



HHS Public Access

Author manuscript

Health Commun. Author manuscript; available in PMC 2021 September 01.

Published in final edited form as:

Health Commun. 2020 September ; 35(10): 1239–1247. doi:10.1080/10410236.2019.1625000.

Managing Chronic Pain in an Opioid Crisis: What is the Role of Shared Decision-Making?

Marianne S. Matthias, Ph.D.,

Department of Veterans Affairs, Center for Health Information and Communication, Indianapolis, IN; Department of Communication Studies, Indiana University-Purdue University, Indianapolis, IN; Regenstrief Institute, Indianapolis, IN; Indiana University School of Medicine, Indianapolis, IN

Tasneem L. Talib, Ph.D.,

Regenstrief Institute, Indianapolis, IN

Monica A. Huffman, B.S., L.S.W.

Regenstrief Institute, Indianapolis, IN

Abstract

Shared decision-making (SDM) is a widely-advocated practice that has been linked to improved patient adherence, satisfaction, and clinical outcomes. SDM is a process in which patients and providers share information, express opinions, and build consensus toward a treatment decision. Chronic pain and its treatment present unique challenges for SDM, especially in the current environment in which opioids are viewed as harmful and a national opioid crisis has been declared. The purpose of this qualitative study is to understand treatment decision-making with patients taking opioids for chronic pain. Ninety-five clinic visits and 31 interviews with patients and primary care providers (PCPs) were analyzed using the constant comparison method. Results revealed that 1) PCPs desire patient participation in treatment decisions, but with caveats where opioids are concerned; 2) Disagreements about opioids, including perceptions of lack of listening, presented challenges to SDM; and 3) PCPs described engaging in persuasion or negotiation to convince patients to try alternatives to opioids, or appeasing patients requesting opioids with very small amounts in an effort to maintain the patient-provider relationship. Results are discussed through the lens of Charles, Gafni, and Whelan's SDM model, and implications of the role of the patient-provider relationship in SDM and chronic pain treatment are discussed.

Keywords

shared decision-making; chronic pain; opioids; patient-provider relationship

Corresponding Author: Marianne Matthias, 1481 W. 10th St (11H), Indianapolis, IN 46202, mmatthia@iupui.edu, Phone: 317 278.3154.

Disclosure Statement: The authors declare no conflicts of interest.

Introduction

Chronic pain is prevalent and is associated with substantial cost, both in direct medical costs and loss of worker productivity (Care and Education Committee on Advancing Pain Research, 2011). Opioids have increasingly been prescribed for patients with chronic pain (Kuehn, 2007; Zerzan et al., 2006); these increases have been accompanied by parallel increases in opioid-related harms, including overdose and death (Bohnert & Ilgen, 2019; Dowell, Kunins, & Farley, 2013). The result has been the declaration of a national opioid crisis and nationwide efforts, often mandated by state laws and healthcare systems, to reduce or discontinue prescription opioids (Berna, Kulich, & Rathmell, 2015; Morasco, Cavanagh, Gritzner, & Dobscha, 2013). These policies have been bolstered by a major study indicating that opioids were no more effective than non-opioid pain relievers for the management of chronic pain, and that opioids were associated with more adverse events than non-opioids (Krebs et al., 2018).

Despite evidence and current policy efforts, patients still frequently desire opioids, with many believing they are the strongest pain relievers available (Penney, Ritenbaugh, DeBar, Elder, & Deyo, 2016). Competing views between patients and current policy present a host of communication challenges, leading to questions about patients' roles in decision-making. While many studies have focused on communication about chronic pain treatment (see Henry & Matthias, 2018, for a review), including provider decision-making (Burgess et al., 2008; Hirsh, Hollingshead, Matthias, Bair, & Kroenke, 2014) and patient requests for analgesics (Buchbinder, Wilbur, McLean, & Sleath, 2015), these studies have not examined the interplay between treatment decision-making and recent laws and policies governing, and often constraining, opioid prescribing, or the potential effects of these constraints on shared decision-making. It is important to understand both patients' and providers' perspectives, as well as how they communicate about treatment decision-making in clinical consultations, because patients are increasingly faced with having their opioid doses reduced or discontinued (Frank et al., 2016; Matthias et al., 2017). This dilemma leads to questions about the role of shared decision-making in chronic pain treatment, especially the degree to which patients who disagree with new opioid policies have input into their pain treatment. This question is critical because as opioid doses continue to be reduced, patients taking opioids must work with their providers to identify treatments to replace or supplement their opioids. This task is potentially complicated, because numerous pain treatments exist, both pharmacological and nonpharmacological, and navigating these choices requires effective communication.

