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A Qualitative Exploration of Chronic Pain and Opioid Treatment among HIV Patients with Drug Use Disorders

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Abstract

Objective—The study explored high risk participants' experiences with pain management regarding clinical access to and use of prescription opioids.

Design—Qualitative semi-structured interviews and focus groups.

Setting—Data was collected August 2014 to May 2015 at an urban community-based research facility in Baltimore City, MD.

Participants—HIV participants with chronic pain and a history of illicit drug use.

Methods—Qualitative coding and analysis used an iterative, inductive and thematic approach and coders achieved inter-coder consistency.

Results—We identified two major themes. First, participants had positive and negative interactions with health care providers regarding chronic pain treatment. Participants perceived providers lacked empathy for their pain and/or were not adequately managing their pain. These interactions resulted in participants seeking new providers or mistrusting the medical system. Further, providers' surveillance of participants' pain treatment regimen contributed to distress surrounding pain management. The second theme centered on participants' pain management experiences with prescribed opioid analgesics. Participants felt they were receiving dosages and

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The authors report no conflicts of interest. The authors alone are responsible for the content and writing of the paper.

classes of analgesics that did not sufficiently address their pain, and consequently modified their dosages or rationed prescription opioids. Other participants were reluctant to take analgesics due to their history of illicit drug use. Some participants relapsed to illicit drug use when they felt their prescription opioids did not adequately address their pain needs.

Conclusions—Participant struggles with receiving and managing prescribed opioid analgesics suggest a need for: therapies beyond these medications; guidelines for providers specific to this population; and harm reduction trainings for providers.

Keywords

chronic pain management; HIV/AIDS; patient-provider communication/conflict; patient engagement in healthcare; drug/substance abuse; and palliative care

INTRODUCTION

An estimated 39%–55% of persons living with HIV (PLHIV) in the US report chronic pain, which is a higher prevalence than the general population (1–5). There is some evidence to suggest chronic pain may be positively associated with PLHIVs' low retention in medical care and non-adherence to antiretroviral therapy (6, 7); while other studies have found a negative association (4). There is limited research regarding how patients with HIV-related chronic pain engage with health care providers, and how the health disparities experienced by this population—vulnerable persons living with HIV with a history of injection drug use—might intersect with that engagement.

The few studies on HIV-related chronic pain suggest that peripheral neuropathy is a major cause for this pain, affecting an estimated 27% of HIV patients (8). Risk factors for HIV-related neuropathic pain include current or former illicit drug abuse, HIV illness severity, older age, Black race/ethnicity, and use of specific classes of antiretroviral therapy (5, 8–10).

Chronic pain among PLHIV can be difficult to address pharmacologically with opioid analgesics. There are conflicting studies regarding the efficacy and effectiveness of pharmacological treatments for chronic pain among PLHIV (11–15).

Patient-provider communication and rapport in general medical encounters have been shown to impact patient engagement (16). Patients who experience chronic pain are more likely to fully disclose to providers who are patient-centered and empathetic, which can improve conceptualization of pain and treatment (17). However, while more empathic providers influence patient disclosure of symptoms, HIV providers in one study reported lower positive regard for patients in routine outpatient visits when patients discussed opioids, as compared to visits when opioids were not discussed (18); this change in regard may also impact the provider's communication with the patient.

All patients in this study are African American, and research suggests that patient-provider interactions surrounding pain are also impacted by race: primary care providers' judgments regarding African American patients' analgesic misuse have been found to be discordant with patient self-reports (19).

A growing number of studies highlight the challenges surrounding chronic pain management in populations living with HIV or those with drug use disorders, specifically regarding its impact on well-being and patients' use of self-management strategies (20–22). The objective of the present study was to explore patients' experiences with providers regarding clinical pain management, as well as patients' access to and use of prescription opioid analgesics.

METHODS

Study design and recruitment

The present research was part of the ongoing AFFIRM Study, an observational study of distressing symptoms, treatment goals, and end of life care preferences among PLHIVs who currently or formerly used illicit drugs. As the qualitative portion of the AFFIRM study evolved, it focused more upon distressing symptoms, as opposed to end of life preferences.

Recruitment was done via flyers from among participants in the AFFIRM study and the ALIVE study, a study of the natural history of HIV and related conditions among persons with a history of illicit drug use (23). To be included in the study, participants needed to meet certain criteria: they had to be over the age of 18, receiving care at the Johns Hopkins HIV clinic, and have a history of illicit drug use. Individuals who participated in the focus groups met the same inclusion criteria as individuals in the interviews, as well as reported pain severity of 5–7 in the past month on the Brief Pain Inventory Scale, which is a 10-point scale, with 10 being the worst possible pain (24). This specific sub-population (i.e., rating 5–7 on pain severity) was selected because the investigators hypothesized that patients in severe pain would have already tried many different treatments; whereas, the moderate-to-severe (but not extreme) groups may be more likely to have ambiguity and tension in their patient-provider relationship. Demographic assessment was done with methods used in our past studies.(25) Patients were excluded from the study if they did not speak English.

This study did not engage providers and as such presents patients' perspectives on patient-provider interactions. Providers' perceptions may differ from those of patients'.

