist. Moreover, specialists should be prepared to prescribe their patients medications to treat SUD as part of a holistic disease management plan.

The third and final practice level described (Level 3) is for addiction specialists whose training should prepare them to treat the entire spectrum of unhealthy alcohol, tobacco, and other drug use. The competencies for Addiction Psychiatry and Addiction Medicine specialists are described by their respective boards and thus are not addressed in the core competencies included herein.

Critical Issues, Obstacles, and Challenges

SUDs are chronic, relapsing medical conditions. They are treatable with outcomes similar to or better than most other chronic disorders. Yet, despite the availability of effective therapies, large treatment gaps remain. In 2016, more than 64,000 Americans died from a drug overdose and over half of overdoses involved opioids.[41] The opioid crisis shines a spotlight on the scarcity of physicians trained and

willing to provide addiction treatment. In 2016, 4% of all active physicians in the U.S. were waivered to provide medication treatment for opioid use disorders.[43] Furthermore, the distribution of waivered physicians across the nation is uneven. The majority practice in metropolitan areas, whereas the opioid epidemic is exploding in rural and non-urban areas. Offering evidence-based treatment services for SUDs in primary care is a critical step in expanding access to care. However, implementation of treatment in this setting can raise questions regarding workflow and unfamiliarity with best practices. Low levels of exposure and training in Addiction Medicine or Addiction Psychiatry during medical school and residency contribute to treatment gaps, highlighting the need for expanded curricula at all levels of medical training and growth in the number of Addiction Medicine and Addiction Psychiatry fellowships offered.

Vision for the Future

With the recognition of Addiction Medicine in 2016 as a subspecialty by the American Board of Medical Specialties (ABMS),[44] joining the field of Addiction Psychiatry and increasing the number of physicians focused on treating substance use disorders, the field is gaining the momentum needed to address the growing burden of addiction nationwide. The Addiction Medicine specialty is well situated under the umbrella of preventive medicine, underscoring the importance of primary prevention

in reducing unhealthy use and secondary prevention in decreasing the morbidity and mortality associated with SUDs.

The emergence of Addiction Medicine firmly pushes SUDs and related conditions into the proper realm of medical problems and much like the acceptance of Hospice and Palliative Medicine as a specialty in 2006, the development of Addiction Medicine fellowship training programs supports subspecialty work force development. Further, recognition by ABMS reduces barriers to insurance coverage for addiction treatment and will allow healthcare providers reimbursement for their services.

As a specialty, Addiction Medicine now has the benefit of relying on a collaborative and effective framework already in place for chronic condition management. Primary care serves as the medical home and specialists in Addiction Medicine can be called on for complex case management. In turn, addiction specialist practitioners can continue to fine tune best practices informed by a growing body of research and support their implementation in primary care and other medical practice settings.

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Core Competencies: Medicine

KNOWLEDGE

All physicians with clinical contact should be knowledgeable of the following concepts about Substance Use and Substance Use Disorders (SUDs):

1. The impact of substance (alcohol, cannabis, tobacco, opioid, sedative, and stimulant) use on health.

Alcohol

- The harmful use of alcohol is a causal factor in more than 200 disease and injury conditions, including physical illness, mental and behavioral disorders, unintentional and intentional injuries, infectious diseases, and death and disability in early life. Impact and outcomes are determined by both the total amount of alcohol consumed, the pattern of consumption, and the specific population.[45,46]
- Adults often use alcohol in a manner that is highly risky for both those who consume and those around them. More than one-quarter of American adults engage in binge drinking at least monthly.[47] Binge drinking poses acute consequences such as blackouts, memory loss, injury, and death, and is associated with other risky behaviors such as unprotected sexual activity.[48]
- In 2014, chronic diseases accounted for seven of the top ten causes of death in the United States. About half of adults have at least one chronic health condition[49] as do more than one in four youth.[50] Many alcohol-interactive medications are used to treat such conditions and it is common for adults to continue drinking while taking them.[47] Youth with chronic medical conditions use substances at rates comparable to their health peers despite facing increased health risks and incurring negative associated outcomes such as poor treatment adherence.[41]
- Among pregnant women in the U.S., 10-15% report drinking alcohol and about 3% report binge drinking, with rates 3-7 times higher in Native American

populations. Fetal Alcohol Spectrum Disorders (FASDs) continue to be the greatest preventable cause of birth defects in the U.S.[51]

- Alcohol is the psychoactive substance most commonly used by adolescents and is closely associated with the top causes of morbidity and mortality in this age group. Neuroscience research has substantiated the deleterious effects of alcohol on adolescent brain development and added even more evidence to support the call to prevent and reduce underage drinking. The American Academy of Pediatrics supports disseminating the message that avoiding alcohol use is best for adolescent health and development.[52,28] Heavy episodic ("binge") drinking is the most common pattern of alcohol consumption among underage drinkers, and substantially increases the risks associated with alcohol use. Anticipatory guidance regarding the risks of alcohol consumption should begin during late childhood.[53–55]
- Nearly half of those over age 65, and nearly one-quarter of those over age 85 consume alcohol, and 1-3% of the elderly population meets criteria for an Alcohol Use Disorder (AUD).[56] The absolute number of elderly individuals with AUD is increasing due to the world's growing aging population.[57] The widespread use of alcohol amongst the elderly is particularly troubling in light of the many associated physiological and psychological harms. Because body composition changes during the aging process but the mechanisms of alcohol absorption, metabolism, and excretion remain relatively stable , consuming equivalent amounts of alcohol causes higher blood alcohol concentration in elderly individuals than in their younger counterparts.[57] Many diseases are more common amongst the elderly with AUDs than the elderly who do not have AUDs. For example, the prevalence of dementia is nearly five times greater in older individuals with AUD than in older individuals without AUD.[56] Elderly people also face greater risk of medical and neurological complications during

alcohol withdrawal.[56] However, their long-term recovery outcomes are similar, and sometimes better than younger people with AUD.[58]

Cannabis

- The National Academies of Sciences, Engineering, and Medicine created a report to review evidence-based research on the health effects of cannabis, in order to insure quality information to make recommendations for future research, and to promote informed decision-making.[59]
- Cannabis is an addictive substance. Use has been associated with substantial adverse physical and mental effects. Short-term use can impair short-term memory (resulting in learning difficulties), harm judgement, induce paranoia and psychosis, and inhibit motor coordination, which in turn can increase the risk of injury and hinder driving abilities. Long-term or heavy use can also cause detrimental consequences such as cognitive impairment, including lower IQ, and increased risk of schizophrenia and other psychotic disorders. Repeated use during adolescence, when the brain is still developing, may result in long-lasting changes in brain function that can jeopardize educational, professional and social achievements. Notably, a high level of evidence demonstrates that cannabis is indeed addictive.[60]
- Cannabis use is associated with poor achievement. In adulthood, individuals who have never used cannabis have the best behavioral, socioeconomic, and health outcomes, while earliest and heaviest users consistently have the poorest outcomes.[61]
- Cannabis use in pediatric populations remains an ongoing concern, and cannabis use by adolescents has known medical, psychological, and cognitive side effects. Cannabis negatively impacts brain development, with effects on brain structure and function, in ways that are incompletely understood to date. At this time,

there is no published research to suggest benefit of cannabis use by children or adolescents.[62]

- Growing medical evidence has identified cannabis exposure as a perinatal risk factor, which results in decreases in birth weight and increased risk of placement in neonatal intensive care units.[63]

Nicotine

- Tobacco annually causes more than five million deaths[64] and is the world's leading cause of preventable mortality.[65] The primary addictive substance in tobacco is nicotine, which has a stimulatory effect on the brain.[65] Nicotine has consistently been shown to be carcinogenic and to have deleterious health effects on the cardiovascular, respiratory, immune, reproductive, and gastrointestinal systems, amongst others.[64]
- While smoking rates have declined during the past 50 years, one in five Americans continue to smoke cigarettes and smoking accounts for more than 400,000 deaths annually.[66]
- Hookah (water pipe) use has been rising in popularity as perceived harm has decreased and social acceptability has increased. Hookahs result in greater smoke exposure than cigarettes, and accordingly cause higher nicotine and carbon monoxide blood levels. Hookahs also cause similar autonomic and cardiovascular effects as cigarettes. Their use amongst young people is particularly troubling, with one in five college students reporting past year use.[66]
- Electronic cigarettes are also gaining popularity, particularly amongst young people, and even among socio-demographic groups that have rejected traditional cigarette use. Electronic cigarettes do not use smoke; rather nicotine is dispensed via a chemical mixture generally consisting of glycol-based solutions being intermittently heated within a chamber and then aerosolized when the user inhales or "puffs." Because electronic cigarettes are relatively new products,

more research still needs to be conducted regarding both their short and long-term effects. However, it is well known that electronic cigarettes employ many of the same harmful chemicals as tobacco cigarettes.[66] Additionally, nicotine is highly addictive whether from electronic cigarettes or other forms.

Opioids

- Chronic pain is a health issue of immense importance that is influenced by both physical and psychological factors. Evidence on long-term opioid therapy for chronic pain has established that an increased risk of serious harms is dose-dependent. Careful consideration is needed to understand long-term benefits, risk of abuse and related outcomes, and effectiveness of different opioid prescribing methods and risk mitigation strategies.[67,68]
- While opioids can quickly alleviate acute pain via their action on the μ opioid receptor, which can generate both analgesia and euphoria, they are much less effective at improving chronic pain.[69,70] A recent randomized controlled trial did not find any significant differences in pain-related function over twelve months among those being treated with either opioid or non-opioid medication for severe chronic back, hip, or knee pain.[71] Similarly, a review that identified more than 4,000 articles found very limited evidence that opioids alleviate chronic pain. Instead, they found that long-term opioid therapy increases the risk of substantial harms such as overdose and myocardial infarction.[67]
- Experiencing pain can increase the risk of developing an opioid use disorder, likely via introduction and access to opioid pain medications. One study found that those with pain had a more than 40% greater risk of developing an opioid use disorder both at the study's baseline and three years later.[72]
- Motivation for non-prescribed use of prescription medication impacts the risk of developing a substance use disorder. Non-prescribed use for pain increases the risk of SUD less than use for euphoria, or "to get high."[73]

- Receiving a prescription for opioids increases the later risk of opioid misuse (non-prescribed use) among adolescents.[74]
- To understand the roots of the opioid epidemic, it is important to recognize that nearly one-third of Americans experience some type of acute or chronic pain and relatedly opioid analgesics are the most commonly prescribed medication class. In addition to their analgesic and euphoric effects, opioids also result in conditioning in which individuals acquire a learned association between the receipt of the drug and the effect of the drug. Repeatedly taking opioids reinforces this learned association, resulting in cravings and causing even mild pain to trigger the learned association and subsequently lead to an urge for relief. The cravings and urges of this conditional learning can cause even mild pain to prompt individuals to take opioids inappropriately (i.e., earlier).
- This conditioned learning, along with the euphoric effects of opioids, contributes significantly to their misuse and diversion. Prescription opioids are the primary source of diverted opioids. Usually patients who have been legitimately prescribed opioids share them with friends and family who may be trying to self-medicate, but diversion also results from individuals feigning pain and utilizing strategies such as "doctor shopping" to do so.[70]
- Repeated use of opioids typically causes tolerance and physical dependence to develop. Tolerance contributes to the potency of opioids decreasing, meaning that long-term use for pain relief generally requires increasingly higher doses (up to 10 times greater) to procure the original pain reliving effects. Importantly, tolerance to opioids' analgesic and euphoric effects develops much more rapidly than to their effects on respiratory depression, elevating overdose risk when dosage is increased. Physical dependence incorporates the physiological adaptations that lead to withdrawal symptoms (e.g. insomnia, vomiting, chills) when individuals rapidly stop using opioids.[70]

- Important mitigation strategies exist to combat the opioid crisis. Physicians can limit their prescribing to the lowest and shortest possible dose that maintains effectiveness in alleviating pain. Consistent monitoring and reassessment can prevent many of the risks associated with long-term opioid use by helping patients not deriving benefit to taper and stop their use. Prescription Drug Monitoring Programs (PDMPs) can lower the risks of diversion and overdose, but more consistent use is necessary to maximize their effectiveness. Overdose risk can also be reduced via urine drug screening (before prescribing) and expanding access to naloxone. Addiction risk assessments can also be used in a variety of settings, including primary care.[70]

Sedatives

- Sedative-hypnotic medications, commonly used for management of anxiety, agitation, insomnia, or seizures, carry the risk of both acute health effects (related to impaired coordination, judgment, and cognition and respiratory suppression) and chronic health effects (risk of withdrawal, overdose, and impaired cognition).[75]
- Sedative-hypnotics are a particular risk in older adults where they may be prescribed to treat anxiety or insomnia. Sedation, cognitive impairment, falls and increased depression are common potential negative consequences in this age group.[76]

Stimulants (cocaine, methamphetamine, prescription stimulants)

- Stimulants increase alertness, attention, and energy, while also increasing blood pressure, heart rate, and respiratory rate. The associated increase in dopamine can induce a feeling of euphoria when stimulants are taken non-medically. An increase in stimulant prescriptions over the last two decades has led to their greater environmental availability and increased risk for non-medical use.[77–79]

2. Substance use experience exists as a spectrum from non-use, low or lower risk use, unhealthy use, hazardous use or at-risk use, harmful use, substance use disorder, and addiction.

- The 5th edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) lists 11 criteria for SUD. Individuals who endorse 2-3, 4-5, or 6 or more meet criteria for a mild, moderate, or severe substance use disorder, respectively. Substances or classes of substances for which addictive disorders are recognized include 10 classes of drugs: alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants; tobacco; and other (or unknown) substances.[80]

- SUDs can be difficult to distinguish from inadequate pain management in patients with chronic pain. Chronic exposure to opioids leads to tolerance but this symptom is neither necessary nor sufficient to make a diagnosis of a substance use disorder.[81,82]

3. The epidemiology of substance use and related disorders varies by substance and across the age span.

- The National Suvey on Drug Use and Health (NSDUH) is a large, nationally representative survey that measures substance use and SUDs in individuals age 12 and over. In the population, substance use most commonly begins in

adolescence, peaks and then stabilizes in late adolescence/early adulthood, and then decreases. Less than 1% of the population initiates drug use after age 26.[83]

- Monitoring the Future (MTF) is a large, nationally representative survey of substance use by students in grades 8, 10 and 12. Risk factors for alcohol, cannabis, and tobacco use consistently include male gender, white or Hispanic race/ethnicity, low grade point average (C+ or less), truancy, going out for recreation three or more evenings a week, and employment (hours of work at a job) during the school year.[84]
- While the current proportions of older adults with SUDs remain low compared with the general population, a growing proportion and number of older adults are at risk for hazardous drinking, prescription drug misuse, and illicit substance use and abuse. The identification of problematic substance use with older adults can be difficult because of overlapping symptoms with common medical disorders affecting the elderly.[85]
- Nonmedical use of prescription opioids is a strong risk factor for heroin use. Yet, although the majority of current heroin users report having used prescription opioids non-medically before they initiated heroin use, heroin use among people who use prescription opioids for nonmedical reasons is rare, and the transition to heroin use appears to occur at a low rate.[86]
- The number of American adults filling a benzodiazepine prescription is increasing, as is the quantity filled.[87] Lethal benzodiazepine overdoses are relatively rare though benzodiazepine co-ingestion often occurs in lethal opioid overdose.
- Lifetime nonmedical use of prescription Attention Deficit Hyperactivity Disorder (ADHD) stimulants is reported by 3.4% of those aged 12 years and older. Of these, 95.3% also reported use of an illicit drug or nonmedical use of another prescription drug.[88]

4. Several risk and protective factors that mediate risk of SUD have been identified.

Age of first use

- Age of initiation of alcohol use is correlated with the risk of alcohol use disorder (AUD), with a 5-fold increase in risk between those who initiate at age 14 compared to those who initiate after age 19.[89] The same pattern is found for cannabis and opioids.
- For each year that non-medical use of opioids is delayed, risk of developing an opioid use disorder (OUD) decreases by 5%.[90]

Genetic risk

- SUDs are complex, genetically influenced conditions with genetic factors accounting for up to 60% of variance. Most genes operate through intermediate characteristics, such as impulsivity; some are substance specific; others are related to substance use in general. Researchers have identified a diverse range of genetic variation that affects substance related phenomena.[91]

Environmental factors and adverse childhood experiences

- A strong connection exists between Adverse Childhood Experiences (ACEs) and risk for substance use disorders decades later.[92]
- Physical abuse, sexual assault, witnessing violence, and having a family member with substance use problems all increase risk for SUD, and post-traumatic stress disorder independently increases this risk.[51]

Homelessness

- SUDs are common among people who are homeless and unemployed in the U.S.[93]

Co-occurrence of mental health and SUD

- The presence of childhood mental health disorders, such as depression and conduct disorder, increases the risk of future development of substance-related disorders.[94]

- Mental health disorders and problem substance use are associated with both the initiation and use of prescription opioids.[95]

Risk and protective factors in recovery

- Understanding the risk and protective factors for relapse can help promote sustained, long-term recovery. Relapse has been found to be more likely to occur soon after remission begins. Use of other substances increases the risk of relapse (e.g. amongst those with AUD, those who smoked were more likely to relapse than those who did not). Past SUD history, as well as reporting the diagnostic criteria "impaired control over use" also increases relapse risk. Those who achieve complete abstinence versus those who maintain low-risk use are more likely to remain in long-term remission.[96]

5. Addiction is a chronic, relapsing neurological disorder. It can be treated, and outcomes are similar or better to outcomes for other chronic medical conditions.

