Integrating Addiction Medicine Into Graduate Medical Education in Primary Care: The Time Has Come

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Substance use disorders create an enormous burden of medical, behavioral, and social problems and pose a major and costly public health challenge. Despite the high prevalence of substance use and its consequences, physicians often do not recognize these conditions and, as a result, provide inadequate patient care. At the center of this failure is insufficient training for physicians about substance use disorders.

To address this deficit, the Betty Ford Institute convened a meeting of experts who developed the following 5 recommendations focused on improving training in substance abuse in primary care residency programs in internal medicine and family medicine: 1) integrating substance abuse competencies into training, 2) assigning substance abuse teaching the same priority as teaching about other chronic diseases, 3) enhancing faculty development, 4) creating addiction medicine divisions or programs in academic medical centers, and 5) making substance abuse screening and management routine care in new models of primary care practice. This enhanced primary care residency training should represent a major step forward in improving patient care.

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Each year in the United States, more than 100 000 deaths and $300 billion in health and social costs are attributed directly to the use of alcohol and other drugs (1, 2). The 2009 National Survey on Drug Use and Health (3) estimates that 130 million persons are current drinkers and nearly 60 million persons engage in binge drinking. A major study of SBIRT (screening, brief interventions, and referral to treatment) in health care settings (4) reported that 23% of patients screened positive for heavy use of alcohol or illicit drugs. These findings have major implications for primary care physicians (PCPs) and specialists who encounter diseases that occur as sequelae of substance abuse, including alcohol-related gastrointestinal and liver problems, neurologic disease, and cardiovascular abnormalities; injection drug use–related hepatitis and HIV; and tobacco-associated lung and cardiovascular disease and cancer. Despite these health effects, most people with substance abuse or dependence disorders do not seek treatment and remain unidentified even while receiving medical care (3). In addition, tens of millions more Americans are hazardous drinkers and are thus at risk for alcohol-related problems (5).

Although 2.5 million people with substance use disorders are seen in treatment programs, more than 20 million present elsewhere in our health care system, especially in the primary care setting. As our knowledge of substance use has increased, so has our understanding of how to identify and address it. Screening questionnaires are highly effective tools, and brief interventions have been shown to reduce alcohol consumption in patients in the primary care setting (6). Many studies (7) support the effectiveness of counseling and medications, such as naltrexone or acamprosate, to treat alcohol dependence. Buprenorphine has been similarly effective in treating opioid dependence within the primary care setting (8).

Although evidence shows the value of established screening approaches, brief counseling, and approved medications, these methods are not reliably provided in primary care settings (9); office-based treatment of opioid dependence also is underutilized (8). One study of PCPs (10) showed that 94% did not make a diagnosis when presented with a patient with early alcohol abuse and 40% did not diagnose classic drug abuse. Failure to diagnose a substance use disorder leads to exacerbation of this condition and can confound the diagnosis, treatment, and outcomes of other illnesses while contributing to overutilization of health care resources. As a result, prominent organizations, such as the Institute of Medicine, have called for enhanced access to high-quality care for people with substance use disorders, with an especially expanded role for PCPs (11).

At the center of this inability to provide adequate care is lack of training about substance use in residency programs (12). This is a critical failure of medical education but is eminently correctable. Prominent medical education groups have endorsed core competencies for substance use disorders (**Table 1**), and relevant curricula have been published (13). Residency programs should no longer ignore these competencies.

To address this educational deficit, in 2008 the Betty Ford Institute convened a multidisciplinary team of experts in medical education and substance abuse (**Appendix**, available online at www.annals.org), including persons responsible for residency program oversight and accreditation, researchers, and clinicians, to participate in a consensus conference. Although the conference focused on internal medicine and family medicine, enhanced substance use training also would benefit other primary care disciplines, such as pediatrics, and specialties, including obstetrics and gynecology and emergency medicine. The in-

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Table 1. **Core Competencies for Managing Substance Use Disorders in Primary Care***

Describe the epidemiology and spectrum of unhealthy substance use, including risky use, problem use, consequences, abuse, and dependence.
Screen patients for unhealthy substance use and diagnose substance use disorders.
Assess patients for substance use–related medical, behavioral, and social consequences.
Use brief intervention and other counseling approaches to advise and assist patients concerning unhealthy substance use and substance use disorders.
Use medications indicated for the treatment of substance use disorders.
Refer patients to substance abuse treatment programs when indicated.

