

Original Research Article

Pharmacists' Role in Opioid Safety: A Focus Group Investigation

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Funding sources: Funding for this project was provided by the Agency for Healthcare Research and Quality (AHRQ 5R18HS024227-02).

Disclosure: Daniel Hartung, PharmD, MPH, serves on a Scientific Advisory Committee for MedSavvyTM, which presents no conflict to the data collection or analyses involved in the current project.

Abstract

Objective. The pharmacist's role and responsibilities in addressing the opioid epidemic have yet to be clearly defined, particularly from the patient's point of view. This qualitative study explores the pharmacist's role in promoting opioid safety from the perspective of pharmacists and patients.

Design. Focus groups.

Setting. Patient groups were held in person, and pharmacist groups were held online.

Subjects. Oregon pharmacists (N = 19, M_{age} = 39.0 years, range = 26–57 years, 58% female) and patients (N = 18, M_{age} = 60.1 years, range = 30–77

years, 71% female) with current experience dispensing or receiving opioid medications.

Methods. Pharmacists were asked about the challenges and opportunities for opioid safety monitoring and prescription dispensing. Patients were asked about their experiences accessing care, medications, and safety information. Focus group data were analyzed by a multidisciplinary team using an immersion-crystallization approach.

Results. Pharmacists and patients agreed that pharmacists are responsible for medication safety. Pharmacists expressed discomfort filling potentially high-risk opioid prescriptions and noted barriers such as lack of clinical information and discomfort policing high-risk prescribing. Patients were concerned about pharmacists potentially overstepping their professional responsibilities by interfering with prescribers' clinical decisions.

Conclusions. Feedback from both pharmacists and patient participants suggests that there is uncertainty in the degree to which pharmacists can and should confront the prescription opioid epidemic directly. Ambiguities in the pharmacist's role may be best clarified through structured training promoting enhanced between-party communication.

Key Words. Pharmacist; Patient; Opioid; Qualitative; Focus Group; PDMP

Introduction

Community pharmacies in the United States currently dispense approximately 250 million prescription opioids each year, despite continuing research showing questionable benefits for chronic pain patients [1]. A growing literature highlights the important role pharmacists can play in opioid safety, especially with the emergence of state Prescription Drug Monitoring Programs (PDMPs). Community pharmacists recognize that opioid abuse is a serious problem, and most maintain their authority to refuse to dispense a controlled substance because of concerns of abuse or diversion [2]. Even in states with

no mandate to do so, approximately half of pharmacists are screening for opioid misuse with the PDMP and discussing opioid-related risks and treatment with their patients [3]. Some studies have documented additional ways in which pharmacists can play an active role in opioid management [4]. For instance, there is broad support for pharmacist participation in initiatives to expand naloxone dispensing and improve access to safe drug disposal [5].

Federal law stipulates that pharmacists have a “corresponding responsibility” to ensure that controlled substance prescriptions are issued for legitimate medical purposes [6]. However, even prescriptions issued for appropriate reasons have the potential to place patients at risk for adverse events, and there is considerable ambiguity in defining these situations. The Centers for Disease Control and Prevention’s (CDC’s) recent opioid prescribing guidelines encourage greater collaboration among pharmacists and prescribers to prevent prescription drug abuse [6]. National organizations such as the American Pharmacists Association and National Association of Boards of Pharmacy have developed strategies for pharmacists to identify “red flags” for potential misuse [7]. However, much of this guidance fails to directly specify how and when pharmacists should screen prescriptions and when it is appropriate for them to intervene in patient care. State laws and store policies are available in some cases to create more regulation around opioid-related pharmacy practice; however, the lack of between-location consistency in policies and inadequate opioid-related training often leave pharmacists with little confidence in their ability to make accurate judgments [8,9]. These inconsistencies have the potential to impact patient care. Yet, information regarding the experiences of opioid-prescribed patients with pharmacists has been absent from the literature.

Despite the call for pharmacists to take a more proactive role in improving the safety of opioid use, gaps remain in understanding how the role of the pharmacist is defined in these situations, the comfort pharmacists have in taking on this role, the challenges they experience intervening, and the implications for patients. This qualitative study describes attitudes and perspectives regarding prescription opioid use and the role of the pharmacist among these critical stakeholders.