Shared Decision-Making

Shared decision-making (SDM) is a process in which patients and healthcare providers share information and opinions, discuss preferences and responsibilities, and reach mutual agreement on a course of action (Charles, Gafni, & Whelan, 1997). SDM has been widely advocated by policy makers, medical ethicists, patient advocacy groups, and researchers (Drake & Deegan, 2009; Legare et al., 2010; Montori, Gafni, & Charles, 2006), and SDM has been linked to better adherence, patient satisfaction, and even improved outcomes (Joosten et al., 2008).

When SDM takes place, patients and providers each share their own unique perspectives and expertise. For providers, these perspectives are usually related to biomedical evidence and consequences, while patients add an understanding of the psychological and social consequences of potential treatment decisions (Street & Haidet, 2011). While definitions and models of SDM vary, one of the most widely-cited models is that of Charles, Gafni, and Whelan (Charles et al., 1997; Charles, Gafni, & Whelan, 1999), who specify what they refer to as minimum or necessary criteria for considering a treatment decision to be shared. The first of these criteria is that at least two parties, physician and patient, must be involved. Second, both parties must participate in decision-making. This may or may not be equal participation (e.g., patients may express the preference *not* to make the final decision). To encourage patient participation, Charles et al. suggest that providers work to make patients feel that their opinions are valued, and share treatment recommendations, while not forcing these views onto the patient. Charles and colleagues' third criterion for SDM is information sharing. Minimally, the physician must present treatment options and their potential consequences. The final element for SDM is that both parties must agree on the treatment decision. If either the physician or the patient disagrees, then this is not a shared decision. Charles and colleagues are careful to note that both parties do not have to be convinced the choice is the best one, but both must to implement the decision. It is this mutual agreement, they have argued, that differentiates SDM from other models of decision-making, such as a paternalistic model in which the physician is the sole decision-maker (Emanuel & Emanuel, 1992; Parsons, 1951).

SDM often begins with a patient's description of the problem. More recently, however, others (Matthias, Salyers, & Frankel, 2013; Montori et al., 2006) have broadened this notion of SDM beyond the moments in the clinical encounter leading up to a treatment decision, arguing that SDM is more complex than the point at which a decision is made, and is shaped by features of the patient-provider relationship and by communication during the entire clinical encounter. In long-term relationships, such as when patients are seen for chronic conditions, these patterns are established and reinforced from visit to visit, affecting subsequent communication and the patient-physician relationship as a whole—all of which can influence whether and how SDM unfolds. Montori and colleagues have noted that, for decision-making in chronic conditions, an ongoing patient-provider partnership is a critical facilitator for SDM since decisions often take place over time.

Decision-Making in Chronic Pain Care

The centrality of the patient-provider relationship in chronic conditions is arguably even more important for patients with chronic pain. Research has repeatedly demonstrated the value that patients with pain place on support and validation from healthcare providers (Bair et al., 2009; Bergman, Matthias, Coffing, & Krebs, 2013; Kenny, 2004; Matthias, Miech, Myers, Sargent, & Bair, 2012; Tait & Chibnall, 1997; Werner & Malterud, 2003). However, given the controversies surrounding opioid prescribing for chronic pain, the patient-provider relationship can sometimes be threatened. Patients have described feeling treated as drug-seekers when they request opioids (Upshur, Bacigalupe, & Luckmann, 2010), and providers have described feeling pressured to prescribe opioids, often against their better judgment (Matthias, Parpart, et al., 2010). These concerns have been exacerbated in recent years with

the national declaration of an “opioid crisis” and heightened vigilance over opioid prescribing on the part of state and institutional regulatory bodies (Gostin, Hodge, & Noe, 2017). These developments have led to state laws and institutional mandates to restrict and reduce opioid prescribing (Dowell, Haegerich, & Chou, 2016). These mandates have created an environment in which SDM is especially important, since patients who have been taking opioids for their chronic pain are frequently seeing their doses reduced or discontinued, and must work with their providers to find alternative treatments. However, competing views on the role of opioids in chronic pain management can interfere with SDM. Patients often believe that opioids are the most powerful pain medications available (Penney et al., 2016). As a result, when opioids are reduced or taken away, patients may already feel left out of the treatment decision-making process.

Thus, SDM in chronic pain may be especially challenging in an environment where opioids—formerly a legitimate and widely-used option for chronic pain—are seen as harmful and are being discontinued or reduced. As a result, patients taking opioids for chronic pain are often left with lower opioid doses or complete discontinuation of their opioids (Frank et al., 2016; Henry, Paterniti, et al., 2018; Matthias et al., 2017). The reduction or discontinuation of opioids, often against patients’ wishes, leads to important questions about the appropriateness and role of SDM for patients taking opioids for chronic pain. This study’s purpose was to understand how decisions about pain management—including opioids, non-opioids, and nonpharmacological modalities—are made between patients prescribed opioids and their primary care providers (PCPs), including the degree to which these decisions are shared.