* By the end of training, resident physicians should be able to perform these competencies.

tended audience for this conference and its recommendations included clinicians, educational leaders at academic medical centers, and leaders of professional societies and organizations responsible for program standards.

Over 3 days, the team of experts identified key elements needed to permanently integrate substance use disorder training into graduate medical education for PCPs. The resulting 5 recommendations (**Table 2**) follow a natural progression from integrating core competencies, raising the priority for teaching, enhancing faculty development, providing organizational infrastructure, and integrating these competencies into new models of primary care.

Recommendation 1: Integrating Core Competencies

Integration of core competencies into residency training should begin with using established curricula already developed for this purpose, such as Project Mainstream (www.projectmainstream.net) and other curricula developed specifically for both internal medicine and family medicine (14–16). Training on the full spectrum of substance use, from risky substance use to advanced addiction, is consistent with the approach used for other common chronic conditions that PCPs encounter and should occur in classroom and clinical settings. Programs can assess effectiveness by using patient care criteria, such as the percentage of patients screened and appropriately managed or referred. Relevant items can be added to standard forms for evaluating rotations, faculty teaching, and patient care (17).

Recommendation 2: Raising the Priority for Teaching

Assigning the same priority to teaching about substance use as is given to teaching about common chronic conditions, such as cardiovascular disease, is essential for trainees to accept substance abuse as a major patient care responsibility. These competencies should be taught by using the same methods and patient care settings as those used to teach about other major diseases and employing newer learner-centered approaches than those traditionally used in residency training programs (18). Programs can set learning objectives, measure outcomes in patients with substance use, and monitor the amount of experience gained as is done for common conditions, such as hyperlipidemia and hypertension.

Training in SBIRT for substance use should become a standard feature of residency training in relation to the core competencies of the Accreditation Council for Graduate Medical Education (ACGME) (19, 20). Programs can incorporate screening into education on the ACGME competency of interpersonal and communication skills and assess performance through direct observation or objective structured clinical examinations (21). Programs could query patients about receiving screening for substance use in patient satisfaction forms. In the ACGME competency of patient care, programs could teach brief interventions by using standardized patients and structured practice experiences in the classroom, such as role playing, and assess these skills by using objective structured clinical examination stations and in clinical settings (22).

Treatment referral and understanding cost, quality, and safety issues in patients with substance use disorders relate to the ACGME competency of systems-based practice. As part of the practice-based learning and improvement competency, residency programs could encourage trainees to develop quality improvement projects that incorporate substance use screening and treatment. Programs should create clinical rotations in substance abuse programs, using state-of-the-art training models (23), while providing firsthand knowledge of treatment in these settings. Finally, programs should share successful models through professional organizations, such as the Association for Program Directors in Internal Medicine and the Society of Teachers of Family Medicine.

Recommendation 3: Enhancing Faculty Development

Integration and prioritization of substance abuse competencies into residency training requires substantial fac-

Table 2. **Recommendations for Integrating Addiction Medicine Into Graduate Medical Education in Primary Care**

Integrate competencies for screening, diagnosis, brief intervention, management, and referral along the full spectrum of unhealthy substance use through substance use disorders into primary care training.
Assign teaching about substance abuse competencies the same priority as teaching about other major diseases.
Organizations and agencies responsible for training should initiate and fund faculty development to ensure that all training programs have access to at least 1 core faculty member with the expertise to oversee teaching concerning the core competencies for managing substance use disorders.
Establish multidisciplinary programs or divisions of addiction medicine in academic health centers to support faculty development, education, outcome measurement, and research on substance abuse.
Integrate training of core competencies in substance abuse into new, evolving models of patient-centered, team-based primary care.

