It's Time to Train Residents in Addiction Medicine

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Introduction

Over a decade has passed since O'Conner, Nyquist, and McLellan called for integrating addiction medicine into graduate medical education (GME).[1] Since then, the need for substance use disorder (SUD) treatment in the United States has increased, with annual overdose deaths rising to 105 545 in 2022.[2] In 2021, 46.3 million people aged 12 or older met DSM-5 criteria for SUD, but only 6% received treatment.[3] Despite effective, life-saving therapies for opioid use disorder (OUD), 87% of patients do not receive evidence-based care.[4] People with SUDs often experience stigma and harm when interacting with the health care system, leading to higher rates of patient-directed discharges from hospitals—an outcome associated with increased mortality.[5,6] A prepared workforce is critical to meet this enormous treatment need.

US graduating physicians remain largely ill-equipped to care for patients with SUD. A main driver is the lack of addiction medicine training during residency.[7] Although many groups recommend increased residency SUD training,[8] there is little information to show that GME experiences have improved. The current SUD treatment gap presents a pressing need for residency curriculum development, faculty education and leadership, institutional support for training sites, and efforts to reduce stigma.

Curriculum Development

In response to the high prevalence of SUD, the Accreditation Council for Graduate Medical Education (ACGME) published a 2019 common program requirement that all programs provide education in pain management and recognition of addiction, if applicable to the specialty.[9] Subsequently, the GME *Stakeholders Congress on Preparing Residents and Fellows to Manage Pain and Substance Use Disorder* created specialty-specific curriculum recommendations.[10] The program requirements provide a start for curricular inspiration, but residents need a broader understanding of the neurobiology of addiction, recognition and management of a range of SUDs, and harm reduction. A robust curriculum should comprise interactive teaching conferences and clinical experiences that include working with addiction experts and interprofessional teams, including learning from peers and others with lived experience of addiction and its consequences.[11,12] Each specialty will need to develop specific competencies relevant to the most common conditions and settings, with experiences and assessments to match these competencies (see TABLE for selected examples).

Research on resident addiction medicine curricula has focused on single-site or single-specialty studies.[13-15] However, a recent evaluation of the Family Medicine National Addiction Curriculum developed by the Society of Teachers in Family Medicine (STFM) found promising results, including changes in faculty and resident behaviors and practices across 25 family medicine residencies.[16,17] Unique features of the STFM National Addiction Curriculum include a teacher's guide for faculty members designed to support those with varying levels of addiction medicine expertise. Most specialty boards include only a few questions about SUD management in their certification examinations, which may provide less incentive for residency programs to include more content in the curriculum. For example, despite the high prevalence of SUD in the population[18] less than 2% of the questions on the American Board of Internal Medicine certification exam concern SUDs.[19] Adding SUD questions to in-training and specialty board certification examinations may further support robust development of curricular content.

Faculty Education and Leadership

Another key barrier to residency SUD education is the lack of faculty expertise and faculty role models. Recognizing and providing treatment for SUDs should be a core competency for most physicians. With the US

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Editor's Note: The online version of this article contains resources for resident education in substance use disorder.

