Original Research

Differences between pharmacists' perception of counseling and practice in the era of prescription drug misuse

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Abstract

Objective: This study was conducted to assess pharmacists' practices when counseling patients on their prescription medications, and their preferences for training.

Methods: Five focus group discussions of community pharmacists (n=45, with seven to eleven participants in each group) were conducted in a major metropolitan city in the southern United States. Participants were recruited via email using a list of community pharmacists provided by the Texas State Board of Pharmacy. All focus group discussions were structured using a moderator guide consisting of both discrete and open-ended questions. Qualitative analysis software was used to analyze the data with a thematic analysis approach.

Results: The participants in this study had a high self-efficacy regarding their ability to counsel on both new and opioid prescriptions. Many pharmacists experienced the same barriers to counseling and agreed on the components of counseling. However, the themes that emerged showed that the participants exhibited only a partial understanding of the components of counseling. The themes that emerged in the thematic analysis were perceived confidence and discordant counseling practices, inadequate infrastructure, lack of comprehensive counseling, inconsistent use of the Prescription Drug Monitoring Program (PDMP), and pharmacists' desired training/assistance.

Conclusions: Community pharmacists are in a unique position to help combat the opioid crisis; however, there has been very little research on the pharmacist-patient interaction in this context. With policy changes, such as the PDMP mandate, going into effect across the country, it is important to capitalize on the potential community pharmacists have in ameliorating the opioid crisis in the United States.

Keywords

Counseling; Prescription Drug Misuse; Professional Practice; Pharmacies; Pharmacists; Prescription Drug Monitoring Programs; Opioid Epidemic; Focus Groups; Texas

INTRODUCTION

In the 1990s, pharmaceutical companies began to promote opioid medications as a safe method of treatment, with a low addiction profile, for chronic or persistent pain.[1] As a result, opioid prescribing increased.[2] While many people can benefit from the pain management these medications provide, the increase in prescriptions has increased rates of diversion, misuse, dependency, and opioid use disorder (OUD).[3,4] In 2017, an estimated 1.7 million people within the United States suffered from an OUD.[5]

The severity of the opioid crisis has gained the attention of federal agencies. The United States Department of Health and Human Services (HHS) declared the crisis to be a public health emergency and outlined a 5-point plan to combat it.[6] The Agency for Healthcare Research and Quality (AHRQ) released a Special Emphasis Notice committing to the HHS mission to end the opioid crisis.[7]

When discussing interventions to ameliorate the opioid epidemic, community pharmacists are in a unique position to aid in efforts to increase prevention as well as improve access to effective treatment, recovery, and harm reduction strategies. Not only are they the gatekeepers to prescription medications with the ability to restrict access to controlled substances, they are also consistently ranked as one of the most trusted professionals.[8-10] Additionally, pharmacists see their patients up to 10 times more than primary care physicians – making them the most accessible health care professional in the community.[11] Their role extends beyond simply filling and dispensing prescription medications; they have a duty to provide counseling to patients on the medications they fill.[12,13] Counseling plays an even more important role for patients receiving controlled substance prescriptions (CSP), as it is imperative to provide safe usage, storage, and disposal information to prevent misuse and diversion.

The Prescription Drug Monitoring Program (PDMP) is a tool intended to aid community pharmacists. It is an electronic database that provides a patient's filling history of

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controlled substances across different pharmacies regardless of payer.[14] From March 1, 2020, Texas law will mandate that every pharmacist in the state should check the PDMP before dispensing a prescription for an opioid, benzodiazepine, barbiturate, or carisoprodol.[14] Having access to a patient's medication history of controlled substances gives the pharmacist more insight into the patient's treatment, thereby guiding two clinical decisions – whether to fill and how best to counsel the patient.

The majority of studies assessing the utilization of PDMPs has focused almost entirely on the quantitative utilization of the PDMP. For example, a study involving Indiana pharmacists found that pharmacists who regularly used the PDMP consistently were 3.3 times more likely to refuse to fill a CSP compared to those who did not use the PDMP at all.[15] Both physicians and pharmacists have expressed the opinion that the PDMP is burdensome and may inappropriately reduce the number of opioids prescribed.[16] A recent study conducted in Kansas Medicaid patients attributed the utilization of the state PDMP to difficulty in obtaining a CSP in patients with chronic non-cancer pain.[17] There are additional studies that address this issue. Pharmacists in Indiana also indicate that the perception of a barrier will decrease PDMP utilization and pharmacists in Kansas attributed "internet access" as the primary reason for not using the PDMP.[18,19]