ulty development. Residency accreditation organizations should require faculty expertise in substance use disorders and addiction medicine as they do with other specialties. The number of PCPs who have been trained in addiction medicine has increased but remains insufficient. The government recently funded 10 academic health centers to teach and integrate the practice of SBIRT into residency programs. This program currently provides educational resources (http://sbirt.samhsa.gov) and hopefully will have an important consultative function in the future. A considerable increase in such faculty development is required to assure sufficient expertise within every residency program. Professional and certifying organizations and federal agencies also should develop and support the teaching careers of physicians with expertise in addiction medicine to meet the nation's needs.

The ACGME mandates faculty development for persons who teach residents. This mandate allows experts in substance use disorders to partner with educational experts to create faculty development workshops that can be used by local programs and at national meetings, such as those sponsored by internal medicine and family medicine professional societies. National workshops ideally would provide attendees with curricular materials to take to their home programs. For maximum impact, faculty development should include all persons who teach residents and collaborate in caring for primary care patients in general and especially individuals with substance use disorders, including nurses, social workers, and others who work with physicians.

The quality of the faculty development efforts can be evaluated by using session evaluation tools and standard evaluation tools for each of the 4 levels of effective evaluation of training programs, as defined by Kirkpatrick and Kirkpatrick (17). These levels consist of tracking participant reaction, tracking acquisition of skills, tracking changes made in program activities on the basis of what was learned in the sessions, and estimating the effect of faculty development on the institution and patient care. Such assessments can help the addiction medicine field track barriers to change and build the capacity to overcome local educational barriers.

Recommendation 4: Providing Organizational Infrastructure

Academic medical centers have an infrastructure comprising departments, divisions, and programs that assume responsibility for discipline-specific educational, clinical, and research activities. Generally, however, no such infrastructure exists for addiction medicine. Effective administrative units are critical for academic endeavors, and addiction medicine is no different. Establishing multidisciplinary units may be a particularly attractive approach to creating a critical mass of persons who are committed to substance abuse education, research, and care. Primary care physicians must play central roles in such programs to ensure that the educational needs of residents are addressed.

These activities could obtain support when primary care departments collaborate to seek foundation or federal funding for residency training to launch the initial institutional teaching efforts. Incorporating addiction researchers would build a critical mass and help develop an ongoing program funding base.

Recommendation 5: Integrating These Competencies Into New Models of Primary Care

The evolution of primary care practice toward patient-centered and team-based medical home models presents an ideal opportunity to integrate substance abuse screening and management into routine care. Substance abuse is best addressed by a multidisciplinary team, including physicians, nurses, and others, in a continuous and coordinated manner. A 2010 federal report (24) concluded that the patient-centered medical home "will not reach its full potential without adequately addressing patients' mental health needs," which include substance abuse.

Although physicians often express concern that adding evaluation for substance abuse to their to-do list is not feasible, the broad effect of substance abuse on their patients' health requires that these issues be addressed. The combination of team-based care approaches, parity for mental health services (25), and the availability of new Medicare billing codes for screening and brief intervention ideally will enhance feasibility. Once this occurs, quality measures, such as rates of screening and treatment and other substance use measures, and outcomes will be assessed along with standard measures of assessment, such as patient satisfaction, hospitalization rates, and mortality, in order to evaluate the effect of an enhanced focus on substance use disorders. A new generation of residents must be appropriately trained in team-based care to realize the great promise of this model for all preventive and chronic disease care—especially the care of persons with substance use disorders.

Conclusion

Substance use disorders and their complications are omnipresent in primary care medicine and can be quickly and reliably detected and effectively managed in primary care settings and by referral. Unfortunately, these evidence-based practices are underutilized, primarily because PCPs have not received proper training. Our recommendations outline an approach to rectify this deficiency in residency training so that physicians can effectively identify and address substance use disorders in their patients.

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Appendix

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