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## Interprofessional Prescription Opioid Abuse Communication among Prescribers and Pharmacists: A Qualitative Analysis

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### INTRODUCTION

The abuse of prescription opioids, defined as the use of a medication without a prescription, in a way other than as prescribed, or for the experience or feelings elicited, has resulted in significant morbidity and mortality in the United States in recent years.<sup>1</sup> Deaths related to prescription opioid overdoses have quadrupled since 1999, and more people died from drug overdoses in 2015 than in any year on record.<sup>2</sup> National Survey on Drug Use and Health data indicates 4.3 million individuals aged 12 and older currently use prescription opioids nonmedically.<sup>3</sup> Importantly, these data indicate that a large majority of nonmedical users obtain prescription opioids directly or indirectly from doctors.<sup>3</sup> Likewise, prescription opioids are commonly dispensed in community pharmacies in the United States, with over 200 million opioids dispensed by retail pharmacies annually since 2008.<sup>4,5</sup>

National and state-level efforts to engage prescribers and pharmacists in the reduction of prescription opioid abuse and its consequences include education about appropriate prescribing and dispensing, utilization of state prescription monitoring programs to inform prescribing and dispensing decisions, proper drug disposal, screening for nonmedical use, and increased referral and access to inpatient and outpatient opioid use disorder treatment services.<sup>6–8</sup> Inherent in these efforts is some degree of interpersonal communication between prescribers, pharmacists, and patients. Previous research exploring barriers and

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NH: All aspects of study. FT: All aspects of study. SB: Data analysis, manuscript preparation. EH: Data collection, data analysis, manuscript preparation. BR: Data analysis, manuscript preparation. AH: Subject recruitment, data collection, data analysis, manuscript preparation. RP: Study design, data collection, data analysis, manuscript preparation.

facilitators of physician-pharmacist communication and collaboration noted that trustworthiness, role specification, and pharmacist contribution quality are key factors in establishing collaborative working relationships.<sup>9</sup> Among both pharmacists and physicians, controlled substance monitoring is noted as an area where collaboration could improve patient care.<sup>10</sup>

Research on prescriber and pharmacist perceptions reveals that prescription opioid abuse and diversion are commonly perceived to be problems in their practice settings and communities.<sup>11–18</sup> Both prescribers and pharmacists have expressed support for interventions that could improve interprofessional communication and reduce prescription opioid abuse.<sup>12,14,19–22</sup> Research exploring provider communication, especially interprofessional communication behaviors specific to prescription opioid abuse, is limited. From a policy perspective, in 2013 the American Medical Association noted that pharmacist-initiated communication regarding controlled substance prescribing and dispensing interfered with the practice of medicine; therefore, the association called for legislative solutions if interference continued.<sup>23</sup> While similar statements have not been made publicly by pharmacist associations, a study of community pharmacists in Tennessee indicated that pharmacists routinely blame physicians for prescription opioid abuse issues.<sup>13</sup> Since 2013, groups representing both prescribers and pharmacists have worked collaboratively to develop a consensus document that describes challenges to prescribing and dispensing controlled substances.<sup>24</sup>

To better understand prescription opioid abuse-related communication among prescribers and pharmacists, we conducted a qualitative study of providers in Central Appalachia, an area with some of the highest rates of opioid prescribing, dispensing and overdose deaths in the United States.<sup>2,25</sup> Whereas our findings regarding physician and pharmacist communication with patients have been published previously, the objective of this manuscript is to describe intraprofessional and interprofessional prescription opioid-related communication among and between opioid prescribers and community pharmacists.<sup>26</sup>