Methods

Sample

As part of a larger study to develop pharmacist education tools related to safe opioid use, we conducted focus groups with patients (three groups of four to eight participants) and pharmacists (two groups of seven to 12 participants). Patients were recruited from both rural and urban settings through clinic-distributed fliers and in-person at a patient-focused pain conference in Oregon. To qualify, patients had to have used an opioid pain reliever (e.g., oxycodone, hydrocodone, morphine)

in the past six months. Pharmacists were recruited through fliers distributed in person and through two state-wide pharmacist listservs. Pharmacists had to be registered for the Oregon PDMP and report regularly dispensing opioid analgesics for patients with acute and chronic pain. We used purposive sampling to ensure variation on key attributes such as professional credentials (e.g., PharmD, RPh), clinical practice setting (e.g., community pharmacy, clinic, hospital), and urbanicity. All participants (patients and pharmacists) were reimbursed \$100 for their time.

Data Collection and Management

The focus groups were facilitated by a trained focus group facilitator and were based on semistructured interview guides that had been approved by the Institutional Review Board at Oregon Health and Science University (see the Appendix). The pharmacist focus groups were held online, using QualBoard by 20|20 Research software. QualBoard is an online threaded discussion board platform that participants can engage with at times and locations convenient to them. Participants were asked to log into QualBoard for 15 to 30 minutes per day to answer questions and were encouraged to check back regularly to comment on others’ responses. Group discussion spanned two full days to accommodate pharmacists’ schedules. Participants were assigned an online alias to protect their identity from other participants and the moderator. An initial set of questions was posted to the board, and additional prompts were added by the facilitator, either to specific individuals or the full group, when needed. Questions covered topic areas such as pharmacy opioid dispensing policies, perception of role in opioid management, and challenges and opportunities when dispensing opioids and using tools like the PDMP.

Patient focus groups were held in person, lasted approximately one hour, and were overseen by a trained focus group facilitator. Patients were asked about access to and adequacy of opioid prescription information, communication with pharmacists about pain and opioid management, and perceived barriers to care. All participants were assigned pseudonyms to protect their identity. In-person focus groups were digitally recorded, professionally transcribed, and entered into NVivo 11 along with the pharmacist transcripts for analysis.

Analysis

We used an immersion-crystallization approach to analyze data. Our multidisciplinary research team analyzed the focus group transcripts without a priori assumptions and continued this process until themes emerged. In the first cycle (immersion), the team collectively reviewed and discussed the patient focus group transcripts and named and tagged segments of text together. Through this process, we developed a code list. We repeated this process for the pharmacist focus groups, adding additional codes as new topics emerged. When codes

Table 1 Patient and pharmacist demographics

	Patient	Pharmacist
Age, M (SD), y	69 (13.5)	39 (9.6)
Gender	71% female	58% female
Urbanicity	29% urban	47% urban, 26% rural
Race	95% white	68% white
Insurance type	24% Medicare 24% Medicaid 47% combination	
Household income	82% < \$50,000/y	
Credentials		63% PharmD
Time in practice, M (SD), y		12.2 (10.2)
Practice setting		84% community pharmacy
Frequency of PDMP use		47% > 10 times/mo
Weekly dispensing volume		58% > 500 prescriptions

Patient urbanicity based on recruitment setting.

and their definitions were clear, and we consistently applied codes during analysis, we transitioned to independently coding the remaining data, holding weekly team meetings to discuss questions and emerging findings. In the second analysis cycle (crystallization), we reviewed the coded text to understand each participant type's perception of the pharmacist's role in preventing opioid misuse and reflected on ways in which patterns emerged across both groups.

Results

Seventeen patients (across three groups) and 19 pharmacists (across two groups) participated in this study. Patient participants were between the ages of 30 and 77 years ($M=69$ years, $SD=13.5$ years); most were female (71%) and white (95%) (see [Table 1](#)). Pharmacists were predominantly white and practiced in larger urban community pharmacies (47%) that filled over 500 prescriptions per week.

