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Communication Experiences of DATA-Waivered Physicians with Community Pharmacists: A Qualitative Study

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Abstract

Background: Patients engaged in evidence-based opioid use disorder (OUD) treatment can obtain prescriptions for buprenorphine containing products from specially trained physicians that are subsequently dispensed by community pharmacists. Despite the involvement of physicians and community pharmacists in buprenorphine prescribing and dispensing, respectively, our understanding of their interactions in this context is limited.

Objective: To qualitatively describe the communication and collaborative experiences between Drug Addiction Treatment Act 2000 (DATA)-waivered physicians and community pharmacists from the perspective of the physician.

Methods: Ten key informant interviews were conducted with DATA-waivered physicians practicing in Northeast Tennessee. A semi-structured interview guide was used to explore communication and collaborative experiences between the physicians and community pharmacists. Interviews were audio recorded and transcribed verbatim. A coding frame was developed using concepts from the scientific literature and emerging codes from physician interviews. Interviews were coded using NVivo 11, with the data subsequently organized and evaluated for themes.

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Results: Four themes were identified: 1) mechanics of communication; 2) role specification and expectations; 3) education and understanding; and 4) climate of clinical practice. Physician-pharmacist communication primarily occurred indirectly through patients or staff and perceived challenges to collaboration included; lack of trust, stigma, and fear of regulatory oversight. Physicians also indicated the two professionals may lack clear roles and responsibilities as well as common expectations for treatment plans.

Conclusions: Communication between DATA-waivered physicians and community pharmacists is influenced by multiple factors. Further research is warranted to improve physician-community pharmacist collaboration (PCPC) in the context of OUD pharmacotherapy and addiction treatment.

Keywords

communication; opioid; community pharmacist; prescriber; buprenorphine; interprofessional; medication-assisted treatment; addiction

Introduction

Misuse of prescription and illicit opioids has contributed to a major public health crisis in the United States (US) and has resulted in 399,230 overdose deaths between 1999 and 2017 with 47,600 of those deaths occurring in the year 2017 alone (Scholl et al. 2018). Still, deaths attributed to opioid overdoses represent only a fraction of the number of Americans struggling with opioid use disorder (OUD). In 2016, an estimated 2.1 million people aged 12 or older had an OUD (SAMHSA, 2017 [NSDUH]).

OUD is a chronic, but treatable, illness. Expanding access to evidence-based pharmacotherapy for OUD is a national public health emphasis (SAMHSA, 2018 [MAT]; Jones, Campopiano, Baldwin, & McCance-Katz, 2015; U.S. Department of Health & Human Services, 2016). Currently, there are three FDA-approved medications to treat OUD: methadone, buprenorphine, and naltrexone (U.S. Department of Health & Human Services 2016). In an effort to expand access to OUD pharmacotherapy and integrate treatment into general clinical practice settings, Congress passed the Drug Addiction Treatment Act of 2000 (DATA-2000). Under DATA-2000, physicians could obtain a waiver to prescribe schedule III-V narcotic controlled substances approved for the treatment of OUD outside of an opioid treatment program (OTP) (U.S. Drug Enforcement Administration n.d.). Buprenorphine-containing products are currently the only FDA-approved opioid agonist medications for office-based treatment of OUD. Prior to DATA-2000, prescribing (a practice distinct from dispensing) controlled substances to treat OUD was not allowed outside the setting of an OTP, precluding the involvement of community pharmacists in the delivery of OUD pharmacotherapy (Jones et al. 2015). Today, patients engaged in office-based treatment for OUD can obtain prescriptions for buprenorphine-containing products, with the prescriptions subsequently dispensed by community pharmacists.

Previous studies have demonstrated the positive impact of physician-pharmacist collaboration across different practice settings, including a physician-pharmacist buprenorphine maintenance practice within a health department setting (DiPaula and Menachery 2015; Leape et al. 1999; Lee, Grace, and Taylor 2006; Timothy Wilt et al. 2015).

When properly trained, community pharmacists have demonstrated that they can improve adherence rates, patient outcomes and reduce costs associated with complex chronic disease states (Berringer et al. 1999; Cranor, Bunting, and Christensen 2003). Although the community pharmacist's potential to positively influence patient care is well supported, it has been difficult to effectively incorporate these health professionals into high functioning collaborative teams with roles beyond that of simply dispensing medications (Smith and Ferreri 2016). This challenge has driven the exploration of new models focused on advancing our understanding of physician-community pharmacist collaboration (PCPC) (Bardet et al. 2015).

A recent review identified four models centered on PCPC (Bardet et al. 2015). The Collaborative Working Relationship (CWR) model, introduced by McDonough et al. (2001), was the most widely employed and describes a five stage process taking the physician-pharmacist relationship from "Professional Awareness" to a "Commitment to the Collaborative Working Relationship" (McDonough and Doucette 2001). Numerous factors including proximity of one's practice, professional expectations, trust in each other's competence, interdependence, communication and defined roles have all been described as drivers of PCPC (Bardet et al. 2015).