Given the potential that pharmacists have in providing interventions in the pharmacy setting, it is necessary to understand the issue from their perspective. Research on pharmacists' willingness to counsel patients with a CSP after reviewing the PDMP identified a total of 15 behavioral, 14 normative, and 11 control beliefs.[20] While pharmacists did acknowledge the benefit of counseling, they still cited patient confrontation as the biggest deterrent to engaging patients in the context of CSPs.[20] Other elicited beliefs extrapolated on the willingness of pharmacists to engage with patients and has provided much-needed insight into the pharmacist-patient interaction. However, there has been little research into the content of the interaction. Assessing and understanding pharmacists' counseling practices will assist in identifying any barriers, reluctance, or gaps in counseling; and, in turn, developing necessary educational interventions to address these deficiencies. Ultimately, this knowledge will help capitalize on the potential of community pharmacists in efforts to mitigate the opioid crisis.

Therefore, the objective of this study was to assess pharmacists' practices when counseling patients on their prescription medications, the barriers to counseling, and their preferences for training.

METHODS

Study design and setting

This descriptive, qualitative study using focus group discussions was intended to assess pharmacists' practices when counseling patients on their prescription medications, the barriers they face, and their preferences for training. The focus group discussions were held at an agency that specializes in qualitative research located in a major metropolitan city in the southern United States.

Participants and recruitment

The sample was generated via convenience sampling. Pharmacists in the area were identified using the list of actively licensed community pharmacists maintained by the Texas State Board of Pharmacy (TSBP). Recruitment was managed by the qualitative research group, who also moderated and transcribed the focus group discussions. While the inclusion criteria were limited to pharmacists currently working in a community pharmacy setting, care was taken to invite participants from a variety of retail settings (i.e., mass merchandiser, retail chain, and independent) to improve the generalizability of the results. Of those invited, a sample of 45 pharmacists was generated and divided into five different focus groups. Each focus group had between 7 to 12 participants and lasted between 90 and 120 minutes. Three focus groups were initially scheduled, but two more were added as new ideas were still being explored by the participants.

Prior to attending the focus groups, the participants were given information about the study and informed consent. To maintain the anonymity of the participants, minimal demographic information was collected, and the participants were asked to use their initials as their pseudonyms. Participants were reimbursed USD 250 for their time and effort. The study was approved by the University of Houston Institutional Review Board.

Data collection

Two members of the research team created the moderator guide which did not change between individual focus groups (See Online appendix). The moderator guide consisted of four sections, each with a point of emphasis and a mix of discrete and open-ended questions. The initial sections addressed prescription medications in general while the latter narrowed the focus to opioid medications. The first section contained the moderator's introduction, disclosures, and guidelines for the information collected, and each participant's introduction. The next section focused on counseling on new prescriptions. Participants were first asked to estimate the percentage of new prescriptions they counsel on, followed by the reasons they counsel, barriers to counseling, and their comfort level (on a scale of one to five, with five being the greatest level of comfort) on counseling for new prescriptions. The participants were asked to respond according to their current situation. Participants were also asked to elaborate on the reasoning behind their comfort rating.

The third section of questions narrowed the conversation to counseling on opioid medications. Similar to the previous section, it started with a discrete question asking participants to estimate the percentage of opioid prescriptions they counsel. It then delved into asking them to discuss their attitudes towards opioid medications when prescribed in conjunction with other controlled substances, barriers to counseling, and the components of counseling. If the participants did not bring up safe storage, disposal, and referral options, the moderator was instructed to ask about them specifically. The final section of the moderator guide focused on training preferences. It asked for information regarding the following: whether the pharmacists thought they required training, the content

the training should cover, and the method or modality through which the training should be offered.

Data analysis

Two research team members reviewed and initially coded the focus group transcripts. A thematic analysis approach was used to analyze the data. Thematic analysis is a qualitative descriptive method used to identify and analyze repeating patterns within a set of data.[21] The research team followed the established six steps for thematic analysis:

1. Data Familiarization: Each member read the five focus group transcripts independently without any a priori assumptions and took notes on initial observations.
2. Generating Codes: The members met and discussed the important aspects and relevant reoccurring themes in the transcripts. Then, each member independently went through the transcripts and created their own codes. The two separate code lists were reconciled through discussion between the research team members with a faculty member serving as an arbitrator. This process resulted in the final list of codes, also referred to as the codebook.
3. Searching for Themes: Once the codebook was generated, both members of the research team met to organize the codes into overarching themes.
4. Reviewing Themes: Traditionally, this step would be used to reconcile any differing themes and generate a thematic map. In this study, the themes were discussed and compiled together, so there was no need for reconciliation. Additionally, the software used in this study, ATLAS.ti© V722, can generate semantic networks.
5. Defining and Naming Themes: Once the themes were decided upon, the two members of the research team responsible for the coding and the arbitrating faculty member jointly reviewed and named the themes appropriately.
6. Producing the Report: The final report consisted of the coded, merged, and reconciled five transcripts along with the codebook and themes.