While pharmacist and patients shared some common understanding of the roles and responsibilities of pharmacists, there were also some notable inconsistencies. We divided findings into three major themes: the pharmacist's role in medication safety, ambiguity in practice scope related to opioids, and clinical challenges faced by pharmacists.

Pharmacists Are Responsible for Medication Safety

Both pharmacists and patients agreed that pharmacists have an important responsibility to provide a final check on the safety of prescribed medications. Patients shared examples of when pharmacists clearly described how to take their medications and communicated about potential side effects, drug warnings, and interactions. Patients appreciated that their pharmacists were helping to monitor their safety.

I recently had a heart attack, and I haven't had too much trouble with drugs conflicting with one another, but recently I've had three major conflicts... The pharmacists are the ones that caught it. (Patient 26)

When my doctor originally prescribed my medications, he just said, "Here, this'll help." My pharmacy explained how to take them and stuff like that, which I really appreciated. (Patient 28)

Pharmacists reported that promoting prescription safety was a primary part of their role and described ways in which they provided final safety checks. In addition to ensuring prescription validity, they reviewed fill history and concomitant medications, and used the PDMP to monitor for early fills, multiple prescribers, and duplicate prescriptions.

I view my role as doing all I can to ensure that the patient is not diverting or misusing their medications. I do this by critically looking at the prescription to make sure it's valid, looking at fill history and concomitant medications, addressing [drug utilization review] problems. (Pharmacist 1)

Pharmacists saw themselves as a final safety check on prescriptions because they were the last clinician to interact with the patient before dispensing medications. Because they have opportunities to engage with patients on a regular basis in between other health care visits, they felt well positioned to observe and identify patterns of medication use not readily apparent to prescribers. In this role, pharmacists identified opportunities to communicate directly with patients and notify prescribers when they identified high-risk opioid use or suspected abuse.

I view my role as extremely important. As a pharmacist, I am the last line (not the only line) before

the opioids reach the patient, which is key in preventing abuse and misuse. (Pharmacist 8)

In summary, we found broad consensus among pharmacists and patients about the role of the pharmacist with respect to medication safety. Both patients and pharmacists agreed that pharmacists have an important role in optimizing safe medication use.

Ambiguous Scope of Practice and Responsibilities

Pharmacist and patient responses varied regarding the kinds of actions and activities they perceived as appropriate for pharmacists. Patients felt that clinical decision-making should be left to the prescriber and shared instances where they perceived pharmacists to be operating outside of their scope and “practicing medicine.” Patients generally thought that their prescribers were better positioned to manage their prescriptions, and they shared concerns about pharmacists interfering with their ability to access their medications.

Pharmacists, I think they're getting too far in the way. Their job is to dispense the medicine. And then tell you about it, right? They're not there to control it. That's the doctor's...and I feel that they are over-taking their power. (Patient 21)

I just need somebody to dispense the medication that my doctor, who I've spent time with, training, has prescribed me. I just need them to say, “it's not going to interact with anything else.” Double-check my doctor that way. I don't need them to try to be more than they are. (Patient 23)

While some patients understood the legal underpinnings for guarding against diversion, others also revealed misunderstandings about the legal and professional responsibilities of a pharmacist.

Well I just found out that the pharmacists... If you OD, and he gives you more than what you're originally prescribed, or gives it to you early, he can be held accountable if you OD. So now they have the pharmacists practicing medicine. (Patient 5)

Pharmacists struggled to specifically define the parameters of their role in promoting opioid safety. While some felt confident refusing to fill prescriptions that were approved by prescribers, others felt uncertain about how to intervene. Pharmacists felt a tension between having final oversight for safe medication use and respecting the relationship between the prescriber and the patient. Some even described this as an aspect of their job they resented and sometimes portrayed their current responsibilities as “policing” medications. For instance:

I feel as though we are expected to police usage when we really don't know the circumstances of the patient's condition. We are stuck between sticking our nose into something that both the providers and the patients view as “none of our business” and the “powers that be” (e.g., the board of

pharmacy, the DEA) demanding that we do so. I don't know about others, but I didn't become a pharmacist to be a glorified security guard in the misuse of controlled substances. Unfortunately, that oftentimes seems to be the way we are viewed by the governing entities. (Pharmacist 7)