Methods

All study procedures were approved by the university institutional review board, and all participants signed an informed consent. Patients also signed a Health Insurance Portability and Accountability Act (HIPAA) authorization to allow access to protected health information.

Setting and Participants

The study was conducted in four primary care clinics at an academic medical center serving primarily low-income patients. PCPs were eligible to participate in the study if they practiced in one of the medical center’s primary care clinics and had patients with chronic pain for whom they prescribed opioids. Patients were eligible if they were a patient of a participating PCP, had chronic musculoskeletal pain (defined by diagnostic codes from their medical records), and were taking a prescribed opioid for their pain at the time of enrollment.

Recruitment

Potential participants were sent a letter explaining the study, followed by a phone call from a member of the study team. A study team member met interested PCPs at their clinic and met interested patients in the clinic waiting room before their next scheduled primary care appointment. Study team members answered questions and obtained informed consent.

Data Collection Procedures

Data collection occurred over 20 months (2015–2017), at which point theoretical saturation was reached (i.e., collecting additional data did not reveal new theoretical insights or new properties to themes identified during analysis) (Charmaz, 2006). Up to three of each patient's primary care visits were audio-recorded. To record visits, a research assistant placed an audio recorder in the examination room and waited outside the room until the end of the visit. Once a patient had completed at least two visits, a qualitative interview was scheduled. PCPs were interviewed after most or all of their patients' visits had been recorded, based on availability. Interviews took place in person in a private room and were audio-recorded. All recordings were professionally transcribed, checked for accuracy, and de-identified. The project coordinator, an experienced qualitative interviewer, conducted all interviews. We asked patients and PCPs questions about the patient-provider relationship, pain and opioid management (including decision-making), opioid monitoring practices, and institutional policies or state laws governing opioid prescribing.

Data Analysis

Ninety-five clinic visits and 31 interviews (nine PCP interviews, 22 patient interviews) were recorded, and all authors participated in data analysis. Using the constant comparative method (Charmaz, 2006; Lindlof & Taylor, 2002), data analysis occurred in an iterative process consisting of two broad phases, open coding and focused coding. The open coding phase consisted of authors reading all transcripts line-by-line and identifying common, recurrent, and salient themes. In this phase, interview and clinic transcripts were first read separately to gain a general understanding of the data. Then, as themes began to emerge, clinic and interview transcripts for each patient and provider were compared in an effort for each to inform the other. During the second phase, focused coding, themes derived in the first phase were further developed by describing comparisons and making connections between categories, resulting in the synthesis and conceptualization of larger segments of data, creation of new categories and, in some cases, new themes that cover a number of categories. In this phase, all transcripts were re-read with these final, focused codes in mind. These codes encompassed a number of larger themes, including decision-making, which is the focus of the current manuscript. Throughout the analytic process, care was taken to engage in reflexivity about any preconceptions that might shape data analysis and interpretation, and to practice negative case analysis, in which authors searched for evidence in the data to both confirm and disconfirm interpretations (Charmaz, 2006; Lindlof & Taylor, 2002). Discrepancies were resolved by consensus.

Results

Nine PCPs and 37 of their patients participated. All nine PCPs and 22 patients participated in follow-up qualitative interviews. PCPs' ages ranged from 30 to 62 years ($M=45$); eight were female and all were non-Hispanic. Five were internal medicine physicians, two were family medicine physicians, one was a physician assistant, and one did not provide this information. Patients ranged in age from 22 to 74 years ($M=58$). Seventeen were Black, 15 were White, one was American Indian/Alaskan Native, and the remainder did not provide race data. All were non-Hispanic and 12 were male.

Findings revealed that PCPs desired patient input into treatment decisions about chronic pain, and we identified instances in clinic visits in which non-opioid treatments were discussed. However, PCPs indicated that, for opioids, prescribing policies and evidence on safety and effectiveness could constrain patient choice. Not surprisingly, these constraints sometimes led to disagreements between patients and PCPs about opioid treatment, particularly when patients only wanted opioids and PCPs did not agree that opioids were appropriate. These competing views sometimes led PCPs to engage in other strategies, such as appeasing patients with a small amount of opioids, persuading patients that opioids were not appropriate, or negotiating trials of other medications or doses, in an effort to reach a mutually satisfying outcome and maintain the patient-provider relationship. These findings are discussed under the following three themes: 1) Decisions can be shared, but with caveats; 2) Disagreements about opioids; and 3) Persuasion, appeasement, and negotiation.