- Drug addiction represents a dramatic dysregulation of motivational circuits that is caused by a combination of exaggerated incentive salience and habit formation, reward deficits and stress surfeits, and compromised executive function.[97]

Effectiveness of medications for the treatment of opioid use disorders

- Buprenorphine is a partial agonist that has been shown to be an effective treatment for patients with OUD. Research results demonstrate that outcomes of primary care-based buprenorphine treatment did not differ amongst patients receiving weekly medication dispensing and brief counseling and patients receiving thrice-weekly medication dispensing and/or weekly extended counseling; among all study groups opioid use decreased similarly and patient satisfaction was high.[98] These findings support the feasibility of buprenorphine treatment in primary care settings.[98–102]

- A high level of evidence exists demonstrating the effectiveness of methadone, a full agonist, in treating patients with OUD, resulting decreased mortality, HIV sero-conversion and criminal therapy and increased engagement in socially productive activities including employment, family and other social relationships.[103–105] Particularly at high doses, methadone maintenance therapy (MMT) has been shown to reduce illicit opioid use and help retain individuals in treatment. Furthermore, MMT has been shown to decrease criminal activity, mortality, and risk behaviors related to HIV and hepatitis C, and benefit other related factors.[98]
- Naltrexone, an antagonist, can effectively treat OUD. However, because oral naltrexone, which has been used in the United States since the 1970s, must be taken daily, it often poses challenges in treatment adherence, resulting in poor treatment retention and relapse. Extended release naltrexone (XR-NTX) has more recently begun to be used and is effectively addressing these issues. It has been found to result in better treatment retention, lower rates of opioid use, decreased risk of overdose, and reduction in cravings. It can be injected or implanted and its long-acting nature makes it well suited for use in a variety of settings including primary care and the criminal justice system.[106–108]
- Medication treatment with buprenorphine, methadone, and/or naltrexone can effectively treat OUD and various professional organizations, such as the AAP, advocate for its use.[109] However, significant stigma often surrounds the use of such medications. Many, including individuals in treatment and/or the recovery community, as well as family members, view these medications as simply replacing the use of one opioid with another. Efforts to recognize these medications' capacity to save lives and effectively treat OUD, just as medications are used to treat other chronic conditions, are critical in reducing the stigma that

can prevent patients from obtaining and maintaining effective medication treatment.[110–112]

6. Several populations, including youth, rural populations, pregnant women and those with small children, and prisoners face substantial barriers to accessing medication treatment.
   - Prescribers tend to be clustered in urban areas, leaving the majority of patients with OUD no practical access to medication treatment.[113]
   - Fewer than 25% of youth under age 25 with an OUD are prescribed medications, and fewer than 11.5% of adolescents under age 18 receive medication-assisted treatment.[114]
   - Prison inmates with OUD have very high rates of mortality in the first four weeks following release. Medication-assisted treatment with either methadone or buprenorphine while in prison substantially reduces the mortality rate.[115]

SKILLS

Primary care and sub-specialty physicians with regular clinical contact should prevent, identify, and manage substance use and SUDs within their medical practice.

1. Use "universal precautions" for the assessment and ongoing management of chronic pain and offer a triage scheme for estimating risk that includes recommendations for management and referral.
   - Take a thorough and respectful approach to patient assessment and management within chronic pain treatment in order to reduce stigma and improve patient care.[116,117]
2. Perform age, gender, and culturally appropriate substance use screening.
   - Conduct an assessment using a respectful and non-stigmatizing approach along with direct questions about drinking, prescription medication, and illicit drug use.

Adults

- Screening for alcohol can be accomplished using a validated single question screener for unhealthy alcohol use, followed by administration of the Alcohol Use Disorders Identification Test (AUDIT) or a checklist of DSM symptoms for AUD.[118]
- Clinicians can use a three question quick screen that includes a validated single question drug screener, which is then followed by administration of a modification of WHO's Alcohol, Smoking and Substance Involvement Screening Test (ASSIST), which classifies patients into one of three levels of risk related to their substance use.[119]
- Utilize evidence-based approaches for screening and assessment for unhealthy alcohol use, counseling for risk drinking, and interventions for AUDs in primary care settings.[120]

Youth

- Universal screening for alcohol, cannabis, and tobacco use is recommended beginning the first time a child or adolescent is seen alone, without a parent present. Frequency-based screens such as the NIAAA youth alcohol screening guide, Screening to Brief Intervention (S2BI), or Brief Screener for Alcohol, Tobacco, and Other Drugs (BSTAD) are recommended for routine screening.[121]
- Utilize recommended best practices for the NIAAA youth alcohol screening tool.[122]

3. Provide brief interventions to patients with risky use or SUD.

- Brief interventions are effective in achieving significant reductions in alcohol consumption among hazardous and harmful drinkers.[123,124]
- A less robust literature base exists to support brief interventions for drug use, though some trials have found BI promising.[125]

- Adaptations to insure developmentally appropriate brief interventions are recommended for adolescents.[121,126]
- Physicians should be able to conduct brief interventions centered on education about the harms of substance use, which have been shown to be effective with older adults.

4. Identify and address high-risk behaviors and the psychosocial context of substance use.

Identify and address high-risk behaviors in adolescence

- Problem Behavior Theory provides a widely-utilized framework to understand the influence of protective and risk factors on substance use and other high risk behaviors during adolescence.[127]

Reduce the risk of SUD in patients with ADHD and other disruptive behavior disorders

- A two-way relationship exists between ADHD and SUD. The AAP has provided guidance on the prevention of SUD in children with ADHD and the management of ADHD in individuals with SUD.[128]

Assist homeless patients

- Novel approaches are being used to assist individuals with SUD, concurrent mental illness, and homelessness. "Housing First" approaches consistently show increases in housing stability, while impact on substance use is mixed.[129]

Support families affected by SUD

- Rates of domestic violence and child maltreatment are higher among families affected by SUDs. The AAP has provided guidance on the role of physicians in supporting families affected by SUD.[130]
- Promote family-based prevention programs that enhance family bonding and relationships and include parenting skills; practice in developing, discussing, and enforcing family policies on substance abuse; and training in drug education and information.[131]

5. Protect the confidentiality and legal rights of patients seeking treatment for SUD.

42 CFR Part 2 management of medical records

- 42 Code of Federal Regulations Part 2 specifies how confidentiality of medical information regarding substance use must be handled and applies to any individual or entity that is federally assisted and holds itself out as providing, and provides, alcohol or drug abuse diagnosis, treatment, or referral for treatment (42 CFR § 2.11).[132]

Right of minors to seek treatment without parental consent

- Access to confidential healthcare helps adolescents speak honestly about sensitive issues, including substance use, with their healthcare providers and receive appropriate care. Laws that protect confidentiality and allow adolescents to receive care without parental consent are critical in ensuring that healthcare providers can appropriately care for adolescents. The Society for Adolescent Health and Medicine supports the availability of confidential healthcare for adolescents.[133]
- The AAP recommends that adolescents have access to confidential healthcare, and that electronic health records, billing, and other related systems be utilized in a manner that protects onfidentiality.[134]

6. Encourage smoking cessation by focusing on health consequences, prevention of smoking-related disease and treatment including pharmacotherapy in conjunction with behavioral therapy.

- Pharmacotherapies can effectively treat tobacco use disorders and are recommended by the United States Public Health Service to be provided in conjunction with behavioral therapy to prevent tobacco use and tobacco-related disease in adults, including pregnant women. Pharmacotherapies include nicotine replacement therapies (e.g. gum, patches, lozenges), varenicline, and bupropion sustained-release, all of which have demonstrated efficacy.[65,135,136]

7. Initiate and maintain patients on pharmacotherapy for treatment of opioid and alcohol use disorders. Support and encourage long-term agonist medication as appropriate.
    - Physicians should be able to conduct a risk assessment prior to prescribing opioids, monitor patients on chronic opioid therapy for signs of misuse, diagnose OUDs in patients on chronic opioid therapy, and refer such patients to substance use treatment.[137]

Opioid use disorders

- Physicians engaged in patient care should complete the required eight hours of specialty training and obtain a waiver from the DEA may prescribe buprenorphine for the treatment of OUDs from primary care offices.[138,139]
- Physicians should also be prepared to offer naltrexone for patients with OUD.

Alcohol use disorders

- Physicians should prescribe medications such as acamprosate and oral naltrexone in order to treat patients with alcohol use disorders.[140]

Nicotine use disorders

- Physicians should prescribe medications and be familiar with effective counseling strategies to help patients reduce or stop nicotine use.

Recognize and manage withdrawal syndromes

- Established protocols that help to ensure safe care include the: Withdrawal from Alcohol Scale (WAS), Clinical Institute Withdrawal Assessment (CIWA) – Alcohol, Clinical Opiate Withdrawal Scale (COWS), Amphetamine Withdrawal Questionnaire, and CIWA – Benzodiazepines.[141–144]

8. Use information provided by urine drug screening and Prescription Drug Monitoring Programs (PDMPs) appropriately.
    - Use laboratory testing for psychoactive substances when indicated according to best practice guidelines.[145]

- Identify the risks and benefits of laboratory testing for drugs of abuse with adolescents.[146]

9. Engage patients who use drugs in harm reduction and other secondary prevention interventions to reduce morbidity.
    - Numerous harm reduction strategies targeted towards individuals who use substances can improve their health and other outcomes, facilitate treatment initiation, and be cost effective. For example, needle and syringe programs can reduce the risk of acquiring hepatitis C and HIV.[147] Supervised drug consumption facilities have mitigated overdose-related harms and increased initiation of substance specific treatment, and have done so while improving public order and not increasing drug-related crimes.[148] Naloxone is a life-saving medication that can reverse opioid overdose toxicity symptoms.[149]
10. Refer patients with complex SUD who need specialty care to appropriate treatment and supportive services.

Adult

- The American Society of Addiction Medicine (ASAM) Criteria describe levels of care for SUD treatment and provide criteria for matching patients to treatment levels based on their presentation.[150]
- For older adults with more severe substance use problems, physicians should be able to refer patients to specialty alcohol treatment, and where feasible, to treatments tailored for older adults have shown particular promise.[85]

Youth

- Youth with SUD should receive treatment in the least restrictive environment that meets their needs. The AAP has described levels of care for adolescents, information on treatment matching, and physician guidance on supporting adolescents and parents through the referral process.[33]

11. Recognize the ethical and legal issues around physician impairment from SUD and of resources for referring potential impaired colleagues, including employee assistance programs, hospital based committees, state physician health programs, and licensure boards.[151]
    - Recognize impaired practice and intervene in accord with organizational policy.[152]
    - Promote the use of statewide peer assistance groups and the use of alternative to discipline programs.

ATTITUDES

All physicians should maintain professional attitudes that serve to reduce the stigma associated with substance use and SUDs.

1. Demonstrate respect for patients and use non-stigmatizing language when managing patients with substance use problems or disorders.[153–156,112]
    - Recognize substance use as a modifiable health risk behavior.
    - Recognize SUD as a treatable medical condition.[9]
    - Use person-first, non-stigmatizing language.[153–156,112]
    - Approach patients in a culturally sensitive and caring manner.
2. Advocate for policies that reduce stigma and increase access to effective services both locally and nationally.

INTERPROFESSIONAL PRACTICE

Physicians in clinical practice should be prepared to lead inter-disciplinary teams that provide care to patients with substance use problems and disorders.

- Lead inter-professional teams in providing quality care to persons with substance use problems and disorders.
- Partner with other disciplines to enhance healthcare patient outcomes.
- Engage in inter-professional activities including education, consultation, management, technological development, or research opportunities.[157]

Chapter 2: Nursing

Introduction

Nurses, like other healthcare providers, have historically focused on the most severe end of the substance use continuum, on persons with a diagnosable disorder. Given the complexity of the healthcare needs of this population, it was important to have a cadre of nurses who had the knowledge and skills to provide care in emergency, withdrawal management, and substance use treatment settings. That demand led to the development of the addiction nursing specialty.

Over time, researchers and clinicians began to shift from an exclusive focus on persons who were the most severely ill to early detection of persons who were at risk given the consequences associated with their alcohol and other drug use. Compared with those with an SUD, this at-risk group was a larger proportion of the population who reported alcohol and other drug use. Thus, while addiction nurses continue to be an essential part of the nursing workforce, all nurses need to have the requisite knowledge and skills to address the full continuum of substance use.

The prevalence of alcohol and other drug use across the lifespan and the associated consequences highlights the need for nurses across specialties and healthcare settings to have the knowledge and competencies to address the global burden associated with substance use. As such, all nurses should meet the minimal competencies provided in this document in order to provide competent care to persons

who may be at risk because of alcohol and other drug use including the use of prescription medications for nonmedical reasons. These standards of nursing practice apply to students who are entering the nursing profession, to students at every level of advanced practice, and to all nurses at every level in the current workforce.

Core Values

Caring is a hallmark of nursing and may be a key reason why nursing has long enjoyed a high level of respect by the public.[158] Professionalism and the inherent values of altruism (concern and advocacy for the welfare of others), autonomy (respect for persons to make decisions about own healthcare), human dignity (value and respect for all patients and colleagues), integrity (honesty and caring based on ethical framework), and social justice (acting in accordance with fair treatment regardless of economic status, race, ethnicity, age, citizenship, disability, or sexual orientation) are fundamental to the discipline of nursing.[159]

Historically, the nursing role has emphasized partnerships with patients – whether individuals, families, groups, communities, or populations – in order to foster and support the patient's active participation in determining healthcare decisions.[159] Nurses deliver patient-centered care as members of an interprofessional team, emphasizing evidence-based practice, and quality improvement approaches.[159]

Education, Licensure, and Certification

Licensure as a registered nurse (RN) is the entry point for professional nursing. Different levels of education can lead to eligibility for the licensing examination for this generalist nurse. Educational preparation can be through diploma, associate, baccalaureate, and master's degree programs. Because care across the healthcare system is increasingly complex, there is a need for a nursing workforce with higher levels of education. A report by the Institute of Medicine (IOM) recommended that by 2020, 80% of nurses should have a baccalaureate degree in nursing.[160] By increasing the proportion of nurses with the baccalaureate of science in nursing, the nursing workforce is poised to attain higher degrees, including those leading to roles in advanced practice nursing.

Advanced practice registered nurse (APRN) roles include the nurse practitioner (NP), clinical nurse specialist (CNS), certified nurse anesthetist (CRNA), and certified nurse midwife (CNM). These APRNs are registered nurses educated at master's or post-masters level and in a specific role and patient population. Through their education and certification, APRNs are prepared to assess, diagnose, and manage patient problems, order diagnostic tests, and prescribe medications.[161] In addition to these APRNs, nurses with advanced nursing degrees have pivotal roles in the healthcare system as administrators, clinical leaders, educators. The IOM called for

doubling the number of nurses with a doctoral degree by 2020 in part to address the need for academic and clinical faculty.[160]

Two pathways exist to the doctoral degree in nursing. The research-focused doctorates include the philosophy degree (PhD) and the doctor of nursing science degree (e.g., DNS, DSN, DSNc).[162] The Doctor of Nursing Practice (DNP) prepares nurses to fully implement evidence into practice.[163] With this relatively recent terminal degree, nursing is moving in the direction of other health professions that require or offer practice doctorates such as Medicine (MD), Dentistry (DDS), Pharmacy (PharmD), Psychology (PsyD), Physical Therapy (DPT), and Audiology (AudD). Nurses with the DNP are prepared for advanced practice roles, leadership in healthcare settings, and clinical faculty in academic settings.