Some days, I feel like the opioid police because it feels like I spend all day denying patient's opioid prescriptions because they are too soon to refill. This obviously creates conflict, which I don't appreciate. (Pharmacist 6)

Several pharmacist participants who worked in retail or community pharmacies reported that their stores didn't have specific guidelines or policies such as when to use the PDMP. With few guidelines or policies in place, these pharmacists used their own discretion and judgment and developed varying behaviors and perceptions about their role and responsibilities. For example, pharmacists had varying comfort levels for disagreeing with a prescriber and refusing to fill a prescription. Some reported refusing to fill prescriptions when they perceived that the dose was too high or poorly monitored by the prescriber. Others restricted their feedback to patients without chronic pain or cancer diagnoses as patients in those cases appeared to be closely managed or monitored by their prescribing clinician.

I also refuse [to fill opioid or concomitant prescriptions] because of how the doctor is writing it, not because of patient issues, which is probably as often. (Too high dose, poor monitoring of patient, always allowing early refills, etc.) (Pharmacist 1)

Others rarely refused to fill a prescription after clarifying and confirming with the prescriber that the dosage or fill request was appropriate. In these instances, pharmacists shared their concerns with the prescriber but left the decision up to the prescriber for how to proceed.

I never refuse to fill unless ordered to by the doctor. I will tell a patient I must confirm with doctor before I fill the prescription. When this happens the patient usually is ok with this and will either say just wait to fill until it's due. (Pharmacist 10)

Rarely do I refuse unless I feel uncomfortable with the prescription due to high doses, etc. Often I leave it up to the prescriber to decide how to proceed. When a prescription is denied filling by the doctor, I'll notify them and have them follow up with the prescriber. (Pharmacist 9)

Despite consensus surrounding medication safety, the role of the pharmacist was more uncertain when it came to opioids. In addition to assessing patient risk, pharmacists felt added pressure to adhere to statutory requirements. Additional scrutiny from pharmacists was perceived by patients as professional overreach in some cases, which added to greater feelings of stigmatization.

Clinical Challenges and Implications for Patients

Pharmacists shared challenges to actively monitoring and intervening when they observed or suspected prescription opioid misuse. Retail pharmacists described feeling tension between high prescription volumes, pressure to provide quick customer service, and needing to take the time to review multiple sources of information, access the PDMP report, and communicate directly with the prescriber before dispensing, as described below:

The main difficulty would be lack of complete patient information regarding their total fill history and chart notes regarding reasoning for use in multiple controlled substance uses. Busy workload of the store and the pressure to get the patient out of the store as soon as possible is another great difficulty in more effectively dispensing opioids safely. (Pharmacist 2)

I view my role as being highly responsible for abuse/misuse, but with very little resources/strategies to make this determination. I would like to see some of the laboratory information being communicated with the prescription, like genetic testing for metabolism and urinary analysis. This would be tremendously helpful information to have, and is much too cumbersome to call and ask for every time we fill a [prescription]. (Pharmacist 12)

As the participant below stated, prescribers weren't always immediately available when pharmacists wanted to consult about a patient, which was often described as time consuming and caused delays in dispensing medications.

The most difficult part of the workday in regards to dispensing opioids is the extra time that it takes to contact a physician when a patient is adamantly demanding an early refill. (Pharmacist 26)

Patients shared their frustrations with delays they had experienced when trying to fill a prescription. The amount of time patients had to wait varied from a couple of hours to more than a day. Patients reported not knowing why they had to wait and perceived that the pharmacist was causing the delay. They explained that delays in dispensing their medication were frustrating and sometimes scary because of the pain they were experiencing. In extreme cases, patients shared stories about prescriptions being cancelled because they were excluded from communication and decision-making processes between pharmacists and prescribers. For example:

I've run into problems where I've gotten to the pharmacy and they had to check... Like when I get discharged from the hospital, they'll have to check with the doctor at the hospital and with my doctor to make sure everything is squared away, and sometimes things get held up because of

that... [The longest I've had to wait was] about a day. I mean, it's never too terrible, but it's...it can get... (Patient 5: It's scary) when you're in pain... (Patient 5: It's scary; group murmurs of agreement). (Patient 4)

I went to pick up my medication that the doctor prescribed to me, and because of this PDM thing they went in and saw something else that about three months ago a doctor had tried, a different medication, to keep me from having the withdrawals. So they saw that, without consenting with me or consenting that the doctor and I had talked. The pharmacist called the doctor and said, "We see this on his thing from about two months ago. Do you still want to write this?" [The doctor said], "Oh, no, we don't want to write this no more, go ahead and cancel it." I'm the patient, when was I supposed to be contacted and informed? [The pharmacy] even called the wrong doctor! (Patient 21)

In summary, we found that time constraints were important barriers for both pharmacists and patients. Pharmacists felt store fill volume expectations often interfered with the need to perform a careful review of some prescriptions. This was exacerbated by patient expectations of rapid turnaround and failure to understand the professional role of pharmacists beyond product dispensing.

Discussion

We explored the pharmacist's role in preventing opioid misuse and abuse from the perspective of key stakeholders in the medication use system: pharmacists and patients. Both participant groups generally agreed that pharmacists' primary responsibility should be to support safe medication use. However, despite the fact that opioids are arguably the riskiest class of medications, they varied in how they perceived that responsibility should be realized, and their interpretations suggest that scope and role boundaries are vague and unclear. Pharmacists expressed concern about legal responsibility for assuring controlled medications are not misused or diverted for nonmedical reasons, while patients were worried about the potential for pharmacists to interfere with their prescribers' treatment plan or delay their ability to access medications.

The pharmacist's role in reducing opioid-related risks has been espoused by professional and governmental organizations [7,10,11]. However, little if any concrete guidance has been promulgated to assist pharmacist decision-making in these very common situations. The American Pharmacists Association recommends that "pharmacists play an important role on the patient care team providing pain control and management" [7] but does not elaborate on specific strategies for advancing this recommendation. In its position statement on the pharmacist's role in substance abuse prevention, education, and assistance, the American Society of Health-

System Pharmacists suggests that pharmacists should “discourage prescribing practices that enable or foster drug abuse behavior and “collaborate with outpatient and ambulatory care providers to prevent substance abuse” [10]. The CDC also recommends a team-based approach to pain management that includes collaborative relationships with other providers, including pharmacists [6]. Perceived overreach by the pharmacy profession with respect to opioid prescriptions has elicited responses from both the American Medical Association and the American Academy of Pain Medicine [12]. While these organizations acknowledge the challenges pharmacists face in working to protect public health while not impeding efficient delivery of care, they offer no suggestions to mitigate these tensions.

Barriers Faced by Pharmacists

Difficulties in embracing these responsibilities are multifactorial and highlighted by some of our findings. Similar to others, we observed that community pharmacists are commonly disconnected from prescribers and forced to make decisions lacking important information about the patient and the therapeutic plan [13]. Although pharmacists in most states can now access comprehensive controlled substance prescription information through PDMPs, only a minority have access to patient medical records. Other studies have found that pharmacists often lack confidence or training in their ability to intervene in risky opioid prescriptions [3], and survey research attests that pharmacists generally believe that they have inadequate clinical training in substance use disorders [14].

Perception of Opioid Misuse May Vary Between Pharmacists and Prescribers

Hagemeyer and colleagues’ work suggests a dissymmetry in clinical perception of opioid misuse where abuse is perceived to be more common by pharmacists than prescribers [15]. Kahan and colleagues [16] find that pharmacists believe physicians are often unwilling to cooperate with pharmacists in cases where abuse or misuse is suspected, and further qualitative work suggests that a lack of clinical information likely contributes to this disparity [17]. Our work also highlights that this is a major barrier to empowering pharmacists to take action to reduce prescription opioid risks. Increased communication between providers and pharmacists about treatment plans and unique patient characteristics may help to minimize concerns that pharmacist intervention will stall the dispensing of legitimate prescriptions for patients in pain and may ease undue burden on the pharmacists who are currently primarily relying on their own personal judgment [9,12].