Decisions can be Shared, but with Caveats

We observed instances in clinic visits where patients and PCPs discussed pain treatment options, with both parties offering input and listening to each other's ideas. These options included discussions of non-opioid pain medications, lifestyle adjustments (e.g., weight management), and other nonpharmacological options. For example, in the following clinic excerpt the patient and PCP discussed pain management options. At first the patient appeared to agree (or at least did not openly disagree), but openly disagreed about a physical therapy recommendation, providing an indication that both parties were able to express their opinions.

PCP: It sounds like nerve pain.

Patient: Mmhmm.

PCP: The gabapentin is great for nerve pain.

Patient: Mmhmm.

PCP: You're on a pretty low dose of it, 300 mg three times per day, is about the lowest we use, and can go all the way up to like a little over 1000 mg, three times a day. So, certainly I think we should increase that...And give that like a month. Can you come back in about a month and see if you're doing any better?

Patient: Okay.

PCP: We could try physical therapy too.

Patient: I kinda did enough of that.

PCP: I know you have.

Patient: I can do exercise myself.

PCP: Have you been doing any?

Patient: Yes.

PCP: You have been. So you keep up with what they tell you. (Patient 6, PCP 3)

In another visit, the PCP is clear that she wants to minimize the amount of opioids the patient takes. She offers other treatments (other medicines, stretching) to supplement the opioids, and the patient offers her own suggestion for pain management, which the PCP agrees to pursue.

PCP: I think there's some ways that we can help you, a couple of different ways. One is utilizing other medicines.

Patient: Mm hmm.

PCP: To help spare the amount of narcotic medicines.

Patient: Mm hmm

PCP: ...What if we could use other medicines and continue the stretching? And this is all good for your back anyway.

Patient: Right.

PCP: I mean that's all good... You know I would feel a lot more kind of worried if you weren't able to do as much as you are able to do.

Patient: Yeah.

PCP: There's a lot of other, like non-pill things we can do to keep you happy.

Patient: Okay.

PCP: Keep you moving.

Patient: And if I could keep my weight down.

PCP: That is a tough one...Have you met with our dietician ever?

Patient: I don't think so.

PCP: Okay. So that's something...we can do, we can plan on for the next visit. (Patient 8, PCP 1)

Caveats on SDM.—While collaborative decision-making occurred, and PCPs expressed a desire for patient involvement, PCPs also acknowledged in their interviews that there are limitations on patient input into pain treatment decisions. For example, one PCP said of such decisions, “I think it is somewhat collaborative...in general I try and give people some choices, if possible” (PCP 7). Similarly, another PCP shared, “I try and involve them greatly... I mean I try and lay all the options out on the table and talk to them about different treatments” (PCP 3).

Importantly, these caveats invariably related to decisions about opioids. The most notable exceptions that PCPs shared involved the safety and effectiveness of opioids, and the need to follow rules as a condition of opioid prescribing.

Opioid Safety and Effectiveness.—When PCPs discussed limitations to patient involvement in decision-making, these limitations were related to requests for opioid medications. One PCP stated, “It’s hard because a lot of them just want the medications, so you sort of have to steer them in other ways. I try not to be sort of iron-fisted about it, but sometimes you have to be.” (PCP 3)

Sometimes this “iron-fistedness” arose out of PCPs’ genuine beliefs that opioids are not safe or effective, despite some patients’ desires for opioids. This PCP went on to say,

I don’t particularly think that long-term, daily use of opiates actually helps chronic pain. I don’t believe that is true. I think that they can help people intermittently, you know, they have a bad day, they take some of them, but to take these big doses every day, your tolerance just increases and it doesn’t help. (PCP 3)

In addition to effectiveness, opioid safety was cited as an important concern. The following PCP noted limitations to decision-making when opioids were discussed:

[With opioids] there are some limitations. I mean, at the end of the day or at the end of the visit if, you know, we’ve gone through everything and the patient thinks that the only thing that is going to help them is more narcotics, and I don’t think that’s a good or safe or appropriate thing to do, I tell them. (PCP 8)

These PCP concerns about opioid safety sometimes translated into what one provider termed “maternalism.” This PCP referred to opioids as a “dangerous tool,” leading to an approach to treatment decision-making that she described as maternalistic:

I’m more paternalistic, or maternalistic, with pain than I am with anything else. Because I feel like I have this dangerous tool... I’ve never seen anybody abuse any other class of medicines like I’ve seen them abuse...analgesics...And so I feel a little more maternalistic. So it’s not that I don’t offer choices, but I do say, hey your therapy needs to include some sort of physical therapy. (PCP 1)

In a similar vein, another PCP compared her approach to decision-making about chronic pain, particularly when opioids are involved, to the way she offers choices to her children.