As nurses gain experience and build their careers, they often focus on a specific type of nursing or population. Becoming certified in a specialty allows nurses to demonstrate their experience and knowledge of a particular area or population. In the 1980s, addictions nursing was recognized as a specialty by the American Nurses Association and the addictions nursing certification was created.[164] The first Certified Addictions Registered Nurses (CARN) were those with a RN who successfully passed the certification examination. In 2000, the certification program was expanded for addictions Registered Nurses at the advanced practice level (CARN-AP). Obtaining the CARN and CARN-AP recognizes the attainment of a level of expertise and commitment

in providing quality nursing care to persons affected by substance use and addictive disorders.

In 2016, passage of the Comprehensive Addiction and Recovery Act (P.L. 114-198**)** allowed nurse practitioners (NP) to qualify for a waiver to prescribe buprenorphine. This action meant that NPs could join with physician colleagues in increasing assess to buprenorphine treatment for persons with opioid use disorders.[165] Before this legislation, RNs, within their scope of practice, had a critically important role in the management of patients on buprenorphine, including conducting screening, assessment, treatment monitoring, counseling, and supporting services and promoting relapse prevention skills.[165,166] This expanded practice for NPs, combined with the role of RNs in buprenorphine management, means that nurses at all levels continue to have key roles in interdisciplinary teams and settings where this medication is a key component of treatment.

Critical Issues, Obstacles, and Challenges

The IOM report, *The Future of Nursing: Leading Change, Advancing Health,* called for nurses to practice to the full extent of their education and training; achieve higher levels of education and training; become full partners with physicians and other health professionals; participate in redesigning healthcare in the United States; and engage in effective workforce planning and policy making.[160] To address the burden of disease associated with alcohol and other drug use, all nurses need the requisite knowledge to

detect persons who may be at risk and intervene accordingly.[167] Efforts are being undertaken to enrich the education of the future nursing workforce for addressing the continuum of substance use – from alcohol and other drug use that may be harmful to the person or others (i.e., at-risk substance use) to persons with a substance use disorder.[168–170] However, while content on alcohol and nursing care appeared in nursing textbooks in the 1950s,[171] the focus on prevention and treatment of SUDs has been lacking in nursing curricula.[172] Much is needed to close the gap in knowledge and competence for the current nursing workforce to address at-risk substance use in the nation. While certified addictions registered nurses are critically needed, it is imperative that all nurses – generalist and advanced practice, alike are equipped to address the needs of the public.

While some NPs are now able to prescribe buprenorphine, other APRNs with prescriptive privileges are not able to do so. Additionally, the provision was limited to a five-year period until October 1, 2021. Further, with authorization to prescribe buprenorphine, NPs are limited to doing so for a maximum of 30 patients, whereas physicians have a maximum of 100 patients for their first year and may request an increase to 275 patients thereafter. With the opioid epidemic not yet reaching its peak, it is imperative to remove barriers to access. Other APRNs, such as Certified Midwives are appealing for expanded access,[173] advocacy that is a hallmark of the professional

nursing role and which requires that nurses deliver high quality care, evaluate care outcomes, and provide leadership in improving care.[159]

Stigma is considered a main barrier to healthcare provider's identification of at-risk substance use and underutilization of substance use treatment services.[174–176] For persons who could benefit from specialty treatment, stigma is a key barrier to treatment seeking.[177] Providing substance use-related education and clinical experiences to nursing students have been demonstrated to be effective at reducing their stigma perceptions toward patients.[178] Empirically validated interventions have been identified to address stigma related to substance use disorders (Livingston, 173).[173] Ongoing efforts to address stigma among the general population, those who are identified to be at risk because of substance use, nurses, and other healthcare providers are needed. Nurse researchers, nurse educators, and nurse leaders are in key positions to take on such challenges.

Vision for the Future

Despite the USPSTF endorsement for alcohol and tobacco screening and brief intervention for alcohol,[180] this set of clinical strategies has not yet been fully implemented in primary care settings.[181] Nurses in collaboration with other disciplines have collective power to move this public health approach into practice. Partnering with other researchers, PhD nurses can design, implement, and evaluate interventions to prevent the onset of, and progression of substance use and reduce the proportion of

the population with an SUD. DNP nurses are in key positions to lead change in healthcare by translating evidence into practice and evaluating the outcomes.

Model nursing curricula integrating substance use content have been developed based on the elements and framework for building nursing curriculum in accord with the American Association of Colleges of Nursing. By widely disseminating these curricula, a larger proportion of the future generalist and advanced practice nursing workforce will be prepared to provide high quality care related to substance use, evaluating care outcomes, and providing leadership in improving care. With the mainstream nursing workforce able to meet the core competencies below, the health of the nation will be improved.

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Core Competencies: Nursing

The American Nurses Association's *Standards of Nursing Practice to Address the Continuum of Substance Use* include 16 national standards of practice and performance that define the who, what, where, when, why and how of nursing practice. As such, the standards of practice inform and guide nursing practice.

The prevalence of alcohol and other drug use across the lifespan and the associated consequences highlights the need for nurses across specialties and healthcare settings to have the knowledge and competencies to address the global burden associated with substance use. All nurses should have the basic knowledge, abilities, and skills to provide competent care to persons who may be at risk because of alcohol and other drug use including the use of prescription medications for nonmedical reasons. These standards of practice and performance apply to the continuum of practice, from students who are entering the nursing profession to students at every level of advanced practice, and to all nurses at every level in the current workforce. Continuing education may be warranted for nurses who are currently in the healthcare workforce, who were underprepared to address the continuum of substance use.

All nurses with clinical contact in all practice settings should be knowledgeable of the following concepts related to substance use and substance use disorders (SUDs), including the criteria for diagnosing and factors particular for each substance addressed below.

Definitions and diagnostic criteria for SUD

- The *Diagnostic and Statistical Manual* (*DSM*) lists 11 criteria for SUD. Individuals that endorse 2-3, 4-5, or 6 or more meet criteria for mild, moderate, or severe substance use disorder, respectively.

- Substances or classes of substances for which addictive disorders are recognized include 10 classes of drugs: alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants; tobacco; and other (or unknown) substances.

Spectrum of Use

Alcohol

- Adverse consequences associated with alcohol consumption can be evident in all aspects of life, including social, legal, occupational, psychological, and overall health and well-being.
- Heavy episodic ("binge") drinking is the most common pattern of alcohol consumption among underage drinkers, and substantially increases the risks associated with alcohol use. The AAP recommends beginning anticipatory guidance regarding the risks of alcohol consumption during late childhood.

Cannabis

- The National Academies of Sciences, Engineering, and Medicine report reviewed evidence-based research on the health effects of cannabis. This scientific undertaking was conducted to insure quality information to make recommendations for future research, and promote informed decision-making.

Opioids and Prescription medications

- It is important to assess a person's motivation for non-prescribed use of prescription medication, which may impact their risk of developing an SUD. Non-prescribed use for pain increases risk of SUD less than use for euphoria, or "to get high."
- Receiving a prescription for opioids increases the later risk of opioid misuse (non-prescribed use) among adolescents.
- Many factors contribute to the opioid epidemic. Opioid medications can be diverted and used by persons for other than intended use. The development of

tolerance and physioligical dependence, which can occur with all substances, are particularly relevant for opioid use. Strategies to mitigate risk range from the individual- to the population-level.

- The number of American adults filling a benzodiazepine prescription is increasing, and the quantity filled is also increasing. Although the rate of overdose deaths involving benzodiazepines has stabilized overall and in most groups, overdose deaths remain high.
- Cross-sectional, population-based survey of 443,041 respondents from the 2002-2009 NSDUH analyzed for lifetime nonmedical use of prescription ADHD stimulants, lifetime nonmedical use of another prescription drug, illicit drug use, and drug use initiation patterns. Lifetime nonmedical use of prescription ADHD stimulants was reported by 3.4% of those aged 12 years and older. Of these, 95.3% also reported use of an illicit drug (i.e., cannabis, cocaine/crack, heroin, hallucinogens, inhalants) or nonmedical use of another prescription drug (i.e., tranquilizers, pain relievers, or sedatives), and such use preceded nonmedical use of prescription ADHD stimulants in 77.6% of cases.
- Post-marketing surveillance indicates that the diversion and abuse of prescription opioid medications increased between 2002 and 2010 and plateaued or decreased between 2011 and 2013.

Nicotine

- Describe the adverse effects of cigarette and non-cigarette emission exposure, including information about hookahs and electronic cigarettes.
- The primary addictive substance in tobacco is nicotine and nicotine has a stimulatory effect on the brain. Pharmacotherapies are effective treatments for tobacco dependence and are recommended by the United States Public Health Service to be provided in conjunction with behavioral therapy. ***Note:*** The

healthcare consumer is defined to be inclusive of the individual, family, community, and/or population level.

Standards of Professional Performance for Nursing

Standard 1. Assessment: The registered nurse collects comprehensive data pertinent to the healthcare consumer's health and/or the situation.

Competencies

The registered nurse:

- Collects comprehensive, including bio-psycho-social, data through systematic and ongoing healthcare consumer substance use assessments.
- Assesses risk factors and signs and symptoms associated with substance-use harms, including but not limited to suicide, accidents, violence, and end organ damage.
- Collects data across the lifespan on the amount, frequency, and pattern of alcohol, tobacco, and other drug use using reliable and valid screening tools that can include the: Alcohol Use Disorders Identification Test (AUDIT), Alcohol, Smoking, Substance Involvement Screening Test (ASSIST), and the CRAFFT for adolescents (Car, Relax, Alone, Forget, Friends, Trouble) Screening Tool, the Screening to Brief Intervention (S2BI) screen for adolescents, and Drug Abuse Screening Test (DAST).
- Involves the healthcare consumer in comprehensive, holistic data collection.
- Identifies the healthcare consumer's values and preferences related to prevention, intervention, and treatment of SUDs.
- Demonstrates an understanding of the impact of stigma associated with use of substances and SUDs.
- Takes into account health disparities of age- and gender-specific populations, e.g., LBGT, homeless, underserved, marginalized, and other specific groups such as Veterans, immigrants, those with comorbid mental health disorders.

- Assesses the impact that implicit bias, stigma, trauma, culture, and past events can have on the healthcare consumer along the continuum substance use.
- Assesses health consumer data, community resources, referral pathways, and community needs.
- Documents data in appropriate formats.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Advocates and provides leadership in developing guidelines for the use of reliable and valid screening instruments.
- Develops new tools and techniques for the accurate assessment of substance use related data.
- Assesses the impact of alcohol and other drug use, including use of non-prescribed medications on other health conditions and health disorders.

Standard 2. Diagnosis: The registered nurse analyzes the assessment data to determine the diagnoses or the issues.

Competencies

The registered nurse:

- Considers the potential for, and actual health risks associated with the continuum of substance use in formulating the nursing diagnosis.
- Formulates nursing diagnoses based on sufficient understanding of the SUD diagnosis and level of severity.
- Validates the nursing diagnosis with the healthcare consumer and others, as appropriate.
- Uses standardized nursing classification systems and clinical decision support tools to communicate diagnosis to interprofessional team members.

- Documents nursing diagnoses that facilitate outcome identification and plan formulation.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Utilizes current *Diagnostic and Statistical Manual*[82] criteria to formulate substance use disorder diagnosis.
- Formulates differential diagnoses.
- Utilizes complex data from multiple sources in identifying significant healthcare consumer diagnoses.
- Supervises staff in maintaining competency in diagnosing.

Standard 3. Outcomes Identification: The registered nurse identifies expected outcomes for a plan individualized to the healthcare consumer or the situation.

Competencies

The registered nurse:

- Considers the continuum of substance use, the progression of behaviors, and the re-occurring nature of SUDs.
- Cautions against identifying inappropriate outcomes that are not evidence-based, i.e., expectations of full and sustained abstinence.
- Takes into account harm reduction approaches when considering person-centered outcomes.
- Formulates **specific, achievable, measurable, realistic, and timely (SMART)** outcomes with the involvement of the healthcare consumer and others when appropriate.
- Considers risk-benefit ratio, costs, and clinical expertise when formulating expected outcomes.

- Monitors outcome data to identify trends and inform treatment planning and clinical decision making in a timely manner.
- Modifies expected outcomes, as necessary.
- Documents expected outcomes as SMART goals.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Takes into account the interactive nature of alcohol and other drug use relative to acute and chronic health conditions.
- Identifies SMART outcomes in collaboration with the healthcare consumer through the implementation of evidence-based practices.
- Identifies SMART outcomes that incorporate risk-benefit ratio, costs, and healthcare consumer satisfaction.

Standard 4. Planning: The registered nurse develops a plan that prescribes strategies and alternatives to attain expected outcomes.

Competencies

The registered nurse:

- Develops an individualized plan in partnership with the healthcare consumer and others considering the person's situation, including: values, spiritual and health practices, preferences, coping, culture, and environment.
- Engages the healthcare consumer in establishing a person-centered plan of care that addresses each nursing diagnosis.
- Provides person-centered education to enhance understanding of nursing and medical diagnoses.
- Includes strategies to address the promotion and restoration of health, the prevention of disease and illness, and the alleviation of suffering.

- Formulates a plan of care to address identified barriers to treatment.
- Includes an implementation plan and timeline within the plan of care.
- Bases the plan of care on current science and evidence-based practices.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Defines the plan to reflect current evidence, rules, regulations, and standards.
- Formulates patient-centered plans of care that are flexible in order to acknowledge the changing nature of substance use and the changing nature of the healthcare consumer's response.
- Engages the interprofessional team in strategies to address the nursing and medical diagnoses and healthcare consumer's issues.
- Applies evidence-based and person-centered approaches to support the treatment plan and activities.

Standard 5. Implementation: The registered nurse implements the identified plan.

Competencies

The registered nurse:

- Implements the plan, underscores the neurobiological basis of targeted symptoms, and refutes moralistic explanations.
- Demonstrates non-judgmental attitudes and behaviors to develop therapeutic relationships.
- Applies self-evaluation and system assessment to protect against explicit and implicit bias when implementing the plan of care.
- Engages with healthcare consumers to enhance motivation to increase the likelihood of achieving treatment goals.
- Partners with the healthcare consumer to implement the plan in a safe manner

- Provides holistic, culturally competent care to meet the substance use treatment needs of diverse populations.
- Collaborates with interprofessional teams to implement the plan in a timely manner.
- Utilizes evidence-based practices and interventions specific to the diagnosis to implement the plan of care.
- Utilizes established protocols to ensure safe care that can include the: Withdrawal from Alcohol Scale (WAS), Clinical Institute Withdrawal Assessment (CIWA) – Alcohol, Clinical Opiate Withdrawal Scale (COWS), Amphetamine Withdrawal Questionnaire, and CIWA – Benzodiazepines.
- Provides healthcare consumers with necessary information about the intended and unintended effects of proposed therapies, including medication treatment (e.g., buprenorphine, methadone, acamprosate, naltrexone, disulfiram, naloxone, nicotine replacement).
- Utilizes appropriate technologies for healthcare consumer data and to implement the plan of care.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Coordinates with healthcare consumes, caregivers, and systems to implement the SMART plan.
- Leads interprofessional teams to implement the plan.

Standard 5A. Coordination of Care: The registered nurse coordinates care delivery, programs, services, and other activities, as needed, to implement the identified plan.

Competencies

The registered nurse:

- Coordinates care that seeks to integrate, rather than separate substance use care in order to promote the whole health of the healthcare consumer.
- Manages the healthcare consumer's care to maximize independence and quality of life, promote harm reduction and recovery, and reduce suffering and reoccurrence.
- Communicates with the healthcare consumer and others during transitions in care.
- Utilizes evidence-based approaches to promote linkages to services (e.g., warm handoff).
- Documents coordination of care.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Coordinates and uses systems, organizations, and community resources for integrated healthcare consumer care services.
- Leads interprofessional teams to communicate, coordinate, and collaborate on the delivery of care services and evaluation of treatment planning.
- Identifies gaps in access to care at the local, state, and national levels in order to improve access and care coordination across the lifespan.

Standard 5B. Health Teaching and Health Promotion: The registered nurse employs strategies to promote health and a safe environment.