## METHODS

### Participants and Procedures

Investigators conducted five focus groups between February and October 2014 in the Appalachian Research Network (AppNET), a rural primary care practice-based research network in South Central Appalachia.<sup>27,28</sup> Two prescriber-only groups, two pharmacist-only groups, and one interprofessional focus group were conducted. Three of the focus groups were conducted in primary care clinics, one at a conference center, and one at a college of pharmacy. Participant recruitment methodology varied across focus groups. For prescriber-specific focus groups, AppNET clinics were contacted via telephone to determine willingness to participate in the study. All prescribers and administrators within a clinic were invited to participate. None of the participating prescribers had pharmacists embedded in their clinics. Members of one pharmacist-only focus group were recruited via telephone from a rural community that has an AppNET clinic site. All community pharmacists practicing in the community were invited to attend. Participants for the other pharmacist-only focus group were recruited via email through a district pharmacists' association. Interprofessional focus group participants were recruited via telephone from all attendees at

the AppNET annual meeting, held at a regional university with an academic health sciences center. Prior to focus group initiation, all participants provided written informed consent. All study participants were provided a modest honorarium.

### Data Collection and Qualitative Analysis

A semi-structured interview guide was designed and used by the investigators to facilitate group discussion around interpersonal and prescriber-pharmacist communication perceptions and approaches. Questions evaluated the barriers and facilitators of communication, current prescriber-pharmacist communication behaviors, communication self-confidence, and optimization of interprofessional communication specific to prescription drug abuse prevention. Two of three investigators (NH, FT, AH) moderated all focus groups and research assistants took field notes. One moderator (FT) had significant experience conducting focus groups with providers and thus guided the moderation process. Moderators had not established relationships with a majority of study participants before conducting the focus groups. Focus group duration ranged from 60 to 80 minutes. Moderators described their credentials and the purpose of the study to participants at the beginning of all focus groups. The research team audiotaped and transcribed all focus groups verbatim. Two study investigators (NH, FT) independently, inductively derived and coded focus group themes using a thematic content analysis approach.<sup>28</sup> A third investigator was available to resolve coding discrepancies. Emerging themes were refined throughout the analysis process. Saturation was achieved by the fourth focus group. Major themes were finalized and exemplar quotes selected for each theme. To validate the derived themes, member-checking interviews were conducted with one participant from each focus group (N=5).<sup>29</sup> Whereas member checking interviews did not result in major changes to themes, some themes were expanded upon to clarify meaning. The Consolidated Criteria for Reporting Qualitative Research (COREQ) checklist was used to guide comprehensive reporting of all findings.<sup>30</sup> Prior to the study conduction, approval was obtained from the university Institutional Review Board.

## RESULTS

Thirty-five providers (median=6/group; range=6–9) participated in the focus groups. Thirty-four percent of respondents were between the ages of 31 and 40, 26% 41 to 50 years of age, and 40% 51 or older. Six respondents were nurses or nurse administrators, 13 were family medicine physicians, and 16 were community pharmacists. The number of female and male participants was approximately equal (17 female, 18 male). Fifty-three percent and 76% of pharmacists and physicians were male, respectively. Half of the pharmacists were 40 or younger and 54% of physicians were between the ages of 41–50. An overwhelming majority of communication that occurred between pharmacists and prescribers in our study was initiated by pharmacists. Six themes were noted specific to interprofessional interactions and communication: 1) provider trust; 2) provider role perceptions; 3) conflict history and avoidance; 4) personal and professional relationships; 5) prescription monitoring program (PMP) use; and 6) indirect communication.

## 1. Provider trust

Prescribers and pharmacists indicated that mistrust of certain prescribers of prescription opioids influences their intra/interprofessional communication and prescribing/dispensing behaviors. Perceived inappropriate patient care appeared to be the source of mistrust. For example, buprenorphine prescribers and prescribers at pain management clinics were frequently mistrusted by prescribers and pharmacists. One pharmacist said succinctly, “no one knows how to prescribe Suboxone”. One family medicine physician said, “Don’t send them to a pain specialist, just say, ‘We’re going to withdraw you. We’re going to stop [prescribing opioids] totally if you choose to go somewhere else or if you go to a pain specialist.’ I can’t control that, but sending them to a pain specialist is creating more... they’re going to prescribe a lot more [opioids] than what I am.” Another prescriber noted, “Patients are able to behave well enough to follow the pain clinic’s rules to be able to get through the system and the prescribers will just go astronomical on it as far as the amounts [of medication] are concerned.” Pharmacists’ mistrust of patient referral for addiction treatment was also communicated: “Is there a way to find out where to send patients for treatment where I can trust if I send them there that there’s a real possibility they’ll get helped and not put on a road to another medication?”