RESULTS

In this study, five focus group discussions, totaling 45 pharmacists, were held in May 2018. The majority of participants were female and had worked in community pharmacy for 10 years or longer (Table 1). All focus groups were structured by the same moderator guide. Through the thematic analysis process, five main themes emerged: perceived confidence and discordant counseling practices, Lack of comprehensive counseling, inadequate infrastructure, pharmacists' desired training/assistance, and inconsistent use of the PDMP. These themes and their corresponding codes are represented in a thematic map (Figure 1). While all of the themes will be discussed in this paper, please refer to Table 2 for examples of quotes for each code.

Perceived confidence and discordant counseling practices

All participants across the five focus group discussions gave a percentage above 80% for whether they counseled on a new prescription. The participants' percentages increased to 90% or greater when discussing prescription opioids. When asked to rate their comfort level with counseling, pharmacists expressed high levels of comfort with counseling on both new and opioid prescriptions. However, further discussion revealed a discordance between their confidence in their ability to counsel patients and their actual practices. For example, when faced with the difficult situation of denying a prescription to a patient, participants varied in how they would handle it. Some indicated that they would claim that they were out of stock rather than explain why they were refusing to fill, and others said that they would have no problem telling the patient why.

> "I don't fret about it. I say, 'it says that you got some filled at this-and-this pharmacy at this date, so you should have plenty and I'm not filling this prescription.'" (Focus Group 1)

Throughout the rest of the discussion, participants attributed the discrepancies between self-reported confidence and practice to structural factors and the inadequacy of the infrastructure around them. It also became evident that some degree of the disconnect could be accounted for by individual factors.

Inadequate infrastructure

When discussing new prescriptions, the most common barriers to providing counseling were time constraints, patient refusal of counseling, and language barriers.

> "If I'm on the phone and they don't want to wait, or they don't wait for me to go up to the register and talk to them." (Focus group 1)

Table 1. Focus group participant demographic information (n=45)

	Group 1	Group 2	Group 3	Group 4	Group 5	Total
Number of participants	7	10	9	11	8	45
Sex						
Male	1	5	5	3	2	16
Female	6	5	4	8	6	29
Current Employer Type						
Chain	3	3	5	6	5	22
Independent	4	7	4	5	3	23
Years of Experience						
Less than 10 years	1	0	1	1	3	6
11-20 years	3	3	4	4	3	17
Greater than 20 years	3	7	4	6	2	22
Note: Focus groups were conducted in May 2018						

