Barriers to Buprenorphine Prescribing Among Attending Physicians in an Academic Residency Program – Implications for Increased Buprenorphine Usage

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ABSTRACT

The need for outpatient management of opioid use disorder with medication-assisted treatment has continued to rise yet physician comfort with prescribing buprenorphine remains low. A survey assessing comfort prescribing was disseminated to attending physicians in the Division of General Internal Medicine at an academic medical center followed by semi-structured qualitative interviews. The majority of respondents (71%) reported that they had not prescribed buprenorphine in an outpatient setting despite being trained and 67% stated that they felt "uncomfortable" or "very uncomfortable" doing so. However, almost all survey respondents (89%) reported comfort precepting residents prescribing buprenorphine. Attending physicians attribute this differential comfort to structural forces including a lack of team-based care, time, and psychosocial support services in their own practice as compared to the academic residency clinic. These findings highlight the barriers to prescribing buprenorphine and challenge the existing notion that academic centers are not suitable places for substance use treatment.

KEYWORDS: buprenorphine, substance use disorder, prescribing, academic medical center, academic residency clinic

INTRODUCTION

Demand for treatment of opioid use disorder (OUD) far surpasses the current maximum potential treatment capacity in the United States. Expanding access to buprenorphine, a life-saving medication that can be prescribed in the outpatient setting, is an essential component of the comprehensive response to the opioid overdose crisis, which saw a total number of at least 105,452 deaths in 2022.[1,2,3] However, despite the high demand, prescribing rates have remained relatively low.[4,5] The perceived barriers that physicians face in providing medication-assisted treatment (MAT) for OUD include lack of clinical experience, lack of access to substance use disorder experts, concerns about difficulty of induction, and other logistics.[6,7]

The Drug Administration and Treatment Act (DATA) of 2000 enabled the use of buprenorphine for treatment of OUD in the outpatient setting.[8] This required providers who intended to treat patients with buprenorphine to submit a Notice of Intent (NOI) to the Substance Abuse and Mental Health Services Association's (SAMHSA) Center for Substance Abuse Treatment. This was in addition to their DEA registration, which allows providers to prescribe controlled substances, and included a mandatory 8-hour training. Upon completion, a DATA waiver was awarded, enabling physicians to begin prescribing buprenorphine to patients with OUD. Legislative changes in 2021 generated an alternative type of NOI that could be submitted without undergoing the 8-hour training if a provider wished to be eligible to treat only up to 30 patients.[9] In 2023, federal legislation was further modified via Section 1262 of the Consolidated Appropriations Act to remove the requirement for practitioners to submit any NOI at all in order to prescribe buprenorphine.[10] Instead new or renewing DEA registrants as of June 27, 2023 are required to reach one of the following educational requirements: total of eight hours of training from certain organizations on opioid or other substance use disorders, board certification in Addiction Medicine or Addiction Psychiatry, or graduation from a medical, nursing or physician assistant school in the U.S. that includes at least eight hours of substance use disorder curriculum.[10] Any practitioner that is a DEA registrant, meaning authorized to prescribe controlled substances, can now immediately prescribe buprenorphine.

In spite of the prior mandated 8-hour DATA waiver training, which provided practical teaching on various aspects of OUD ranging from diagnosis to buprenorphine pharmacology to treatment, rates of buprenorphine prescription remain disproportionately low. Physicians have reported numerous barriers to prescribing buprenorphine for OUD, including lack of clinical experience, lack of access to substance use disorder experts, and concerns about difficulty of induction, among other factors.[6,7] With the 8-hour DATA waiver training now obsolete, the question of how to improve physician comfort with buprenorphine holds immense relevance in the new clinical landscape.[7,11]

To our knowledge, there has not been an assessment of the facilitators and barriers to prescribing buprenorphine among physicians working with trainees in academic medical settings. Yet, academic medical centers take care of a sizable portion of the population. Moreover, with removal of

the DATA waiver requirement, buprenorphine prescribing is now accessible to all resident physicians. In this study, we seek to understand the barriers and facilitators to subsequent buprenorphine usage through a quality improvement survey of attending physicians followed by a targeted semi-structured interview.