Despite the respective involvement of physicians and community pharmacists in prescribing and dispensing buprenorphine containing products, our understanding of PCPC in this context remains limited. Some research has found community pharmacists lack trust in DATA-waivered physicians practicing in their local areas, a key component to developing strong collaborative working relationships during the beginning stages of the CWR model (Hagemeier, Nicholas E; Click 2015; Hagemeier, Ventricelli, and Sevak 2017; Liu, Doucette, and Farris 2010; McDonough and Doucette 2001). It has also been reported that roles and responsibilities may not always be clear across different health professions and that fostering stronger collaborative relationships could be more challenging in the context of OUD treatment, in part due to the involvement of controlled substances like buprenorphine (Chiarello, 2015; Hagemeier, Tudiver, Brewster, Hagy, Ratliff, Hagaman & Pack, 2018). The purpose of this study was to describe the communication and collaborative experiences between DATA-waivered physicians and community pharmacists from the perspective of the physician.

Methods

Participant Recruitment and Procedures

The primary investigator conducted key informant interviews with ten DATA-waivered physicians practicing in Northeast Tennessee. In February 2016, using the Substance Abuse and Mental Health Service Administration's Buprenorphine Treatment Practitioner Locator, the investigators constructed a sampling frame of DATA-waivered physicians (N=97) within an 8-county study area of Northeast Tennessee (SAMHSA, n.d., [Buprenorphine Treatment Practitioner Locator]). The sampling frame was randomized prior to recruitment. The primary investigator reached out to 85 physicians from the sampling frame. Using a telephone recruitment script, the investigator introduced the study, screened for inclusion (i.e., treating at least one patient for OUD with a buprenorphine-containing medication in

Northeast Tennessee), determined interest in study participation, and scheduled the interview at a location of the participants choosing. Most recruitment calls did not result in direct communication with the physicians. Recruitment concluded once ten physicians agreed to participate. Each participant received \$100 compensation for his/her time.

Data Collection and Analysis

A semi-structured interview guide was used to facilitate participant interviews. Questions were developed through an a priori approach that incorporated information from the scientific literature (Creswell & Poth, 2018; Ryan & Bernard, 2003). In particular, the questions explored communication experiences and relationships between DATA-waivered physicians and community pharmacists, factors influencing communication, and strategies for strengthening collaborative working relationships (McDonough and Doucette 2001). Each interview lasted approximately 60 minutes. Interviews were audio recorded and transcribed verbatim for analysis. The investigator who conducted the interviews had no established relationships with any participants prior to the study. Four investigators independently evaluated the first three transcripts to identify emerging codes through an inductive open coding process (Ryan, 2003). The investigators discussed whether the interview guide should be modified for the remaining interviews based on the evaluations; however, the discussion elicited no modifications, and the interviews continued as planned.

Following the completion of ten interviews, the same four investigators were randomly assigned two to three transcripts to again identify emerging codes using an inductive approach. They met as a group to discuss the results of this second review. Major concepts identified in the scientific literature were combined with the emerging codes, facilitating the development of a coding frame (Ryan, 2003). The coding frame included primary topics (i.e., parent nodes) and subtopics nested within them that were related but independent topics (i.e., child nodes). The coding frame included 7 parent nodes and 52 child nodes, each of which was explicitly defined to ensure coding accuracy. Two research staff independently coded all ten transcripts using NVivo 11. Two investigators then independently evaluated the coded data and organized the data into themes (Creswell, 2018). Thereafter, all investigators met to discuss resultant themes and resolve discrepancies. Prior to conduction, the study was approved by the East Tennessee State University Institutional Review Board.

Results

Participant demographic characteristics are summarized in Table 1. Four themes were identified: 1) mechanics of communication; 2) role specification and expectations; 3) education and understanding; and 4) climate of clinical practice. The themes, and associated sub-themes if applicable, are summarized in Table 2 and described hereafter.

1) Mechanics of Communication

Within the mechanics of communication theme, four subthemes were identified: 1) indirect vs direct communication; 2) reactive vs proactive communication; 3) communication intent; and 4) communication enhancement.

Indirect vs direct communication.—Indirect communication involved an intermediary, or “go-between.” Clinic personnel (e.g., “front staff”) and patients were among those commonly described as an intermediary. One physician stated, “[M]y communication with the pharmacist is, occasionally, a conversation. More often than not, it’s either through my nurse or through the patient themselves” (MD 8). Physicians further explained that clinic personnel are often a first line of communication, both initiating and engaging in communication with community pharmacists, with one stating, “They talk to the front-end staff typically first. All my calls go to the front end” (MD 9). Some physicians mentioned receiving information or “feedback from patients,” often regarding the communication and dispensing practices of community pharmacists as one reported, “[T]hey’ll even tell the patient, ‘No. We don’t have time to call [your doctor]. You’ll have to go back and get [the prescription] changed’” (MD 10).

Physicians reported direct communication with community pharmacists as relatively infrequent (e.g., “once or twice a week”) and brief (e.g., “few minutes”). One physician said, “Generally, I don’t. Our office manager fields the question and comes back and asks me. There’s been one or two times when the answer was fairly complicated, and I’ll spend a minute, not long” (MD 2). Although some physicians noted it is “usually [pharmacists] calling,” others indicated the initiation of direct communication is “split” between the two professions: “The smaller pharmacies, the family-owned pharmacies in the town, they will call. I will talk to them. Or I will call them if there are any issues” (MD 6). Some physicians reported that direct communication commonly followed indirect communication between community pharmacists and clinic personnel or patients, especially when such communication leaves unanswered questions or poses implications for patient care, “[P]harmacists will call the office, and if there’s anything that the girls [‘out front’] can’t answer, they pass them on to us” (MD 4).

