Pain Medicine 2018; 19: 2201–2211
doi: 10.1093/pm/pnx276

OXFORD

Original Research Article

"Those Conversations in My Experience Don't Go Well": A Qualitative Study of Primary Care Provider Experiences Tapering Long-term Opioid Medications

Laura C. Kennedy, MD,* Ingrid A. Binswanger, MD, MPH,*,† Shane R. Mueller, MSW,*,†,‡ Cari Levy, MD, PhD,§,¶ Daniel D. Matlock, MD, MPH,‖,‖‖ Susan L. Calcaterra, MD, MPH,*, Stephen Koester, PhD,‡,†† and Joseph W. Frank, MD, MPH*,§**

*Divisions of General Internal Medicine, ¶Health Care Policy and Research, and ‖Geriatrics, University of Colorado School of Medicine, Aurora, Colorado; †Institute for Health Research, Kaiser Permanente Colorado, Denver, Colorado; ‡Departments of Health and Behavioral Sciences and ††Anthropology, University of Colorado Denver, Denver, Colorado; §VA Eastern Colorado Health Care System, Denver, Colorado; ‖‖Adult and Child Center for Outcomes Research and Delivery Science (ACCORDS), University of Colorado, Aurora, Colorado; **Denver Health Medical Center, Denver, Colorado, USA

Correspondence to: Laura C. Kennedy, MD, 12631 East 17th Avenue, Mailstop B180, Aurora, CO 80045, USA. Tel: 303-724-7909; Fax: 303-724-2270; E-mail: laura.kennedy@ucdenver.edu.

Funding sources: This study was supported by the University of Colorado School of Medicine Division of General Internal Medicine Small Grants Program, which was not involved in the design, conduct, or reporting of the study, or in the decision to submit the manuscript for publication. Dr. Frank was supported by the US Department of Veterans Affairs (Health Services Research & Development Career Development Award IK2HX001914). Dr. Binswanger was supported by the National Institute on Drug Abuse of the National Institutes of Health under Award Number R34DA035952. The content is solely the responsibility of the authors and does not necessarily represent the official views of the US Department of Veterans Affairs or National Institutes of Health.

Conflicts of interest: The authors declare that they have no conflicts of interest.

Prior presentations: Prior versions of this study were presented at the University of Colorado Department of Medicine Research Day on October 23, 2015, at the University of Colorado Palliative Care Days on November 8, 2016, and at the Society of General Internal Medicine Meeting on April 21, 2017.

Abstract

Objective. Given the risks of long-term opioid therapy, patients may benefit from tapering these medications. There is little evidence to guide providers' approach to this process. We explored primary care providers' experiences discussing and implementing opioid tapering with patients on long-term opioid therapy.

Design. Qualitative study using six semistructured, in-person focus groups.

Subjects. Primary care providers (N = 40).

Setting. Six academically affiliated primary care clinics in university, urban safety net, and Veterans Health Administration medical centers in Colorado.

Methods. Focus groups were audio-recorded, transcribed, and analyzed using a mixed inductive-deductive approach in ATLAS.ti. Emergent themes were identified through an iterative, multidisciplinary team-based process.

Results. We identified 1) strategies for identifying candidates for opioid tapering, 2) barriers to opioid tapering, and 3) facilitators of opioid tapering.

Strategies for identifying candidates for opioid tapering included evidence of high-risk behavior, serious adverse events, opioid-related side effects, and patient preference. Barriers included the providers' emotional burden, inadequate resources, and a lack of trust between patient and provider. Facilitators of opioid tapering included empathizing with the patient's experience, preparing patients for opioid tapering, individualizing implementation of opioid tapering, and supportive guidelines and policies.

Conclusions. While discussing and implementing opioid tapering present significant challenges, primary care providers described key facilitators. These findings suggest a need to develop and test the effectiveness of resources to support patient-centered opioid tapering and locally developed policies to support and standardize providers' approaches to opioid prescribing.

Key Words. Chronic Pain; Opioids; Narcotics; Primary Care

Introduction

Up to 100 million US adults are affected by chronic pain, and 3–4% of US adults report long-term use of opioid medications despite inadequate evidence of long-term benefit [1–3]. Opioid prescribing increased dramatically in recent decades, and the harms of opioid use increased proportionately [4,5]. Drug overdose is now the leading cause of accidental death, with 52,400 deaths in 2015, 63% of which involved an opioid medication [6]. Patients on high-dose opioid therapy are at greatest risk for important adverse events such as overdose, incident opioid use disorder, and motor vehicle accidents [7–9].

In 2016, the Centers for Disease Control and Prevention (CDC) issued guidelines for prescribing opioids for chronic pain, advising dose reduction or discontinuation when risks exceed benefits [10]. More recently, guidelines from the Departments of Veterans Affairs and Defense (VA/DoD) recommended that all patients on opioid doses greater than 90 mg morphine equivalent daily dose be evaluated for opioid dose reduction [11]. These VA/DoD guidelines note that the risks and benefits of opioid therapy should be evaluated along with the risks and benefits of tapering opioid therapy. However, there is inadequate evidence to guide providers' assessments of these benefits and risks [12]. Potential benefits of opioid tapering include improved pain, function, and quality of life. The effect of opioid tapering on risk of overdose or other serious adverse events is not known. Additional risks of opioid tapering include opioid withdrawal, illicit substance use, mental health crisis or suicidality, and loss to follow-up [13,14]. In this context, decision-making and communication around opioid tapering may be challenging for providers.