Competencies

The registered nurse:

- Delivers person-centered health teaching and health promotion that takes into account socioeconomic status, health beliefs, religious and spiritual beliefs, and demographic factors such as age, ethnicity, gender identify, and geographic location.
- Provides information on standard drink sizes, low-risk alcohol use, and alcohol use that places persons at risk.
- Informs women of childbearing age that there is no safe amount, type, or time to drink during pregnancy.
- Provides information on effective birth control to persons at risk for pregnancy who are continuing to use alcohol and other drugs.
- Advises the healthcare consumer on the consequences and risks associated with substance use, i.e., legal, employment, relationships, physical and mental health conditions.
- Uses appropriate and adaptable methods (i.e., print, on-line, and media) to provide health education.
- Presents at professional meetings and contributes to professional journals and lay literature to disseminate results of research and quality improvement activities.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Evaluates health information resources (specifically on the internet) for accuracy, reliability, and health literacy levels to ensure healthcare consumers have access to quality health information related to substance use.
- Utilizes scientific evidence from national organizations such as the National Institute on Alcohol Abuse and Alcoholism (NIAAA), National Institute on Drug Abuse (NIDA), Substance Abuse and Mental Health Services Administration (SAMHSA), and the Centers for Disease Control and Prevention (CDC).
- Synthesizes scientific evidence and evidence-based practice information when designing health education materials.
- Leads ongoing evaluation of health education and health promotion initiatives.

Standard 5C. Consultation: The graduate-level prepared nurse or the advanced practice registered nurse provides consultation to influence the identified plan, enhance the abilities of others, and effect change.

Competencies

The graduate-level prepared nurse or the advanced practice registered nurse:

- Communicates consultation recommendations with emphasis on person-centered care, alleviation of suffering, and uses non-stigmatizing language for SUDs.
- Initiates and facilitates effective consultation regarding SUDs along the continuum of care, from at-risk to diagnosed SUDs.
- Provides consultation in numerous settings including in hospitals, clinics, and schools, and to healthcare providers, lawmakers, and advocacy groups.
- Synthesizes relevant bio-psycho-social and clinical information to communicate evidence-based knowledge.
- Collaborates with health professionals and consumers to facilitate understanding of evidence-based and best-practice principles.

- Engages in self-reflective practice and continual expansion of knowledge-for-practice to provide evidence-based consultation recommendations.
- Through consultation, promotes nursing leadership and knowledge, and promotes interprofessional approach to patient-centered care.

Standard 5D. Prescriptive Authority and Treatment: The advanced practice registered nurse uses prescriptive authority, procedures, referrals, treatments, and therapies in accordance with state and federal laws and regulations.

Competencies

The graduate-level prepared nurse or the advanced practice registered nurse:

- Prescribes medications, treatments, and therapies in accordance with the healthcare consumer's values, preferences and needs and according to state- and federally-mandated scope of practice.
- Promotes full-practice authority in the prescription of evidence-based treatments for SUDs, and promotes the elimination of unnecessary barriers to prescriptive practice.
- Utilizes evidence-based medication treatment for substance use.
- Educates providers, patients and the public to correct misconceptions about medication treatments for SUDs.
- Promotes use of medications as one component of comprehensive treatment in addressing SUDs.
- Evaluates therapeutic response and potential for adverse effects of medication used for SUDs.
- Consider evidence-based alternatives and/or complementary approaches in lieu of or in combination with prescribed medications.

Standard 6. Evaluation: The registered nurse evaluates progress toward attainment of outcomes.

Competencies

The registered nurse:

- Recognizes that treatment and recovery from substance use is possible, and when not attained, that alleviation of suffering is the desired outcome.
- Assesses and assures responsible and appropriate use of interventions, and works to minimize or avoid inappropriate or withhold treatments for SUDs.
- Conducts systematic and ongoing evaluation of treatment outcomes using evidence-based criteria.
- Conducts evaluation in collaboration with healthcare consumers and other healthcare providers.
- Works with consumers to collaboratively evaluate planned strategies related to the treatment goals and responses.
- Disseminates evaluation results to consumers, other health providers, and healthcare systems in accordance with state and federal regulations.
- Documents the results of evaluation.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Evaluates the accuracy of the diagnosis and appropriateness and effectiveness of interventions for SUDs.
- Evaluates treatments for SUDs according to the latest evidence, recommending changes when necessary.

Standard 7. Ethics: The registered nurse practices ethically.

Competencies

The registered nurse:

- Delivers care for SUDs utilizing evidence-based practice and best practice principles in a manner that preserves consumer autonomy, dignity, rights, values and beliefs.
- Advocates for ethical policies at institutional, local, state, and national levels that promote equitable consumer access to effective and quality care, bearing in mind cost considerations.
- Adheres to the *ANA Code of Ethics for Nurses*.
- Upholds healthcare consumer confidentiality within legal and regulatory parameters.
- Identifies and works to remove barriers to access for the treatment of SUDs, at all the following levels: consumer, unit, department, institution, municipality, state, and national.
- Develops strategies to prevent one's own personal biases from interfering with delivery of quality care when working with consumers.
- Assists consumers in making informed decisions by helping them understanding the full range of applicable and appropriate treatment interventions for their situation, including advantages and potential risks.
- Continually evaluates the patient, plan, and environment to minimize health risks to consumers.
- Maintains appropriate, therapeutic, and professional boundaries with consumers.
- Contributes to identifying, investigating, and resolving ethical conflicts involving consumers.

- Takes appropriate action to identify and intervene when instances of illegal, unethical, or inappropriate care—including withholding of care—takes place for consumers dealing with SUDs.
- Takes appropriate action to identify and intervene when insufficient knowledge about the assessment and evidence-based treatment of SUDs leads to risk for breach or actual breach in the ethical care for consumers.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Demonstrates nursing leadership by working with interprofessional teams to identify and address ethical risks, benefits, and outcomes.
- Provides information on ethical risks, benefits, and outcomes to key stakeholders, including consumers, healthcare systems, and providers to improve the ethical and equitable treatment of all who are at risk for or who experience active SUDs.

Standard 8. Education: The registered nurse attains knowledge and competence that reflects current nursing practice.

Competencies

The registered nurse:

- Engages in ongoing educational activities to enhance knowledge of SUDs, including risks, appropriate assessment techniques, and evidence-based treatment.
- Acquires knowledge and skills to sufficiently and appropriately assess and deliver treatment to healthcare consumers at-risk for or experiencing SUDs, and applies this evidence-based knowledge in a timely, equitable, ethical, and patient-centered manner.

- Seeks to identify and fill knowledge deficits regarding the identification and treatment of SUDs.
- Provides current substance use-related knowledge (e.g., SBIRT), with colleagues, patients, families, and communities.
- Contributes to a work environment that promotes and enhances education of SUDs.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Remains current with evidence-based findings to enhance role performance as educators for healthcare consumers and interdisciplinary team members.
- Applies evidence-based knowledge of the continuum of substance use assisting other healthcare providers and healthcare systems to decrease health risk and suffering and improve health outcomes.

Standard 9. Evidence-Based Practice and Research: The registered nurse integrates evidence and research findings into practice.

Competencies

The registered nurse:

- Learns and utilizes evidence-based knowledge to guide practice in the prevention, identification and treatment of substance use disorders.
- Participates, if appropriate to education level and position, in the formulation of evidence-based practice through research.
- Shares evidence-based knowledge with colleagues, patients, families, and communities.
- Translates evidence-based interventions and programs into practice in a timely and equitable manner.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Critically analyzes data and evidence to improve practice in the prevention and treatment of SUDs.
- Develops new practice approaches based on evidence to enhance consumer health in the area of SUDs.
- Enhances nursing and healthcare knowledge by synthesizing evidence-based research and improving approaches to addressing and treating SUDs.
- Promotes a climate of research, nursing inquiry, and continual quality improvement in the prevention, identification, and care of healthcare consumers across the continuum of substance use.
- Disseminates evidence-based findings broadly.
- Provides leadership in practice inquiry and evidence-based care.
- Participates in the development, use, and evaluation of professional standards and evidence-based care.

Standard 10. Quality of Practice: The registered nurse contributes to quality nursing practice.

Competencies

The registered nurse:

- Participates in continuous quality assurance and improvement in the area of substance use disorders, with activities that include the following:
    - Identifies aspects of practice that would benefit from quality monitoring.
    - Uses evidence-based quality indicators.
    - Analyzes data to improve nursing care.
    - Formulates recommendations to improve access to care and improve nursing practice and patient outcomes.

- Evaluates, develops and implements policies and procedures that improve quality nursing practice in the area of SUDs.
- Leads or participates in interprofessional teams that evaluate quality measures and practice.
- Participates in efforts to promote timely and equitable access to quality care.
- Utilizes continuous quality improvement methods to change current practices, based on scientific evidence and evidence-based practices.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Applies evidence for continual quality improvement.
- Formulates corrective action based on evaluation of how organizations, care structures, cost considerations, policy, social, and legal factors negatively impact quality care.
- Promotes a climate of excellence in prevention, intervention, and treatment for healthcare consumers with substance use disorders.

Standard 11. Communication: The registered nurse communicates effectively in a variety of formats in all areas of practice.

Competencies

The registered nurse:

- Uses person-first language to mitigate stigma associated with substance use.
- Demonstrates effective use of appropriate person-centered communication techniques chosen according to consumer and situation needs (e.g. uses OARS: Open-ended questions, Affirmations, Reflections, and Summaries).
- Utilizes motivational interviewing skills to elicit behavior change.

- Ensures continuity of care by communicating results of substance use screenings and healthcare consumer response to intervention to healthcare team members.
- Facilitates information exchange while addressing the legitimate privacy concerns of healthcare consumers with alcohol and/or drug use.

Standard 12. Leadership: The registered nurse demonstrates leadership in the professional practice setting and the profession.

Competencies

The registered nurse:

- Challenges fixed norms and beliefs that impede contemporary treatment for persons affected by substance use.
- Inspires other healthcare team members to address alcohol and other drug use along the continuum – from at-risk to SUD.
- Serves as a champion for SBIRT implementation into practice.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Mentors colleagues in the acquisition of clinical knowledge, skills, abilities, and judgment related to healthcare consumers with substance use problems and disorders.
- Advances substance use-related knowledge and skills.
- Influences decision-making bodies to ensure timely access to effective and appropriate care for persons affected by substance use.
- Leads translation of evidence into practice, staying abreast of current treatments.
- Mentors advanced practice nurse students in provision of evidence-based approaches across the continuum of substance use.

Standard 13. Collaboration: The registered nurse collaborates with healthcare consumer, family, and others in the conduct of nursing practice.

Competencies

The registered nurse:

- Provides and promotes person-centered care in the area of SUDs.
- Elicits and recognizes consumer strengths and utilizes those in addressing SUDs.
- Works collaboratively with consumers, providers and key stakeholders (e.g., municipal, state, and federal agencies) to continually improve care for and access to evidence based treatments for SUDs.
- Recognizes the individual contributions of each professional involved in the direct care of patients.
- Fosters an environment of mutual respect essential for interprofessional communication.
- Conveys nursing perspective in collaborating with other disciplines.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Leads interprofessional teams in providing quality care to persons with substance use problems and disorders.
- Partners with other disciplines to enhance healthcare consumer outcomes.
- Engages in interprofessional activities including education, consultation, management, technological development, or research opportunities.

Standard 14. Professional Practice Evaluation: The registered nurse evaluates her or his own nursing practice in relation to professional practice standards and guidelines, relevant statutes, rules, and regulations.

Competencies

The registered nurse:

- Engages in self-evaluation of knowledge for practice, translation of knowledge to practice, and attitudes and perceptions toward persons using alcohol and other drugs, identifying strengths and opportunities for professional development.
- Obtains feedback from healthcare consumers, peers, professional colleagues, and others to enhance practice.
- Seeks informal and formal review from experts to continually improve skills (e.g. SBIRT knowledge and practice).

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Utilizes evidence-based SBIRT skills checklist in evaluating nurses and other healthcare providers.
- Provides supervision and feedback to others (nurses and other healthcare professionals) intended to improve practice proficiency and competency in delivering care for SUDs (e.g., feedback to enhance SBIRT proficiency of nurses and other healthcare providers).

Standard 15. Resource Utilization: The registered nurse utilizes appropriate resources to plan and provide nursing services that are safe, effective, and financially responsible.

Competencies

The registered nurse:

- Maintains list of substance use treatment providers and agencies for referral sources.
- Comprehends criteria for appropriate level of and resources for substance use treatment.
- Utilizes a range of skills and resources to assist consumers in accessing timely and appropriate care for substance use disorders (e.g. use of motivational interviewing skills to promote person-centered care plan for treatment).
- Addresses potential or actual risks to patients care, including but not limited to barriers to care, inappropriate treatments or referrals, lack of resources, consumer coercion, or denial of care.
- Follows up with healthcare consumer to ensure engagement in treatment following referral.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Provides leadership in identifying resource needs, reducing or eliminating barriers to accessing care, and promoting the creation of a variety of person-centered resources for the care of substance use disorders across the lifespan.
- Makes referral to treatment based on appropriate placement criteria and resources for substance use treatment.
- Ensures appropriate recognition of resources used in providing care and treatment for substance use disorders (e.g., support for billing for SBIRT

services), while seeking to reduce or eliminate the lack of resources that might present barriers to care (e.g. inability to bill for substance use services offered concurrently with other care).

Standard 16. Environmental Health: The registered nurse practices in an environmentally safe and healthy manner.

Competencies

The registered nurse:

- Promotes the recognition that whole health begins with mental health, including healthy attitudes and behaviors regarding substance use.
- Creates an environment of inclusion and ready access to care for SUDs.
- Recognizes the greater good of harm-reduction approaches, such as needle exchange, safe injection sites, reduction in substance use.
- Advocates for safe practices, such as co-prescribing of naloxone for persons using heroin/opioids and persons on chronic opioid therapy.
- Recognizes impaired practice, intervening in accord with organizational policy.
- Promote the use of statewide peer assistance groups and the use of alternative to discipline programs.

Additional competencies exist for the graduate-level prepared registered nurse and the advanced practice registered nurse. The graduate-level prepared nurse or the advanced practice registered nurse:

- Advocates for harm-reduction strategies to minimize morbidity and mortality among persons using alcohol and other drugs.
- Analyzes the impact of social, political, and economic influences on access to and availability of alcohol and other drugs.
- Safeguards healthcare consumers if healthcare provider has impaired practice.

- Ensures that nurse colleagues and other healthcare providers with impaired practice are referred for evaluation and treatment.

Chapter 3: Pharmacy

Introduction

Pharmacists, the most accessible, trusted health professional in the United States, are essential providers within patient-centered, team-based health care practices. They practice in hospitals, primary care clinics, long-term care facilities, opioid treatment facilities, emergency departments (ED), and community pharmacies. With additional post-graduate training, pharmacists specialize in pain and palliative care pharmacotherapy, critical care medicine, infectious diseases, psychiatric pharmacy, and oncology, as well as in the care of special populations like pediatrics and geriatrics. In addition to providing patient-centered care, pharmacists serve in key administrative and leadership positions in professional associations, health departments, boards of pharmacy, pharmaceutical companies, and insurers, evaluating, modifying, and setting policies from drug formularies to laws. Patients, especially those with chronic disease states, achieve optimal health and medication outcomes with pharmacists on their care team.[182–184]

Community pharmacists primarily dispense prescription medications and counsel patients on the expected efficacy and safety of their medications, including the purpose of the medications, the importance of adherence, drug-drug interactions, adverse drug events, and common and severe side effects. The volume of psychoactive medication prescriptions is higher than it has ever been.[185–189] These medications,

particularly opioids, have been implicated in an exponential rise in prescription drug misuse, substance use disorders, and subsequent increases in emergency department visits,[190–191] inpatient stays,[192] and deaths.[193–194]

Pharmacists have specialized knowledge about both prescription and illicit psychoactive substances and are trained on how best to communicate their potential and expected harms and benefits to patients and other family stakeholders. Pharmacists are medication safety specialists. In addition to their formal role on the healthcare team, they can play a role in the community, by participating in screening people at health fairs and educating elementary and secondary school students on substance use prevention.