A pharmacist similarly noted, “Our pharmacy has stopped filling anything from the X clinic. It’s poor state of practice, everybody is on the exact same thing...a benzo[diazepine] of some kind, they are on three times a day dosing [of buprenorphine], and there is no weaning going on. We do not feel it is an adequate treatment modality, and we have banned any prescription from this office.” Similarly, prescribers described mistrust in the type of care provided:

**MD1** I will not refer to certain pain clinics.

**Investigator** How do you assess the quality, or lack thereof, of a pain clinic?

**MD1** Reputation. You see certain patients go to certain clinics and you’re like, ‘these patients don’t need these medicines.’ I mean, it’s really just seeing people go to those...

**MD2** Or the patients have talked to you about how they haven’t seen the doctor. They really just go in and see the nurse, get their drug screen, and get handed a prescription and walk out the door.

**MD3** The ones run by podiatrists I generally avoid.

**MD2** Yes

Prescribers also noted mistrust of some pharmacies, indicating that one local pharmacy “would be handing drugs out the back door.” Succinctly, the extent to which a pharmacist or prescriber perceives another provider to be trustworthy influences referrals to and communication with these health care professionals. If mistrust exists, communication is routinely absent.

## 2. Provider role perceptions

Prescribers and pharmacists grappled with defined roles when engaging in prescription opioid-related communication. In general, prescribers perceived that pharmacists' communication should focus on inappropriate patient behaviors, not on the behaviors of prescribers. Pharmacists' comments supported this perception. One pharmacist, when describing a tumultuous interaction with a nurse practitioner at a pain clinic stated, "the nurses are flying through these patient appointments, and doing what they want to do, and they aren't taking any advice from any type of pharmacy, whatsoever." Prescribers indicated they see the role of pharmacists as making them aware of patients who may be receiving prescription opioids inappropriately:

**MD1** I've had [pharmacists] call our nurses before and it can trigger us to pull a PMP report on a patient earlier [than we normally would]. I mean I'd rather they just call if a script looks funny. It's been more the independent pharmacies, not the chains that have been doing that. But it is helpful because they see the other end. They see them walk up to their store and hand the pills to somebody. It means the most when they call and say 'look I'm worried about so and so', and I encourage that.

**MD2** Do they have a liability there you think? Is that why they call?

**MD1** I don't know. I don't know. X pharmacy is like the one place around here...they are the only ones that have called, but it's helpful.

**MD3** They've called me too.

**MD4** They have a vested interest.

Pharmacists, however, perceived a different role from the perspective of the prescriber. One pharmacist said, "They [physicians] look at pharmacists as auditors." However, pharmacists said that they routinely called in certain situations. "If you do a PMP search and see that they're popping 9 or 10 [pain] pills, I think it's part of our job to let the prescribers know." Another pharmacist said, "I did a narcotic check on a patient. She was getting lorazepam at X Pharmacy. She is from Dr. Y. She is getting diazepam here from Dr. Z. Same day. I called both doctors' offices, let them know that you need to be doing checks on this person." Another pharmacist described the complexity in determining roles: "The problem for me kind of is, if I think someone may be taking too much, or be dependent or addicted, that they have someone who is monitoring their health, and prescribing this medication to them, so...I don't know...I should probably contact the doctor, but you know, then they think, the physicians probably think they're doing the right thing. It's a tough call."