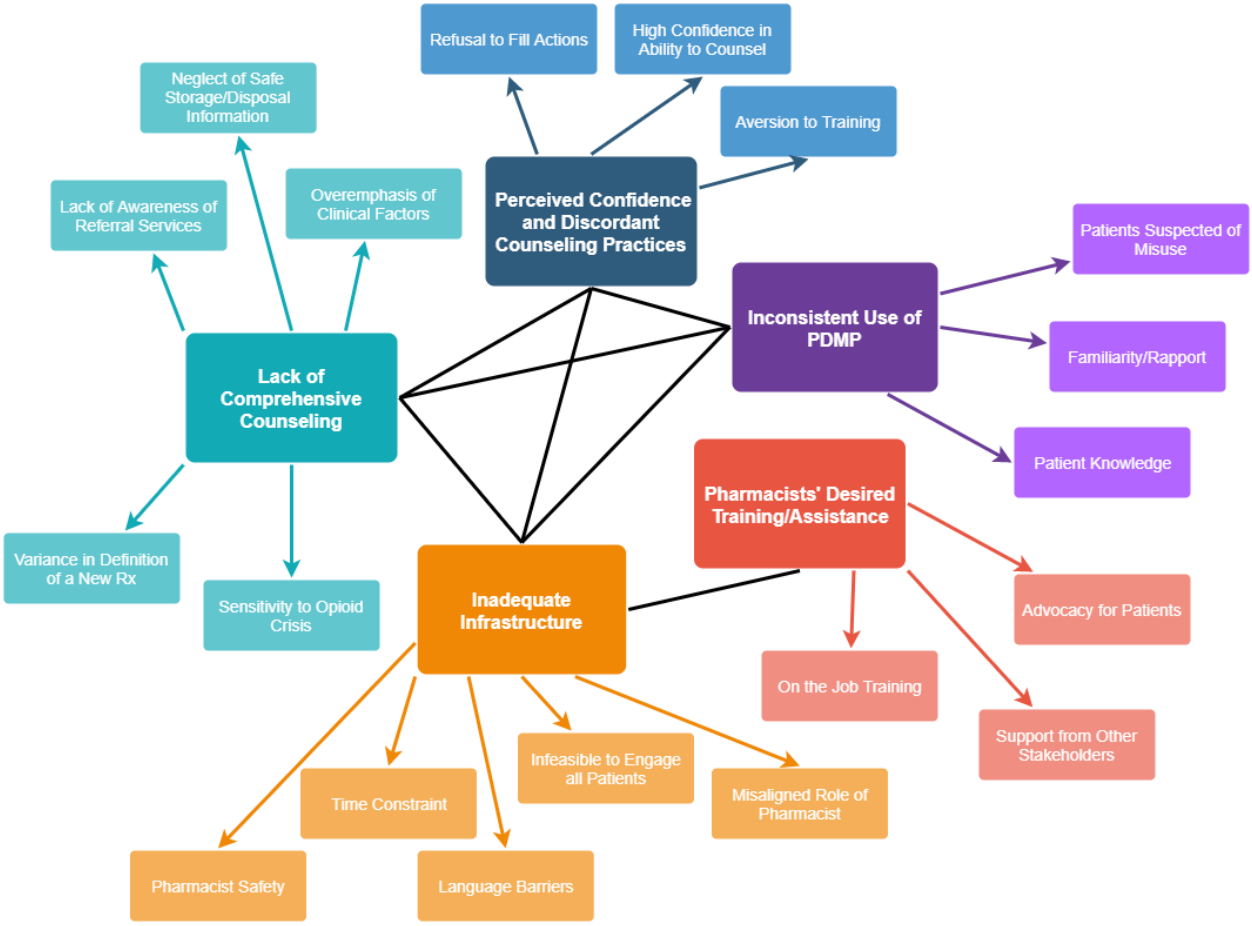

Figure 1. Map of themes and corresponding codes emerged from thematic analysis

> "I had a patient who told me, 'I know how to read, I don't need you.'" (Focus Group 3)

> "This is probably specific to my store. I have a large Hispanic population. I do speak Spanish, but I think some people in the Hispanic population don't understand the concept of actually being counseled. So, they walk off." (Focus Group 1)

For opioid prescriptions specifically, respondents indicated those same barriers, but also extrapolated on some others. These include the patient perceiving the pharmacist as accusing them of misuse and the pharmacists' fear for their own safety.

> "And the other thing is how the patient may perceive you counseling them on this particular type of medication. They may feel like, "Well, why are you talking to me about [the prescription]? I'm not an addict." (Focus Group 3)

> "I don't argue with them. Most of the time, my escape mechanism is, 'I don't have it.' Because I don't want to have a confrontation. I don't want you to wait for me after work. I've got two kids I'm going home to." (Focus Group 2)

Lastly, participants also expressed that much of the burden of verifying misuse and limiting inappropriate misuse had been left to them, thereby misaligning their role.

Lack of comprehensive counseling

The focus group discussions also revolved around a series of questions regarding the pharmacists' practices when counseling on either a new prescription or an opioid prescription. Initially, the moderator did not specify any examples so as to not provide any leading questions. During this time, there was a general lack of consensus on the definition of a new prescription.

> "Somehow when you said new prescriptions, some of them said new prescription, but the patient has been on it forever. Like some things like that, it's not really new." (Focus Group 2)

In contrast, the overemphasis of clinical factors was almost unanimous. Participants elaborated on the side effects, the indication, and the patient's level of familiarity with the medication. In the case of opioid prescriptions, respondents expressed a strong awareness for the ongoing opioid crisis, therefore, the potential for dependency and misuse associated with these medications.

> "I explain the use, because some drugs have several uses. The most important thing [is] are they allergic [or have had] any allergy reaction. I explain to them the possible side effects." (Focus Group 3)

> "Contraindications I feel they need to know about, that kind of thing, and then I'll ask them if

they have any questions, once I've done my legal part." (Focus Group 2)

"I will start with telling them the duration that the doctor told them to take it, and I'll tell them that, 'This is if you need it. You don't have to feel mandatory to take it, because if you don't [need it] you shouldn't take it.'" (Focus Group 2)

A few participants mentioned proper storage and disposal of the medication unprompted, and when this occurred, the moderator encouraged the group to elaborate further on the topic. However, the majority of respondents neglected to bring up storage and disposal as part of their medication counseling. When this occurred, the moderator specifically asked about these topics. This part of the discussion yielded more inconsistencies in individual awareness.

