HHS Public Access

Author manuscript

Am J Addict. Author manuscript; available in PMC 2017 June 27.

Published in final edited form as:

Am J Addict. 2016 December ; 25(8): 603–609. doi:10.1111/ajad.12454.

A Review of a National Training Initiative to Increase Provider Use of MAT to Address the Opioid Epidemic

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Abstract

Background and Objectives—The Providers' Clinical Support System for Medication Assisted Treatment (PCSS-MAT) initiative focuses on training and mentoring health professionals in the treatment of opioid use disorders (OUD) using pharmacological strategies. Led by the American Academy of Addiction Psychiatry (AAAP), PCSS-MAT is a consortium representing four of the five national professional organizations authorized by DATA 2,000—AAAP, American Osteopathic Academy of Addiction Medicine, American Psychiatric Association, and American Society of Addiction Medicine. DATA organizations are authorized to train physicians to prescribe buprenorphine for OUD treatment. The primary aim of PCSS-MAT is to substantially increase evidence-based practices with medications for OUD.

Methods—This review describes the development of PCSS-MAT, an ongoing national initiative funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), to address the training needs posed by this critical public health problem. Core initiatives include: (1) Training and mentoring activities for primary care physicians; (2) Outreach to multidisciplinary professional organizations, (3) Creating a resource portal for families, patients, and communities for OUD treatment.

Results—Educational outreach to providers addresses the needs of patients with OUD and common co-occurring psychiatric and medical disorders.

Discussion and Conclusions—The overall scope of PCSS-MAT is to increase access to evidence-based treatment of substance use disorders as a public health priority. Recently enacted legislation requires office-based opioid treatment programs to offer all Food and Drug Administration-approved (FDA) forms of MAT.

Scientific Significance—Working with health care providers to effectively deliver MAT is key to integrating behavioral and physical medicine.

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Declaration of Interest

Following her involvement with PCSSMAT, Dr. Sullivan has taken a position with Alkermes.

INTRODUCTION

Opioid use disorder (OUD) is a significant public health problem that carries substantial morbidity and mortality.[1–3] The rates of OUD with both prescription painkillers and heroin have risen dramatically in the past two decades. The 2014 National Survey on Drug Use and Health (NSDUH) reports that among individuals aged 12 and older, 586,000 had a heroin use disorder. Prescription painkiller use disorder has remained substantially higher at 1.9 million, or 7.0%. Notably, this rate has been stable throughout 2005–2013.[4] In response to the growing toll of opioid overdose deaths, President Obama recently announced at the National Prescription Drug Abuse and Heroin Summit new funding initiatives to expand access to evidence-based treatment with Medication Assisted Treatment (MAT) including methadone, buprenorphine, and injectable naltrexone.[5] Beyond funding measures, including new budget proposals of $1.1 billion, the President emphasized the need for developing workforce capacity, especially in rural areas where 85% of US counties have limited access to any type of substance abuse treatment. Several bills have also been introduced by state and national legislators with the goal to increase access to MAT.

The Comprehensive Addiction Recovery Act (CARA; 2016) authorizes a series of policies to reform office-based opioid addiction treatment (OBOT) in three critically important ways: (1) Physicians are required to have the capacity to provide directly or by referral, all drugs approved by the Food and Drug Administration (FDA) for the treatment of OUD, including those used for relapse prevention and detoxification; and (2) Federally mandated 8-hour training for all OBOT physicians must include training on all FDA-approved OUD medications, and also cover detoxification, relapse prevention, patient assessment, individual treatment planning, counseling and recovery supports, diversion control, and other best practices; (3) Nurse practitioners and physician assistants, in coordination with a qualified physician, will have prescribing privileges for buprenorphine; they must also complete 24-hours of training on the treatment of opioid addiction, including the use of all FDA-approved opioid addiction medications.