I try to involve [patients] as much as possible because they need to have some sort of buy-in... But then...it’s kind of like with my kids, like “Do you want the red long-sleeved shirt or the blue long-sleeved shirt? You can’t wear the short-sleeved shirt in the winter.” They have limited choices... That, you know, “We could do this medicine, or we can go to physical therapy or the integrative pain clinic, or a combination of those. What do you think would work for you?” But going to oxycodone 120 milligrams is not (laughs) an option. (PCP 5)

Following the Rules.—Decision-making about opioids was often accompanied by constraints on patients. When PCPs did prescribe opioids, they had expectations for patients,

which included submitting to regular urine drug screens and reporting to the PCP if opioids are prescribed by another healthcare provider (e.g., an emergency room physician or dentist). The following PCP illustrates this focus on rules.

We need to make sure that we are complying by the rules. I am just a rule follower. So there are some things that the patient has the decision [about] whether or not they are going to do it, but they have to fall in these steps in order for them to be compliant with the guidelines...and those expectations have to be set a little more clearly (PCP 2).

Past history of patient adherence also influenced how providers approached decisions about opioids.

The other thing that I use...is a history of compliance. So when you have patients who have chronic pain but yet they—you know, and you're trying all of these things like physical therapy and other non-narcotic treatments, and they're not following through with those things. Or they just have a general history of not following through with their other treatments, whether they're pain-related or not, in my experience—and in others—that predicts a poor outcome if you try to use narcotics. (PCP 8)

PCPs indicated that an opioid prescription came with rules and requirements, and failure to comply with these requirements could result in discontinuation of a patient's opioid prescription. PCPs were especially concerned when patients obtained opioids from other providers, and some PCPs required that patients report to them when this happens:

They get half of their teeth pulled...And they get pretty decent doses of opioids from their dentist, and maybe I haven't had that conversation with them that...you got to call me before you fill that prescription...that's my requirement. (PCP 1)

Sometimes PCPs described situations in which they learned, often through the state's prescription drug-monitoring program, that a patient was being prescribed opioids from multiple doctors, a practice that violates the opioid agreement that patients must sign to be prescribed these medications. The following PCP described this situation:

And I trusted them...It's tough because some of these folks that I had given the same amount [of opioids] for years and then I do the [prescription drug monitoring database check] and see they're getting the same amount from two or three providers. So I just confront them. I say, "I can't give you any more. We had a contract, you told me you weren't getting them from anywhere else. That ended up not being true." And then they're usually kind of sheepish—you know, what can they say? (PCP 9)

Another PCP described a patient who was on high doses of an opioid when he became her patient. He refused to see an orthopedist or physical therapist, had normal X-rays, and had missed appointments for MRIs. She explained,

So three months ago, we had that discussion that these things really need to happen, because I am not treating you appropriately right now without having the full picture...And then he missed his MRI, missed his physical therapy, missed

orthopedics. I said, and I had told him kind of point blank last time, if these things don't happen, we are going to start weaning your medication. I was very clear with him on his last visit that that was going to be our next step. So we had to start weaning [the opioids]. And his mind was blown. He was so surprised. So surprised. (PCP 2)

Disagreements about Opioids

Patients and PCPs described numerous disagreements when discussing opioids; disagreements were often rooted in perceptions of lack of listening and distrust. Disagreement about opioids could lead to conflict, as the following PCP explained:

There are days we can't meet in the middle. You know, they want narcotics, and I don't want to give narcotics. Sometimes I lay out all of these things of what we could do, and they kind of go back to the narcotics. I think they feel like I'm not hearing them, like I'm not listening, and I sort of feel like they're not choosing other options. (PCP 3)

Patients corroborated this PCP's speculation that patients sometimes did not feel listened to in discussions about opioids. One patient lamented about the physician she saw in a pain clinic: "I don't think he listens to what I'm saying. All his concern is we'll lower [the opioid]...I don't feel that he is listening to me enough to know my feelings about it" (Patient 2). Another patient, who discussed spending more time in the emergency room because of increased pain after having her opioid dose reduced, said, "I talk to them, but I just feel like they have their mind set. So once they have their minds set, that's what it is." (Patient 17).

The following patient said that she had not expressed her disagreement to her provider about having her opioid dose reduced by half. She went on to explain that she was generally uncomfortable talking to her PCP.

Right after she started treating me...what she said, I really didn't understand some of it...[With my previous doctor], if it was something I didn't understand, I would ask. I guess I felt more comfortable with [previous doctor] and I would just come on out and ask her, and tell her that I don't understand, and she explained it to me. But with like [current doctor], I don't have that confidence. (Patient 11)

The following patient, who did not have trouble expressing differences of opinion with her doctor, illustrates how disagreements about opioids sometimes reach an impasse in clinic visits.