With both indirect and direct communication, physicians reported verbal communication by way of the telephone as the most common modality and, for several, the “first” or “only,” modality of communication with community pharmacists. Several physicians reported infrequent verbal communication by way of face-to-face interaction with community pharmacists. In addition, some physicians mentioned different modalities of written communication (e.g., “hand” written prescription, “email,” or “text” message) with community pharmacists, often for direct communication. One physician noted, “I write everything on the script” (MD 6). Several physicians, however, explained the applicability of written communication could be situation dependent. One stated, “If time isn’t of the essence, email is very good” (MD 2), while another said, “Fax is probably going to work just fine, but there are certain situations where they need to call the office, and they need to get my attention right away” (MD 5).

Reactive vs proactive communication.—Most physicians reported a reactive style of communication with community pharmacists. They described communication initiation and engagement as a response or “reaction,” often to a “problem,” “issue,” or “question.” One physician stated, “Typically, there is no interaction. Typically, you write a script, the pharmacist fills it, and everything works real smooth. Interactions occur when there’s a question or a problem that needs to be clarified or further delineated” (MD 1). Several noted

a more proactive style of communication with community pharmacists, potentially aimed at mitigating problems. One physician said, “We’ve taken to contacting [the pharmacist] when I have a new patient that says they’re going to get their prescription filled there [chain pharmacy]. We’re usually able to work something out” (MD 8).

Communication intent.—Physicians indicated different intentions are inherent in communication with community pharmacists. First, multiple physicians reported communication characterized by an intention to “question” or “just to confirm.” They indicated community pharmacists commonly pose questions or seek confirmation about topics such as medication use, dose, formulation, prescription legitimacy, patient information, treatment plans, and medication taper plans. One physician stated, “The only ones that logically come into play would be questioning the dosage, questioning the usage of this medicine with the potential of us having missed drug seeking behavior” (MD 3). Another physician said, “So typically they’re calling and either saying they won’t fill it if they’re more than two a day, or they’re verifying that the patient is being tapered” (MD 7). Similarly, physicians reported posing “questions” to or seeking confirmation from community pharmacists about topics such as medication use, availability, cost, drug interactions, formulations, and patient information. Some specifically reported “reach[ing] out” to identify community pharmacists to dispense a prescription, primarily due to patients having “difficulty finding a place to fill their [buprenorphine] prescription.” One physician stated, “[T]he only reason I would communicate with a pharmacist is to ensure that the patients wouldn’t have to drive all the way home to find out that nobody was going to fill their [buprenorphine] prescription” (MD 3).

Second, multiple physicians reported communication characterized by an intention to request information or to inform. Physicians noted community pharmacists “want” or “ask for” documentation, with one stating, “They’re asking for an allergy sheet. They won’t give Subutex® if there’s not a documented allergy sheet” (MD 6). Another explained, “Sometimes they want a tapering plan, and at some point it’s getting ridiculous because you literally can’t put that on a prescription, there’s not enough room” (MD 7). As for informing, some physicians mentioned community pharmacists “provid[e] ... information” about patients, prescriptions, and other topics or make them “aware” of potential “issues” or “concerns.” One physician said, “They continue to point out occasional issues that I might need to know ... Insurance coverage changes and certain medications may not be available at that time” (MD 5), while another stated, “We’ve had pharmacists call and say, ‘Your patient blah blah came in. I’m not seeing them again. They were a real ass. They shouted and complained about something’” (MD 2).

Communication enhancement.—Although challenges within the mechanics of communication were identified, physicians generally expressed interest in and openness toward greater communication and collaboration with community pharmacists. They reported not only a “need” for such communication and relationships, but also that they would “love to hear” from community pharmacists and for community pharmacists to “call” and “let [them] know” of any concerns or information regarding patients. Moreover, some physicians identified approaches that could enhance communication and relationships

between the professionals. Most commonly, they identified a platform, or conduit (e.g., “third party”), for communication as a potential enhancer. In particular, multiple physicians described platforms conducive to direct, if not face-to-face, communication, including “informal or formal meeting[s],” site visits, and joint continuing education activities. One physician explained:

What I would like to see is, like a town hall meeting between as many pharmacists, as many prescribers that can attend. Like a rap session, a discussion where any issues... What the majority of the doctors, how they look at treatment using buprenorphine and where the pharmacists are coming from. ... [A]ny situation that can lead to better collaboration is worth it to me (MD 4).

2) Role Specification and Expectations

Role specification was a common point of discussion among physicians. They detailed the roles and responsibilities of community pharmacists considered “appropriate” as well as those considered “overstepping” or “intrusive.”

Physician-supported roles and responsibilities encompassed three main areas: 1) prescription processes; 2) patient care; and 3) diversion prevention. Prescription processes included double-checking the prescription was written appropriately and filled at the correct time, assessing for drug interactions or allergies, and assisting with insurance coverage, prior authorizations, and cost concerns. Most physicians stated the primary role of the community pharmacist was to “dispense the medication” or ensure that the buprenorphine prescription “gets filled.” One physician described their expectation of the community pharmacist as, “That I write a prescription and it gets filled. That’s the bottom line” (MD 4). Another further explained, “The appropriate use of the term collaboration is to have [the community pharmacist] facilitate my prescribing medications, which I am board certified to prescribe” (MD 3).