"You can't talk about disposal if there's no place to dispose of it. Some states have them, Texas does not. Not yet, and it says pharmacies can't be- I mean, just imagine if I told everybody, 'Bring me your Vicodins that you don't want to take.' I'd get broken into that night." (Focus Group 2)

In the context of prescription opioids, discussion of counseling on storage included the potential for diversion

Table 2. Focus group discussions themes, corresponding codes, and example quotes

Perceived Confidence and Discordant Counseling Practices	High Confidence in Ability to Counsel	"I do 100% on all the opioids because of the drowsiness possibility." (Focus group 4)
	Aversion to Training	"We already know that stuff. All that stuff that you just said, we already know or have incorporated into our day already. So to go and take a class on that, unless you're going to pay $250 like now, that's another story. I'll go to that class." (Focus group 2)
	Refusal to Fill Actions	"I don't fret about it. I say it says that you got some filled at this-and-this pharmacy at this date, so you should have plenty and I'm not filling this prescription." (Focus group 1)
Lack of Comprehensive Counseling	Overemphasis of Clinical Factors	"Contraindications I feel they need to know about, that kind of thing, and then I'll ask them if they have any questions, once I've done my legal part." (Focus group 2)
	Neglect of Safe Storage/Disposal Information	"You can't talk about disposal if there's no place to dispose of it. Some states have them, Texas does not. Not yet, and it says pharmacies can't be-I mean, just imagine if I told everybody, 'Bring me your Vicodins that you don't want to take.' I'd get broken into that night." (Focus Group 2) "Now one thing I will discuss with patients [is] do not let any of your friends and family know that you are on this medication, because they will steal their medications." (Focus group 1) "They will break into your house and take it, or they will steal your purse if they know you have it." (Focus Group 4)
	Lack of Awareness of Referral Services	"Sometimes … I try to find something close by them or get them hooked up with a doctor somewhere so they can get treated... We look-thank God for the internet." (Focus group 1) "I didn't do a referral. When I kicked a prescription, I called the doctor[s] and let them [doctors] know I'm not filling that prescription and tell him or her how the patient is acting. I leave it up to the doctor after that." (Focus group 3)
	Variance in Definition of a New Prescription	The patient has been on the medication and does not need to be counseled. (Focus group 2)
	Sensitivity to Opioid Crisis	"They're spending the money. They're just spending it wrongly because I represented my institution at [INAUDIBLE] for two straight weeks where we discussed addiction and we had pharmacologists there. We had social studies people. We had MDs, we even had MDs that were confessing right there as we sat around the bench telling their stories about how they got over addiction. So that whole thing was sponsored by the NIH and we were there for two weeks. That's really one of the reasons why I said it has to be a holistic approach. If you keep dealing with one pocket at a time then there is no- So they're spending the money, they're just not connecting right, if you will." (Focus group 4)
Inadequate Infrastructure	Pharmacist Safety	"I don't argue with them. Most of the time, my escape mechanism is, "I don't have it." Because I don't want to have a confrontation. I don't want you to wait for me after work. I've got two kids I'm going home to." (Focus group 2)
	Time Constraint	"They don't want to wait after that." (Focus group 1) "If I'm on the phone and they don't want to wait, or they don't wait for me to go up to the register and talk to them." (Focus group 1)
	Language Barrier	"This is probably specific to my store. I have a large Hispanic population. I do speak Spanish, but I think some people in the Hispanic population don't understand the concept of actually being counseled. So, they walk off." (Focus group 1) "In my area, everybody speaks Spanish, but all my technicians speak Spanish and it's totally fine. If it's Vietnamese, we have nobody who speaks Vietnamese." (Focus group 5)
	Infeasible to Engage All Patients	"I had a patient who told me, 'I know how to read, I don't need you.'" (Focus group 3)
	Misaligned Role of Pharmacist	"If they would put the doctors on the front line with us." (Focus group 1)