PCP: So you know the problem is like we talked last time, that, you know, from my perspective in what we have been doing, you just haven't been getting a significant amount of benefit with you being on the Percocet. You are still an 8 out of 10 pain, every time I saw you when you were on your Percocet. You're on 8 out of 10 pain now. You know we weren't getting where we needed to be with that, so that may not have been, and may not be, the right option. Then when we add on to that the depression, which is real, and just another complicating factor in all of it. As we talked about before, it intertwines significantly with your pain. We are just...

Patient: Yeah, but Dr. [Name], I'm getting depressed as ever. I'm just getting destroyed.

PCP: I know. I know. And we are just enabling you. And I feel like I'm not helping you by giving you the pain medicine every month. The Percocet. I mean the ibuprofen is a good pain alternative, and we'll work on trying to find the right combination of doing ibuprofen and Tylenol and seeing if that's...

Patient: I don't know if it will help . . .I've tried Advil and all that.

Later in the visit the patient asked for an opioid again:

Patient: I still feel like I do need more pain medicine today.

PCP: Yes, [but] that's not safe for you.

Patient: It's still not fair to me in my pain, for the pain that I'm in. But that's not fair.

PCP: But also we are going to try other options.

. (Patient 5, PCP 2)

This visit pointedly illustrates the complete lack of agreement that can occur between patients and providers about opioids.

Another patient who wanted more opioids than she was receiving was asked how not giving her what she wants makes her feel. She responded, "Like distrust" (Patient 11).

PCPs were acutely aware that not giving patients what they want can have an adverse effect on the patient-provider relationship, but, as the following PCP explained, they were unwilling to agree to a course of action that they perceived as harmful to patients.

I've had people threaten me. People say I don't care about them when I don't give them what they want. People who come in [and] want a certain amount of a certain narcotic at a high strength, and that's all they want, that's the only thing that'll help, and you don't care about me if you don't give me exactly what I want...So I just say I don't feel comfortable giving that. I don't think it's safe, and if they get mad and leave, they get mad and leave. I don't want to do something I don't think is good for someone. (PCP 6)

Persuasion, Appeasement, and Negotiation

Given recent limitations on opioid prescribing due to safety concerns, or, in some cases, legal or institutional mandates, PCPs frequently described finding themselves trying to persuade patients that opioids were not always an effective or safe alternative, or convince them to try alternative therapies that might help with their pain.

And to try to make the argument to try new things, because that's also really hard. [Patients say] I don't want to get off my old thing, and I also don't want to try a new thing that I've never tried before that might harm me, that might have side effects. Physical therapy might be painful. So it's hard to make—I think that's

always very difficult, how do you convince them...how to make that argument.
(PCP 5)

This PCP went on to describe the balance between saying “no” and endangering their relationship with the patient, versus giving in a little to maintain the relationship:

I had an older patient who was here for her diabetes and blood pressure. At the very end of the visit she’s like, “Oh, I need a refill on my Norco.” I was like, “Oh, okay,” (laughs) “Let’s back up.”...See, that’s the hardest thing, there’s always that balance. Like...you could just deny them completely, but then you have to measure how much is that just going to piss them off and they’ll never come back and see you again, which doesn’t help the patient either. So I try to find this balance where at least we can start at the beginning of a relationship and they’ll maybe come back to me and, over time, I can convince them what I want to convince. What to do. So with her...I felt like if I had just completely denied her, she was never going to come back. And I thought maybe, over time, hopefully I could convince her. So I wrote her [a prescription] for a very limited amount. I said, “Well, I can only write for a week’s worth. That’s what the guidelines tell us.” So I gave her seven pills. And she said, “No, that’s fine.” Because she really was not on very much at all. I mean, I’m sure she wanted more, but she was like, “Okay, that’s fine.” (PCP 5)

While the above PCP described a process of appeasement, the following PCP described requests for pain medications as a negotiation:

I think requests for pain medicines require more negotiation skills. So those same negotiating skills that could be around giving antibiotics or not would be the same that I would use with patients asking for pain medicines or acceleration of pain medicines.

She went on to describe how the negotiation process usually unfolds:

We’ll negotiate. And they may just say, “I’ve tried all that and nothing works.” And so we’ll say, “Well, have you tried this dose?” Because sometimes they’ll say they’ve taken two Tylenol and I say, “Well, have you taken three every six hours? Or three times a day, because that’s safe to do?” And they’ll say, “No,” and I say, “Well, let’s give that a try. What do you think about that?” And so there’s always that back and forth. (PCP 9)

Beyond negotiation, PCPs noted that they often fall back on state laws and institutional policies that limit their ability to prescribe opioids.