Physician-supported roles specific to patient care focused on delivery of patient education about buprenorphine, its side effects, and provision of non-judgmental care: “It’s probably the same as any disease state. Get the prescriptions right. If there’s questions, call. If there’s problems with the patient, call the doc, let him know. Be positive with the patient. Don’t be judgmental” (MD 10). As for preventing diversion of buprenorphine, physician-supported roles included checking the prescription drug monitoring program (PDMP) and alerting the physician to signs of abuse, doctor shopping, diversion, or other illegal behavior. One physician explained the community pharmacist should, “[M]ake sure [the patient is] not getting multiple narcotics on top of that, checking [PDMPs], things like that, which we check as well at times. Make sure they’re not picking up a prescription and they’re plastered” (MD 6).

In contrast to supported roles and responsibilities, physicians described scenarios in which community pharmacists could be perceived as “overstepping.” They indicated community pharmacists could be practicing outside the scope of their expected roles and responsibilities—and subsequently encroaching on the roles of physicians—when attempting to “dictate treatment or taper plans,” refusing to fill buprenorphine prescriptions, or requesting sensitive

patient information (e.g., urine drug screen results). In particular, physicians did not feel community pharmacists had a role in developing or changing patient treatment plans, often due to a perceived lack of time to understand the patient's condition and interact with the patient. One physician explained:

The treatment plan, it's up to the doctor to come up with a treatment plan and the dose. Unless the pharmacist is going to spend an hour with them. When we do an intake, we spend 30 minutes to an hour (MD 7).

Another stated:

[I] don't mind pharmacists in general calling and asking information but they call and they're like, "Well, this patient is on too much," and I'll say, "How do you know they're on too much?" I was like, "When you don't give them what I prescribed, and they relapse, are you going to take care of the patient or am I going to take care of the patient?"... "I don't like playing that game. You do your job and I do my job, and then we communicate together" (MD 6).

Further diverging from supported roles and responsibilities, physicians commonly described community pharmacists as resistant to, or not "want[ing] to budge" when dispensing buprenorphine. One physician stated, "I think that they grudgingly, if at all, dispense the medication" (MD 2).

3) Education and Understanding

Physicians described deficiencies in the education and understanding of community pharmacists regarding OUD treatment with buprenorphine. They commonly noted community pharmacists did not fully understand the meaning of "recovery," with one physician explaining, "I think they should have more understanding about recovery and the disease of addiction and that these people aren't on this medication because they enjoy it" (MD 2). Similarly, physicians indicated the two professionals may lack common expectations for the treatment plan. They reported community pharmacists often seek rigid taper plans, an approach that can conflict with efforts by physicians to tailor the treatment plan to each patient. One physician stated:

As long as [the patients'] doing fine, why is everybody trying to dictate—they're paying their bills. They're not stealing. Their kids are taken care of. Why is everybody in the community trying to keep them down? There are some patients that want to come all the way off. But there are some patients that stay on it for long term, and then they get off. There's no timeframe for it (MD 6).

Physicians identified deficiencies in the understanding of community pharmacists in multiple other content areas as well. These included: 1) addiction treatment guidelines and programs; 2) risks associated with forced tapering plans; 3) patient ability to function well on buprenorphine; and 4) treatment of addiction as a chronic relapsing disease.

Physicians mentioned the two professionals often have a limited mutual understanding of each other's respective clinical practices and daily responsibilities. Many physicians specifically commented on the ancillary services provided at their clinics, such as counselors and other services designed to enhance treatment and recovery among patients. While the

provision of such services seemed to be an approach used by physicians to improve patient care and distinguish their clinics from poorly run clinics, or “pill mills,” they noted community pharmacists may not even be aware of them.

It’d be cool if they just came down to the clinic and we could show them what we do at our clinic. They would get a different perspective of these guys are actually helping these folks and doing it the right way (MD 6).

One method identified as being able to address educational deficiencies, while simultaneously building greater collaboration between the professionals, involved interprofessional continuing education: “Have more CME together. More CME where we get together, talk to each other ... I think that would help. Because our CMEs are all separate for the most part” (MD 9).

4) Climate of clinical practice

Four subthemes were identified: 1) trust; 2) stigma; 3) fear; and 4) practice setting characteristics.

Trust.—Most physicians identified “trust” as a key component of a collaborative working relationship, but described difficulties in developing trusting relationships with community pharmacists. In particular, physicians indicated they could not trust community pharmacists to reliably dispense buprenorphine. One physician explained, “The bigger pharmacies...As soon as they see the script, they’re like, “We can’t fill it,” and throw it at [the patient]. Or..., “You can’t be on this much” (MD 6).

Stigma.—Physicians perceived many community pharmacists as holding stigmatizing attitudes toward OUD treatment with buprenorphine and negative judgments about physicians and clinics providing such treatment. Some physicians reported that community pharmacists characterized their clinics as “pill mills” or “drug pushers,” with one stating, “You almost hear this oh, you’re a drug pusher. One of those Suboxone® pill mills” (MD 3). They further indicated community pharmacists may express their negative judgments to patients, with one stating, “I’ve had one pharmacist tell the patient... ‘You’re going to a pill mill’” (MD 4). Multiple physicians indicated community pharmacists may be apathetic towards, or would rather not “deal” with, patients on buprenorphine; however, some indicated stigma could be reduced and support for buprenorphine increased among community pharmacists if they could get to “know” patients or observe positive patient outcomes. One physician stated:

They can see what it’s doing in their [patients’] lives and I think a lot of the pharmacists who know their patients and see what’s going on with some of these patients and understand it. I wouldn’t think that the majority of them would want it to go away (MD 9).