When asked about extending the roles of pharmacists beyond that of making prescribers aware of questionable patient behaviors, prescribers expressed uncertainty. For example, two prescribers noted, "

**MD 1** MD 2, you mentioned that you didn't know if you were an over prescriber. Maybe a pharmacist like these guys could tell you, 'this is how you compare to other providers.'

**MD 2** The state knows that, has that data. They should be giving that kind of feedback. But certainly a pharmacist, I mean again, I don't know if our pharmacists would feel comfortable doing that. I mean our local pharmacists are pretty good about, 'hey this is a weird script, or this is kind of early, or did you know this guy just got a script from Ohio last week? They're pretty straight about calling on that.

Overall, real and perceived role specification, especially for pharmacists, influenced communication behaviors.

### 3. Conflict history and avoidance

Pharmacists mentioned past history of conflict with prescribers as a factor that influences current and future communication. As one pharmacist summed it up, "[Pharmacists] won't talk and make conflict with physicians". One pharmacist said, "The attitude of some [physicians] is 'I know it all.' And the attitude of some is 'I don't know and I want help', which is a big difference. You learn pretty quickly who those are and you have to pick your battles." Another pharmacist noted, "Some [prescribers] are much more receptive to [prescription opioid abuse] discussions than others."

Several pharmacists mentioned frustration with past communication attempts. One pharmacist said, "It's hard from a pharmacist's perspective if you think a physician is overprescribing to talk to them about it. I know I've done that before and got nowhere. I called and questioned and he didn't care." Another pharmacist noted, "When you call the prescribers that write certain prescriptions, you're basically told, 'this is our opinion'. If you refuse to fill it then you get the call from the office that says, 'a patient called and said you didn't fill our prescription.' I'll give you a perfect example. A doctor here used to do it. Every prescription he wrote was oxycodone, Soma, Xanax. We refused to fill them and he calls and cusses me out."

### 4. Personal and professional relationships

Interprofessional communication is complicated by relationships that extend beyond the professional setting, perhaps even more so in rural settings. In some cases, communication can be hindered whereas in others, the external relationships promote communication. One pharmacist said, "In the X area we're all friends, so it would be hard to approach someone and say, 'I think you're overprescribing.' You're judging them." A pharmacist and physician conversed:

**MD** In a small town, you know, pharmacist X here, or pharmacist Y can call me up and say, 'I am really worried about this.' That's a big difference from some random pharmacist on the phone calling me up.

**RPh** It was a lot easier when local doctors were writing [prescriptions for pain management]. And that's not the case anymore. I live in a small town, but all of my patients that have the hard drugs are coming from X city or somewhere else.

**NH** So, you'd say you have more confidence when you're dealing with or communicating with prescribers that you're more familiar with in your town?

**RPh** Sure, sure.

**MD** And vice versa.”

One pharmacist described her decision to not fill prescriptions from one prescriber that she perceived to be prescribing “in a shady way”. She said, “I see him in church and he says, ‘I don’t understand why you’re singling me out.’ I’m like, ‘Hey, it’s your license, but it’s mine too. And I’m not going to jeopardize my license.’”

## 5. Prescription monitoring programs (PMPs)

Physicians described the utility of having accessible PMP capabilities, but also the paradoxical effects of communicating less with other providers, including pharmacists. One physician said, “Before the PMP, you had to rely on the pharmacist to notice [aberrant patient behaviors]. I had a pharmacist call me about a patient that was going odd months to X pharmacy and even months to Y pharmacy before the PMP. I wouldn’t have picked it up, but since the PMP, I mean in other words, we’re checking in a structured environment where we have to check it. I don’t rely on them as much now, but I do appreciate the fact the pharmacists call.” One physician noted that if a pharmacist does have additional information about a patient that would be informative to the prescriber, that information should be included in the PMP. “My brother-in-law is a pharmacist. He comes in and tells me about people that pick up their pain pills, come back with cash to buy other things. I think it would be valid to put that the pharmacy suspects some sort of thing in the PMP. That sort of behavior should be flagged, I think, because that’s a big red flag for me and it would change my prescribing.”