These executive and legislative initiatives speak to a longstanding tension between state intervention and medicine's autonomy to self-regulate as a profession. Given the current availability of three effective and FDA-approved medications OUD treatment, yet low levels of implementation in the midst of a deadly epidemic, it has been critical to develop a training initiative to improve providers' clinical competence in using MAT. This review describes the development of the Providers' Clinical Support System for MAT (PCSS-MAT), an ongoing national initiative funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), to address the training needs posed by this critical public health problem.

BACKGROUND

Three medications are currently approved by the FDA for the treatment of OUD; opioid receptor agonist methadone, partial-agonist buprenorphine, and antagonist extended-release (XR) naltrexone. These medications should be available to patients with OUD seen across a variety of treatment settings, including primary care, mental health care, and pain

management settings. Unfortunately, the majority of individuals with OUD (or any substance use disorder) do not receive treatment, and only a small proportion of those in treatment receive evidence-based treatment with MAT.[4,6,7] The disconnect between scientific evidence, clinical guidelines, and practice is in part related to two opposing approaches to OUD treatment that have dominated the field for the past 50 years. The first, an abstinence-based approach, focuses on brief detoxification followed by psychosocial treatment without the support of medications (eg, therapeutic communities and 12-step based residential programs). The second approach uses medication in addition to psychosocial interventions (eg, methadone maintenance programs (OTPs) and office-based treatment with buprenorphine or naltrexone). Research has consistently shown that MAT is more effective than treatment without medication in reducing relapse rates, overdose deaths, and public health costs.[8]

The benefits of treatment with opioid substitution therapy (methadone and buprenorphine) include decreased drug use[9] decreased morbidity and mortality,[10] reduced risk for HIV transmission,[11,12] reduced criminality,[13,14] and improved patient functioning.[15] However, due to safety concerns, dispensing of methadone is restricted to specially licensed opioid treatment programs (OTPs), formerly known as methadone maintenance treatment programs, of which there are only 1,200 for the entire country.[16] Buprenorphine, an opioid receptor partial agonist, has a more favorable safety profile than methadone and greater flexibility in primary care clinical practice, as it can be prescribed in an office-based setting.[17,18] However, physicians who wish to prescribe buprenorphine must complete 8-hours of mandatory training to apply for a certification to be “waivered” under the DEA. Treatment with methadone or buprenorphine works best as a maintenance intervention, used at adequate doses, without a predefined duration of treatment.[19,20]

Although opioid substitution therapy remains a preferred treatment for many patients, long-term maintenance is not acceptable for some patients, nor is it universally effective.[18] Further, agonist maintenance remains controversial for the treatment of youth or patients with brief or less severe substance use histories. As an alternative, injectable XR-naltrexone, an opioid receptor antagonist, can be effective for patients who may not be suitable for agonist maintenance, have failed prior agonist trials, or are seeking detoxification and a recovery approach that does not include further maintenance on an opioid agonist. Currently, few providers or patients are aware of XR-naltrexone and many find obstacles to its widespread use, including the rigors of outpatient detoxification, refrigerated storage of medication, out of pocket costs, and insurance regulations. As a result, currently only several thousand patients with OUD receive injectable naltrexone within the drug treatment system.[16]

However, there is increasing recognition that primary care practitioners should be the “first-line” providers to identify and manage substance use disorders due to their regular contact with patients. The separation of treatment for medical and behavioral illness is an area that is of increasing concern due to unnecessary cost as well as inferior treatment outcomes. In response, ONDCP 2012 National Drug Control Strategy asserted that substance abuse treatment should be integrated into mainstream health care and suggested concrete steps toward the goal of improved access to substance abuse treatment services. One such