Prior qualitative research has explored barriers to patient-centered management of long-term opioid therapy [15–17] in general, and to opioid tapering in particular. In prior work by this team, patients reported barriers to opioid tapering such as pessimism about nonopioid treatments for pain and fear of opioid withdrawal [18]. Another recent qualitative study of patients and providers in a safety net hospital system concluded that effective communication around opioid tapering required individualizing care and assuring patients that providers would not abandon them [19]. Given the limited data examining provider perspectives on these conversations, we therefore sought to explore the primary care providers' experiences with discussing and implementing opioid dose reduction (tapering) with patients on long-term opioid therapy.

Methods

Study Design

We conducted semistructured, in-person, audio-recorded focus groups with primary care providers with experience in prescribing and monitoring long-term opioid medications. A qualitative approach was chosen to allow for deep exploration of themes and experiences that arise when addressing this issue in clinical practice. A focus group approach was chosen to allow for discussion of complex behaviors and motivations [20]. We specifically explored providers' experiences with discussing and implementing opioid tapering with patients on long-term opioid therapy for chronic pain. The study was approved by the Colorado Multiple Institutional Review Board at the University of Colorado. All participants gave written informed consent.

Participants and Setting

Participants were primary care providers (PCPs), including physicians, physician assistants, nurse practitioners, nurses, and a clinical pharmacist with experience prescribing or monitoring long-term opioid therapy to patients with chronic pain. Practice settings were all academically affiliated clinics in Colorado, including clinics in 1) a large academic medical center, 2) an urban safety net medical center, and 3) a Veterans Health Administration medical center. Providers at the participating sites were invited by email announcements, and focus groups were scheduled during existing protected time to facilitate attendance. Lunch or a snack was provided as an incentive for participation. Between February and July 2015, we conducted six focus groups in six different clinics, two in each practice setting.

Data Collection

The interview guide was developed by a multidisciplinary team consisting of a primary care physician, an addiction medicine physician, two palliative care physicians, and a medical anthropologist (see the sample questions in the Appendix A). Guided by the goal of eliciting

diverse provider experiences, the interview guide was built around broad, open-ended questions, with probes to be used if relevant responses were not provoked. We included clinically relevant concepts based on the research team's clinical and research expertise, the *Health Belief Model* (barriers and facilitators, perceived benefits), and the *Transtheoretical Model* (contemplation and preparation) [21,22].

Focus groups were led by two experienced qualitative interviewers, one primary care physician whose experience in managing long-term opioid medications gave him credibility and insight as a moderator for this topic (JWF) and one research assistant with qualitative research experience. Focus groups were in-person, involving a total of 40 participants (range = 5–8 per group) and were approximately 45 minutes long. Interviews were digitally recorded, professionally transcribed, and imported into ATLAS.ti Version 7 for coding (ATLAS.ti, GmbH, Berlin, Germany). Participants also completed a short questionnaire to provide information about demographics and professional background.

Qualitative Analysis

Initial analysis was conducted in a mixed inductive-deductive manner [23]. An inductive, or "bottom-up," approach was used to allow unanticipated themes to develop. A deductive, or "top-down," approach was used to interpret data in the context of a priori clinical concepts and conceptual frameworks. Three authors independently completed open coding of all six focus group transcripts (LCK, JWF, SRM) to develop the initial codebook [24]. Refinement of the coding was completed in an iterative, multidisciplinary, team-based approach to ensure validity and completeness [25]. Disagreements about coding were resolved through discussion between the primary coders. We then conducted axial coding to identify relationships between open codes and to identify emergent themes. The data were coded both for manifest surface meaning (explicit content; i.e., providers explicitly identified strategies for tapering) and latent content meaning (implicit meaning; i.e., providers described experiences that facilitated tapering) [26]. Disconfirming cases were specifically sought to incorporate a broad range of experiences.

Results

Forty primary care providers from three health care settings participated in six focus groups. More than half (53%) were male, most (70%) were non-Hispanic white, and the majority (85%) were physicians (Table 1). We identified emergent themes in three domains informed by our conceptual models: 1) strategies for identifying candidates for opioid tapering, 2) barriers to opioid tapering, and 3) facilitators of opioid tapering (Table 2).

Table 1 Characteristics of participants (N = 40)

Age, mean (SD), y	44 (10)
Male gender, No. (%)	21 (53)
Race/ethnicity, No. (%)	
Non-Hispanic white	28 (70)
Non-Hispanic black	1 (3)
Hispanic	4 (10)
Other	7 (18)
Training, No. (%)	
Physician	34 (85)
PA/NP	3 (8)
Other	3 (8)
Years since degree, mean (SD)	16 (10)
Clinic location, No. (%)	
University Health System	14 (35)
Safety Net Health System	11 (28)
Veterans Health Administration System	15 (38)

PA/NP = physician assistant/nurse practitioner.