Fear.—Physicians identified fear as influential in communication between physicians and community pharmacists and originating from multiple sources. One physician, for example, connected community pharmacist concern about making mistakes to limited experience with OUD treatment: “[S]ome of the new pharmacists, they’re worried. I understand. I was

worried when I first started in medicine, too” (MD 6). Likewise, a physician noted community pharmacists did not want to be “painted with that brush” and perceived as dispensing excessive buprenorphine. Physicians, however, indicated both professionals could be most fearful that interactions resulting in disagreement related to the appropriate use of buprenorphine could be interpreted as a lack in one’s professional competence or inappropriate prescribing and dispensing of the medication. In some instances, it is feared that these concerns may be brought to the attention of regulatory bodies, such as the DEA, Board of Medical Examiners, and Board of Pharmacy, ultimately resulting in undesirable outcomes, such as a review of one’s prescribing or dispensing behaviors. One physician explained, “The pharmacy board’s interpretation of the law is not correct. I don’t know why they’re trying to terrify [the pharmacist]” (MD 7).

Practice setting characteristics.—Physicians identified multiple factors within the clinical practice setting that can influence communication, collaborative working relationships, and ultimately, patient care. They generally described both professionals as “busy,” with “time” being a barrier to communication and collaboration. When asked about the “biggest challenges,” one physician commented, “Time is a big one” (MD 9). Nevertheless, several physicians reported responding efficiently to community pharmacists, in part due to implications for patient care. One physician stated:

I tell my staff that if a pharmacist calls that I’ll put down what I’m doing, even if I’m face-to-face with another patient. That that’s a priority because, more often than not, that directly impacts the patient’s ability to get that medication (MD 5).

Physicians commented on the role of the type of community pharmacy and number of pharmacists. Independent, or “mom and pop,” pharmacies were commonly perceived more favorably than “bigger,” chain pharmacies. One physician said, “There’s a local mom and pop place where we send a lot of patients because we have good communication with them” (MD 2), while another stated, “I’ve found that in general the mom and pop pharmacists are much easier to deal with. That’s probably because...there’s, what, two or three pharmacists that work there” (MD 4). Conversely, physicians connected barriers to chain pharmacies in particular, such as “corporate policies” and documentation expectations. One physician said:

The bigger pharmacies are most apt to question everything. They’re like, “Well, I’m not going to fill it.” I was like, “Well, if you don’t want to fill it, that’s fine.” I was like, “But I’ll have to figure something else out” (MD 6).

Additionally, supply issues at community pharmacies regularly challenge patient access to buprenorphine, forcing patients to travel to multiple pharmacies in search of a community pharmacist willing to dispense their prescriptions. Physicians often described this challenge with a sense of frustration:

[The pharmacies] run out and they can’t get medicine for two days, or something like that, and their patients are in a tizzy. We’re sending patients here, hither and yon, sometimes. It’s sporadic, but it seems like supply is a big issue for pharmacists right now (MD 8).

In response to these challenges, some physicians reported encouraging their patients to fill their medications through mail order pharmacies or educated their patients on “pharmacy etiquette” to improve the likelihood of community pharmacists dispensing their prescriptions. One physician said:

[E]very one of our patients were talked to by the educators about pharmacy etiquette. ‘What do you do when you go to a pharmacist? How do you speak to the pharmacy people?’ Because we had proven reports of patients getting irate and causing scenes and that thing. We actually educate our patients as well. “How do you interact with pharmacy? You’ve got to be polite. You cannot cuss. You have to try to understand their point of view’ (MD 10).

Discussion

To our knowledge, this qualitative study is the first to explore DATA-waivered physicians’ perceptions and behaviors related to communication experiences with community pharmacists in the US. The findings exposed challenges to PCPC in the context of OUD treatment as well as strategies that could help foster collaborative relationships and improve access to OUD pharmacotherapy.

Research in this area of practice remains sparse, limited to communication regarding prescription opioid medications in general. However, the results of this study support the findings of previous research, which identified factors influencing the community pharmacist’s willingness to provide access to opioid-agonist pharmacotherapy (e.g. knowledge and understating, stigma, and communication difficulty) (Chaar et al. 2013; Winstock, Lea, and Sheridan 2010), as well as factors influencing communication between prescribers and pharmacists concerning prescription opioids in general (e.g. trust, role perceptions, a history of communication conflict, personal relationships, and prescription drug monitoring program) (Hagemeier et al. 2016; Hagemeier et al., 2018). Similar to this study, Hagemeier et al. (2018) found communication avoidance to be common, concluding physicians’ and pharmacists’ default communication behaviors may not foster patient-centered care. Many of the factors that have been found to influence the development of collaborative working relationships between pharmacists and physicians in general practice (e.g. knowledge, attitudes and beliefs, proximity to one another’s practices, trustworthiness, and openness/bi-directionality of communication) may be limited or made more difficult in the context of OUD treatment (McDonough, 2001; Snyder et al., 2010; Zillich et al., 2004). Additionally, the perception that community pharmacists harbor stigma and negative attitudes towards addiction treatment, DATA-waivered physicians, and patients seeking OUD pharmacotherapy was particularly strong and thus requires further study in order to better understand its impact on OUD patient care and outcomes.