Table 2 (cont.). Focus group discussions themes, corresponding codes, and example quotes		
Inconsistent Use of PDMP	Patients Suspected of Misuse	"I don't argue with them. Most of the time, my escape mechanism is, 'I don't have it.' Because I don't want to have a confrontation. I don't want you to wait for me after work. I've got two kids I'm going home to." (Focus group 2)
	Familiarity/Rapport	"I have filled that combination for one patient whose history I know, but they also take a whole lot of other medications because they have multiple mental health issues, physical issues, and real disease states that are well beyond just like-also their diabetes medication. They have a blood-clotting disorder. So I'm just like I know a whole lot about this patient and it's not just oh, I'm coming in to just get the cocktail. So but that is really rare compared to just the people that come in for just those." (Focus group 1) "Well, I have people who get it every month, and so I don't check those, but even if they get regular whatever medication and this is the first time they brought in an opioid, we check. And if they've never been there, of course we check." (Focus group 5)
	Patient Knowledge	"Sometimes you do probing questions, kind of by the feel of what they're there for: 'Why are you taking it? Do you know how long you're going to be taking it? Did the doctor and you discuss that?' And then after that, you tell them what they're taking and tell some of the cautions of taking it, and especially in combination when they have more than one, then you go into detail and tell them the risks that's involved in taking it." (Focus group 3)
Pharmacists' Desired Training/Assistance	Support from Other Stakeholders	"The thing is, though, pharmacists are going to need beyond the education - will need the support to implement. Because the bottom line is, we could - we're the most accessible healthcare professionals. Tell a nurse, too. It's true, because they can find us in locations like that. However, we've got a ton of work to do there. So, they're - that may be where some of these new jobs need to be created for all the pharmacy [INAUDIBLE] they've created. And the pharmacists that are coming out and are running into challenging finding work. So, in my mind, it's a number of different trainings. But it's a whole program, because if this United States is in the epidemic, and it is an epidemic of drug abuse. Then why should we not focus on something like that to make a difference in the lives of people in our country." (Focus group 5)
	On the Job Training	"The most important thing is what you see on a daily basis. That on the-job training is the best kind." (Focus group 1)
	Advocacy for Patients	"Narcan so that we have a better understanding that we can counsel and teach the patients and caregivers, like you were talking about earlier" (Focus group 5)

and the need to prevent others from accessing their CSP.

> "Now one thing I will discuss with patients [is] do not let any of your friends and family know that you are on this medication, because they will steal their medications." (Focus Group 1)
>
> "They will break into your house and take it, or they will steal your purse if they know you have it." (Focus Group 4)

When asked about what pharmacists do when they encounter a patient who they suspect of experiencing an opioid dependency or at risk for one, participants exhibited an overall lack of awareness regarding referral services. As a result, they often resort to other methods to get their patient the help they need.

> "Sometimes … I try to find something close by them or get them hooked up with a doctor somewhere so they can get treated... We look-thank God for the internet." (Focus Group 1)
>
> "I didn't do a referral. When I kicked a prescription, I called the doctor[s] and let them [doctors] know I'm not filling that prescription and tell him or her how the patient is acting. I leave it up to the doctor after that." (Focus Group 3)

Inconsistent use of the PDMP

When participants were asked what they consider to be signs of misuse, the conversation turned to the usage of PDMPs. Respondents did confirm the PDMP to be a helpful tool in their decision-making process when suspecting misuse. However, they also revealed that they were inconsistent in which patients they reviewed. Familiarity or rapport with the patient was associated with usage of the PDMP, as was the level of knowledge a patient had regarding their medication, clinical indication, and the pharmacy. The PDMP in Texas is called the Prescription Monitoring Program (PMP).

> "Well, it would have to-I would have to see-really what helps me to make my decision is what I looked at and find in PMP. And basically, I had a gentleman and I didn't fill his prescription because I really thought first of all, there's no way you're taking all these, and who in the world is giving you-this has got to be a trap from the state board." (Focus Group 2)
>
> "Well, I have people who get it every month, and so I don't check those, but even if they get regular whatever medication and this is the first time they brought in an opioid, we check. And if they've never been there, of course we check." (Focus Group 5)

Pharmacists' desired training/assistance

The final point of discussion for each focus group was their preferences for further training. The moderator outlined two training components – knowledge on controlled substance medications or training on communication skills – and asked who would be interested in one or both options for training. The participants had mixed responses overall. Those that were interested in training were asked to further elaborate on what the training should consist of and how they would prefer the training to be administered. Those that were not interested claimed that outside

training would not be beneficial because the only effective way for new pharmacists to learn would be to gain experience on the job.

> "We already know that stuff. All that stuff that you just said, we already know or have incorporated into our day already." (Focus Group 2)

The most common training components asked for were information on new and existing medications, potential signs of misuse, and assistance in communication with patients.