Strategies for Identifying Candidates for Opioid Tapering

Providers identified four approaches to identifying candidates for opioid tapering: 1) evidence of high-risk behavior, 2) serious adverse events or other crises, 3) opioid-related side effects, and 4) patient preference. All strategies were noted to be successful infrequently, as providers described patient reluctance to taper as the most common occurrence.

Evidence of High-Risk Behavior

Providers described regularly using monitoring strategies such as urine drug testing or Prescription Drug Monitoring Program review. There was consensus that evidence of high-risk behavior such as concurrent illicit substance use should prompt opioid tapering. Providers described these decisions as relatively "easy" but less likely to be collaborative with patients.

> Someone needs to come off because of dual dipping or maybe they came up with a positive [urine drug screen] or something like that, so those are the somewhat easy ones [to taper].
>
> - VA #1

> You find out on the [Prescription Drug Monitoring Program] that the person is getting stuff from other people. That's a very easy taper 'cause you just say, "You're done."
>
> - VA #1

> With the people that come back with their third cocaine-positive UA, I'll give you some clonidine and

Table 2 Themes and potential implications for opioid tapering in primary care settings

Themes	Potential Implications for Providers
Strategies for identifying candidates for opioid tapering	
Evidence of high-risk behavior	• Develop patient-centered educational resources on opioid-related risks
Serious adverse events or other crises	• Assess psychosocial factors such as family support and employment
Opioid-related side effects	• Discuss importance of specific side effects and emphasize goals of improved quality of life
Patient preference	• Implement routine screening for patients' readiness to taper opioids
Barriers to opioid tapering	
Emotional burden on providers	• Implement evidence-based interventions to prevent and reduce provider burnout [27]
Inadequate training, time, and resources	• Develop models for team-based primary care during opioid tapering
Lack of trust between patient and provider	• Standardize collection of patient-reported outcome data during long-term opioid therapy
Facilitators of opioid tapering	
Empathizing with patient's experience	• Acknowledge patients' pain experience and express empathy
Preparing patients for opioid tapering	• Incorporate discussion of opioid tapering planning into routine opioid monitoring
Individualize implementation of opioid tapering	• Tailor details of taper timing with patient
Supportive guidelines and policies	• Engage providers to create or update local policies

[hydroxyzine], but you're going to probably have withdrawal symptoms. That's not going to be pleasant.

- Safety net #1

Serious Adverse Events or Other Crises

Providers additionally identified serious adverse events or crises as opportunities to assert a more urgent indication to taper opioid therapy. They described such events as indicators of elevated risk associated with opioid medications but also potential motivators for patients to "re-evaluate" opioid therapy. They reported that patients seemed relatively receptive to a discussion of tapering in these instances.

My biggest success [with tapering opioids has been] when they get into trouble, like somebody gets an ileus or something and then I can be like, "Look, see what happened."

- University #1

I can probably count on one hand the number of patients that have come to my office in 20 years and said, "Hey, I really want to cut down the dose." Almost inevitably when I run into this, it's precipitated by some sort of a crisis. Either a medical crisis like the guy's testosterone is 50 and he's having hot flashes and growing breasts or admission to the hospital with altered mental status.

- VA #1

They are arrested. They have troubles getting their meds in jail. That's one that I can remember. Wife leaves you, dog dies, whatever. You know, it's those kind of things that cause people, even the most hardened ones, to re-evaluate things.

- VA #2

Opioid-Related Side Effects

Providers described the importance of discussing their patients' experiences with opioid-related side effects and sought to understand which side effects were most important to patients. They noted that discussions of relevant, unpleasant side effects were more engaging for patients than descriptions of risk of more serious, less common events such as overdose. Low testosterone was specifically noted in two focus groups as a motivating factor for men who previously had been resistant to tapering.

I've had it hit home two times, but one guy.... We were able to track his dose and track his actual testosterone number and watch the inverse relationship, and that was sort of the best example I have of that, and he was like, "Wow, you mean I'll have more testosterone if we go down on the medication," and I'm like, "Yeah, actually, I think you will."

- Safety net #2

Well, it's easier to talk about stuff like erectile dysfunction and no testosterone because that is a

> more direct thing than, let's say, the overdose issue, which is going to be rare for any individual patient.
>
> - VA #1

> They appreciate the negative side effects of something bad, so it's not something that's abstract. I see that there's a risk here according to my studies that you might be in trouble or you might get into trouble at these doses. That doesn't really motivate people, but I think if they are with you or are already there ahead of you, and [they] say, "This is doing something bad to me and I don't like it"…that's what makes it go well, that they appreciate the negative.
>
> - University #1

> We'll talk about confusion, loss of memory, lack of focus as well…. Your memory might not be as good, and your focus might not be good. [They respond,] "Oh, well I can't have that. I need to be sharp."
>
> - University #2

Despite occasional successful conversations about side effects, providers noted that many patients who suffer from side effects do not attribute them to their opioid medications.