METHODS

A survey was created using Qualtrics XM survey software and disseminated to attending physicians in the Division of General Internal Medicine at an academic medical center. This data was collected prior to the new legislation in 2023 removing DATA wavier requirements for buprenorphine prescribing. All attending physicians precept Internal Medicine residents at the outpatient academic residency clinic. Additional clinical responsibilities include practicing direct primary care at the private faculty practice, precepting residents on the inpatient medical service, or both. The academic residency clinic is located in Providence, Rhode Island, and serves approximately 9,000 patients. Residents are not currently allowed to prescribe buprenorphine to patients with OUD. Rather, these patients are referred to a confined program in the academic residency clinic that takes place one half day a week and includes a collaborative team composed of an attending physician, pharmacist, peer recovery specialist, and addiction medicine fellow.

This study was determined to be non-research in nature and classified as quality improvement based on a comprehensive assessment of the project's goals, methodology, and intended outcomes. SQUIRE guidelines were used to inform the presentation of data as a tool for quality improvement efforts to increase buprenorphine usage by both attending and resident physicians. The survey was anonymous and confidential; it consisted of 25 questions that collected characteristics of the respondents and their familiarity with and perceived barriers to prescribing buprenorphine. The questions were majority "yes/no" or multiple choice in format with three "check all that apply" questions and one free response.

After the survey data were analyzed, the authors determined that follow-up was needed to clarify why attending physicians felt comfortable precepting residents but were not comfortable prescribing buprenorphine themselves. Semi-structured interview questions were administered to 10 attending physicians. The interview questions asked participants to clarify the reasons behind their responses, reflect on why other physicians might have responded in this fashion, and expound upon the general significance of the results. The responses were independently coded by three researchers (JS, RV, MG) to achieve saturation and reconciled through an iterative process. Themes were extracted utilizing reflexive thematic analysis and were reviewed using member checking with DGIM faculty members and triangulation between coders in order to maximize qualitative validity.[12,13]

As these data were collected for quality improvement as a mixed methods paper with a central qualitative element, their utility is to provide nuanced and in-depth insight regarding the issues around buprenorphine prescribing in a particular setting, not to make transportable claims across settings. Such context-specific and nuanced findings, although not generalizable, can provide insights into phenomena not visible in larger, representative samples.[14,15]

RESULTS

Thirty-two (32) respondents completed the survey while 10 participated in semi-structured qualitative interviews. The characteristics of the respondents are shown in **Table 1**. The respondents predominantly self-identified as female (69%) and between the ages of 35–54 (51%). Themes from the qualitative interviews are highlighted in **Table 2** along with corresponding quotes and the number of interviews these themes were mentioned in.

Eighty-two (82%) percent of the respondents had completed the DATA waiver training course. Of those who completed the training, 46% had their DEA waiver number accessible, 35% did not have it, and 19% were unsure if they had been issued a DEA waiver number. None of the waivered providers had listed their names on the Rhode Island Department of Health's website as a prescribing provider accepting new patients for buprenorphine treatment

Table 1. Survey Respondent Characteristics

Characteristic	Response (N=32 attending physicians)
Age	
<35yo	13 (41.94%)
35–54yo	16 (51.61%)
>54yo	2 (6.45%)
Self-Identified Gender	
Male (including transgender male)	10 (31.25%)
Female (including transgender female)	22 (68.75%)
Primary Practice Location	
Academic Residency Clinic	3 (10.00%)
Private Faculty Practice	18 (60.00%)
Hospitalist (inpatient only)	6 (20.00%)
Other	3 (10.00%)
Interviewed	10 (31%)
Private practice physician and precept at the Academic Residency Clinic	7 (70.00%)
Hospitalists and precept at the Academic Residency Clinic with no private practice	3 (30.00%)

Table 2. Themes and quotes from qualitative interviews (N=10)