## 6. Indirect communication

Pharmacists and prescribers described communication behaviors that involve intermediaries, including patients, practice staff, and voicemail systems. Difficulties in being able to communicate directly with a prescriber lead to communication through a substitute mechanism, or no communication at all.

**RPh1** I mean, with most of the providers, you talk to a receptionist or nurse maybe and you leave a message and you might get it back. If you can get through the phone system to even get to a human.

**RPh2** Dr X for example...you leave a message and you never hear back.

**RPh3** You never hear back. So, I just don’t fill it, and let the patient take care of it.

**RPh2** And that’s even non-controlled stuff. You have a problem with a prescription and you call him, and you never hear back.

**RPh2** What I would like to see...I think we all have a doctor’s line [in our pharmacies]. I think doctors need to have a pharmacy line instead of going through the voicemail system.

Another pharmacist described frustration with current interprofessional communication norms. He said, “Leave it outside of controlled substances. Any type of medication therapy

management, patient safety, whatever. Something comes up and you need an answer now, because the patient is going to leave or whatever else. We don't have adequate communication ability. It's typically leave a message."

One pharmacist noted, "You call and let the [physician's] staff know, 'have Dr. X call me back'. He calls back and says, 'I don't see what the problem is.' Well, here's the problem." One prescriber described a situation in which interprofessional communication may have been warranted, but communication instead occurred via the patient: "I was looking out for one patient and not prescribing for a decongestant, which we all know is over the counter. She kept wanting me to prescribe it and I told her 1) you don't have an indication for it; and 2) it's over the counter so you should be able to get that without me prescribing it. She said, 'no the pharmacist said you have to prescribe it.'"

Similarly, a pharmacist's refusal to fill a prescription was an indirect form of communication with a prescriber. Pharmacists did not indicate that they contact prescribers to let them know when they refuse a prescription. Rather, pharmacists would let the patient handle the situation. As one pharmacist previously mentioned, "you refuse to fill it, then you get a call from the office that says, 'a patient called and said you didn't fill our prescriptions'".

## DISCUSSION

To our knowledge, this is the first study to examine interprofessional communication behaviors specific to prescription opioids. We found that multiple factors influence the extent to which prescribers and pharmacists engage in intraprofessional and interprofessional communication specific to prescription opioids. Pharmacists more frequently reported desiring increased and improved communication between professions. However, when considering clinical decision-making, both pharmacists and prescribers described communication behaviors and beliefs that could discourage patient-centered communication and care.

We found the themes of *provider trust, conflict history and avoidance* and *personal and professional relationships* to be highly inter-related in that elements of each theme were interdependent. For example, interpersonal relationships between the providers were in some cases mentioned as the reasons for trust and/or conflict avoidance. Both prescribers and pharmacists indicated that a lack of trust in at least some other providers drove communication about prescribing/dispensing behaviors. Succinctly, a lack of trust resulted in prescribers refusing to refer patients to other prescribers and pharmacists refusing to fill prescriptions. Feelings of trust were diminished for pain management and opioid use disorder providers; such feelings were further diminished when patients went outside the community for care. The implication of this finding is that more familiar providers are perceived to be more approachable and accessible. Local care providers could be contacted informally, or even out of the office setting, as was stated in one case. It is likely that the relatively small network of healthcare providers in the region played a role in reported feelings of accessibility of healthcare peers in the community. Size and cohesion of healthcare provider networks could be examined as a potential mechanism to influence interprofessional communication regarding opioid prescribing and dispensing. Familiarity



and perceptions of accessibility notwithstanding, neither prescribers nor pharmacists described using objective approaches to gauge trustworthiness independently. Trust assessments appeared to be a result of either their own or their patients' self-reported experiences.