> A lot of times when I bring up side effects of opiates for patient[s] that are already on it, they say, "Well, I don't have that side effect"
>
> or "I have it, but it's from something else."
>
> - Safety net #1

Patient Preference

Finally, providers described experiences with patients who requested to taper and/or discontinue opioid therapy. Most providers, however, perceived this to be uncommon. There was disagreement among providers on the effectiveness of their prior efforts to motivate patients to consider opioid tapering.

> I don't have too many patients who'd like to come off opioid therapy. So I think the first thing you need to have is the patient has to be receptive to the idea. If you don't have that as a baseline, I don't think there's anything you can say where they will be willing to do it.
>
> - VA #2

> I tell all my chronic pain patients [opioids] don't work. "They don't work well, you know. I'd like to help you get off them." You know what? They don't hear it the first time, the third time, the fifth time, but maybe two years down the road, you know, they come in and say, "Hey, you know what? Let's take a shot at this."
>
> - VA #1

Providers noted that patients to whom family is highly important or who expressed concern about taking medications were more likely to be receptive to a discussion about tapering opioids. One provider described an experience with a patient who was on high-dose opioid medications who was initially reluctant to decrease her dose. Reflecting on the patient's decision to taper, the provider noted:

> Well, she has a partner who has a lot of medical problems herself and is going to need more care-and she didn't feel like she was able to do that with the amount of pain medication that she was on. She felt scared that she was on too much and something bad might happen, and she felt she needed to care for her partner.
>
> - Safety net #1

Barriers to Opioid Tapering

Provider-identified barriers are represented in three themes: 1) emotional burden on providers, 2) inadequate time, resources, and training in pain management, and 3) lack of trust in patient-provider relationship.

Emotional Burden on Providers

Providers described discussions of opioid tapering as emotionally charged and exhausting for them. Some worried that the challenging nature of these conversations would lead providers to postpone discussing or initiating an opioid taper.

> You see the person on your schedule and you know it's going to be…one of those just draining conversations.
>
> - Safety net #2

> If I try to taper someone over the phone, or they call in for the refill…it's so much easier to just continue on…. I'm writing the same dose, and I'm moving this on because I don't want to deal with this difficult conversation on the phone.
>
> - Safety net #2

Some providers reported feeling threatened by patients who were angry about providers' recommendations on opioid dosing. In response to the moderator's question probing how patients respond when a provider recommends tapering, members of one focus group responded saying:

> Then I want another doctor.
> Angry.
> Angry.
> Threatening.
>
> - VA #2

Providers described struggling with the potential conflict between their efforts to prescribe opioid medications safely and to keep their patients satisfied with their care.

> It's very hard to sit in front of a patient who identifies a medicine, an opiate, as being helpful and tell them, "I care about you. I don't want you to be in pain, and also I think that these medicines are wrong for you." I want my patients to be happy also. I don't want to kill them, but I also really want them to be happy.
>
> - Safety net #1

> There's all these studies coming out showing the inverse relationship between patient satisfaction that's correlated with opiates and actually more comorbidities and hospitalizations. So actually the happier patients are with their care, the less likely it is that they're getting good care.
>
> - VA #2

Inadequate Time, Resources, and Training

Providers described multiple logistical barriers to implementing opioid tapering in primary care, including inadequate training and resources to support opioid tapering and nonopioid chronic pain management. Lack of time during a typical clinic visit was frequently noted as a barrier to discussing tapering.

> [Tapering] is never the only conversation I'm having with a patient in that room, and patients never come to discuss that, so to sneak that into a visit where they might have three or four other agenda items, and pain is perhaps not one of those, can be quite difficult.
>
> - Safety net #1

> A major issue that hasn't been brought up is time and resources. And there's no way you can consistently put 20 pounds of potatoes in a five-pound bag and, you know.... I think everyone around the table is very conscientious, very aware of the risks. It's a matter of resources, time, that is not allocated, and that's the nature of medicine today, and it's the nature of primary care.
>
> - VA #2

Providers at both the VA and the safety net hospital noted that inadequate access to alternative treatments for pain limited their ability to taper opioid medications. This topic was not identified as a barrier in the focus groups conducted at the academic medical center.

> We've pretty much tried everything by the time they're on chronic narcotics.... That's an incredibly difficult one because most of the time, I don't have anything else to offer people, especially at [a safety net hospital] where we don't have behavioral therapy and other things...that other places may have.
>
> - Safety net #2

Finally, many providers noted inadequate training in the management of complex chronic pain.

> I've basically sought out my own training because it was not something that was taught to me in medical school or residency.
>
> - VA #2

Lack of Trust Between Patient and Provider

Providers described a lack of trust as a barrier in two distinct ways. First, providers noted a concern that their patients may not fully share pain-related symptoms and opioid-related side effects, limiting providers' ability to accurately assess risk and benefit. Second, providers described potential negative effects of opioid tapering on the patient-provider relationship going forward, especially when implementing opioid tapering without a patient's agreement.