highlighted practice was the use of MAT for individuals with substance use disorders with a goal of full integration of MAT into the existing treatment system at an accelerated pace to maximize patient access. However, expanding the number of physicians and allied health professionals that can safely and effectively prescribe these medications has been a major challenge. A significant barrier in this regard has been the lack of provider education or hands-on experience during clinical training. In fact, the average 4-year medical school curriculum rarely offers adequate training in treatment of substance use disorders.[20,21] A recent large survey of counselors ($N = 725$) in substance abuse treatment centers found that 20% admitted not knowing enough about the effectiveness of either buprenorphine or methadone.[22] In many communities, individuals with OUD lack access to treatment centers at which MAT is even offered.[23] In addition, many states have lifetime limits on duration of buprenorphine maintenance, ranging from 12 to 36 months.[24] Compared with opioid agonist treatment, even less is known by providers about the long-acting injectable form of naltrexone (VIVITROL®), approved in 2010 for prevention of relapse following opioid detoxification. As of 2013 only 3% of treatment centers offered XR-naltrexone, and fewer than 7% of eligible patients with OUDs in those specialized centers received it.[25]

In summary, barriers to the adoption of MAT by more providers surpass reimbursement and regulatory concerns and include difficulty integrating MAT into the more traditional model of substance abuse treatment,[26,27] lack of consumer and provider knowledge,[28] lack of staff and multidisciplinary training,[29] insurer reimbursement, and stigma. As a result, extensive education and training initiatives for providers are needed to guide clinical practice.

National Initiatives to Expand Training of Prescribers

In response to increasing rates of opioid analgesic prescribing and concomitant increases in misuse, overdose, and deaths, the Center for Substance Abuse Treatment of the SAMHSA (CSAT/SAMHSA) has sponsored a number of initiatives to enhance prescriber and health professional competence in treating OUD. One of CSAT's core interventions has been the Physicians' Clinical Support System for Buprenorphine (PCSS-B), first funded in 2005 and on renewal in 2010 awarded to the American Academy of Addiction Psychiatry (AAAP) who created a consortium of DATA 2,000 organizations including American Psychiatric Association (APA), and the American Osteopathic Academy of Addiction Medicine (AOAAM). PCSS-B provided a training and mentoring system, offered the 8hour training specified in DATA 2,000 for office-based prescribing of buprenorphine, and webinars offering advanced educational opportunities targeted to clinicians engaged in treating patients with OUD.

A second initiative, first sponsored in 2011 by CSAT/SAMHSA, was the Prescribers' Clinical Support System for Opioids Therapies (PCSS-O; http://pcss-o.org/) also awarded to AAAP with a larger coalition of primary care and specialty organizations, to increase competence with safe and appropriate clinical practice in prescribing opioids. Later renamed Providers' Clinical Support System, this effort focused on the interface of OUD and treating pain. PCSS-O followed legislation passed in 2007 requiring that the US FDA implement a program of risk evaluation and management strategies (REMS) designed to demonstrate that benefits of a newly approved drug outweigh its potential risks. Given the widespread use of

opioid painkillers (medications with a potential for significant adverse effects), it became important to develop a national education, and support system to improve public health and safety while addressing the needs of individual patients who may require opioids to treat their medical conditions. As part of the PCSS model, a mentoring system was developed to provide appropriate training and educational materials for diverse prescribers including allopathic and osteopathic physicians, as well as allied health providers (eg, nurse practitioners, dentists, physician assistants). The PCSS-O consortium of national professional organizations led by AAAP, included: APA; AOAAM; American Medical Association (AMA); American Dental Association (ADA); American College of Physicians (ACP); American Academy of Pediatrics (AAP); American Academy of Neurology (AAN); American Academy of Pain Medicine (AAPM); International Nurses Society on Addictions (In-tNSA); American Society for Pain Management Nursing (ASPMN); Addiction Technology Transfer Center (ATTC) and Southeastern Consortium for Substance Abuse Training (SECSAT). Collectively the consortium and steering committee represent over one million health professionals and other stakeholders.

Organizational Structure of PCSS-MAT

PCSS-MAT is comprised of a consortium of professional organizations under the leadership of AAAP, including four of the five DATA 2,000 organizations (AAAP, ASAM, AOAAM, and APA). In an effort to reach primary care professionals (physicians, nurses, dentists, social workers, pharmacists), affiliate professional organizations joined this initiative, including the Association for Medical Education and Research in Substance Abuse (AMERSA), and NIATx, a learning collaborative specializing in evaluation of systems and organizational change.