It’s hard to say no to patients sometimes. And so to have the support of the CDC, the [state] law, the [medical center] rules really helps us, because we’re just like, “It’s not just me who’s refusing your request. This is something that’s happening all across the country. It’s important for your safety and these are why the rules are what they are.” And so it doesn’t just put all the burden on us. (PCP 5)

Another PCP said more bluntly that when all else fails, she falls back on the law: “I have to admit, every once in a while, you become worn down and the patient won’t accept [your] answers. So you just throw your hands up and say, well it’s also the law.” (PCP 3)

Not all patients reacted negatively to providers' reluctance to prescribe opioids. Patients sometimes described positive responses to their providers' efforts to persuade and educate them about opioid use. One patient whose PCP had reduced her opioid dose, said,

At first I was kinda mad at her because I was like, why is she doing this to me? Why is she going to try to wean me down and I have all kind of arthritis, lupus, and all of that stuff going on with me...Especially in the wintertime I would hurt really, really bad. Now I understand the reason why she was doing it, because she didn't want me to get used to it, so when I really do need to be on pain medication and I get worse off, my body won't be used to that dosage and it will help my pain level and help me. (Patient 6)

Discussion

This study examined decision-making between PCPs and patients taking opioids for chronic pain to better understand how treatment decisions are made in an environment where patients are increasingly having their opioids reduced or discontinued. Participants described decision-making around chronic pain and opioid treatment as a process in which PCPs desire patient input, but with limits and rules, and in which patients, because of these limits and rules, sometimes felt constrained or even shut out of treatment decision-making. The limits described by PCPs without exception revolved around decisions about opioids. PCPs described situations in which opioids, or increases in opioids, were not an option, in some cases describing their approach to decision-making about opioids as "maternalistic." They used a number of factors to guide these decisions, including concerns about opioid safety and effectiveness, patient history of adherence, and constraints placed on their practice by legal and institutional requirements governing opioid prescribing. When patients felt left out of decision-making, disagreements could occur. PCPs described using a variety of strategies to make patients feel involved in decisions, including persuasion, negotiation, and appeasement.

Clinic visits revealed instances of patients and PCPs expressing their opinions or recommendations. Sometimes patients agreed (although it was sometimes difficult to determine whether they were expressing full agreement or just passively acquiescing), and expressed their opinions. PCPs were often receptive to patients' suggestions or opinions, as well. These communication behaviors illustrate that at least parts of Charles et al.'s (1997) model were present: Both parties participated, shared information, and took steps to build a consensus (i.e., the first three of the model's four SDM elements), although risks, benefits, and potential consequences of treatment options were not always discussed. Importantly, occasions in which PCPs were receptive to patient input involved discussions of non-opioid options (e.g., physical therapy, weight loss).

However, when opioids were discussed, patients and providers did not always agree. Mutual agreement is the fourth element of SDM that Charles et al. (1997) describe. Sometimes a patient would not accept the doctor's decision not to prescribe opioids, leading to disagreement. Similarly, some patients indicated in their interviews that they felt left out of the decision-making process, feeling as though their doctors were not listening to them. Both

patients and providers have described not feeling listened to in prior studies of communication about pain management (Bergman et al., 2013; Matthias, Parpart, et al., 2010; Upshur et al., 2010). Notably, the disagreements observed in this study universally centered around patient requests for—and provider denials of—opioids or opioid dose increases. Indeed, because the PCP ultimately decides whether or not to write a prescription, she or he usually makes the final decision about opioid requests.

According to Charles et al.'s (1997) model, then, the above examples would not be considered SDM, since both parties did not agree on the final decision. While the first three elements describe a process, this final element points to an outcome. This outcome, they argued, is the feature that distinguishes SDM from other models of decision-making. However, not all SDM models indicate that agreement is an essential feature of SDM. In their integrative model of SDM, Makoul and Clayman (2006) considered mutual agreement to be ideal, but not essential, for SDM. These authors contended that a difference of opinion may be unavoidable, but if other elements that they consider essential are present, SDM is still possible. These elements include presenting options; discussing pros and cons, patient preferences, and patient self-efficacy; making recommendations; and making or explicitly deferring a decision. This model offers an alternative way of thinking about mutual agreement that may be especially relevant in an environment where opioids are intensely regulated and monitored. Nonetheless, even if SDM does not require agreement, research indicates that when patients request opioids, and when physicians and patients disagree on pain treatment plans, both patients and physicians are less satisfied with the encounters (Henry, Bell, Fenton, & Kravitz, 2018; Henry, Chen, Matthias, Bell, & Kravitz, 2016), which may undermine an important purpose of SDM.