> "[Someone] was saying it's obvious when someone was abusing, for me it's actually not that obvious. I have to use the red flags." (Focus Group 1)

> "… I want something that's geared toward me, community pharmacy, and – 'Hey, look. These are the common new cocktails. This is what you can do for this.' Because my knowledge on Suboxone and Methadone, I'm embarrassed, but it's lacking." (Focus Group 5)

Participants that did not want training expressed a desire for more involvement or changes in practice from other health care stakeholders to alleviate the burden on them.

> "I think the other thing is the insurance companies. They should require the patients themselves, to have [to watch] a video, about what they have prescribed for them. It [the video] talks about the opioid crisis maybe in general and not so much as counseling, it just talks about what this medication can actually do if taken in the wrong way. Just kind of give them a heads up. So when we [pharmacists] do approach them, they're more comfortable with [having] the conversation with their pharmacist." (Focus Group 3)

When asked for their preferred modality to receive training, participants' answers varied, with no general consensus for any singular training modality. However, participants did bring up the helpfulness of a tangible resource when counseling.

> "I remember when I was at Walgreens, they did a sheet and I read it once, and it was pretty decent. It was step by step, [of] what to do, how to approach the patient, [and] what to say. It was really good. It told you even how to say I'm not comfortable filling this prescription. So one sheet like that you read over it would be fine." (Focus Group 1)

DISCUSSION

From this study, the most pervasive theme was the discordance between the pharmacists' self-reported confidence in their ability to counsel and the counseling practices they exhibited. Participants reported that they counseled on 80% or greater of all new prescriptions and that they were very comfortable when counseling on them. A new prescription in Texas is formally defined as "a prescription drug order that has not been dispensed to the patient in the same strength and dosage form by this pharmacy within the last year".[12] In the focus groups, participants debated on what they would consider to be a new prescription. Some claimed that if the patient had never been on the medication before, then it was a new prescription. Others stated that if the patient had been on the medication previously, but the prescription was renewed, then it should be considered a treated as a new prescription. Variability in the definition of a new prescription could potentially create inconsistencies in when pharmacists counsel patients on their medication. For example, a participant that states that they counsel on 80% of new prescriptions may seem as if they are counseling consistently as face value. However, if their definition of a new prescription is much narrower than the legal definition, they may not be counseling as frequently as they're expected to.

In the case of counseling a patient with an opioid prescription, participants reported even higher percentages (>90%) for when they counsel, and that they were equally or more comfortable counseling on an opioid prescription as they were with any new prescription. However, further discussion elicited beliefs contradictory to comfort with patients filling an opioid medication. When discussing barriers to counseling, participants cited structural issues such as time constraints, language barriers, and in the context of opioids, pharmacist safety. The last concern led to some pharmacists feeling that "If they're abusing, I don't want them to come back" (Focus Group 4). Their fears were not completely unfounded, since many of the participants knew pharmacists who had faced potentially threatening situations when interacting with a patient filling a CSP. Negative behavioral beliefs among pharmacists towards engaging patients suspected of misusing CSPs has been well-documented.[20] It is also important to note that patients with OUD have expressed fear of judgement or retaliation while they attempt to seek treatment or recovery options through community pharmacies.[23] The participants in the focus group discussions also mentioned their hesitance to pull aside a patient with an opioid prescription for counseling for fear of being perceived as accusatory.

When asked what could be done to alleviate this burden on them, many of them cited more involvement from other health care stakeholders. One participant suggested that the situation would improve, "If they would put the doctors on the front line with us" (Focus group 1). The factors mentioned above could be attributed to a general lack of sufficient structural and organizational support, thereby hindering pharmacists from fulfilling their roles as advocates for the health of the communities they serve. However, it is also important to recognize that even if these hindrances were addressed, there are still individual-level factors that prevent pharmacists from delivering comprehensive counseling.

When the moderator asked what the participants counseled on once they decide to do so, participants exhibited an overemphasis on the clinical factors. Very few participants brought up storage and disposal on their own. According to the TSBP, counseling a patient on a

medication should include safe usage, storage, and disposal of the medication.[12] If the medication is a controlled substance, then the pharmacist should also discuss the potential for diversion, the risk for misuse, and potential referral services the patient could go to for more information or help.[12] Time constraints have been cited as the most common control belief preventing them from counseling, and could be the primary reason why pharmacists are unable to cover all of the components of counseling with each patient.[20] However, it is also possible that pharmacists may not have a clear knowledge base regarding what options are available to discuss with patients. This possibility came to light when discussing safe disposal and referral options. As seen in the results, the moderator asked the participants if they were aware of drug deactivation devices, such as Deterra® or DisposeRx®. Most participants in the focus groups were unaware of them, in line with previous research.[24]

Another individual-level factor that lead to a lack of comprehensive counseling was the inconsistency with which the pharmacists used the PDMP. PDMPs are state-maintained electronic databases that track controlled prescription medication fill history. They can be important tools when looking for signs of misuse, but their potential is squandered when not used consistently, or if the reasoning behind reviewing patients is arbitrary.