The consortium offers: (1) An extensive network of members and resources to disseminate training to their members and to build a comprehensive mentoring or clinical coaching system; (2) An already established curriculum that is CSAT-approved for physicians to utilize in their required 8-hour training to obtain waiver to prescribe buprenorphine; and (3) Staff and Steering Committee members with vast expertise to help with the development and implementation of educational resources and outreach for this program.

PCSS-MAT developed a Steering Committee with representatives from national professional organizations, criminal justice, recovery system, and other stakeholders to provide outreach, support, and guidance to the project including: (1) Access to each committee representative’s membership for outreach in promoting trainings and resources as well as information about this project to their membership, and (2) Guidance on project improvement to better meet the needs of trainees.

Mentoring Program

A novel mentoring and training program was developed for PCSS-MAT. The availability of feedback and supervision has been shown to be an essential feature for effective training of physicians in adopting new clinical skills and delivering new evidence-based interventions.[30–32]

The consortium partners have developed and implemented a system of mentoring available to health professionals in identifying and treating OUD. Each partner organization has a Lead Mentor. The Lead Mentors Committee meet monthly to discuss activities for the unique needs of each group of professionals involved in the treatment of OUD (internists, pediatricians, family physicians, non-physician prescribers, and other key providers including substance use disorder specialists).

Each partner organization contributes and oversees mentoring and provides administrative assistance to support mentees and mentors to ensure ongoing and effective communication. Steering Committee members assist in identifying experienced clinicians from their professional organizations to participate as mentors. The majority of mentors are identified within each Consortium partner organization as well as organizations associated with Steering Committee members: AMERSA, and the Clinical Trials Network (CTN). AOAAM and ASAM have large constituencies of primary care practitioners. Mentors are volunteers with expertise in substance abuse treatment and MAT and are not compensated for their efforts.

Any interested provider may request a mentor by contacting any of our partner groups, by visiting http://pcssmat.org/mentoring/, or by requesting a mentor following attendance at a training. All participants who complete training are approached and encouraged to enroll in the mentoring program. Mentors and mentees communicate in a variety of formats (eg, e-mail, videoconferencing, phone, or in-person), including observation of practice if requested by the mentee. The PCSS-MAT consortium has found this flexible mentoring program to be appealing, efficient, and effective for those who participate in the program.

The lead mentors panel includes representatives of each of the partner organizations with affiliated organization AMERSA and other key organizations from the Steering Committee. The mentoring program was designed to be flexible and accessible to accommodate the wide range of needs among health professionals. A three-level mentor program was developed to include: (1) An online discussion list where a mentee can post a question to a Mentor on Call (MOC), (2) One-on-one consultations with an expert in response to specific requests, and (3) A comprehensive and long-term mentoring relationship focusing on a range of topics, for example, to assist a mentee with creating an program on implementing MAT in a primary care setting. A “Mentor-on-Call,” selected on a monthly basis from one of the partner organizations, is responsible for active management of the online discussion group which includes answering questions from participants, providing brief topics for discussion, and discussing published research studies and scientific conference proceedings.

In addition, mentors and other experts are available to lead small group discussions (limited to 10–15 participants) with case discussions illustrating a specific topic proposed by the mentor or host a “MAT-Chat” which is a Q & A discussion among two experts on a specific topic. With the exception of the small group discussions, MAT-Chats are first presented live and recorded for later review.

Initially, organizers of the grant applied to develop a mentor training program, but early on it became apparent that the experts chosen as mentors were seasoned mentors who did not

require guidance in how to improve their mentoring skills. Instead, we learned that mentors were interested in receiving more training in the newer pharmacological approaches such as injection naltrexone. Therefore, the PCSS-MAT Consortium created trainings and information for the mentors to meet those needs.