> I think the biggest fear everyone has that comes in is, "You're not going to take me off my medication, are you?" And so I think that...people [are] trying to figure out how to answer the questions so that they're not going to be taken off their medicine 'cause the majority of people find it beneficial and are in fear constantly that they're going to do something that's going to screw them up.
>
> -Safety net #1

> I kind of want them to have some buy in. It doesn't obviously always work. [Patients are] hopefully trying to be part of the decision instead of me just saying "No, I'm not giving you these." That just creates bad relationships going forward for other types of treatment.
>
> -Safety net #2

> One of the problems with tapering people here is that if they decide that they don't want to be tapered, then they ask for a change of physician. I've had a number of patients who have been transferred to me for that very reason.
>
> - VA #2

Although some providers describe efforts to minimize the risk of damaging the patient-provider relationship when addressing opioid tapering, others endorsed a different approach, an ultimatum.

> These are the reasons I'm not comfortable [prescribing opioids] and, you know, I'm never going to be comfortable with this for you. So our choices are to find something that we can both agree on or for you to look for another doctor.
>
> - Safety net #2

Providers noted that this lack of trust was most pronounced among "inherited" or "legacy" patients, who had been initiated on long-term opioid therapy by a prior provider.

> It's much harder in those inherited [patients], or maybe I am at fault from years ago. Now let's have a new conversation about risks and benefits, and they'll say, "Well, why would you challenge it now? I've been doing it for so long. What's the point? Don't change anything. Are you going to take this away from me?"
>
> - University #2

> For the patients for whom it's already been long term, they have I guess their own personal experience and you're not the accepted guide anymore…. "I've been taking these for 10 years, and I still am here. I've never had an overdose. It's perfectly safe for me."
>
> - University #1

Facilitators of Tapering

In addition to barriers, providers described strategies that facilitated opioid tapering, which are represented in four themes: 1) empathizing with patient's experience, 2) preparing patients for opioid tapering, 3) individualizing implementation of opioid tapering, and 4) supportive guidelines and policies.

Empathizing with Patient's Experience

Providers emphasized the essential role of acknowledging patients' experience with chronic pain and expressing empathy during these discussions. They also described the importance of pairing an expression of concern for a patient's pain with concern for their safety.

> It has to do with, like, a true expression of compassion for their pain…. Those are the kinds of conversations I've had, like, "Listen, I understand. I understand you're suffering. I understand you're in pain. I get it. However, I'm hurting you, and I don't feel good that I'm hurting you."
>
> - University #1

> The idea is that you would first [use] reflective listening. "So what you're telling me is you need twice as many Percocet as usual because of X, Y, Z. I hear you. On the other hand, my training in chronic pain is that this is a very high-risk thing to do, and I am uncomfortable with that high of a dose."
>
> - University #2

Preparing Patients for Opioid Tapering

Providers noted the importance of preparing patients both for an upcoming discussion of opioid tapering and for the implementation of an opioid taper. Being consistent across multiple visits was also described as helpful.

> Preparing [the patient], like this visit we're going to talk about coming down so that it's almost like a quit date, because I think pulling it out of the blue doesn't go well.
>
> - University #1

> Each time I saw him, I would tell him whether I kept the dose the same or decreased it, the goal is that by this time, you're going to be off narcotics, you know, like very consistent messaging that this is not going to be a forever thing. It did drag on for quite a while, but you know, he wasn't surprised that way when I said, "No, I'm not giving you 100 this month. I'm giving you 75." And he didn't argue with me or seem to resent it.
>
> - Safety net #1

Individualizing Implementation of Opioid Tapering

Providers sought to tailor the timing and speed of the opioid tapering plan and to counsel patients on the potential for increased pain and opioid withdrawal symptoms during dose reduction.

> We're not going to do this on the Monday when you're starting a new job. We're not going to do this on, you know, the first day you're competing in the Olympics, you know. I try to set them up for success by having any kind of taper start on a time when they might have some down time.
>
> - VA #1

> I don't usually stop anyone cold turkey, so then I'll say, "When we taper, you'll feel a little bit of [opioid withdrawal symptoms] with each dose reduction, but it's temporary." I try to say the word temporary as many times as I can so they know hopefully when they go home and they're experiencing that: "Oh, the doc said this is temporary. I can suffer this a couple more days."
>
> - VA #1

Providers also noted that tapering slowly and using other team members such as pharmacists could help achieve a successful taper.

> My plan is to do 10 pills a month over, you know, six months. You're on 60 a month or whatever it may be, and then try and wean you off over six months.
>
> - Safety net #2

> Our PharmDs help us with the dose titration. They'll help with that.
>
> - Safety net #1

Supportive Guidelines and Policies

In potential contrast to the facilitators above that supported individualized opioid tapering, providers also acknowledged the supportive role of local policies and expert guidelines that they applied universally to all patients on long-term opioid therapy.