Theme Subthemes	Number of Interviews mentioned in	Quotes
Desire for real-time, in-person prescribing expertise		"I don't feel as alone at the [academic residency clinic as compared to the private practice clinic]. If there are questions I can't answer, there are always other preceptors who can help."
Troubleshooting difficulties	0	
Preference for in-person consultation on prescribing	5	
Coverage (vacation & after hours)	4	
Relying on resident's knowledge	3	
Relying on residents for continuity, flexibility, and time	1	
Feeling Isolated in private practice	3	
Overwhelmed/Lack of Bandwidth/Exhausted No bandwidth for anything new	4	"I also think the cognitive load of learning something new – or becoming certified in something new – feels like a Herculean task – just because it's one of many things to do."
Particular Hurdles Related to Prescribing Buprenorphine		"Demoralized at jumping through hoops"
Induction	2	
Waiver*	2	
Titration	1	
Urinalysis	1	
Specialization		"While I do think it would be great to have more buprenorphine prescribers/opportunities for patients to get treatment for OUD, I do think there is something valuable to having "specialization" in this."
Patients have easy access through another provider	2	
Loss of skills through infrequency of prescribing	3	
Constrictions through Primary Care Schedule		"When we see anywhere from 12 to 16 patients in a session, how does one find the time?"
Anything outside comfort zone takes more time	1	
Fitting counseling in	1	"Residents have so much more time with patients than I do. It can be hard to envision how I would fit all that counseling into a 15-minute visit."
Induction perceived as requiring more time than a routine 15-minute visit	2	
Lack of Nursing or Case Manager Support	2	
Lack of Mental Health or Social Work Services	4	
Ensuring Quality, Avoiding Complications	1	"And I also want it to go perfectly"

*No longer necessary as of June 2023

at the time of survey completion. However, upon learning about this patient-facing resource, half of waivered providers were willing to have their name listed. The majority of providers (71%) reported that since undergoing the DATA waiver training, they had not prescribed buprenorphine in an outpatient setting. Fourteen percent (14%) of respondents had prescribed to 1–3 patients, 3% to 4–10 patients and 11% had prescribed to 10+ patients in an outpatient setting. More prescribers reported ordering buprenorphine in the inpatient setting with 36% reporting ordering for 1–3 patients, 7% for 4–10 patients and 14% for 10+ patients. Forty-six percent (46%) of respondents reported they had not ordered buprenorphine in the inpatient setting. Regardless of whether or not the respondents had, in fact, prescribed or ordered buprenorphine, the majority endorsed buprenorphine as an effective treatment for OUD, with 67% reporting "strongly agree" followed by 21% reporting "agree" as the next most common answer. Two individuals (7%) selected "strongly disagree." Despite the majority of respondents having completed the DATA waiver training, when asked if they were comfortable starting a patient on buprenorphine, the largest percentage of respondents reported that they were "uncomfortable" (50%), with the next most common response being "very uncomfortable" (17%). In contrast, more providers were "neutral" (35%), "comfortable" (29%), or "very comfortable" (25%) maintaining a patient on buprenorphine. Screening for OUD as well as comfort interpreting urine toxicology reports were both high among the respondents. The patients that the respondents were most comfortable prescribing to were "patients already on my personal panel" (26%) and "patients of other physicians in my clinic" (23%). The most commonly cited barrier to prescribing buprenorphine was "lack of confidence/experience" (33%). The next most agreed upon responses were "lack of psychosocial support" (21%), followed by "time constraints" (17%).

Almost all survey respondents (89%) reported being comfortable precepting residents who see patients with

OUD on buprenorphine. When asked about perceived barriers to precepting residents who see patients with OUD on buprenorphine, the most common response remained "lack of confidence/experience" (36%), with the next most common response being "lack of consistent follow-up" (21%). The respondents then rated a selection of four potential interventions to support providers in prescribing buprenorphine, including a Whatsapp group text message with fellow buprenorphine prescribers in the Division of General Internal Medicine, brief instructional videos, a telephone-based warmline similar to the National Clinician Consultation Center at the University of California San Francisco, where providers can speak to a live addiction specialist, or a local warmline with fellow buprenorphine prescribers in the Division of General Internal Medicine. The option rated as most helpful was to have a Whatsapp group text with colleagues, with the second being a local warmline with the same colleagues. Instructional videos were rated as the least helpful.