Potential strategies to clarify roles and facilitate processes would include 1) enhancing electronic medication record access, 2) developing systems that foster collaborative care between disciplines, and 3) improving

the education of both pharmacists and prescribers on safe and effective opioid prescribing and dispensing. As noted in our research, patients are often caught in the middle of well-intentioned health care professionals and should be a central feature in new models for delivering pain management in the safest way possible.

Despite the new information we have found about the pharmacist’s role in opioid management, our study has several important limitations. All focus groups were conducted in Oregon and may not reflect attitudes and practice patterns in other regions of the country. Notably, Oregon is less racially diverse than other regions of the country. Although our findings align with the work of others, future studies should assess if these experiences translate to patients and professionals in other regions. Focus groups with pharmacists were conducted online in a two-day asynchronous format. Although this approach is commonly used [18,19], there are inherent limitations of not talking to participants in person. However, the non-face-to-face approach was mitigated by active probing by the facilitator to encourage responses from all participants.

Conclusions

While patients and pharmacists shared the belief that pharmacists play a valuable role in reducing medication safety risks, participants struggled to clearly articulate pharmacists’ scope and boundaries. Role uncertainty may be best clarified through structured training promoting enhanced between-party communication and specific and clarified strategies for promoting opioid safety and preventing misuse and abuse.

Acknowledgements

We would like to thank all of our patient and pharmacist participants, who generously provided their time and feedback. We would also like to thank Melissa Hansen, Michelle Marikos, and the organizers at Oregon Pain Guidance, who assisted greatly with the recruitment of participants for this project, and David Sobieralski, who provided invaluable logistical and administrative support.

References

- 1 Volkow ND, McLellan AT. Opioid abuse in chronic pain—misconceptions and mitigation strategies. *N Engl J Med* 2013;374(13):1253–63.
- 2 Fleming ML, Barner JC, Brown CM, et al. Using the theory of planned behavior to examine pharmacists’ intention to utilize a prescription drug monitoring program database. *Res Social Adm Pharm* 2014;10:285–96.
- 3 Cochran G, Field C, Lawson K, Erickson C. Pharmacists’ knowledge, attitudes, and beliefs

- regarding screening and brief intervention for prescription opioid abuse: A survey of Utah and Texas pharmacists. *J Pharmaceut Health Serv Res* 2013;4:71–9.
- 4 Leong C, Alessi-Severini S, Sareen J, Enns MW, Bolton J. Community pharmacists' perspectives on dispensing medications with the potential for misuse, diversion, and intentional overdose: Results of a province-wide survey of community pharmacists in Canada. *Subst Use Misuse* 2016;51(13):1724–30.
 - 5 Saldaña SN, Weaver N, Stanford B. Pharmacist-led health-system approaches to reduce opioid overdose and death. *J Am Pharm Assoc* 2016;16:30815–9.
 - 6 Dowell D, Haegerich TM, Chou R. CDC guideline for prescribing opioids for chronic pain—United States, 2016. *MMWR Recomm Rep* 2016;65(1):1–49.
 - 7 American Pharmacists Association. Pharmacists' role in addressing opioid abuse, addiction, and diversion. *J Am Pharm Assoc* 2014;54(1):e5–15.
 - 8 Cochran G, Field C, Lawson K. Pharmacists who screen and discuss opioid misuse with patients: Future directions for research and practice. *J Pharm Pract* 2015;28(4):404–12.
 - 9 Marlowe KF, Geiler R. Pharmacist's role in dispensing opioids for acute and chronic pain. *J Pharm Pract* 2012;25(5):497–502.
 - 10 Cobaugh DJ, Gainor C, Gaston CL, et al. The opioid abuse and misuse epidemic: Implications for pharmacists in hospitals and health systems. *Am J Health Syst Pharm* 2014;71:1539–54.
 - 11 Centers for Disease Control (CDC). Pharmacists: On the Front Lines Addressing Prescription Opioid Abuse and Overdose [brochure]. 2016. Available at: https://www.cdc.gov/drugoverdose/pdf/pharmacists_brochure-a.pdf (accessed Dec 2016).
 - 12 Webster LR. New policing role for pharmacists undermines partnership with prescribers. *Pain Med* 2013;14(11):1619–20.
 - 13 Leong C, Sareen J, Enns MW, Bolton J, Alessi-Severini S. Community pharmacy practice barriers in preventing drug misuse, divergence and overdose: A focus group study. *Healthc Q* 2015;18(3):28–33.
 - 14 Lafferty L, Hunter TS, Marsh WA. Knowledge, attitudes and practices of pharmacists concerning prescription drug abuse. *J Psychoactive Drugs* 2006;38(3):229–32.
 - 15 Hagemeyer NE, Gray JA, Pack RP. Prescription drug abuse: A comparison of prescriber and pharmacist perspectives. *Subst Use Misuse* 2013;48(9):761–8.
 - 16 Kahan M, Wilson L, Wenghofer EF, et al. Pharmacists' experiences with dispensing opioids. *Can Fam Physician* 2011;57:e488–54.
 - 17 Hagemeyer NE, Tudiver F, Brewster S, et al. Prescription drug abuse communication: A qualitative analysis of prescriber and pharmacist perceptions and behaviors. *Res Social Adm Pharm* 2016;12(6):937–48.
 - 18 Parylo O. Online Focus Groups: Lessons Learned from 15. In: Hai-Jew S, editor. *Enhancing Qualitative and Mixed Methods Research with Technology: IGI Global*; 2014. p. 31.
 - 19 Woodyatt CR, Finneran CA, Stephenson R. In-person versus online focus group discussions: A comparative analysis of data quality. *Qual Health Res* 2016;26(6):741–9.