> The triggering point of the discussion was that new change in policy establishing a new ceiling dose of opiates. So, it's out of my hands. Let's work within the framework of where I want to get you on a new and safer dose, and then some patients have picked that up and run with it. Some patients have fought with it, but still the escalator has gone down in all instances.
>
> - Safety net #1

> We do have a contract, and it's really spelled out what we're supposed to be doing. I just give them the contract and I say, "Whether I agree with it or not, it's something that I have to follow, and so the patient has to follow as well. It is not how comfortable I feel with it. It's what these guidelines say I have to do.
>
> - VA #2

Discussion

In this qualitative study, we explored primary care providers' experiences with tapering long-term opioid therapy in primary care settings and identified emergent themes from these focus group discussions. Providers described strategies for identifying candidates for tapering that involved monitoring of opioid-related risk, adverse events, side effects, and patient goals. They described important barriers to and facilitators of opioid tapering in primary care. These findings have implications for how primary care providers discuss and implement opioid tapering and how primary care settings can better support both providers and patients during this challenging process (Table 2).

In their descriptions of strategies to identify candidates for opioid tapering, providers noted conflict between shared decision-making and unilateral decision-making, which differed substantially across these four strategies. Providers endorsed a goal of shared decision-making to support informed, collaborative decisions, a goal shared by patients with chronic pain [28–30]. They acknowledged, however, that this was not a realistic goal in some situations. This conflict may contribute to each of the barriers identified in this study. Inadequate time has previously been identified as a barrier to patient-centered pain and opioid management, as well as to shared decision-making generally [31,32]. Providers also described these discussions as uniquely emotionally demanding; some reported actually feeling threatened by patients. This concern is difficult to dismiss in the face of research that shows that half of chronic pain care providers have received threats from patients [33], as well as coverage of the murder of a physician in Indiana, reportedly related to a refusal to prescribe opioid medications [34]. In this open-ended study of primary care providers, this emerged as a theme that warrants additional research, as primary care providers prescribe the majority of opioid medications in this country [35].

In the context of increasing scrutiny on opioid prescribing, these difficult conversations will likely become more common in the years ahead. Our findings suggest that it will be important to monitor the effects of these changes on the provider workforce charged with implementing opioid tapering. More than half of US physicians report at least one symptom of professional burnout [36]. Rates of burnout are highest among primary care providers, who will likely be responsible for a large share of opioid tapering. Provider burnout is associated with increased provider workload and inadequately staffed teams, another barrier noted in this study [37]. Burnout negatively impacts providers but also has adverse effects on the quality and safety of care provided to patients [38]. Prospective studies are needed to measure the effects, both for primary care providers and their patients, of ongoing efforts to reduce high-dose opioid therapy.

Despite these barriers, this study identified strategies that may facilitate opioid tapering. These include expressing empathy for patients, consistent messaging about opioid tapering across multiple visits, and individualizing an opioid taper to a patient's unique circumstances. These findings align with those in a recent study of communication about long-term opioid medications, which found that individualized explanations and negotiations around opioid tapering led to more successful communication between patients and providers [19]. Importantly, this strategy of individualizing opioid tapering may conflict with another facilitator identified in this study, supportive guidelines and policies on opioid dosing. While the CDC guideline specifically recommends individualized assessment and taper planning [10], state and federal programs are increasingly

adopting quantity limits on opioid prescribing that may adversely impact providers' ability to individualize care [39–42]. In the context of our study findings, these policies may have both positive and negative effects on primary care providers. While external limits may support provider decision-making in some instances, they may also further strain inadequate resources and negatively impact patient-provider relationships.

A strength of the design of this study was that it facilitated comparison of system-based barriers and facilitators across study sites. Several relevant differences emerged. First, providers at the VA and the safety net hospital identified difficulty obtaining nonopioid pain treatments as a significant barrier to tapering opioid medications. Studies of opioid tapering in the context of multidisciplinary pain care have demonstrated improvements in pain and function. These system-level differences in access to nonopioid treatments may therefore impact the effectiveness of opioid tapering. Second, providers across systems identified an important role of team-based care within primary care. Specifically, clinical pharmacists were available to support opioid tapering in each health system. Though models differed across sites (e.g., colocation, e-consult), some form of pharmacist support was generally perceived as an important resource.

These findings should be considered in the context of study limitations. First, this was a study of the primary care providers' perspectives on tapering of long-term opioid therapy. It is important to recognize that this study should be interpreted in combination with studies exploring the patient perspective [18]. Second, our study population was limited to primary care providers practicing in Colorado, in academically affiliated clinics, so the barriers and strategies identified may not be representative of other clinical settings. It is also notable that our focus groups occurred prior to the 2016 publication of the CDC guideline for prescribing opioids for chronic pain [10]. We believe our findings remain pertinent for primary care providers seeking to individualize these recommendations. Finally, in our focus group methodology, it is possible that select providers served as the dominant voices, silencing opposing opinions and resulting in the appearance of more agreement than actually exists [20,43]. This effect may have been present given the mixed nature of our focus groups, in which nonphysician providers may not have felt comfortable disagreeing with their physician colleagues. To mitigate this potential effect, the moderator specifically sought to engage all participants in conversation.

Further work should evaluate the feasibility and effectiveness of strategies to support patient-centered opioid tapering in primary care settings. Strategies for providers include using empathy and patient-centered language, discussing side effects of opioid medications that are relevant to patients, focusing on building alliances with patients over time, and individualizing taper implementation. Patient-centered educational resources to guide discussions between patients and providers about long-term opioid therapy are needed. Effective primary care–based interventions will likely require team-based models to overcome barriers of inadequate time and expertise among primary care providers. Policy-makers should allocate resources to support such models and to ensure access to a range of effective pain care options, including nonpharmacologic and complementary treatments [44].