Pharmacists are the health professionals that most often manage behavioral and pharmacological treatments for nicotine use disorder.[195–197] They encounter people with other substance use disorders in community, ambulatory, and inpatient settings, as well. They screen patients for alcohol and opioid use disorders,[198–203] participate in medical cannabis dispensing and management,[204–207] and provide opioid overdose education and train patients and family members on naloxone administration techniques.[208–214] In addition, pharmacists sell sterile needles and syringes in community pharmacies,[215–222] dispense and administer medications for SUD treatment, and connect patients to recovery services. Expanding their roles on patient care teams, pharmacists partner with other disciplines to prevent, screen for, manage, and treat all

SUD, including administration of evidence-based pharmacotherapies,[223–224] Advocates for patients with chronic diseases, pharmacists create policies that highlight the roles of pharmacists in the care of patients with SUD.[225–227]

Traditional and more modern roles for pharmacists include using prescription drug monitoring programs, promoting safe storage and disposal of psychoactive medications, promoting non-opioid and non-pharmacological alternatives for pain and mental health conditions. In addition, they work with care teams to avoid and monitor drug interactions, prescribe and dispense naloxone to patients and caregivers as the Surgeon General has recently emphasized,[228] and link patients to SUD treatment.[195,208,209,229–238]

Academic and research pharmacists have been recommended to develop, enhance, and evaluate SUD curricula and continuing professional education programs, develop new medications for SUD treatment and opioid overdose reversal. They have also been recommended to study the effectiveness of innovative policy implementation, besides focusing on expanding interdisciplinary SUD education for student and practicing pharmacists.[230]

Core Values

Pharmacists' core values are to be accountable for the outcome and processes of their work, to encourage and sustain collaboration within and among health professions, and to advocate for the advancement of the profession. Pharmacists

operate with integrity and respect to improve the quality of their work through innovations that ultimately improve and sustain patient's overall quality of life. Pharmacists should act with compassion and strive to act for the patient's best interest without stigma or discrimination, role modeling behaviors and actions for pharmacists and other health professions-in-training. Pharmacists advocate for evidence-based policies that achieve optimal population and public health goals.

Education, Licensure, and Certification

The PharmD is the sole degree awarded to practice pharmacy. Graduates from programs accredited by the Accreditation Council for Pharmacy Education (ACPE) can practice as generalist pharmacists following successful completion of state licensure exams, the North American Pharmacist Licensure Examination (NAPLEX) and Multistate Pharmacy Jurisprudence Examination (MPJE). Post-graduate education, completed by ~20% of all pharmacy college graduates, are available as post-graduate year 1 (PGY1) general practice residencies and second-year specialty residencies (psychiatry, ambulatory care, community pharmacy, etc.), some of which offer specialized SUD training[239] and leadership[240] experiences. A smaller number of research-based fellowships are available to pharmacy graduates, including several focused on SUD.[241]

For any graduate with either specialized training or several years of practice experience, board certification by the Board of Pharmaceutical Specialties (BPS) is

offered in pharmacotherapy, ambulatory care, psychiatric pharmacy, and others.[242] Pharmacists achieve board certification through rigorous evaluation of specialized content knowledge. The psychiatric specialty exam evaluates the most comprehensive content related to SUD. These topics include motivational interviewing, SUD treatment plans, removing barriers to care, translating evidence into practice, delivering education to various stakeholders, and advocating for patients, including screening for mental and SUD, harm reduction, naloxone education, and support for needle exchanges.[243]

As of April 2018, there are only 1,067 pharmacists in the U.S. with current BCPP[243] certification,[244] and only 69 PGY-2 programs in psychiatric pharmacy in the U.S.[245]. Comparatively, in 2015, there were 282,000 pharmacists employed in the U.S.,[246] more than 14,000 pharmacy graduates,[247] and the majority of these professionals worked at over 67,000 community pharmacies in the country.[248] This is why SUD training is both urgent and critical in pharmacy education, since so few pharmacists receive the specialized skills and knowledge required in residency and board certifications after graduation.

The American Association of Colleges of Pharmacy (AACP) has established core entrustable professional activities for new pharmacy graduates including patient care provider, interprofessional team member, population health promoter, information master, and self-developer domains.[249] These activities map onto many of the knowledge, skills, and attitude competencies for providing care to patients with SUD.

Achieving these SUD-specific competencies fits within the student pharmacist, resident, and board-certification domains of patient-centered care.

In 2010, AACP published *Curricular Guidelines for Substance Abuse and Addictive Disease*, listing ten educational goals every student graduating with a PharmD should know about addiction.[250,251] Many of these goals match the competencies necessary for pharmacists to provide comprehensive care for patients with SUD. The authors suggest ways to deliver the content and how to benchmark successful skill formation and content mastery.

Overall, every pharmacy graduate will participate in disease state management and patient education. For SUD, this includes screening via SBIRT, optimizing pain control with providers via the *CDC Guidelines for Prescribing Opioids for Chronic Pain*,[252] reducing harm through syringe provision and naloxone, and referring patients to treatment resources.[253,254] However, pharmacists should systematically screen and assess all patients for SUD, work with community harm reduction groups to decrease harm associated with opioid misuse, and treat patients with SUD, ideally in collaboration with other SUD providers. Pharmacy students themselves are at high risk of substance use disorders,[255] bringing more urgency to insuring that all pharmacists possess the skills, knowledge and attitudes to work with state Boards of Pharmacy and

pharmacist recovery networks to help those who have yet to enter the profession as well as their current and future colleagues.

Critical Issues, Obstacles, and Challenges

Although most community pharmacies sell tobacco and alcohol products, two of the most significant substances that cause SUD, one large community pharmacy chain stopped selling tobacco products and the community benefits were significant.[256] Pharmacists need to apply these successes to advocate for expansion of these effective harm reduction efforts among the tens of thousands of community pharmacies that continue to make these substances available to their community.

Reimbursement for clinical services, whether for motivation interviewing for smoking cessation, using SBIRT in community pharmacies, or creating treatment plans for buprenorphine, is the largest barrier to expanding pharmacists' roles in SUD care. While the *2016 Comprehensive Addiction and Recovery Act* (CARA) expanded opioid use disorder DATA2000 waiver training to nurse practitioners and physician assistants, pharmacists were excluded.[257]

Currently, neither state licensure, post-graduate training, specialization, advanced board certifications, nor standing orders or collaborative practice agreements permit pharmacists to independently obtain reimbursement for cognitive services related to SUD screening, medication adherence counseling, naloxone education, or

referral to treatment. This opportunity lies with commercial private and state and federal public insurers, and hinges especially on obtaining federal provider status.[258]

Few pharmacy fellowships or residency opportunities focus on SUD skills and knowledge, and SUD content, if present at all, is lacking among PGY1 and PGY2 specialized residency content. Additionally, in most states, practicing pharmacists have few continuing education requirements for acquiring and sustaining knowledge of SUD prevention, harm reduction, and/or delivery of comprehensive, medication-centered recovery services. Most pharmacy graduates do not complete post-graduate education, and SUD-related competencies are a small fraction of current required pharmacy curricula.[202,211,259,260]

Vision for the Future

All practicing pharmacists and new graduates should expand their recognized and trusted public health role as disease-state management specialists to universal screening for and treatment of SUD, increased harm reduction actions through drug checking[261] and increased syringe and naloxone access, removing sales of nicotine and alcohol products from pharmacies,[262] and taking an active role in shaping cannabis policy.[207] Pharmacists should extend their reach into community prevention efforts both in pharmacies, schools, and through public events in communities where they live and practice.

Pharmacists should advocate for expanded legal authority to participate in team-based care of people with SUD through collaborative drug therapy agreements, standing orders, and/or direct prescriptive authority for SUD pharmacotherapy.[263] The best way to ensure precise, secure, and confidential care is for pharmacists to have real-time access to all health information related to the patients' SUD and co-morbidities.[264] All pharmacists should receive training to reduce or eliminate stigma in their practices to ensure all patients receive compassionate, patient-centered care from all members of the care team.

Every student pharmacist should participate in an interprofessional expanded SUD curriculum integrated throughout didactic classes such as toxicology, pharmacology, pharmacotherapeutics, as well as introductory and advanced pharmacy practice experiences.[251] Naloxone education, whether delivered online to practicing pharmacists[265] or across the pharmacy curriculum[266] works best when case-based pharmacist-patient communication, hands-on demonstrations,[267] OSCE,[268,269] and/or holistic harm reduction strategies are emphasized. Faculty leaders at schools and colleges of pharmacy and residency programs should further optimize pharmacists' roles in interprofessional SUD practice and teaching.[270] Colleges and schools of pharmacy should ensure that, like medical school graduates,[271] students receive the opioid use disorder and DATA waiver training integrated into their didactic education,

much like naloxone,[266,267,269] medication therapy management,[272,273] and immunization certification training.[274]

This interdisciplinary core curriculum integrated with other SUD treatment providers and educators should be adapted for student pharmacists, pharmacy residents and practicing pharmacists in the form of continuing professional education and certification. This curriculum would ideally cover screening, risk factors, stigma, harm reduction including naloxone, motivational interviewing, medication therapy management of SUD, person-first language, and cultural competence. This curriculum should be structured around achievement of and connections between the knowledge, attitude, and skill competencies.

Pharmacists with specialty SUD training and certification should work in fully integrated interdisciplinary care teams to design, implement, monitor, and modify evidence-based care plans for patients in their specialty who have SUD. These specialists will be active advocates, teachers, and scholars to advance interdisciplinary SUD treatment and policy in pharmacy and other professions and deliver the educational content to certify both advanced and generalist pharmacy practitioners.

Lastly, financial barriers to medication-centered recovery should be reduced or eliminated, including copays, prior authorizations, quantity limits, caregiver limitations for naloxone, and formulation restrictions for pharmacotherapy for SUD. Pharmacists should be reimbursed fairly, consistently, and sustainably for providing all aspects of

medication-related SUD services, including screening, treatment referral, medication therapy management, drug administration, point-of-care testing and interpretation, and other clinical and medication-related monitoring.

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Core Competencies: Pharmacy

KNOWLEDGE

All pharmacists with clinical contact should be knowledgeable of the following concepts about Substance Use and SUDs:

Definitions and diagnostic criteria for SUD

- Lists 11 criteria for SUD. Individuals that endorse 2-3, 4-5, or 6 or more meet criteria for mild, moderate, or severe substance use disorder, respectively.
- Substances or classes of substances for which addictive disorders are recognized include 10 classes of drugs: alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics, and anxiolytics; stimulants; tobacco; and other (or unknown) substances.

Spectrum of Use

Alcohol

- Alcohol consumption is associated with adverse consequences in all aspects of life, including social, legal, occupational, psychological, and medical issues.
- Heavy episodic ("binge") drinking is the most common pattern of alcohol consumption among underage drinkers, and substantially increases the risks associated with alcohol use. The AAP recommends beginning anticipatory guidance regarding the risks of alcohol consumption during late childhood.

Cannabis

- The National Academies of Sciences, Engineering, and Medicine and the American Association of Colleges of Pharmacy (AACP) Medical Cannabis Toolkit report review evidence-based research on the health effects of cannabis, to insure quality information to make recommendations for future research, and promote informed decision-making.

Opioids and prescription medications

- Motivation for non-prescribed use of prescription medication impacts the risk of developing a SUD. Non-prescribed use for pain increases risk of SUD less than use for euphoria, or "to get high."
- Receiving a prescription for opioids increases the later risk of opioid misuse (non-prescribed use) among adolescents.
- Describe the source of opioid epidemic, why opioid medications are diverted and abused, and important definitions including tolerance and physical dependence and important mitigations strategies.
- The number of American adults filling a benzodiazepine prescription is increasing, and the quantity filled is also increasing. Although the rate of overdose deaths involving benzodiazepines has stabilized overall and in most groups, it remains more than five times the rate at the start of the study period.
- Cross-sectional, population-based survey of 443,041 respondents from the 2002-2009 National Survey on Drug Use and Health (NSDUH) analyzed for lifetime nonmedical use of prescription ADHD stimulants, lifetime nonmedical use of another prescription drug, illicit drug use, and drug use initiation patterns. Lifetime nonmedical use of prescription ADHD stimulants was reported by 3.4% of those aged 12 years and older. Of these, 95.3% also reported use of an illicit drug (i.e., cannabis, cocaine/crack, heroin, hallucinogens, inhalants) or nonmedical use of another prescription drug (i.e., tranquilizers, pain relievers, or sedatives), and such use preceded nonmedical use of prescription ADHD stimulants in 77.6% of cases.
- Post-marketing surveillance indicates that the diversion and abuse of prescription opioid medications increased between 2002 and 2010 and plateaued or decreased between 2011 and 2013.

Nicotine

- Review the adverse effects of cigarette and non-cigarette emission exposure, including information about hookahs and electronic cigarettes.
- The primary addictive substance in tobacco is nicotine and nicotine has a stimulatory effect on the brain. Pharmacotherapies are effective treatments for tobacco dependence and are recommended by the United States Public Health Service to be provided in conjunction with behavioral therapy.

General Concepts

Common definitions and diagnostic criteria

- Use contemporary (i.e., DSM-5), patient- and disease-centric terminology of SUDs.

Epidemiology of substance use and related disorders across the lifespan

- Describe risk factors, abuse/misuse potential, and epidemiology of misuse psychoactive drug misuse (prescribed, nonprescription, and illegal drugs) and the laws that regulate their use.

Relationship of substance use disorders to family function and stability

The medical model of addiction and basic neurobiological concepts

- Describe the complex pathophysiology of addiction and its neurochemical and biological etiology.
- Describe the major pharmacological and toxicological properties of alcohol and commonly misused drugs and related substances.
- Describe the pathophysiology of substance use disorders, including the biological basis of addiction, and the social, environmental, and genetic risk factors that contribute to its expression.

Prevention

Universal, selected, and indicated prevention strategies, their effectiveness, and their application at the individual, family, and community levels

Risk and protective factors, including genetic, familial and sociocultural influences

- Compare and contrast risk and protective factors related to initiation of substance misuse in adolescents.

Harm reduction strategies

- The pharmacist plays a role in the implementation of harm reduction in various pharmacy settings.

Alcohol and Other Drug Effects

- Know the acute and chronic health effects of mood altering substances, especially alcohol, cannabis, and opioids.
- Describe the pharmacology and behavioral effects of common mood altering substances, especially alcohol, cannabis, and opioids.

Evaluation and Management

Screening and evaluation

- Describe the use of validated screening tools for SUD in various healthcare settings, including community pharmacy practice (such as SBIRT).

Treatment approaches, including outcomes, effectiveness, and cost

- Describe the major modalities of addiction treatment and discuss and utilize methods of providing support for the ongoing recovery of persons with substance use disorders, family members, and other persons involved, focused on medication-assisted recovery.

Behavioral change and motivational enhancement strategies (such as brief intervention)

Pharmacologic treatments for SUDs

Relationship and interaction of SUDs and other psychiatric disorders (co-occurring disorders)

Cultural context of drug use and impact of gender, culture, and ethnicity on intervention and treatment

Implementation models for clinical practice

- Know the pharmacology, pharmacokinetics, pharmacodynamics, toxicology, mechanism of drug action, drug-drug interactions, and the adverse reactions between alcohol, tobacco, cannabis, and agents used in the pharmacotherapy of SUD and overdose.

Legal and Ethical Aspects

- Maintain confidentiality and protect patients' rights.
- Identify legal and ethical issues relating to medications for addiction and naloxone access, collaborative practice agreements (CPA), standing orders, Good Samaritan laws, drug testing, syringe access, confidentiality (i.e. 42 CFR Part 2, HIPAA), PDMP use, and DEA drug classification.

Health Professional Impairment

Identification, management, reporting, and recovery

- Describe signs and symptoms of impairment in health professionals and support personnel.
- Identify the stigma of SUD and its treatment and reflect on personal stigma related to SUD management services.
- Describe the extent and patterns of addiction related to substance use in society and in the health professions.
- Explain how addiction and related disorders impacts the professional role(s) of a pharmacist.

- Recognize impairment, describe intervention actions, and identify assistance resources for individuals affected by addiction and related disorders.
- Know the roles of all of the professionals caring for people with SUD to function as interprofessional teams.

SKILLS

1. Recognize early the signs and symptoms of SUDs.
2. Screen effectively for SUDs in the patient or family in all pharmacy settings.
3. Provide prevention and motivational enhancement to assist the patient in moving toward a healthier lifestyle.
4. Offer brief interventions to patients with hazardous and harmful substance use.
5. Manage common medications used for treatment of SUDs (for prescribers and pharmacists).
6. Make referrals for further evaluation and/or treatment of SUDs.
7. Educate patients and caregivers about the correct storage, handling, and disposal of prescription medications.
8. Collaborate with other healthcare providers in the development of the pharmacotherapeutic elements of drug detoxification protocols.
9. Maintain professional competency in substance misuse prevention, education, and patient/professional assistance through formal and informal continuing education.
10. Provide substance misuse education to fellow pharmacists, other healthcare professionals, and other employees of their healthcare organization.
11. Promote and provide alcohol risk-reduction education, activities, and treatment.
12. Communicate the potential risks of SUD from psychoactive prescription and over-the-counter medications to patients, healthcare workers, caregivers, employers, and policymakers.