Of particular concern was identifying perceived differences in treatment expectations across both professions. This result may be related to the DATA-waivered physicians’ perception that community pharmacists have limited knowledge about addiction treatment as recommended by federal agencies, national organizations and hold stigmatizing beliefs about OUD pharmacotherapy and patients seeking this treatment option (SAMHSA, 2018

[TIP 63]; U.S. Department of Human Services, 2016; Comer et al., ASAM, 2015.; Centers for Disease Control and Prevention, 2017). The differences in expectations were most evident in discussions concerning tapering plans as physicians reported that community pharmacists frequently sought documentation of taper plans prior to filling buprenorphine prescriptions. This perceived “overstepping” of the roles of community pharmacists frequently diverged with the physician’s efforts to provide individualized treatment for patients. Notably, evidence does not support forced tapering of a predesignated period of time, instead supporting “maintenance treatment” for as long as the medication continues to provide benefit to the patient (SAMHSA, 2018 [TIP 63]; Mattick et al., 2014).

Physicians in the study described a balancing act between direct, or forthright, communication with community pharmacists versus trying to get along and not cause any concern, in part due to fear that interactions involving disagreement may result in the pharmacist escalating their concerns to regulatory agencies or other bodies such as the DEA, Board of Medical Examiners, and Board of Pharmacy. Fear of oversight may play a larger role in the context of treating OUD relative to other less stigmatized disease states and ultimately reduce the likelihood of open dialogue between physicians and community pharmacists. Furthermore, the finding that indirect communication is common in this context suggests intermediary clinic personnel may have a larger impact on communication and collaborative working relationships between DATA-waivered physicians and community pharmacists than previously thought. Future research should explore the roles and responsibilities of clinic personnel, including their impact on communication and collaborative working relationships between these professionals.

Despite the challenges identified by physicians in this study, most valued the skill set of community pharmacists and felt they had a role to play in patient care for OUD. Accordingly, a point of potential intervention could be training in the roles and responsibilities of each discipline specific to medications for OUD. This is recognized as a need in many areas of medicine and is even an Interprofessional Education Collaborative core competency (Interprofessional Education Collaborative 2016). Clinical education is needed for community pharmacists and DATA-waivered physicians related to the unique challenges associated with treating OUD. While community pharmacists may benefit most from education specific to OUD treatment guidelines and stigma reduction, physicians could benefit from education about effective communication with and the varied roles of community pharmacists. While future research should explore the community pharmacists’ perception of OUD treatment and collaborative experiences with DATA-waivered physicians to better inform these interventions, our findings suggest potential solutions for the gaps in each professions’ knowledge are: 1) having community pharmacists shadow DATA-waivered physicians; 2) joint continuing education; and 3) informal events with conversations focused on interprofessional learning about OUD. Notably, these solutions present opportunities for face-to-face interaction that could build trust, reduce fear, and clarify roles among these professionals.

In 2016, new federal regulations increased the patient limit for qualifying DATA-waivered physicians from a maximum of 100 to 275 patients and expanded eligibility for a waiver to physician assistants and nurse practitioners (Department of Health and Human Services,

2016 [42 CFR]). These changes seek to increase the nation's capacity to provide opioid-agonist pharmacotherapy for OUD; however, failing to address the challenges to communication and collaboration between community pharmacists and DATA-waivered prescribers may result in patients finding it difficult to access this medication at their local community pharmacy.

Limitations

This study has limitations, including the relatively small number of physicians selected for inclusion, the majority of participants being of male gender, missing providers in the sampling frame due to their ability to opt out of the SAMHSA Buprenorphine Treatment Practitioner Locator platform, and self-selection bias of the participants. These limitations could have influenced their responses and the generalizability of the findings to other DATA-waivered physicians. Although the researchers in this study did not assess for data saturation throughout the data collection process, a sample size of 10 interviews meets an appropriate threshold of in-depth interviews to describe the phenomenon of interest (Creswell & Poth, 2018).

Conclusion

DATA-waivered physicians perceived significant knowledge deficits, stigma, and other barriers to caring for patients with OUD among community pharmacists. This study also identified potential points of intervention to improve knowledge and attitudes toward interprofessional collaboration. Further research on interventions addressing the unique challenges to developing collaborative working relationships between DATA-waivered physicians and community pharmacists is vital due to its impact on the delivery of effective pharmacotherapy for patients struggling with OUD across the US.