Acknowledgments

The authors would like to acknowledge the valuable contributions of all study participants. We would also like to thank Janette Meier for her contribution to recruitment.

References

1 Boudreau D, Von Korff M, Rutter CM, et al. Trends in long-term opioid therapy for chronic non-cancer pain. Pharmacoepidemiol Drug Saf 2009;18(12):1166–75.

2 Chou R, Turner JA, Devine EB, et al. The effectiveness and risks of long-term opioid therapy for chronic pain: A systematic review for a National Institutes of Health Pathways to Prevention Workshop. Ann Intern Med 2015;162(4):276–86.

3 Gaskin DJ, Richard P. The economic costs of pain in the United States. J Pain 2012;13(8):715–24.

4 Paulozzi LJ, Jones CM, Mack KA, Rudd RA. Vital signs: Overdoses of prescription opioid pain relievers—United States, 1999-2008. MMWR Morb Mortal Wkly Rep 2011;60(43):1487–92.

5 Levy B, Paulozzi L, Mack KA, Jones CM. Trends in opioid analgesic-prescribing rates by specialty, U.S., 2007-2012. Am J Prev Med 2015;49(3):409–13.

6 Rudd R, Seth P, David F, Scholl L. Increases in drug and opioid-involved overdose deaths—United States, 2010-2015. MMWR Morb Mortal Wkly Rep 2016;65(50–51):1445–52.

7 Bohnert ASB, Valenstein M, Bair MJ, et al. Association between opioid prescribing patterns and opioid overdose-related deaths. JAMA 2011; 305(13):1315–21.

8 Edlund MJ, Martin BC, Russo JE, et al. The role of opioid prescription in incident opioid abuse and dependence among individuals with chronic noncancer pain: The role of opioid prescription. Clin J Pain 2014;30:557–64.

9 Gomes T, Redelmeier DA, Juurlink DN, et al. Opioid dose and risk of road trauma in Canada:

A population-based study. JAMA Intern Med 2013; 173(3):196–201.

10 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.

11 Department of Veterans Affairs and Department of Defense. VA/DoD clinical practice guideline for opioid therapy for chronic pain. 2017. Available at: https://www.healthquality.va.gov/guidelines/Pain/cot/ (accessed May 2017).

12 Frank JW, Lovejoy TI, Becker WC, et al. Patient outcomes in dose reduction or discontinuation of long-term opioid therapy: A systematic review. Ann Intern Med 2017;167(3):181–91.

13 Berna C, Kulich RJ, Rathmell JP. Tapering long-term opioid therapy in chronic noncancer pain: Evidence and recommendations for everyday practice. Mayo Clin Proc 2015;90(6):828–42.

14 Demidenko MI, Dobscha SK, Morasco BJ, et al. Suicidal ideation and suicidal self-directed violence following clinician-initiated prescription opioid discontinuation among long-term opioid users. Gen Hosp Psychiatry 2017;47:29–35.

15 Krebs EE, Bergman AA, Coffing JM, et al. Barriers to guideline-concordant opioid management in primary care—a qualitative study. J Pain 2014;15(11): 1148–55.

16 Bergman AA, Matthias MS, Coffing JM, Krebs EE. Contrasting tensions between patients and PCPs in chronic pain management: A qualitative study. Pain Med 2013;14(11):1689–97.

17 Matthias MS, Krebs EE, Collins LA, et al. "I'm not abusing or anything": Patient-physician communication about opioid treatment in chronic pain. Patient Educ Couns 2013;93(2):197–202.

18 Frank JW, Levy C, Matlock DD, et al. Patients' perspectives on tapering of chronic opioid therapy: A qualitative study. Pain Med 2016;17(10):1838–47.

19 Matthias MS, Johnson NL, Shields CG, et al. "I'm not gonna pull the rug out from under you": Patient-provider communication about opioid tapering. J Pain In press.

20 Morgan DL, Krueger RA. The Focus Group Guidebook. Focus Group Kit, Volume 1. Thousand Oaks, CA: Sage Publications; 1997.

21 Janz NK, Champion VL, Strecher VJ. The health belief model. In: Glanz K, Rimer BK, Lewis FM, eds. Health Behavior and Health Education: Theory, Research, and Practice, 3rd edition. San Francisco, CA: Jossey-Bass; 2002:45–66.

22 Prochaska JO, Redding CA, Evers KE. The transtheoretical model and stages of change. In: Glanz K, Rimer BK, Lewis FM, eds. Health Behavior and Health Education: Theory, Research, and Practice, 3rd edition. San Francisco, CA: Jossey-Bass; 2002:99–120.

23 Fereday J, Muir-Cochrane E. Demonstrating rigor using thematic analysis: A hybrid approach of inductive and deductive coding and theme development. Int J Qual Methods 2006;5(1):80–92.

24 Glaser B, Strauss A. The Discovery of Grounded Theory: Strategies for Qualitative Research. New Brunswick, NJ: Aldine Transaction; 2012.