TABLE
Example Curricular Experiences for GME Programs

Specialty	Integrated Curriculum Examples	Resources
All specialties	Residents of all specialties should have experiences in harm reduction. These experiences should highlight that all patients are worthy of high-quality care, regardless of whether their goal is to discontinue substance use. Examples include counseling patients on how to reduce harms of continued substance use (ie, safer injection practices) and training on how to use naloxone rescue kits.	National Harm Reduction Coalition (https://harmreduction.org/)
Anesthesiology	Work with pain and addiction specialists[a] to learn how to manage acute pain in patients with OUD, including patients who have received extended-release naltrexone or are on maintenance therapy with buprenorphine; learn how to initiate buprenorphine in the perioperative period.	PCSS Chronic Pain Core Curriculum (https://pcssnow.org/education-training/treating-chronic-pain-core-curriculum/) ASAM Pain and Addiction Curriculum (https://elearning.asam.org/PainAddictionCourses)
Emergency medicine	Rotate in a withdrawal management (detox) center, working closely with addiction specialists[a], to gain comfort evaluating and treating patients experiencing acute withdrawal from a wide range of substances (alcohol, opioids, stimulants or multiple substances), then apply to ED setting.	CORD-EM Substance Use Disorder Residency Curriculum (https://www.cordem.org/resources/education–curricula/substance-use-disorder-residency-curriculum2) CA Bridge (https://californiaopioidresponse.org/matproject/california-bridge-program/)
Family medicine	Learn to screen outpatients for SUDs and utilize motivational interviewing skills for patients who screen positive for risky substance use and SUDs; partner with peer-support specialists and social workers to learn how patients navigate accessing care for SUD across the treatment spectrum.	STFM Addiction Medicine Curriculum (https://www.stfm.org/teachingresources/curriculum/nationaladdictioncurriculum)
Internal medicine	Work with addiction specialists[a] to treat SUD in the hospital setting, including the use of MOUD to treat OUD and acute opioid withdrawal, counseling on overdose prevention and harm reduction measures, and linkage with outpatient treatment services.	Oregon ECHO Network SUD in Hospital Care Program (https://www.oregonechonetwork.org/addictionmed)
Neurology	Counsel patients on the risks for neurologic disease with continued use of substances (ie, alcohol use and dementia, tobacco use and stroke); partner with clinic social workers and psychiatry colleagues to build motivational interviewing skills to enhance motivation to change.	PCSS Motivational Interviewing Course (https://pcssnow.org/courses/9-principles-of-motivational-interviewing-useful-for-primary-care-providers/)
Obstetrics and gynecology	Partner with addiction experts[a] (including social workers and clinicians) to screen for substance use in pregnant patients and initiate pharmacotherapy, including starting medications for OUD; become comfortable with counseling patients on the risks/benefits of different treatment options, including consideration of methadone vs buprenorphine with a focus on both parental and infant outcomes.	ACOG Opioid Use Disorder in Pregnancy (https://www.acog.org/womens-health/faqs/opioid-use-disorder-and-pregnancy) SAMHSA Guideline for Treating Pregnant and Parenting Women with OUD (https://store.samhsa.gov/product/Clinical-Guidance-for-Treating-Pregnant-and-Parenting-Women-With-Opioid-Use-Disorder-and-Their-Infants/SMA18-5054)

TABLE
Example Curricular Experiences for GME Programs (continued)

Specialty	Integrated Curriculum Examples	Resources
Pediatrics	Use screening instruments to detect substance use in adolescents; provide counseling for patients on the risk of substance use on health outcomes (ie, heightened risk for schizophrenia in adolescents who use cannabis); learn how to treat SUDs in children and adolescents, including the use of buprenorphine for OUD; partner with social workers to navigate challenges in connecting patients with specialty addiction treatment when needed.	PCSS Buprenorphine training for Pediatricians (https://education.sudtraining.org/Listing/8-Hour-Online-Pediatric-Waiver-Training-6041)
Psychiatry	Rotate in a residential treatment facility for patients with SUD and co-occurring psychiatric disorders. Observe and lead group therapy sessions including those in mindfulness, ACT, DBT, and Seeking Safety. Utilize medications for the treatment of SUD.	AAAP Education Portal (https://education.aaap.org/Public/Catalog/Main.aspx) Seeking Safety (https://www.treatment-innovations.org/seeking-safety.html)
Surgery	Partner with pain and addiction specialists[a] to learn how to start buprenorphine in the perioperative period, including the risks and benefits of traditional, low-dose, and high-dose initiations; become comfortable counseling patients on these different approaches.	PCSS Buprenorphine Training (pcssnow.org)

[a] We acknowledge that not all programs will have access to addiction medicine specialists. In these cases, efforts should be made to identify faculty or community clinicians who are or who could become champions in treating patients with SUDs to support resident training experiences.
Abbreviations: GME, graduate medical education; OUD, opioid use disorder; PCSS, Provider Clinical Support Services; ASAM, American Society of Addiction Medicine; ED, emergency department; CORD-EM, Council of Residency Directors in Emergency Medicine; SUD, substance use disorder; STFM, Society of Teachers in Family Medicine; MOUD, medication for opioid use disorder; ECHO, Extension for Community and Healthcare Outcomes; PCSS, Provider Clinical Support System; ACOG, American College of Obstetricians and Gynecologists; SAMHSA, Substance Abuse and Mental Health Services Administration; ACT, acceptance and commitment therapy; DBT, dialectical behavior therapy; AAAP, American Academy of Addiction Psychiatry.