13. Develop and disseminate a current list of local resources for evidence-based SUD treatment and prevention.
14. Minimize adverse drug events and medication errors related to pharmacotherapies for substance use disorders and related comorbidities.
15. Collect information to identify a patient's SUD medication-related problems and health related needs.
16. Analyze information to determine the effects of medication therapy, identify medication-related problems, and prioritize health-related needs in patients with SUD.
17. Administer medications for SUD treatment to patients.
18. Utilize established protocols to ensure safe care that can include the: Withdrawal from Alcohol Scale (WAS), Clinical Institute Withdrawal Assessment (CIWA) – Alcohol, Clinical Opiate Withdrawal Scale (COWS), Amphetamine Withdrawal Questionnaire, and CIWA – Benzodiazepines.
19. Participate in all processes of monitoring patient outcomes of SUD treatment care plan.
20. Educate patients regarding patient-specific therapeutic plans for SUD.
21. Establish patient-centered goals and create a plan in collaboration with the patient, caregiver(s), and other health professionals that is evidence-based and cost-effective to manage SUD and related co-morbidities.
22. Provide information about recovery support services (e.g., Alcoholics Anonymous, Narcotics Anonymous) appropriate to the needs of individuals whose lives and their caregiver's lives are affected by SUD.
23. Lead public discourse on the development, implementation, and expansion of policies related to prevention of misuse of prescription and illicit substances, expansion of access to therapies for overdoses and pharmacotherapy of SUD.

24. Counsel individuals who are in recovery concerning appropriate use of herbal/supplement, nonprescription and prescription drugs.
25. Advocate for pharmacist involvement in community and health-system-wide SUD education and prevention.
26. Promote, sustain, and utilize resources within the profession to obtain assistance for colleagues and student pharmacists with substance use disorders, including the use of statewide peer assistance groups and the use of alternative to discipline programs.
27. Instruct drug abuse counselors and other health professionals working in drug treatment programs on the pharmacology, pharmacodynamics, pharmacokinetics, toxicology, adverse drug reactions, drug-drug interactions, and mechanisms of action of misused substances and of medications used to treat SUD and overdoses.

ATTITUDES

1. Approach patients in a culturally sensitive and caring manner.
    - Approach and treat patients with SUDs as any other chronic, re-occurring, lifelong disease in a culturally sensitive and caring manner.
2. Recognize SUD as a preventable, treatable condition, as any other chronic, re-occurring disease.
3. Demonstrate non-judgmental, welcoming attitudes and use person-first language.
    - Approach and treat patients with SUDs without personal bias, stigma, discrimination, and/or judgment of the patient and their families.
    - Role-model this attitude for co-workers, peers, other health professionals, policymakers, students, and family members.

INTERPROFESSIONAL PRACTICE

- Lead interprofessional teams in providing quality care to persons with substance use problems and disorders.
- Partner with other disciplines to enhance healthcare consumer outcomes.
- Engage in interprofessional activities including education, consultation, management, technological development, or research opportunities.

Chapter 4: Social Work

Introduction

Social workers have traditionally focused on treatment rather than prevention, thus working with people on the more severe end of the substance use continuum. In recent years, public health social work—with more of a focus on primary, secondary and tertiary prevention—has become more prominent.[275] Additionally, social workers have a holistic focus of illness and condition, identifying biological, psychological, and social factors impacting a person's health. The 'person-in-environment' perspective allows social workers to view substance misuse as a complex disorder encompassing medical, psychological and environmental factors including community and neighborhood factors, family and social support, as well as the understanding the role of larger organizational factors, programs, and policy and their influence on both the disorder itself as well as treatment.[276]

In addition, social workers tend to see human behavior and illness through a lifespan perspective. Social workers intervene at each stage of a person's lifespan, investigating biopsychosocial factors that are unique at individual stages, paying special attention to resources available.[276] Screening and assessment, interventions and counseling, and working as an interdisciplinary team with regard to case management are a primary focus of a social worker's role. As such, all social workers should meet the minimal core competencies provided in this document in order provide competent

care to persons who may be at risk because of alcohol and other drug use including the use of prescription medications for nonmedical reasons.

Core Values

Incorporating a lifespan approach, social workers primarily view illness and behavior with the 'person-in-environment' perspectice.[276] This perspective follows along with the Ecological Model,[277] examining factors in the clients' three primary systems that intertwine: micro (personal), mezzo (social supports and close neighborhood and work-related), and macro level (organizational, community, environmental factors including governmental and global policy issues) level. A person is influenced by internal factors, as well as factors outside the physical body that impact decisions, behaviors, and illness. Social workers hold that positive and negative peer and family supports, experiences, and policies developed at a larger scale can impact a person. This allows for a more holistic approach, acknowledging challenges and strengths impacting a person's life.

Although social workers help people from a variety of situations and backgrounds, the historical focus has been on working with those who are oppressed or from vulnerable populations. Social work's focus on social justice means our primary task is to help those who cannot readily help themselves: people from poor socioeconomic backgrounds, people with disabilities, people in marginalized populations such as LGBTQ or ethnic minorities, and individuals who are homeless are

some of the populations social workers primarily serve. This is a unique focus that social workers bring to an interdisciplinary team including medicine, nursing, occupational therapy, and pharmacy. Social workers are trained to deal with a full range of medical and mental health conditions, and are able to utilize their skills in assessment, interventions, relapse prevention, and working with co-morbid health conditions.

The driving force underlying work with oppressed and vulnerable populations is the strengths perspective. This lens encompasses most of how social workers work with their clients. Instead of focusing on the challenges and barriers facing a person, the social worker focuses on that client's strengths: strong family support, being employed, living in a safe neighborhood, and a desire to change behavior or work on the issue. In this way, a client with substance misuse who has the above strengths may work with a social worker on developing positive coping skills, reducing stress by taking walks in the neighborhood, and spending time with family.

Education, Licensure, and Certification

Three educational degrees exist in the field of social work: the baccalaureate/ bachelor's degree (BSW); Master's of social work (MSW); and doctorate (PhD or DSW). The practicing degree, which is license-eligible, is the MSW. Practitioners with a BSW have a generalist social work background and have had two internships in settings under the guidance and supervision of an MSW or other masters' level or doctoral level

practitioner (psychologist, counselor). The BSW graduate can also obtain their MSW in one year rather than two.[278]

Two levels of professional practice licensure are available for MSW graduates: the first is the LMSW, or Licensed Master of Social Work, which enables the social worker to work in a variety of non-private practice settings. The exam is typically taken within one year of graduation from the MSW program, but there is no time limit on when the exam can be taken. The second is the LCSW, or Licensed Clinical Social Worker, which is an additional licensing step for those with the LMSW. It is not a necessary license, but one that allows a social worker to practice in a solo setting or private therapy practice. This level of licensure also carries 3,000 hours of supervised social work practice in addition to passing the exam.[279]

The doctorates in social work (Ph.D., DSW) are primarily reserved for those wishing to have careers in academic, research or administrative settings. No additional licensing is available at this level.

At all levels of social work education, addictions coursework is minimal. Typically, courses in SUDs or addictions are either offered as electives if at all, and might only be offered once a year or every other year. Some schools of social work do have certificates in SUD, or one required course.[280] To that end, social work educators and researchers have developed intensive substance abuse training in social work programs.[281] Additionally, most material covered in social work addictions courses

focuses on treatment rather than on etiology/epidemiology and prevention. This has been somewhat of a recent development in the past decade, in conjunction with the Council on Social Work Education accrediting board, through research and policy changes suggesting the importance that students have experience and knowledge in this area. The National Institute of Alcohol Abuse and Alcoholism (NIAAA) funded a project developed by social work researchers to revise curriculum for *Social Work Education for the Prevention and Treatment of Alcohol Use Disorders*, to ensure core competencies and skills would be covered in social work education.[282] Additionally, SBIRT has been a driving force in all healthcare fields' educational guidelines, as a way to infuse some sort of substance use disorder education or training at a minimal level. For many students, knowledge and skills to intervene with substance use disorders have come from field internships rather than in the classroom.

Critical Issues, Obstacles, and Challenges

As previously discussed, many schools of social work do not have required curriculum in SUDs, but the landscape is changing. Progress in curriculum development and implementation has been intensive. Though social work students have always had clinical courses and field internships providing them the skills needed to help people with addiction, there is a greater emphasis on creating more specialized courses in substance abuse.[283] In order for social workers to be best prepared to work with clients and their families, there needs to be more emphasis on mandatory or

required courses in all schools of social work, ideally at both the BSW and MSW levels. This will develop educated and well-equipped social work professionals who can assist clients with substance use disorders and their families.

SBIRT training for social work students has allowed students who have graduated, to implement those skills in the workplace. However, barriers to implementation for screening, assessment, and brief intervention and referrals exist. Additionally, SBIRT is more easily accepted and implemented in medical or healthcare settings. Social service agencies have additional barriers to adaptation, including lack of insurance coverage and other policy implications.

Vision for the Future

All health practitioners—social workers, nurses, physicians, occupational therapists, physical therapists, dentists, pharmacists just to name a few—should have a consistent and somewhat similar, basic core curriculum across the U.S. Each discipline would then extend the basic healthcare provider education in SUDs to focus on the factors relevant to their particular profession. This is especially relevant given the emphasis on interprofessional education in all healthcare related fields. A leader in interdisciplinary SUD education is New York University. Their *Substance Abuse Research and Education Training* (SARET)[284] program includes faculty educators and researchers from schools of social work, nursing, dentistry, medicine, and global public health. Participants in the SARET training complete online modules, each created by

the individual schools involved, so that learners can understand what each discipline brings to SUD education and research. After completion of the online learning, participants can apply for a research stipend to support mentored research in one of the represented disciplines. SARET is a strong example of interdisciplinary curriculum for substance use disorders.

Similarly, more options for continuing education credits for social workers should be made available within the area of SUDs. Continuing education also includes an emphasis on contributing to and learning from the peer-reviewed knowledge base. Training social workers to conduct research and evaluation strengthens this ability to disseminate information. Social work journals focused on addictions research and practice, such as the *Journal of Social Work Practice in the Addictions*, have raised visibility of social work research and practice with individuals with SUDs. Additionally, social work educators and researchers have emphasized the importance for social work practitioners to be more involved in research and evaluation.[285]

Ideally, policy changes would also occur to make education, continuing education, as well as prevention, intervention and referral systems feasible. Organizational barriers to implementation usually stem from policy challenges at the local, state, or federal level. Social workers can advocate for changes to policy that will enhance their clients' chances for recovery as well as for those within the clients' systems.

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Core Competencies: Social Work

KNOWLEDGE

Social workers should comprehend the following terms and diagnostic criteria for SUDs:

- SUDs span a wide variety of problems arising from substance use and covers 11 different criteria of the DSM-5, and diagnosis is based on evidence of: impaired control, social impairment, risky use, and pharmacological criteria.
- The DSM-5 recognizes substance-related disorders resulting from the use of 10 separate classes of drugs: Alcohol; caffeine; cannabis; hallucinogens inhalants; opioids; sedatives, hypnotics, or anxiolytics; stimulants; tobacco; and other or unknown substances.
- The DSM-5 no longer uses substance abuse and substance dependence, it refers to substance use disorders, which are defined as mild, moderate, or severe to indicate the level of severity, which is determined by the number of diagnostic criteria met:
    - Criteria; 2-3 (mild), 4-5 (moderate), or 6 criteria (severe).[80]
- *The continuum of drug use* can be used to assess an individual's drug use and evaluate the type of treatment that may be appropriate; the stages that are defined in the continuum include: non-use; experimental use; recreational/social use; regular use; compulsive use.
- *Tolerance* is defined by either of the following: (1) A need for markedly increased amounts of the substance to achieve intoxication or desired effect; (2) A markedly diminished effect with continued use of the same amount of substance.
- *Withdrawal* manifested by either of the following: (1) Characteristic withdrawal syndrome for the substance; (2) Use of the substance or closely related substance is taken to relieve or avoid withdrawal symptoms.

- Pharmacological criteria 10 and 11, which include withdrawal occurring during appropriate medical treatment with prescribed medications, are not included when diagnosing a SUD.
    - "The appearance of normal, expected pharmacological tolerance and withdrawal during the course of medical treatment has been known to lead to an erroneous diagnosis of SUD even when these were the only symptoms present."
    - "However, prescription medications can be used inappropriately, and SUD can be diagnosed with symptoms of compulsive, drug-seeking behavior."[286]
- The activation of the brain's reward system is central to issues associated with substance use; the rewarding feeling individuals experience is often so profound that they neglect other important activities in favor of taking the drug.[287]
- While pharmacological mechanisms for each class of drugs are different, the activation of the reward system is similar across all substances in producing feelings of euphoria.
- The DSM-5 recognizes that people are equally vulnerable to developing SUDs and that some people have lower levels of self-control that predispose them to develop problems when they are exposed to substances.[288]

Continuum of Care for SUD Services

It is essential for social workers to understand the full continuum of care, so they can refer clients to appropriate levels of care.

- *SUDs Health Promotion and Prevention Initiatives*: Support individuals to engage in healthier lifestyles, which create supportive environments, strengthen community action, and help develop personal health and coping skills, supporting prevention of SUDs.

- *Primary Care Services:* Healthcare services provided by physicians and specialists such as psychiatrists, psychologists, nurse practitioners, and other health service providers within a primary care setting for children, youth, and adults.
- Primary care is provided by physicians specifically trained for and skilled in comprehensive first contact and continuing care for persons with any undiagnosed sign, symptom, or health concern. Primary care includes health promotion, disease prevention, health maintenance, counseling, patient education, diagnosis, and treatment of acute and chronic illnesses in a variety of healthcare settings.
- *Outpatient Clinics for SUDs:* Services are often office-based, however, sometimes are also provided as outreach and can be short-term or longer-term. Services include: medical consultation, assessment, referral, and education sessions, as well as individual, group, and family counselling/therapy and case management.
    - *Case Management:* Screening, assessment, treatment, psychosocial education, referral services, and coordination of client care, self-management support, relapse prevention, crisis management, and rehabilitation.
    - *Assertive Community Treatment (ACT):* A service delivery model that provides flexible, comprehensive services to individuals with mental illness and/or SUDs who have complex needs. ACT is distinct from case management, as it includes a low client-to-staff ratio, operating hours on evenings and weekends, multidisciplinary teams, client-directed delivery of care, and assertive outreach.
    - *Withdrawal Management:* Includes detox services and support for individuals going through acute stages of withdrawal from alcohol or other substances.

- *Short-Term Residential Treatment:* SUD treatment provided in a safe, structured, and substance-free living environment for individuals up to 30 days.
- Treatment includes assessment, education, structured individual, group and family counselling.
- *Long-Term Residential Treatment:* SUD treatment provided in a safe, structured, and substance-free living environment for individuals for over 90 days. Treatment includes: Assessment, education, structured individual, group, and family therapy.
- *Support Recovery:* A temporary residential setting providing safe housing and a basic level of support appropriate for longer-term recovery from SUD.
- Typically, individuals access outpatient and other community treatment services and supports.
- *Day Programs and Intensive Day Treatment Services*: Structured individual, group, and family SUD treatment services for individuals with severe SUDs. These programs support individuals who have complex needs and require intensive support.
- *Tertiary Care – SUD Specialized Residential Care:* Residential treatment care, which provides specialized community facilities serving individuals discharged from acute and rehabilitation tertiary services, specifically with severe and chronic SUDs.
- *Self-Help Recovery/Support Groups:* Can complement and expand on the effects of professional SUD treatment. The most prominent self-help groups are Alcoholics Anonymous (AA), Narcotics Anonymous (NA), and Cocaine Anonymous (CA), all which are based on the 12-step model and Smart Recovery.

Prominent SUD Theories and Perspectives Related to Social Work:

- *The Biopsychosocial Perspective* can be particularly insightful in further understanding SUDs from the social work perspective, as the model recognizes interrelated mechanisms categorized into: biological, psychological, and environmental or social causes.
- The social work profession offers a comprehensive assessment/treatment of SUDs which is individualized, patient and family-centered, and moves beyond the medical model to a multidimensional approach, which is complementary of the model.[288,289]
- *Ecological Perspective* was initially developed from the field of biology and views how the individual interacts with their environment to obtain a goodness-of-fit, which represents a level of homeostasis.[290] The social work profession uses concepts of micro, mezzo, and macro to assess how SUDs affects the individual and other interrelated systems. The ecological perspective offers an alternative approach from medical and disease-orientated frameworks,[291] which is particularly relevant in SUDs.[292]
- *Systems Theory* explains human behavior as the intersection of the influences of multiple interrelated systems. Systems theory acknowledges that individual issues, families, organizations, societies, and other systems are inherently involved and must be considered when attempting to understand how to best support an individual.[293] According to this theory, all systems are interrelated parts constituting an ordered whole and each subsystem influences other parts of the whole, which is integral when attempting to better understand psychosocial factors involved in SUDs.[294]
- *Transtheoretical Model (TTM)*, also referred to as the Stages of Change, is a model based on behavior change and decision-making. The TTM suggests that

individuals move through six stages of change: precontemplation, contemplation, preparation, action, maintenance, and termination.