PCPs often described persuading patients that opioids were not appropriate. Some described attempting to appease patients by offering a small amount of opioids, in an effort to maintain a positive relationship and not “lose” the patient. PCPs also described falling back on their institution’s prescribing policies, or on prescribing laws, which constrain their ability to prescribe opioids, as a last-ditch effort to convince patients to accept their decision. Charles, Gafni, and Whelan (1999) have acknowledged the role of persuasion in SDM, noting its appropriateness as long as physicians listen to and try to understand why patients might prefer another option. Thus, when a provider tries to persuade a patient to adopt a particular treatment, SDM can still occur. Given the growing consensus, bolstered by state laws and institutional policies, that opioids might not be the most appropriate or effective treatment for chronic pain, persuasion may be especially important when disagreements about opioids occur.

It appears, based on the current study, that SDM is possible in chronic pain care in today’s environment, at least to an extent. PCPs expressed the desire to involve patients in decisions, although they drew clear lines when decisions involved opioids. However, when opioids were not involved, there did not appear to be caveats on patient involvement in decision-making. Indeed, the current opioid crisis arguably makes SDM even more important, with the need to explore other (i.e., non-opioid) pain treatments, many of which have varying degrees of effectiveness and side effects, and many of which may require substantial time commitments from patients (e.g., physical therapy). However, if disagreements about

opioids undermine or damage the patient-provider relationship, SDM about chronic pain treatments might be more difficult, since SDM is rooted in the broader context of the patient-provider relationship (Matthias, Salyers, et al., 2013; Montori et al., 2006). If this relationship has been damaged by conflict about opioids, decisions about other pain treatments might be challenging, further compromising the patient's role in decision-making and potentially leading to inadequate pain treatment. These points underscore the need, not just to present and discuss options, but to develop and strengthen the patient-provider relationship.

Indeed, the quality of the patient-provider relationship may be more important than SDM itself. The centrality of this relationship is apparent in the current study. From the patient who described discomfort about asking her PCP for clarification, to the PCP who described building a relationship over time to establish the trust needed for her patient to believe her and follow her recommendations, the patient-provider relationship permeates discussions and negotiations about opioids. This is consistent with prior research that has shown that the patient-provider relationship plays a key role in both pain and opioid management. One study found that patients were more willing to accept providers' decisions to reduce or deny opioids if patients perceived a strong relationship, in which their providers exhibited genuine concern for them (Matthias, Krebs, et al., 2013). Other studies have demonstrated that, regardless of the type of pain treatment, patients value having a caring healthcare provider who listens to them and whom they trust (Bair et al., 2009; Bergman et al., 2013; Matthias, Bair, et al., 2010; Matthias, Donaldson, Jensen, & Krebs, 2018; Matthias et al., 2012). Even when patients' opioids are reduced, the patient-provider relationship appears to play a key role: Patients have described being more willing to reduce their opioid doses if their providers were supportive, non-judgmental, and accessible (Frank et al., 2016; Matthias et al., 2017).

Clinically, this study suggests that it is important to emphasize not just the role of SDM in chronic pain treatment, but the core features of the patient-provider relationship that undergird effective decision-making and create an environment in which patients feel welcomed, listened to, and valued. It might be that patients are more satisfied with their chronic pain care, not when they have experienced SDM to the fullest extent, but when they feel cared for and listened to. The first three elements outlined by Charles and colleagues, which involve the process of both parties exchanging information and opinions and working to build a consensus, are activities that can help to create this type of environment for patients. Based on prior research with patients with chronic pain, demonstrating concern and caring might be more important than whether every SDM element is present.

This study is limited in that it was conducted at one academic medical center serving primarily underserved patients. As such, results might not be applicable to patients with chronic pain treated in other settings. Although saturation was reached, a larger or more diverse sample might have uncovered a fuller range of perspectives and decision-making styles. It is also possible that some PCPs and patients may have declined to participate in this study because of their views on pain and opioid treatment; consequently, we may have missed relevant perspectives on SDM.

Nonetheless, this study provides important insight into decision-making processes surrounding opioid prescribing, from patients' and providers' perspectives, as well as offering a glimpse into how such conversations occur in clinical encounters. The findings from this study underscore the importance of the patient-provider relationship in chronic pain management. Results suggest that SDM, while an important ideal to strive for, may be less important than creating a patient-provider relationship in which patients feel valued, trusted, and cared for.

Acknowledgements:

The authors would like to thank Stephen Henry, M.D., for comments on an earlier version of this manuscript.

This research was supported by the National Institute on Drug Abuse of the National Institutes of Health under award number 1R21DA037384-01A1. The content is solely the responsibility of the authors and does not necessarily represent the official views of the National Institutes of Health. The authors declare no conflicts of interest.

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