Educational Content and Programs

Each of the partner organizations, under the direction of a clinical experts panel, is responsible for developing content and maintaining the Clinical Support System that can best address the training needs of its members for the treatment of OUD and other substance use disorders. Training and mentoring resources are flexible (available mostly via the Internet), free, and many trainings provide *AMA PRA Category 1 Credit*™. These are available to all health professionals and can be easily accessed online at www.pcssmat.org.

These continuing medical education (CME) programs cover a wide range of topics, taking advantage of expertise provided by members of all partner organizations to address unique needs of various healthcare providers and treatment settings. There are multiple instructional formats with emphasis on flexibility and ease of use. These include live and archived Internet presentations (webinars), online modules consisting of slide presentations, treatment guidelines, self-assessment quizzes, clinical case summaries, and the list of frequently asked questions. More recently PCCSS-MAT has used a “flipped classroom” approach: participants review online material, take a quiz at the end, then a few weeks later only those who have completed the course are invited to submit questions and clinical cases to the expert who developed the module. A follow-up Q & A webinar is scheduled with the expert for those who complete the course.

Since July 1, 2011 with the launch of the first PCSS-O module, 248 modules and webinars have been held and 49,895 participants have been trained. Additionally, 246 PCSS-MAT (since Aug 1, 2013) waiver trainings (Half & Half and 8-hour training) have been held and 4,130 providers have received waiver training. Finally, 2,260 providers have taken the AAAP Online Course since Aug 1, 2013.

Training materials are developed with direct input by each partner organization. The Clinical Expert Panel oversees content development to assure its accuracy, timeliness, completeness, consistency across various training materials, and relevance for the wide range of providers. A separate community resource section designed to offer clinicians evidence-based educational resources for patients and their families was incorporated onto the PCSS-MAT website.

In an effort to ensure that resources are current and accurate, materials are reviewed quarterly and updated as needed in response to continual feedback from participants, mentors, and available research data. In order to improve accessibility to education activities where traditional face-to-face venues are limited, the use of technology is emphasized with multiple virtual learning formats, thereby alleviating barriers due to time, cost, and travel.

Outreach Activities

All partner organizations have the expectation and capacity for extensive outreach and training of physicians through their regional, district, and local branches. Because of the current extensive networks available to the partner organizations and our Steering Committee members, we are able to establish an infrastructure supported by the staff from the partner organizations. For instance, PCSS-MAT mentors participated in an initiative to expand utilization of Vivitrol in Vermont which included lectures and workshops with multidisciplinary teams followed by one on one mentoring follow-ups to support providers as they begin implementing treatment. In addition, we contributed to the local learning collaborative, run by the team from the Dartmouth University, offering expertise on antagonist treatment.

Program Evaluation Plan

Assessing the performance of this educational initiative is critical. As the lead organization, AAAP is responsible for collecting and synthesizing all data, including those compiled by partner organizations from their trainings. The Collaborative collects and reports on required performance measures including the: (1) Number of mentoring and training events; (2) Number of physicians and other health professionals participating in each event by demographic and practice characteristics; (3) Percent of physicians/health professionals satisfied with education and mentoring services offered, and (4) Expected barriers to implementation that may be encountered.

Evaluation and outcome results vary depending on the training type, format and topic. Ninety days post-buprenorphine waiver training, a follow-up survey is sent to participants, inquiring whether or not they applied for their waiver training certificate, asking patient demographic information and what barriers to change they have encountered in their practice. The durability of effects is assessed by asking how many physicians engage in prescribing. These responses are especially important, in light of the fact that a significant minority of physicians who complete buprenorphine waiver training never obtain the waiver and many never prescribe.[33,34]

In some instances, a yearly follow-up survey was sent to participants. For example, a detailed survey was distributed to buprenorphine waiver training participants to assess attitudes and opinions regarding discussions on a recent increase in “BUP Waiver Limits.” The PCSS-MAT Consortium identified barriers to obtaining DEA’s waiver certificate and also identified barriers to prescribing buprenorphine to more patients. The survey assisted the PCSS team to develop educational activities that addressed some of these concerns. In the follow-up survey, we include questions about prescribing in their practices, how many patients they treat for opioid dependence (medical withdrawal vs. maintenance therapy), and factors that have hindered prescribing. If changes to our training initiatives are required based on feedback received, the changes to the original proposed plan will be documented, along with the reasons for the changes to the originally proposed plan.