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Bibliography

- Abuse, Substance, and Mental Health Services Administration. 2018 "TIP 63: Medications for Opioid Use Disorder." <https://store.samhsa.gov/shin/content/SMA18-5063FULLDOC/SMA18-5063FULLDOC.pdf> (March 30, 2018).
- Bardet Jean-Didier, Vo Thi-Ha, Bedouch Pierrick, and Allenet Benoit. 2015 "Physicians and Community Pharmacists Collaboration in Primary Care: A Review of Specific Models." Research in social & administrative pharmacy: RSAP 11(5): 602–22. [PubMed: 25640887]

- Berringer R et al. 1999 “Outcomes of a Community Pharmacy-Based Diabetes Monitoring Program.” *Journal of the American Pharmaceutical Association* (Washington, D.C.: 1996) 39(6): 791–97.
- Centers for Disease Control and Prevention. 2017 “Treat Opioid Use Disorder | Drug Overdose | CDC Injury Center.” <https://www.cdc.gov/drugoverdose/prevention/treatment.html> (April 5, 2018).
- Chaar Betty B. et al. 2013 “Factors Influencing Pharmacy Services in Opioid Substitution Treatment.” *Drug and Alcohol Review* 32(4): 426–34. [PubMed: 23442133]
- Chiarello Elizabeth. 2015 “The War on Drugs Comes to the Pharmacy Counter: Frontline Work in the Shadow of Discrepant Institutional Logics.” *Law and Social Inquiry* 40(1): 86–122.
- Comer Sandra et al. National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use ASAM National Practice Guideline for the Use of Medications in the Treatment of Addiction Involving Opioid Use Guideline Committee Members (Alpha O. https://www.asam.org/docs/default-source/practice-support/guidelines-and-consensus-docs/asam-national-practice-guideline-supplement.pdf?sfvrsn=96df6fc2_24 (April 5, 2018).
- Cranor Carole W, Bunting Barry A, and Christensen Dale B. 2003 “The Asheville Project: Long-Term Clinical and Economic Outcomes of a Community Pharmacy Diabetes Care Program.” *Journal of the American Pharmaceutical Association* (Washington, D.C.: 1996) 43(2): 173–84.
- Creswell John; Poth Cheryl. 2018 *Qualitative Inquiry and Research Design: Choosing Among Five Approaches*. Fourth Edi. Thousand Oaks, CA: SAGE Publications, Inc.
- Department of Health and Human Services 42. 2016 “Department of Health and Human Services 42 CFR Part 8 Medication Assisted Treatment for Opioid Use Disorders; Final Rule Medication Assisted Treatment for Opioid Use Disorders.” *Federal Register* 81(131). <https://www.gpo.gov/fdsys/pkg/FR-2016-07-08/pdf/2016-16120.pdf> (March 30, 2018).
- DiPaula Bethany A, and Menachery Elizabeth. 2015 “Physician-Pharmacist Collaborative Care Model for Buprenorphine-Maintained Opioid-Dependent Patients.” *Journal of the American Pharmacists Association: JAPhA* 55(2): 187–92. <http://linkinghub.elsevier.com/retrieve/pii/S1544319115300418> (March 30, 2018). [PubMed: 25749264]
- Eunice Ahrensbrak Bose Jonaki Hedden Sarra L. Lipari Rachel N., and SAMHSA. 2017 170 Drug and Alcohol Dependence Key Substance Use and Mental Health Indicators in the United States: Results from the 2016 National Survey on Drug Use and Health. <https://www.samhsa.gov/data/sites/default/files/NSDUH-FFR1-2016/NSDUH-FFR1-2016.pdf> (March 30, 2018).
- Hagemeier Nicholas E; Click Ivy A. 2015 “Improving Tennessee Health Care Providers Understanding of Neonatal Abstinence Syndrome.” https://www.tn.gov/content/dam/tn/health/healthprofboards/2015_ETSU_Improving_TN_Provider_Understanding_of_NAS.pdf (March 30, 2018).
- Hagemeier Nicholas E., Ventricelli Daniel, and Sevak Rajkumar J. 2017 “Situational Communication Self-Confidence among Community Pharmacists: A Descriptive Analysis.” *Research in Social and Administrative Pharmacy* 13(6): 1175–80. <http://linkinghub.elsevier.com/retrieve/pii/S1551741116304466> (March 30, 2018). [PubMed: 28027861]
- Hagemeier Nicholas E et al. 2018 “Interprofessional Prescription Opioid Abuse Communication among Prescribers and Pharmacists: A Qualitative Analysis.” *Substance abuse* 39(1): 89–94. <https://www.tandfonline.com/doi/full/10.1080/08897077.2017.1365803> (March 30, 2018). [PubMed: 28799863]
- Interprofessional Education Collaborative. 2016 *Core Competencies for Interprofessional Collaborative Practice: 2016 Update*. Washington, DC <https://nebula.wsimg.com/2f68a39520b03336b41038c370497473?AccessKeyId=DC06780E69ED19E2B3A5&disposition=0&alloworigin=1> (April 6, 2018).
- Jones Christopher M, Campopiano Melinda, Baldwin Grant, and McCance-Katz Elinore. 2015 “National and State Treatment Need and Capacity for Opioid Agonist Medication-Assisted Treatment.” *American journal of public health* 105(8): e55–63. <http://ajph.aphapublications.org/doi/10.2105/AJPH.2015.302664> (March 30, 2018).
- Leape LL et al. 1999 “Pharmacist Participation on Physician Rounds and Adverse Drug Events in the Intensive Care Unit.” *JAMA* 282(3): 267–70. <http://www.ncbi.nlm.nih.gov/pubmed/10422996> (March 30, 2018). [PubMed: 10422996]
- Lee Jeannie K, Grace Karen A, and Taylor Allen J. 2006 “Effect of a Pharmacy Care Program on Medication Adherence and Persistence, Blood Pressure, and Low-Density Lipoprotein