25 Shenton A. Strategies for ensuring trustworthiness in qualitative research projects. Educ Inform 2004; 22(2):63–75.

26 Cho J, Lee E-H. Reducing confusion about grounded theory and qualitative content analysis: Similarities and differences. Qual Rep 2014;19:1–20.

27 West CP, Dyrbye LN, Erwin PJ, Shanafelt TD. Interventions to prevent and reduce physician burnout: A systematic review and meta-analysis. Lancet 2016;388(10057):2272–81.

28 Nicolaidis C. Police officer, deal-maker, or health care provider? Moving to a patient-centered framework for chronic opioid management. Pain Med 2011;12(6):890–7.

29 Upshur CC, Bacigalupe G, Luckmann R. "They don't want anything to do with you": Patient views of primary care management of chronic pain. Pain Med 2010;11(12):1791–8.

30 Hawkins E, Malte C, Hagedorn H, et al. Survey of primary care and mental health prescribers' perspectives on reducing opioid and benzodiazepine co-prescribing among veterans. Pain Med 2017; 18:454–67.

31 Binswanger IA, Koester S, Mueller SR, et al. Overdose education and naloxone for patients prescribed opioids in primary care: A qualitative study of primary care staff. J Gen Intern Med 2015; 30(12):1837–44.

32 Légaré F, Ratté S, Gravel K, Graham ID. Barriers and facilitators to implementing shared decision-making in clinical practice: Update of a systematic review of health professionals' perceptions. Patient Educ Couns 2008;73(3):526–35.

33 David K, Anuj D, Nabil S. Violence toward chronic pain care providers: A national survey. Pain Med 2015;16(10):1882–96.

34 Thielking MA. Doctor's murder over an opioid prescription leaves an Indiana city with no easy answers. STAT. August 2017. Available at: https://www.statnews.com/2017/08/08/indiana-doctor-murdered-opioids/ (accessed September 2017).

35 Chen JH, Humphreys K, Shah NH, Lembke A. Distribution of opioids by different types of medicare prescribers. JAMA Intern Med 2016;176(2):259–61.

36 Faber DA, Joshi S, Ebell MH. US residency competitiveness, future salary, and burnout in primary care vs specialty fields. JAMA Intern Med 2016;176 (10):1561–3.

37 Helfrich CD, Simonetti JA, Clinton WL, et al. The association of team-specific workload and staffing with odds of burnout among VA Primary Care Team Members. J Gen Intern Med 2017;32:760–6.

38 Salyers MP, Bonfils KA, Luther L, et al. The relationship between professional burnout and quality and safety in healthcare: A meta-analysis. J Gen Intern Med 2017;32(4):475–82.

39 Centers for Medicare and Medicaid Services. Advance notice of methodological changes for calendar year (CY) 2018 for Medicare Advantage (MA) capitation rates, part C and part D payment policies and 2018 call letter. 2017. Available at: https://www.cms.gov/Medicare/Health-Plans/MedicareAdvtgSpecRateStats/Downloads/Advance2018.pdf (accessed May 2017).

40 Kertesz S. An opioid quality metric based on dose alone? 80 professionals respond to NCQA: Medium. 2017. Available at: https://medium.com/@StefanKertesz/an-opioid-quality-metric-based-on-dose-alone-80-professionals-respond-to-ncqa-6f9fbaa2338 (accessed May 2017).

41 Centers for Medicare and Medicaid Services. 2017 core set of adult health care quality measures for Medicaid (adult core set). 2017. Available at: https://www.medicaid.gov/medicaid/quality-of-care/downloads/2017-adult-core-set.pdf (accessed May 2017).

42 Smith VK, Gifford K, Ellis E, et al. Implementing coverage and payment initiatives: Results from a 50-state Medicaid budget survey for state fiscal years 2016 and 2017: The Henry J. Kaiser Family Foundation and the National Association of Medicaid Directors. 2016. Available at: http://kff.org/medicaid/report/implementing-coverage-and-payment-initiatives-results-from-a-50-state-medicaid-budget-survey-for-state-fiscal-years-2016-and-2017/ (accessed May 2017).

43 Smithson J. Using and analysing focus groups: Limitations and possibilities. Int J Soc Res Method 2000;3(2):103–19.

44 Gellad WF, Good CB, Shulkin DJ. Addressing the opioid epidemic in the United States: Lessons from the Department of Veterans Affairs. JAMA Intern Med 2017;177:611–2.

Appendix A Interview domains and sample questions

Domain	Sample Questions
Health belief model	
Susceptibility/severity	Tell about your approach to assessing opioid-related risk in your patients.
Benefits	How do you approach the potential benefits of opioid tapering with your patients?
Barriers	Describe the barriers to opioid tapering in your current practice setting.
Cues to action	Can you tell us about strategies that you use to identify candidates for opioid tapering?
Transtheoretical model	
Stages of change	How do you discuss your patients' goals related to opioid tapering?
Decisional balance	What information has been most helpful for your patients when discussing the risks and benefits of opioid medications?
Self-efficacy	Can you provide examples of strategies that effectively supported patients during opioid tapering?