APPENDIX

Semistructured Interview Guides

Pharmacists

1. How do you view your role in preventing opioid-related abuse and misuse?
2. What is the most difficult part of your workday as regards the dispensing of opioids?
3. When considering filling a prescription for a controlled substance, how do you evaluate patient risk for misuse?
4. Please describe the training you received for using the PDMP.
5. Please describe systems, processes, or guidelines in place for how you are to use the PDMP in your practice.
 - Probes:
 - Who is responsible for checking the PDMP?
 - At what point in a transaction do you check the PDMP?
 - How can the PDMP be better integrated into your workflow?
6. In what patient situations do you most often use the PDMP? Please describe the scenario(s) or types of patients.

7. Think about the last time you used the PDMP— please describe how and why you used it.
8. In what situations would you discuss a PDMP report with a patient?
9. What types of communication do you have with patients when the PDMP profile is worrisome?
 - Probe:
 - When would you refer back to the prescribing clinician?
10. Tell me about your communication with providers and how, if at all, the PDMP is discussed.
11. What have been the advantages of using the PDMP?
12. What have been the drawbacks of using the PDMP?
 - Other probes:
 - Describe your liability concerns in using the PDMP, if any.
 - What are the considerations when it comes to dispensing to patients?
 - What are the considerations when it comes to you as a pharmacist?

Patients

1. Please describe different scenario(s) in which you have had contact with your pharmacist in the past.
2. Tell me about the last time you had a prescription for a pain medicine filled at the pharmacy.
 - Probes:
 - What was the conversation between you and your pharmacist like when they filled the prescription?

- In what ways could the conversation with your pharmacist have been more helpful?
 - What were some things about the conversation that you liked?
3. How, if at all, were you taught about medication use?
 - Probe:
 - What are some things you wish a doctor or pharmacist would teach you about prescriptions (pain, opioid, or otherwise)?
 4. How are concerns about medications typically discussed between you and your pharmacist?
 - Probes:
 - In what ways could these conversations go better?
 - What were some things about these conversations that have been useful?
 5. Have you heard of the Oregon Prescription Drug Monitoring Program? From whom?
 6. Are there other ways you find and receive information about medications?
 7. What types of drawbacks, if any, do you see with being prescribed a pain medication?
 8. What are some of the benefits with being prescribed a pain medication?
 9. If you could tell a pharmacist how to do their job better when filling prescriptions, what advice would you give them?