In the semi-structured qualitative responses, all 10 respondents identified lack of support from other providers as a reason for not prescribing buprenorphine in their direct primary care practice setting – a private faculty practice. The main areas where respondents wanted greater support included: troubleshooting issues that come up in induction or titration (50%); advice from providers with greater experience prescribing (40%); and coverage after hours or during vacation (30%). In contrast, precepting in the teaching setting of the academic residency clinic was identified as ensuring the presence of more knowledgeable providers as well as residents. Notably, the buprenorphine program that takes place one-half day a week at the academic residency clinic was not explicitly mentioned in survey responses. Three respondents pointed to the difficulty of managing induction, given constraints of primary care schedules (with back-to-back 15-minute slots) and discussed the greater flexibility of residents' schedules and their ability to spend more time with patients. Three respondents pointed to the lack of mental health or social work supports in their primary practice site and two respondents pointed to the lack of nursing support. Four providers described feeling too overwhelmed by their existing work responsibilities to incorporate anything new into their practice. Only three providers pointed to regulatory requirements specific to buprenorphine as reasons for not prescribing, and these were presented in the larger context of the general lack of support or existing workload.

DISCUSSION

Attending physicians who have undergone DATA waiver training are known to go on to prescribe buprenorphine at low rates.[4,5] In our study of faculty in a Division of General Internal Medicine, this held true, with the reasons being similar to that found in the existing literature: lack of confidence, time constraints, and inadequate psychosocial support. However, the marked increase in comfort prescribing buprenorphine among attending physicians in the context of precepting residents at the academic residency clinic as compared to their own primary care practice is a new and important addition to the literature. This is especially true in light of recent legislative changes that make direct prescription of buprenorphine substantially more accessible to resident physicians and challenges the prevailing narrative that the DATA waiver was the primary barrier to prescribing.

A concern among residency programs has been that residents have limited clinic availability for primary care patients in general and that patients receiving buprenorphine must be seen frequently. Another concern is that residents' schedules will result in poor continuity of care for patients who might see several different residents. However, our qualitative data highlight a strong contrast between attending physicians' lack of support at their site of primary care, where they are sometimes the only provider utilizing buprenorphine, work within a constricted schedule, and feel pushed to the maximum of their abilities, and the academic residency clinic, where there is a strong perceived sense of team-based care and more time to spend with patients. This challenges the existing notion that academic centers, and residents, are not suitable for substance use treatment as they may in fact increase buprenorphine prescribing. A study of BupEd, a buprenorphine training curriculum for primary care internal medicine residents in Bronx, NY, also showed that providing residents with supervised clinical experience in treating opioid dependent patients is feasible without compromising patient outcomes.[6] Importantly, retention in buprenorphine treatment was similar between patients of residents and attending physicians. Additionally, the vast majority of inductions now occur outside a healthcare setting, in places such as their home or where those who are street homeless are spending the most time, and thus buprenorphine prescribing mainly focuses on maintenance doses, a less complex or time intensive process than induction. This is because nearly all patients have taken buprenorphine before and understand how to start taking a very small dose of this medication when they start to experience withdrawal.

There has been increasing pressure over the past two decades to make primary care more collaborative, both in terms of the creation of interdisciplinary care teams and the value of non-physician counterparts. For instance, the presence of collaborative practice agreements (CPA) allowing pharmacists and other disciplines to assist with co-management of chronic conditions such as diabetes and hypertension has become commonplace. Thus, it is not surprising that, in considering integrating MAT into their day-to-day practice, attending physicians prefer a team-based approach over one that solely relies on their own expertise and capacity.

Our results suggest that an alternative, and potentially

more successful approach to increasing buprenorphine prescribing, is by focusing on the creation of team-based units dedicated to the care of patients with OUD, similar to what has been done with regard to diabetes, hypertension, obesity, and other chronic diseases and what is seen in academic residency clinics. To increase the capacity of primary care clinics to integrate team-based programs to care for their patients with OUD, leadership could consider well-established processes to improve prescribing of targeted drugs such as academic detailing and collaborative practice agreements.[16]

Next steps include gathering further data and exploring the facilitators and barriers to creating team-based approaches to OUD management in primary care settings, ranging from academic residency clinics to private faculty practices to federally qualified health centers. Residency programs considering integrating buprenorphine prescribing into academic residency clinics should be confident that assembling a group of providers across disciplines to provide this service is one route to increasing buprenorphine prescribing among providers who otherwise may not have independently prescribed.[6] These data shine light on a unique way forward for integration and increase of buprenorphine prescribing following removal of the DATA waiver without significantly overtaxing an already overwhelmed primary care workforce.

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