Cholesterol: A Randomized Controlled Trial.” JAMA 296(21): 2563–71. <http://jama.jamanetwork.com/article.aspx?doi=10.1001/jama.296.21.joc60162> (March 30, 2018). [PubMed: 17101639]

- Liu Yifei, Doucette William R, and Farris Karen B. 2010 “Examining the Development of Pharmacist-Physician Collaboration over 3 Months.” Research in social & administrative pharmacy: RSAP 6(4): 324–33. [PubMed: 21111389]
- Mattick Richard P, Breen Courtney, Kimber Jo, and Davoli Marina. 2014 “Buprenorphine Maintenance versus Placebo or Methadone Maintenance for Opioid Dependence.” Cochrane Database of Systematic Reviews (2): CD002207 <http://www.ncbi.nlm.nih.gov/pubmed/24500948> (April 4, 2018). [PubMed: 24500948]
- McDonough Randal P, and Doucette William R. 2001 “Developing Collaborative Working Relationships between Pharmacists and Physicians. Continuing Program on Value-Added Services for Pharmacists.” J Am Pharm Assoc 41(5): 682–92.
- Ryan Gery; Bernard Ruddell. 2003 “Techniques to Identify Themes.” Field Methods 15(1): 85–109.
- Scholl Lawrence et al. 2018 “Drug and Opioid-Involved Overdose Deaths - United States, 2013–2017.” MMWR. Morbidity and mortality weekly report 67(5152): 1419–27. [PubMed: 30605448]
- Smith Megan G, and Ferreri Stefanie P. 2016 “A Model to Inform Community Pharmacy’s Collaboration in Outpatient Care.” Research in social & administrative pharmacy: RSAP 12(3): 529–34. [PubMed: 26314920]
- Snyder Margie E et al. 2010 “Exploring Successful Community Pharmacist-Physician Collaborative Working Relationships Using Mixed Methods.” Research in social & administrative pharmacy: RSAP 6(4): 307–23. <http://linkinghub.elsevier.com/retrieve/pii/S1551741109001466> (March 30, 2018). [PubMed: 21111388]
- Substance Abuse and Mental Health Services Administration. “Buprenorphine Treatment Practitioner Locator | SAMHSA - Substance Abuse and Mental Health Services Administration.” <https://www.samhsa.gov/medication-assisted-treatment/physician-program-data/treatment-physician-locator> (March 30, 2018).
- Timothy Wilt MNJ et al. 2015 “Evidence-Based Synthesis Program Pharmacist-Led Chronic Disease Management: A Systematic Review of Effectiveness and Harms Compared to Usual Care Evidence-Based Synthesis Program (ESP) Minneapolis VA Health Care System.” https://www.ncbi.nlm.nih.gov/pubmedhealth/PMH0088187/pdf/PubMedHealth_PMH0088187.pdf (March 30, 2018).
- U.S. Department of Health & Human Services. 2016 Facing Addiction in America: The Surgeon General’s Report on Alcohol, Drugs, and Health. Washington, DC <https://addiction.surgeongeneral.gov/sites/default/files/surgeon-generals-report.pdf> (April 4, 2018).
- U.S. Drug Enforcement Administration. “DEA Requirements for DATA Waived Physicians (DWPs).” https://www.deadiversion.usdoj.gov/pubs/docs/dwp_buprenorphine.htm (March 30, 2018).
- Winstock Adam R., Lea Toby, and Sheridan Janie. 2010 “Problems Experienced by Community Pharmacists Delivering Opioid Substitution Treatment in New South Wales and Victoria, Australia.” Addiction 105(2): 335–42. [PubMed: 20078490]
- Zillich Alan J, McDonough Randal P, Carter Barry L, and Doucette William R. 2004 “Influential Characteristics of Physician/Pharmacist Collaborative Relationships.” The Annals of pharmacotherapy 38(5): 764–70. <http://journals.sagepub.com/doi/10.1345/aph.1D419> (March 30, 2018). [PubMed: 15031418]

Table 1.

Participant demographic characteristics (N = 10)

Variable	Number (range)
Gender	
Male	9
Female	1
Years as practicing physician	
Average (range)	22 (1.5 – 33)
American Board of Addiction Medicine Certified	
Yes	5
No	5

Table 2.

DATA-waivered physician-community pharmacist communication experience themes and sub-themes

Themes and sub-themes [/]	Example quote [*]
1) Mechanics of communication	“We’ve taken to contacting [the pharmacist] when I have a new patient that says they’re going to get their prescription filled there [chain pharmacy]. We’re usually able to work something out” (MD 8).
Indirect vs direct communication	
Reactive vs proactive communication	
Communication intent	
Communication enhancement	“[M]ake sure [the patient is] not getting multiple narcotics on top of that, checking [PDMPs], things like that, which we check as well at times. Make sure they’re not picking up a prescription and they’re plastered” (MD 6).
2) Role specification and expectations	
3) Education and understanding	“I think they should have more understanding about recovery and the disease of addiction and that these people aren’t on this medication because they enjoy it” (MD 2).
4) Climate of clinical practice	“You almost hear this oh, you’re a drug pusher. One of those Suboxone® pill mills” (MD 3).
Trust	
Stigma	
Fear	
Practice setting characteristics	

[/] Sub-themes were not identified for main themes two and three^{*} Quotes provided in this table may not represent each individual sub-theme. Additional quotes and description can be found in the results section.