Participant satisfaction surveys (CSAT), designed to measure whether a training met or surpassed the users’ expectations, were carried out at baseline and one month following the

educational activity (or 90 days for waiver training), in accordance with the Government Performance and Accounting Act (GPRA). These ongoing assessments and data analysis are used to manage the project and assure that the goals and objectives are tracked and achieved. Evaluation completion is mandatory before certificates of completion and CME credits are issued.

AAAP has routinely collected data from participants and has expanded the questions based on GPRA questionnaires to include: (1) Specialty training, (2) Experience in OUD treatment, (3), Practice setting, (4) Feedback on each component of the course, (5) Comfort with prescribing based on material learned and (6) Trainees intent to prescribe and in what clinical circumstance (maintenance, medical withdrawal). These multiple approaches to obtain data provide insights on how to modify the curriculum and mentoring program to provide the most value to trainees and maximize the likelihood that the largest number of physicians possible will offer this treatment to their patients. As a result, plans can be adjusted to improve the reach of the program. Data are evaluated annually and reported to stakeholders in order to make improvements to our program.

Overall, key lessons learned from PCSS-MAT development thus far include:

1. The focus cannot be on prescribers alone; attending to adequate administrative support and psychotherapy referrals may be needed.
2. It may be overly optimistic to expect primary care and other physicians to prescribe MAT to complicated OUD patients without knowledge about how to assess patients for substance use disorders and make appropriate referrals for additional services.
3. Addressing comorbid mental illness is key and often overlooked; primary care physicians may need to be taught how to screen for common psychiatric disorders and either treat, or when necessary, refer to a psychiatrist.
4. Stigma remains a major barrier and needs to be actively addressed through supervised experiences in working with patients with substance use disorders, either during residency training or by mentoring opportunities in clinical practice.

SUMMARY

The great need for clinical care of patients with OUD far outstrips current treatment capacity, underscoring the necessity to prepare more physicians and health professionals overall to offer the full array of MAT options. Additional funding for treatment under current proposals will not be sufficient to increase patient access without addressing countervailing ideology which has not accepted MAT as critical to treating OUD, as well as expanding workforce capacity. The PCSS-MAT Consortium recognizes that developing and providing training resources to prescribers is not sufficient to ensure a broad delivery of MAT options. The 2016 passage of the CARA will reform OBOT in several critically important ways, largely through expanding the pool of providers (ie, to include nurse practitioners and physician assistants) and require training in a broader range of treatment than buprenorphine

maintenance alone. These new regulations and practice guidelines will have an immediate and dramatic impact on the public health system. It is anticipated that these new treatment standards will increase considerably the need for MAT training resources to afford OBOT prescribers the training needed in the full array of pharmacotherapies approved for OUD.

Outreach educational efforts to providers represent an effective means by which to address the needs of patients with OUD and common co-occurring psychiatric and medical disorders. Furthermore, underserved areas present many obstacles in terms of resource availability and long travel distances, and physicians and health care providers serving such patients represent another health professional group likely to exert significant impact on populations suffering from addictive diseases. This project supports the mission of SAMHSA to reduce the impact of substance abuse and mental illness on America's communities. A well-trained workforce is critical to the provision of quality care. Working with health care providers to effectively deliver MAT is key to integrating behavioral and physical medicine.

Acknowledgments

The authors would like to thank SAMHSA for grant support for PCSSS-MAT.

We also wish to thank the many individuals and partner organizations who have served with the PCSS-MAT project.

Appendix

PCSS-MAT LEAD MENTORS

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