In accordance with the 2013 AMA statement that pharmacist-initiated communication interferes with the practice of medicine,<sup>23</sup> prescribers overwhelmingly noted that the primary role of community pharmacists is to reactively communicate with the prescriber when patient abuse, diversion, or doctor shopping was occurring, and to otherwise fill the prescriptions. In agreement, pharmacists perceived their role to be policing in nature. The study participants did not describe a scenario where proactive, interprofessional engagement in patient care (e.g., pain contracts, sharing documentation) was expected. Rather, they described scenarios where conflict was perceived to be likely and hence, they usually chose to avoid it. Interestingly, communication language mentioned by pharmacists was often stated in an accusatory manner ("I called and questioned...", "a patient said...you didn't fill our prescription"). Proper communication skills training, especially training related to conflict management and rapport building, should be examined and tested as a potential intervention strategy. Likewise, the integration of a pharmacist in to a primary care clinic to serve as an intermediary between prescribers and community pharmacists could also be an intervention strategy that optimizes interprofessional communication and patient care.

Prescription monitoring programs are a "pillar" of the 2011 Prescription Drug Action Plan.<sup>6</sup> However, there is significant variation in the extent to which prescribers and pharmacists are required to query their states' PMPs prior to prescribing/dispensing. In theory, state-specific PMPs facilitate monitoring and information sharing across multiple stakeholders. In limited past work examining potential collaboration between prescribers and pharmacists, Chui et al found that both cohorts perceived controlled substance monitoring as a potential collaboration point.<sup>10</sup> Perhaps one of the most interesting findings in this study is the extent to which prescribers perceive PMPs to be a resource for patient information. Prescribers indicated that, given increased and often mandatory checking of the PMP, their interactions with pharmacists have decreased. Prescribers did indicate they are interested in pharmacists' perceptions, but preferred that perceptions be integrated in to the PMP in some manner. To our knowledge, this is the first study to report decreased interprofessional communication as a potential unintended consequence of PMP use.

Perhaps as a result of previously described upstream themes, or as a consequence of other factors such as time constraints or training, prescribers and pharmacists routinely engaged in indirect communication approaches to communicate with other providers. While it could be hypothesized that increased engagement of patients in health conversations is beneficial, pharmacists in our study tended to leave patients to accomplish communication tasks the pharmacists should have probably performed themselves. Similarly, pharmacists reported that physicians fail to return pharmacists' calls when they have questions. Whether this is a result of the voicemail system employed, the priorities of practice staff, or some other factor, failing to respond to pharmacists' inquiries places pharmacists in difficult patient care situations. Importantly, failure to respond also influences the willingness of pharmacists to communicate subsequent questions. When this happens, patients are left to communicate the

pharmacist's question to the prescriber, often without a dispensed prescription. Overall, the indirect communication methods employed by pharmacists and prescribers, and the default communication behaviors among both cohorts in general, highlight communication gaps and norms that have the potential to negatively impact patient care.

### Limitations

This study was conducted in a rural practice-based research network in South Central Appalachia; therefore, the generalizability to prescribers and pharmacists outside this area is unknown. The small sample size is also a limitation. Despite practice staff playing an integral role in interprofessional communication, only perspectives of prescribers and pharmacists were gathered in this study.

### Conclusion

Interprofessional communication about prescription opioids between prescribers and pharmacists is influenced by trust, role perceptions, a history of communication conflict, personal relationships, and prescription monitoring program use. Indirect communication and communication avoidance are common. Default communication behaviors may not promote patient-centered care and communication. Counterintuitively, prescribers reported decreased communication with pharmacists given increased reliance on prescription monitoring programs. Future research should address intervention tools for enhancing interprofessional trust, understanding roles and responsibilities, and conflict resolution related to prescribed opioids. Further, the potential dangers of leaving interprofessional communication to the patient should be explored. Finally, mechanisms should be explored to enhance the utility of PMPs to increase interprofessional communication between providers relative to opioid prescribing and dispensing.

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