- For each stage of change, different interventions are applied to help move the person to the next stage of change and encourages an ongoing assessment of an individual's current stage of change and accounts for relapse in people's decision-making process.[295] Motivational interviewing is often a therapeutic strategy that is used in tandem with the Stages of Change Model.[296]
- *Harm Reduction* pertaining to SUDS includes: Policies, programs, and practices that aim to keep people safe from risks related to SUDs. Harm reduction involves a range of support services and strategies to enhance the knowledge, skills, resources, and supports for individuals, families, and communities to be safer and healthier.
- A range of services is available to prevent harms from substance use; some examples include: Needle distribution programs, substitution therapies, and naloxone distribution.
- Harm reduction helps to increase accessibility to treatment for individuals with SUDs with services including: Connecting to outreach, primary, or other health care services, and accessing substance dependence treatment.[297, 298]

Social workers should pursue ongoing knowledge and professional development to provide the most current, beneficial, and culturally appropriate services to clients with SUDs.

- Social workers should adhere to the *NASW Standards for Continuing Professional Education* and ought to follow state licensing requirements regarding continuing education requirements. Social workers should access ongoing supervision and consultation to increase their professional proficiency and competence as needed.
- Social workers engaging with clients with SUDs should participate in professional development activities that enhance their knowledge and skills

relevant their client's needs. Social workers should also contribute to the development of the profession by educating and supervising social work students, peers, and other colleagues.[299]

SKILLS

Social workers with regular clinical contact should prevent, identify, and manage substance use and SUDs within their practice in the following treatment settings:

Substance Use Disorders: Prevention, Promotion, and Early Intervention

1. Social workers should demonstrate an understanding of evidence-based prevention techniques and strategies, including community assessment, the use of data to inform prevention, an emphasis on risk reduction and protective factors for substance misuse, in addition to other approaches consistent with the Strategic Prevention Framework[300] and other evidence-based practices.
2. Social workers must assess a person's risk for substance use disorders by using age, gender, and culturally appropriate language, guiding both screening and assessment methodologies. Additionally, this should be supplemented with relevant information, including family history, mental health, race, culture, and other environmental factors.
3. Social workers should demonstrate an awareness to inform individuals about the risks associated with substance misuse and should advise individuals on available resources, across the continuum of care. Social workers must recognize early signs and symptoms of SUDs and screen effectively across all practice settings.[299]
    - Screening, brief intervention, and referral to treatment (SBIRT) is a comprehensive approach to the delivery of early intervention and treatment services for individuals with SUDs, as well as those who are at risk of developing a SUD. Primary care centers, hospital emergency rooms, trauma centers, and other community settings provide

opportunities for early intervention with at-risk substance users. SBIRT is an effective approach with SUDs and the social work profession is well particularly positioned to use this SBIRT in various treatment settings.[303]

Secondary Care for Substance Use Disorders: Treatment and Recovery

1. Social workers should demonstrate an understanding of SUD treatment, recovery supports, and referrals to primary care, substance use intervention and treatment resources, mental health and psychiatric care, community, and other medical care.
2. Social workers ought to demonstrate the ability to complete a multi-dimensional contextual assessment that is inclusive of substance use and its interaction with symptoms of mental health, informing treatment recommendations across the continuum of care.
3. Social workers must articulate the foundational skills in person-centered counseling and behavioral change consistent with evidence-based practices, including motivational interviewing, harm reduction, relapse prevention, and behavioral interventions such as cognitive behavioral therapy and relapse prevention, motivational enhancement therapy, contingency management, and self-help/peer support groups.[299]
4. Social workers should use data to guide service delivery and to evaluate their practice regularly to improve and expand client services. Social workers should collect, analyze, synthesize, and disseminate data related to their practice with individuals with SUDs. Social workers should conduct ongoing assessments to determine treatment efficacy. Evaluation methods should be assessed regularly to ensure that practices are aligned with the client's needs, service agency goals, and the ethics of the social work profession.[301]

Substance Use Disorders: Tertiary Care and Chronic Disease Model

1. Social workers must recognize substance use disorders as a chronic disease that affects individuals physically, mentally, spiritually, and socially. SUDs should be treated with assessment, referral, community supports, and inter-professional collaboration.[304]
2. Social workers should provide case management services and offer individuals with appropriate referrals to address specific needs across systems of care. When clients seek care for SUDs, they are more likely than others to have myriad of physical, behavioral, and mental health conditions that can complicate the prognosis of SUDs and those linkages to appropriate care is fundamental. Additionally, social workers must address social, legal, and financial needs, and when possible, linkages between systems of care should be delivered in an integrative manner.[302]
3. Social workers must recognize the need for tertiary care for SUDs and provide linkages to such care as needed. Some individuals with chronic and severe SUDs cannot be managed in primary or secondary services and require tertiary care. Tertiary care program often includes psychosocial rehabilitation, medication management, and behavioral approaches and can be delivered through assertive community treatment, specialized outreach, residential programs, or hospital-based services. The main goals of tertiary care for SUDS include: Relapse prevention, crisis management, and long-term rehabilitation-focused care.[305]

Social workers should meet the provisions for professional practice set by NASW and related state and federal laws and apply knowledge and understanding basic to the social work profession with regard to clients with SUDs.

- Social workers should have a degree in social work from a program accredited by the Council on Social Work Education. An MSW degree and license is the

recommended qualification for a social worker to provide clinical services to clients with SUDs.

- Working with clients with SUDs is a distinct specialty and scope of practice; therefore, social workers should possess specialized knowledge and understanding of psychological and emotional factors, physiological issues, diagnostic criteria, legal considerations, and co-occurring mental and physical health conditions. This knowledge should include an understanding of family systems, race, culture, ethnicity and other environmental factors that SUDs has on parenting abilities.
- Social workers should also be knowledgeable about current evidence informed approaches and best practices for service provision to clients with SUDs. Social workers should actively seek current specialized training and be certified or licensed by state boards of social work, when appropriate.[299]

ATTITUDES

All social workers should maintain professional attitudes that serve to reduce the stigma associated with substance use and SUDs.

1. Social workers working with clients with SUDs should adhere to the ethics and values of the social work profession and use the *NASW Code of Ethics* as a guide to decision making, while acknowledging the unique factors of SUDs.

- When working with clients with SUDs, social workers should demonstrate core values including: Social justice, the dignity and worth of the person, the importance of human relationships, integrity, and competence. In addition, social workers should uphold professional ethical responsibilities as outlined by the *NASW Code of Ethics*. Social workers should also understand and comply with legal mandates and ethical rights of adults, minors, and their parents.

2. Social workers should ensure that all clients with SUDs and their families are provided with culturally competent services.

- Social workers should demonstrate self-awareness, knowledge, and practice skills consistent with the *NASW Standards for Cultural Competence in Social Work Practice*.[306] Social workers should develop specialized knowledge and understanding about SUD clients, in addition to culturally appropriate resources. Social workers should also demonstrate respect for patients and use non-stigmatizing language when managing patients with substance use problems or disorders. Lastly, social workers should recognize cultural issues relating to substance use when working with clients.

3. Social workers should engage in advocacy ensuring clients with SUDS and their families have equal access to appropriate services in a timely manner and treat clients equitably.

- Social workers should advocate for clients and their families, and particularly for issues related directly to SUDs. Advocacy should include helping clients obtain access to community resources that are directed towards self-advocacy. Social workers should also seek to understand court decisions, legislation, rules and regulations, and policies and procedures that affect social work practice with clients with substance use disorders.
- Social workers should treat clients equitably and approach them without applying personal bias, stigma, or discrimination. Further, social workers should role-model this attitude for colleagues, other health professionals, and policymakers.[300]

INTERPROFESSIONAL PRACTICE

Social workers in clinical practice should be prepared to participate in interdisciplinary teams that provide care to clients with substance misuse problems and SUDs.

1. Social workers should promote interdisciplinary collaboration to support, enhance, and deliver effective services to clients with SUDs and their families.

- Social workers should understand the roles of other health professionals working with clients with SUDs and work toward effective patient-centered interactions. Such collaborations should include: Multidisciplinary teams, medical providers, community leaders, law enforcement officials, child welfare workers, and other service providers. Proper collaborations ensure that clients with SUDs receive coordinated care to avoid either fragmentation or duplication of services in order to meet the needs of the client.

2. Social workers should provide leadership in helping to develop positive treatment environments, in addition to supervision and direction in administration, research and treatment for SUDs.

- Social workers should act as leaders and consultants in the field of SUDs where appropriate, through guidance of treatment, policy, advocacy, and research. Social workers should provide training and SUD education to families, community, and other health professionals. Social workers should also provide leadership and collaboration in the development of comprehensive programs addressing SUDs, and when appropriate, should offering consultation to other professionals in the field.[301]

Chapter 5: Physician Assistants

Introduction

By virtue of their education in the generalist medical model, physician assistants (PAs) are equipped to play a crucial role in expanding access to care for those afflicted by substance use disorders (SUD). As of 2018, more than 123,000 PAs are licensed to practice medicine in the United States.[307] In a wide array of practice settings ranging from large health systems to small community clinics, PAs are employed as key members of interprofessional care teams. PA prescriptive authority in all 50 states and the unique training and capacity of PAs to provide holistic treatment to patients further enhances the value PAs provide to both health care teams and patients.

In response to growing demand for PA services, the number of accredited PA education programs has increased significantly in recent years, numbering 235 as of May 2018.[308] These programs collectively graduate over 8,000 PAs each year with a significant percentage (27.8%) of PA graduates practicing in primary care following graduation.[309] PA graduates in primary care play an important role in prevention, screening, and referral as well as key substance use disorder treatment providers within the context of greater primary and behavioral health integration in the United States.[310]

Consistent with the principles guiding the creation of the PA profession, the unique ability of PAs to rapidly address gaps in the national health workforce, particularly shortages in rural and medically underserved areas, is of growing

importance as communities across the United States continue to be ravaged by the opioid epidemic, among other substance use disorders. Ensuring that all PA students are provided with comprehensive didactic and clinical training in the treatment of substance use disorders is a crucial component of promoting an optimal PA response to this ongoing epidemic.

Core Values

Throughout the history of the profession, PAs have abided by a set of core values that inform and guide their practice. To facilitate value-oriented care, the American Academy of PAs (AAPA), the professional organization for PAs in the United States, maintains Guidelines for Ethical Conduct for the PA Profession, which are predicated upon the medical values of autonomy, beneficence, nonmaleficence, and justice. [311]

Of particular note regarding the treatment of those suffering from substance use disorders, AAPA's Statement of Values of the PA Profession prioritizes PA responsibility for the health, safety, welfare, and dignity of all human beings, the equal treatment of all persons seeking care, and collaboration with all other members of the health care team to provide compassionate and effective care. [312] The promulgation of these core values has and will continue to guide the profession's practice as PAs work to provide comprehensive, empathetic care to those afflicted by substance use disorders.

Education, Licensure, and Certification

One of the key contributing factors to the significant capacity of PAs to provide substance use disorder treatment is the high standards currently required by PA education to earn a master's level degree, most often a Master of Physician Assistant Studies (MPAS). Among the health professions, PAs are second only to physicians in the number of dedicated clinical training hours required of students prior to graduation (approximately 2,000 hours).[313] Within the scope of their clinical training, the Accreditation Review Commission on Education for the Physician Assistant (ARC-PA) requires that PA students complete rotations in six core disciplines: family medicine, internal medicine, general surgery, pediatrics, obstetrics and gynecology, and mental/behavioral health.[314] With regards to didactic education, a vast majority of PA programs provide instruction in counseling skills, psychological development, and psychological/interpersonal/cultural health factors, significantly improving the quality of care provided by students who go on to practice in substance use disorder capacities.[315]

To become certified and enter practice following graduation, PA students are required to pass the Physician Assistant National Certifying Examination (PANCE) provided by the National Commission on Certification of Physician Assistants (NCCPA) and complete the prescribed licensure process by their individual state

licensing board.[316] As practicing clinicians, PAs recertify using the Physician Assistant National Recertifying Exam (PANRE) every 10 years.[317]

Critical Issues, Obstacles and Challenges

While the potential for PAs to positively contribute to the care of those suffering from substance use disorders is considerable due to the nature of the profession, several barriers have historically prevented this potential from being fully realized.

According to research conducted by the Physician Assistant Education Association (PAEA), the availability and quality of clinical rotations in psychiatry/behavioral health has been a significant structural barrier. Approximately 50% of PA program directors have indicated that psychiatry/behavioral health clinical training sites and preceptors are very difficult to attain among the required core rotations.[318] Further, approximately 25% of PA program directors have indicated a very high or high level of attrition among clinical sites and preceptors in mental and behavioral health.[319]

In addition to challenges in recruiting a sufficient number of high-quality behavioral health training sites, variation in didactic substance use disorder curricula and instructional methods in meeting ARC-PA standards among PA programs has also presented challenges in promoting optimal PA participation as substance use disorder providers. The development and dissemination of a set of core competencies for PAs regarding substance use disorders presents an opportunity to address this challenge.

Vision for the Future

While current challenges, such as a lack of sufficient clinical training sites (both generally and in behavioral health specifically) exist, the nature of the PA profession will allow practicing PAs to continue playing a significant role as substance use disorder treatment providers. A comprehensive vision for the future would consist of both internal leadership within the PA profession as well as external advocacy to eliminate unnecessary barriers to PAs providing substance use disorder treatment.

The development of the following set of core competencies for PA education in substance use disorder serves as a crucial step to inform the instruction provided to PA students. Moreover, new efforts within the PA profession to increase the number of PA faculty and students successfully completing the waiver training process under the Drug Addiction Treatment Act of 2000 (DATA 2000) to prescribe buprenorphine as medication-assisted treatment (MAT) present the potential for improved care for patients suffering from opioid use disorder.

A comprehensive vision for the future regarding PA practice as substance use disorder providers would not be complete, however, in the absence of external advocacy. State level prescribing barriers as well as a current lack of permanent DATA waiver eligibility for PAs are significant external issues that must be addressed by leaders within the PA profession. Addressing these barriers, in tandem with the

dissemination of the following core competencies, supports a future for PAs as key players in the substance use disorder workforce.