Medication Access and Training Expansion (MATE) act of 2023, the X-waiver has been replaced with a new 8-hour training requirement for the treatment of opioid and other SUDs for all Drug Enforcement Administration-registered physicians.[20] While prescribing medication to treat SUDs is important, it is not sufficient. Residents should learn how to approach patients with a trauma-informed lens, motivate change, and engage patients in conversations of harm reduction. This requires faculty development and prioritization of SUD education by GME-sponsoring institutions.

One option for faculty development is through continuing medical education (CME) programs such as the Provider Clinical Support System (PCSS) and the Extension for Community and Healthcare Outcomes (ECHO) programs.[21] PCSS provides Buprenorphine Trainings (which have replaced the X-Waiver training) in addition to an extensive SUD 101 Curriculum. ECHO programs combine real-time virtual case discussions and didactic presentations. These programs may be used in combined faculty/resident sessions for shared learning, which can foster collegiality and mentoring opportunities. Practice-change leaders can ignite and support the pressing need for resident education and program development. National programs to support these leaders include the Boston University Clinical Addiction Research & Education Faculty Scholars Program and Chief Resident Immersion Training Program.[22] The American College of Academic Addiction Medicine and American Society of Addiction Medicine provide additional CME opportunities and support for starting addiction medicine fellowships—a source for future program faculty. Many other resources are available (see online supplementary data).

Institutional Support for Clinical Training Sites

Currently, while many residents frequently care for patients with end-stage addiction, particularly in hospital and emergency department settings, they lack clinical experiences in optimal clinical settings.[23] There is a national shortage of SUD clinical programs with experienced physician leaders.[7,24,25] Thus, leaders at academic centers and teaching health systems should prioritize developing addiction medicine clinics and consult services both inpatient and outpatient,[26] to integrate SUD treatment into existing training settings. These programs can provide necessary patient services as well as resident training sites. If the ACGME or Centers for Medicare & Medicaid Services were to

require residency positions to provide training in clinical SUD care, a rapid expansion of training opportunities would likely ensue.

The Opioid Workforce Act of 2021 proposed adding 1000 GME positions in hospitals that either have or are creating programs in addiction medicine, addiction psychiatry, or pain medicine.[27] Further, national organizations such as the Substance Abuse and Mental Health Service Administration and the Health Resources and Services Administration could expand grant funding for clinical program development.[27]

Stigma

Stigma remains a barrier to improving SUD education and clinical practice. Historically, SUD treatment has occurred through specialized treatment programs outside of the traditional medical model.[25] SUD has been viewed as moral failure rather than a medical condition, and health care organizations and academic centers have deprioritized the development of programs to treat patients with SUDs, despite research showing integration improves health outcomes, reduces disparities, and decreases costs.[25,28] These structural barriers perpetuate clinician biases and further contribute to poor patient outcomes.[29] This is exemplified in the treatment of physicians with OUD, where the most effective treatment—opioid agonist therapy[30]—is often banned due to concerns it may lead to impairment in the workplace.[31]

Studies show that individuals experienced in working with patients with SUDs demonstrate more positive attitudes.[32] Residents need the opportunity to care for patients with SUD, in a supportive environment, to promote empathy and reduce bias. Working with peer support specialists can provide a deeper understanding of how health systems may fall short or harm people with SUD.[33] Residents working with supportive, knowledgeable faculty and addiction team members can lead to individual and system culture change.[34,35]

Conclusions

A vast unmet need in SUD care demands action. GME leaders must address graduating residents' lack of knowledge, skills, and confidence in treating patients with SUD. Success will depend on institutional champions at every level to implement new curriculum, faculty with expertise, and realistic, integrated clinical experiences.

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