Familiarity and rapport with the patient can be beneficial when a patient is suffering from OUD and the pharmacist feels comfortable enough to have a conversation with that patient. However, this relationship seems to hinder the pharmacist's judgment when it comes to reviewing them in the PDMP. One pharmacist claimed that they would not check the PDMP for a patient they see on a regular basis. On the other hand, a lack of familiarity and rapport with a patient seems to encourage pharmacists to ask more questions from the patient. At the surface level, this seems to be a better practice than being lenient on patients they are familiar with; however, this may also be a detrimental practice. While patient knowledge of their disease state was an indicator of legitimate use for some pharmacists, other pharmacists indicated that a patient that knew too much about the medication was probably misusing. Familiarity or rapport with the patient seems to reduce stigma for patients attempting to receive treatment, but it should not be the primary consideration in a pharmacist's decision to dispense a medication.

Pharmacists also described that they feel as if they've been on the "front lines" of the opioid epidemic. There is merit to this assertion since pharmacists are responsible for deciding whether to fill and dispense any prescription.[23,25] While physicians often have the hospital, nurses, and other physicians working in close proximity to them, community pharmacists are more isolated. Even those who use the PDMP don't always have the same information that the prescribing physician does (e.g., diagnosis, source of pain). In this situation, the pharmacist can contact that physician, but this approach has mixed results, due to difficulty getting in contact with the prescriber.

In the final part of the focus group discussions, participants were asked what kind of training they would benefit from. Respondents outlined a need for involvement from other health care stakeholders. They specifically named insurance companies, physicians, and their employers as entities that need to be more involved in efforts to ameliorate the opioid crisis. Improved communication between pharmacists and other stakeholders can alleviate the burden on pharmacists. The disconnect between pharmacists and physicians cause pharmacists to make decisions about the patient care while lacking important health information.[27] Access to the PDMP has reduced this issue, but in order to resolve it, there needs to be a better flow of information between the pharmacist and physician. One possible solution to this is to consider the idea of increased Electronic Health Record (EHR) interoperability to include PDMP databases, so that pharmacists have access to the same clinical information that physicians are privy to. More importantly, this integration would also lessen the chasm between physicians and pharmacists and unite them in their efforts to address the opioid epidemic.

In concordance with previous studies, community pharmacists feel that the TSBP and the supervisors directly overseeing them have a great deal of influence over their daily practices within the pharmacy.[29] Given this, offering training as a requirement from the TSBP or their employer may be the best way to ensure all pharmacists are trained properly on how to counsel on controlled substance prescriptions. Another possible setting for intervention, especially with student pharmacists, would be to implement change to the curriculum for the gaps identified. To comply with the opinion that on the job training would be the most effective modality, the training should consist of a series of simulations. These simulations should emulate real-world situations that pharmacists could face.

Limitations

Participation in this study was limited to community pharmacists in a large metropolitan area in the southern United States, which may introduce selection bias. The majority of participants in this study self-reported 10+ years of experience, so it is possible that some of the pharmacy practice information shared by these participants may not align with the current best practice recommendations. Limited demographic information was collected, which may limit the ability to interpret findings. Furthermore, participants in this study were not asked to recall information over a certain period of time, so this can lead to recall bias due to participants not remembering accurately or omitting details. Lastly, some participants in this study proved to be more vocal and willing to share their opinions, so social desirability may have suppressed some opposing viewpoints.

CONCLUSIONS

This study furthers our understanding of the pharmacist-patient interaction, thereby allowing us to identify gaps in current practices. To improve this relationship, training interventions need to be designed to allow for more comprehensive counseling on prescription medications. The training interventions should be geared towards offering services that address language barriers, training pharmacists on how to more effectively engage patients in need of counseling and increasing pharmacy support staff

in order to increase the availability of the pharmacist to patients.

While this study has provided valuable insight into an ongoing issue, there is still further need for research in key areas: (1) identifying the most effective forms of educational interventions to address the overall lack of awareness pharmacists exhibited in comprehensive counseling practices; (2) specific gaps in communication between the pharmacist and prescriber need to be identified and a better mode of information transfer needs to be designed, potentially through EHR interoperability.

CONFLICT OF INTEREST

No authors reported a conflict of interest.

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