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Core Competencies: Physician Assistants

KNOWLEDGE

All Physician Assistants with clinical contact should be knowledgeable of the following concepts about Substance Use and Substance Use Disorders (SUDs):

Definitions and diagnostic criteria for SUD

- The 5th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) lists 11 criteria for substance use disorder. Individuals that endorse 2-3, 4-5 or 6 or more meet criteria for mild, moderate or severe substance use disorder, respectively.
- Substances or classes of substances for which addictive disorders are recognized include 10 classes of drugs: alcohol; caffeine; cannabis; hallucinogens; inhalants; opioids; sedatives, hypnotics and anxiolytics; stimulants; tobacco; and other (or unknown) substances.[320]

Spectrum of Use

Alcohol

- There can be adverse consequences with alcohol consumption in all aspects of life, including social, legal, occupational, psychological, and medical issues.[321] The total amount of alcohol consumed, the pattern of consumption, and the specific population consuming alcohol determine the impact and outcomes of alcohol use.
- Heavy episodic ("binge") drinking is the most common pattern of alcohol consumption among underage drinkers, and substantially increases the risks associated with alcohol use. The American Academy of Pediatrics recommends beginning anticipatory guidance regarding the risks of alcohol consumption during late childhood.[322]

Cannabis

- The National Academies of Sciences, Engineering and Medicine report reviewed evidence-based research concerning the health effects of cannabis. This report is used to insure quality information to make recommendations for future research, and to promote informed decision making.[323]

Opioids and prescription medications

- Motivation for non-prescribed use of prescription medication impacts the risk of developing a substance use disorder. Non-prescribed use for pain increases risk of SUD less than use for euphoria, or "to get high."[324]
- Receiving a prescription for opioids increases the later risk of opioid misuse (non-prescribed use) among adolescents. [325]
- Prescription opioids are the primary source of diverted opioids.[326]
- The source of the opioid epidemic has a connection to almost one-third of Americans with acute or chronic pain being prescribed opioid analgesics. Repeated use of opioid medications increases the possibility of developing tolerance and physical dependence. Tolerance creates a need for higher doses with increased potency, and this heightens the risk of respiratory depression and overdose.
- The number of American adults filling a benzodiazepine prescription is increasing, and the quantity filled is also increasing. Although the rate of overdose deaths involving benzodiazepines has stabilized overall and in most groups, it remains more than five times the rate at the start of the study period.[327]
- Cross-sectional, population-based survey of 443,041 respondents from the 2002–2009 National Survey on Drug Use and Health analyzed for lifetime nonmedical use of prescription ADHD stimulants, lifetime nonmedical use of another prescription drug, illicit drug use, and drug use initiation patterns. Lifetime nonmedical use of prescription ADHD stimulants was reported by 3.4% of those aged 12 years and older. Of these, 95.3% also reported use of an illicit drug (i.e.,

cannabis, cocaine/crack, heroin, hallucinogens, inhalants) or nonmedical use of another prescription drug (i.e., tranquilizers, pain relievers, or sedatives), and such use preceded nonmedical use of prescription ADHD stimulants in 77.6% of cases.[328]

- Post-marketing surveillance indicates that the diversion and abuse of prescription opioid medications increased between 2002 and 2010 and plateaued or decreased between 2011 and 2013.[329] [330]

Nicotine

- The adverse effects of cigarette and cigarette emission exposure contribute to more than five million deaths worldwide and is considered the leading cause of preventable mortality.
- Nicotine delivery products such as the hookah (water pipe) and electronic cigarettes are gaining in popularity and are perceived by users as less harmful than cigarettes.
- The primary addictive substance is nicotine and nicotine has a stimulatory effect on the brain. Pharmacotherapies are effective treatments for tobacco dependence and are recommended by the United States Public Health Service to be provided in conjunction with behavioral therapy.[331]

Epidemiology of substance use and related disorders across the lifespan

General Population

- Substance use most commonly begins in adolescence, peaks and then stabilizes in late adolescence/early adulthood, and then decreases. Less than 1% of the population initiates drug use after age 26.[332]

Youth

- A large, nationally representative survey of substance use by students in grades 8, 10 and 12 reports risk factors for alcohol/cannabis/tobacco use consistently include male gender, white or Hispanic race/ethnicity, low grade point average (C+ or less), truancy, going out for recreation three or more evenings a week, and employment (hours of work at a job) during the school year.

Relationship of substance use disorders to family function and stability

Risk and protective factors, including genetic, familial and sociocultural influences

Genetic risk

- Substance use disorders are complex, genetically influenced conditions where genes explain up to 60% of variance. Most genes operate through intermediate characteristics, such as impulsivity; some are substance specific, others are related to substance use in general. Researchers have identified a diverse range of genetic variation that affect substance related phenomena.[333]

Co-occurring mental health disorders

- Mental health disorders and problem substance use are associated with both the initiation and use of prescription opioids.[334]
- Physical abuse, sexual assault, witnessing violence, and having a family member with substance use problems all increase risk for SUD, and post-traumatic stress disorder independently increases this risk.
- The presence of childhood mental health disorders, such as depression and conduct disorder, increases the risk of future development of substance-related disorders.[335]

Medical model of addiction and basic neurobiological concepts

- Addiction is a chronic, relapsing neurological disorder. It can be treated and outcomes are similar or better to outcomes for other chronic medical conditions. The scientific advances in the prevention and treatment of substance-use disorder, and related developments in public policy are leading the way to better outcomes.[336]
- Drug addiction represents a dramatic dysregulation of motivational circuits that is caused by a combination of exaggerated incentive salience and habit formation, reward deficits and stress surfeits, and compromised executive function.[337]

Acute and chronic health effects of mood altering substances

Alcohol

- Alcohol's contribution to chronic diseases is significant worldwide, therefore, alcohol consumption should be a target for intervention. Cardiovascular, circulatory, neuropsychiatric conditions, diabetes, and malignant neoplasms are a few of the chronic diseases and conditions associated with alcohol consumption.[338]

Cannabis

- Cannabis use has been associated with substantial adverse effects, some of which have been determined with a high level of confidence. Use can result in addiction. Intoxication interferes with cognitive and motor function. Repeated use during adolescence may result in long-lasting changes in brain function that can jeopardize educational, professional and social achievements.[339]

Opioids

- Opioid prescribing for chronic non-cancer pain by primary care providers can have potential adverse effects that include respiratory, gastrointestinal, musculoskeletal, and central nervous system complications as well as death due to overdose.[340]
- Tolerance and physical dependence can result in opioid withdrawal syndrome, resulting in severe physical manifestations and the need for mitigation strategies.[341]

Sedatives

- Sedative-hypnotic medications, commonly used for management of anxiety, agitation, insomnia or seizures, carry the risk of both acute health effects (related to impaired coordination, judgment, and cognition and respiratory suppression) and chronic health effects (including dependence, accidental precipitation of withdrawal, intentional or unintentional overdose, and impaired cognition).[342]

Stimulants (cocaine, methamphetamine, prescription stimulants)

- Prescription stimulant misuse can cause adverse effects including psychosis, myocardial infarction, cardiomyopathy, and death.[343]
- There are many adverse effects of methamphetamine on producers of methamphetamine as well as users.[344] [345]

Nicotine

- Adverse effects on health are caused by cigarette and non-cigarette emission exposure.[346]

Prevention

Universal, selected, and indicated prevention strategies, their effectiveness, and their application at the individual, family, and community levels

- Communicate the benefits and risks of opioids for chronic pain, improve safety and effectiveness of pain treatment, and reduce risks associated with long-term opioid therapy.[347]
- Utilize family strengthening prevention programs and approaches that can be adopted by providers to improve comprehensive substance abuse prevention.[348]
- Utilize a "universal precautions" approach to the assessment and ongoing management of the chronic pain patient and offer a triage scheme for estimating risk that includes recommendations for management and referral. By taking a thorough and respectful approach to patient assessment and management within chronic pain treatment, stigma can be reduced, patient care improved, and overall risk contained.[349]

Harm Reduction Strategies

- Review how to maximize the identification of opportunities for harm reduction and intervention. Focus on prevention of opioid misuse through harm reduction strategies to minimize morbidity and mortality associated with opioid misuse, including targeted overdose education, naloxone distribution, and bystander assistance.[350]

Evaluation and Management

Screening techniques for Alcohol Use Disorders (AUD), Opioid Use Disorders (OUD), and other substances

- Utilize a validated single question screener for unhealthy alcohol use, followed by administration of the Alcohol Use Disorders Identification Test (AUDIT) or a checklist of DSM symptoms for alcohol use disorder.[351]
- Utilize a three question quick screen that includes a validated single question drug screener, which is then followed by administration of a modification of WHO's Alcohol, Smoking and Substance Involvement Screening Test ASSIST,

which classifies patients into one of three levels of risk related to their substance use.[352]

- Utilize best practices for screening and assessment for children and adolescents (such as Screening, Brief Intervention and Referral to Treatment (SBIRT).[353] [354]

Treatment approaches to SUD, including outcomes, effectiveness, and cost

- Review ongoing and recent implementation of research of integrated care at NIAAA, NIDA, and VHA; safe opioid prescribing; use of FDA-approved pharmacotherapies; screening and brief intervention for risky drinking and tobacco use; and disease management is reviewed.[355]

Brief Intervention for at-risk alcohol, opioid, and other drug use

- Utilize techniques such as SBIRT, which has been found to achieve significant reductions in alcohol consumption among hazardous and harmful drinkers.[356]
- Although several randomized controlled trials have failed to show an effect from brief interventions for risky drug use, this study showed significant reductions in risky drug use for patients who had demonstrated negative consequences from their drug use.[357]
- Review the literature on brief interventions with adolescents and for examples of clinical use.[358]

Pharmacologic treatments for substance use disorders

Medication Assisted Treatment (MAT) options for OUD, AUD, nicotine, and other substances

Opioid Use Disorders

- On July 22, 2016, the Comprehensive Addiction and Recovery Act (CARA) was signed into law. One the of the most important provisions of that law was expanding the treatment of buprenorphine to advanced practice clinicians (APCs), who were previously prohibited from prescribing this life-saving medication. The privilege of qualified PA's and NP's prescribing in office-based

settings extends to October 1, 2021. To obtain a waiver, 24 hours of training must be completed (including a face-to face 8 hour training) along with the additional 16 hours provided free from SAMSHA through the Providers' Clinical Support System for Medication Assisted Treatment (PCSS-MAT), and the provider must complete a Waiver Notification Form.[359] Training and obtaining a waiver allows the provider to prescribe buprenorphine to treat OUD.

- The providers should also be prepared to offer naltrexone for patients with OUD.
- The MAT models of care for OUD are used in primary care and other practice settings. The Extension for Community Healthcare Outcomes (ECHO) project provides support for rural primary care providers in MAT management.[360]
- Established protocols for withdrawal and induction that help to ensure safe care include the Clinical Opiate Withdrawal Scale (COWS).
- Prescription Drug Monitoring Program (PDMP) is an important aspect of care for OUD patients. Many PDMPs have the ability to check up to 15-20 other states throughout the country. Some states also allow you to check 7 years back of prescribing. This can be extraordinarily helpful in assessing past treatment.
- Ongoing and recent implementation of research of integrated care at NIAAA, NIDA, and VHA is available to the provider as well as safe opioid prescribing; use of FDA-approved pharmacotherapies; screening and brief intervention for risky drinking and tobacco use; and disease management.[361]
- The collaboration between American Academy of Physician Assistants (AAPA), Physician Assistant Education Association (PAEA) and American Society of Addiction Medicine (ASAM) will provide guidance for the provider to implement treatment strategies for patients.[362]

Alcohol Use Disorder

- It is important to understand the relationship and interaction of AUD and other psychiatric disorders (co-occurring disorders).

- Established protocols that help to ensure safe care include the: Withdrawal from Alcohol Scale (WAS) and Clinical Institute Withdrawal Assessment (CIWA).[363]
- Providers should prescribe medications such as acamprosate and oral naltrexone for relapse prevention and craving control.[364]

Cultural context of drug use and the impact of socioeconomics, gender, gender identity, sexual orientation, and ethnicity on intervention and treatment

- Providers must assess a person's risk for substance use disorders by using age, gender, and culturally appropriate language, guiding screening, intervention, and treatment. Additionally, this should be supplemented with relevant history, including family history, past medical history, social history, race, culture, sexual orientation, and other environmental factors.[365]
- Fewer than 25% of youth under age 25 that are identified with opioid use disorder are prescribed medications and fewer than 11.5% of adolescents under age 18 receive medication treatment.[366]

Legal and Ethical Aspects

Confidentiality and protecting patients' rights

- Access to confidential health care helps adolescents speak honestly about sensitive issues, including substance use, with their health care providers and receive appropriate care. Laws that protect confidentiality and allow adolescents to receive care without parental consent are critical in ensuring that health care providers can appropriately care for adolescents. The Society for Adolescent Health and Medicine supports the availability of confidential health care for adolescents.[367]

Rules and regulations governing controlled substances

- Regulations regarding PAs and buprenorphine therapy for OUD are defined by state legislation.
- The Comprehensive Addiction and Recovery Act (CARA), and how to obtain a DATA2000 waiver by undergoing 24 hours of required training, is available online for physician assistants.[368]

Health Professional Impairment

- Providers should recognize impaired practice, intervening in accordance with organizational policy.

Identification, management, reporting, recovery

- Understand the importance of the recognition of misuse and prompt referral to appropriate treatment for health care providers.[369]

Resources for health professionals impaired by substance use

- Importance of recognition of misuse and prompt referral to appropriate treatment for health care providers.[370]
- Promote the use of statewide peer assistance groups and the use of alternative to discipline programs.

SKILLS

All Physician Assistants with clinical contact should prevent, identify, and manage substance use and SUDs within their medical practice.

Recognize early the signs and symptoms of substance use disorders

- Recognize early the signs and symptoms of SUD

Screen effectively for substance use disorders in the patient or family

- Use effective screening techniques for AUD, OUD, and other substances (such as SBIRT). Screening, brief intervention, and referral to treatment (SBIRT) is a comprehensive approach to the delivery of early intervention and treatment services for individuals with SUDs, as well as those who are at risk of developing a SUD. Primary care centers, hospital emergency rooms, trauma centers, and

other community settings provide opportunities for early intervention with at-risk substance users.

- Approaches to training healthcare providers include live training workshops of three hours duration that include both didactic instruction and interactive skills training. Learners reported increased knowledge, attitudes and practice of SBI.[371]
- Emerging models of brief intervention training are using virtual reality (VR) skills training to facilitate the online training of providers. In this study, healthcare professionals and students who conducted screening and brief interventions in 10 different VR scenarios with assistance of a virtual coach showed increased SBI skills in post-training standardized patient exercises. [372]
- Conduct universal screening for alcohol, cannabis and tobacco use in youth starting with the first time a child or adolescent is seen alone, without a parent present.
- Frequency-based screens such as the NIAAA youth alcohol screening guide, S2BI or BSTAD are recommended for routine screening. [373]
- Conduct the recommended best practices for the NIAAA youth alcohol screening tool.[374]
- Implement and understand the potential benefits and limitations of urine drug screening.
- Conduct laboratory testing for psychoactive substances and understand the use of this procedure in various clinical settings.[375]

Diagnose SUD and assess patients for adverse health effects from alcohol, opioids, and other substances.

Recognize withdrawal syndromes

- Utilize established protocols to ensure safe care that can include the: Withdrawal from Alcohol Scale (WAS); Clinical Institute Withdrawal Assessment (CIWA) - Alcohol, and Clinical Opiate Withdrawal Scale (COWS); Amphetamine

Withdrawal Questionnaire; and Clinical Institute Withdrawal Assessment – Benzodiazepines.[376]

Provide prevention and motivational enhancement to assist the patient in moving toward a healthier lifestyle

- Employ prevention strategies at the individual, family, and community levels.
- Use ongoing and recent implementation of research of integrated care at NIAAA, NIDA, and VHA. Safe opioid prescribing; use of FDA-approved pharmacotherapies; screening and brief intervention for risky drinking and tobacco use; and disease management is reviewed.[377]
- Use harm reduction and intervention strategies with a focus on prevention of opioid misuse through these strategies to minimize morbidity and mortality associated with opioid misuse, including targeted overdose education, naloxone distribution, and bystander assistance.[378]

Offer brief interventions to patients with hazardous and harmful substance use and make referrals for further evaluation and/or treatment of substance use disorders.

- Provide brief intervention to assist the patient in moving toward a healthier lifestyle, or referral for further evaluation or treatment.[379]
- Utilize state-of-the-art evaluation instruments that can be used for evaluation and feedback of clinicians' skills in performing SBI and referral to treatment in clinical settings.[380] [381]
- Know the recommendations and examples of anticipatory guidance and brief interventions with youth with various levels of substance use.[382]
- Examine the practical guidance for brief intervention with youth with various levels of substance use, including guidance on brief office-based interventions with adolescents in need of referral for treatment and guidance on levels of care.[383] [384] [385]

Manage common medications used for treatment of substance use disorders

- Manage medication-assisted treatment of SUD.
- Initiate and maintain patients on pharmacotherapy for treatment of opioid and alcohol use disorders.
- Initiate and maintain patients on pharmacotherapy for nicotine use disorder.
- Utilize MAT models of care for OUD, such as Extension for Community Healthcare Outcomes (ECHO) and the support for rural primary care providers in MAT management.[386 387]

ATTITUDES

All Physician Assistants should maintain professional attitudes that serve to reduce the stigma associated with SUDs.

- Approach all patients in a culturally sensitive and caring manner.
- Demonstrate cultural competency in their approach to patients of all socioeconomic levels, gender, gender identity, sexual orientation, and ethnicity.
- Recognize SUD as a preventable, treatable condition.
- Demonstrate non-judgmental, welcoming attitudes and language.

INTERPROFESSIONAL PRACTICE

All Physician Assistants should be willing to be part of an inter-disciplinary team that provides care to patients with SUDs.

- Serve on inter-professional teams in providing quality care to persons with substance use problems and disorders.
- Partner with other disciplines to enhance healthcare consumer outcomes.
- Engage in inter-professional activities including education, consultation, management, technological development, and/or research opportunities.[388]

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