Interviews were conducted from August 2014 to May 2015 at a community-based research facility. In-depth interviews were conducted one-on-one at the study site by the principal investigator (A.K.) and four trained research team members (S.I., A.K., A.A., and J.W.), and lasted approximately 90 minutes. The focus group included the participants who met three times over a three-week period. The principal investigator (A.K.) conducted the focus groups, which lasted approximately 90 minutes. Semi-structured interviews and focus groups were conducted in private rooms. The interview guide was based on the team's past research studies with the study population and was modified during the early stages of data collection to more deliberately capture discussions regarding pain and pain management. While the study team intended the interviews assess indications for (i.e., pain and other distressing symptoms) and interest in palliative care, participants spent most of the interviews discussing pain management exclusively as opposed to other symptoms and experiences related to palliative care, demonstrating this was a pertinent issue for this population. This focus on chronic was not outside of the original aims of the study. Participants were asked about how pain interferes with their daily living, their experiences

with pain management therapies, and their interactions with their primary care providers regarding pain and pain management. The team ceased recruitment once thematic saturation was reached.

The study team chose to have both interviews and focus groups as our past work with this population has demonstrated that interviews work best for topics more sensitive in nature (e.g., use of illicit opioids alongside prescription opioids); whereas, focus groups are amenable to discussions that thrive on group dynamics and engagement of a less sensitive nature (e.g., discussion of resources for pain management for the HIV positive community in Baltimore).

Written consent was obtained from all participants prior to data collection. All study protocols were approved by the Johns Hopkins School of Public Health Institutional Review Board. Participants were compensated \$25 for their time and effort.

Setting

The study was conducted in Baltimore City, which has the third highest HIV rate among US metropolitan areas, and the US's highest rate of heroin- and cocaine-related admissions to emergency departments (26). An estimated 60,000 Baltimore adults are currently or formerly drug dependent (27) and drug use contributes to over half of Baltimore's HIV cases (26).

Qualitative data analyses

The interviews were professionally transcribed verbatim. Four research team members thematically coded the transcripts. The research team met regularly during the coding process to discuss transcript coding and achieve inter-coder consistency and consensus coding. The team used an iterative, inductive process to consolidate emergent topics into themes. The constant comparison method was used to identify and refine themes into a finalized coding structure (28) that achieved theoretical saturation (29). Once major themes were identified, the study team selected salient quotes to support each major theme, which elucidated the narrative that emerged from the interviews. All data analyses were completed in Atlas.ti Version 1.0.24 (30). Throughout the process, the study team met with co-investigators and a community advisory board to discuss emerging findings.

RESULTS

Participants

The sample contained 21 persons, including 12 participants in one-on-one interviews, and nine participants in the focus groups (the same nine participants attended the three focus groups). All participants were African American and HIV positive. 52% were male and the median age was 54 (range 45–63) (Table 1). Sources for the questionnaires used to collect demographic information are cited in previous studies from this research team (25).

Themes overview

Two major themes emerged from the findings: participants' positive and negative interactions with health care providers regarding chronic pain, and participants' complicated relationship with pain medications in light of their history of drug use (see Table 2 for an overview of the themes).

Theme One: Patient-provider positive and negative interactions regarding pain

Participants' positive discussion with physicians regarding pain—Some participants discussed how they felt providers were responsive to changes in their needs and readily modified medications and therapies if certain approaches were not effective.

So a closed mouth not gonna give faith, so I don't come around thinking that I know everything. I still need help. I ask questions, asked them to adjust this, and I got them to change my meds, and I told them at this time, no, because I'm comfortable with where I'm at. So I haven't had no problems. *50 y/o female*

One participant felt his provider went above expectations.

"[W]hat I do like because it wasn't my time even to see [the doctor] but I mean he called [...] for almost three days trying to get in contact with me. Then when I did call him back, he said, "I was trying to get in contact with you [...] You have arthritis in both knees [...] We are going to change the medicine or get you [...] pain management [clinic]." *51 y/o male(a)ⁱ*

Participants' perception of their physicians' difficulty in identifying the source(s) of pain and alleviating it—The majority of participants identified various areas of frustration with their providers regarding pain management: their physician's pursuit of tests and procedures to identify the source of their pain; major problems accessing what they considered more effective treatments (i.e., powerful opioids); and providers' requirements for patient monitoring.

Participants described receiving tests, medications and procedures aimed at identifying the cause of pain.

"I went through surgeries and all that behind it and everything. I mean, I even had back surgery before I found out that it was clogged arteries, and because of the pain that kept going down my legs they thought maybe it was coming from some discs in my back, but it wasn't. It was just clogged arteries that was doing it, so that delayed them working on the clogged arteries." *55 y/o male*

Participants' perception of physicians' lack of empathy regarding participants' pain—Many participants felt their doctors were not seeing them as frequently as they desired and were not acknowledging the severity of their pain.

"And I go to [clinic name] and they have so many patients that he can't see me on a regular basis. I think I might see him maybe twice a month. And I keep telling him

ⁱThere are two 51 y/o males quoted in this paper. To differentiate them, they are labelled them a and b.

that the cream [Lidocaine] is not working but he said, “The next time I see you.” And then come to find out, oh, he tried, he gave me some 800 [mg] Motrins, they didn’t do it. They’ll get my knee going but the pain, the pain is still there and that’s my most problem.” 51 y/o male(a)

Some participants interpreted their providers’ limited provision of opioids as indicative of an insensitivity regarding the participant’s pain.

“They’re not meeting my needs, they’re not. I’m very upset with them, you know, because it’s a lot more that they can do that they aren’t doing. And so what if I don’t come to my appointment [...] because you’re not doing anything for me anyway [...] Why show up, so you can slam the door in my face again and tell me there’s nothing else you can do?” [...] Try this, try that [Physical] Therapy ain’t working. How does someone do therapy in all this pain?” 53 y/o male

Another participant felt that his provider’s inaction was due to his lack of compassion for his experience of pain.

“My doctor told me— they checked my liver, my bone and all this, and nothing wrong, so it’s no use for her to put me on medication. Which I don’t agree with. I want to survive. I guess her supervisor or someone like this— she said like “if it ain’t broke, don’t fix it.” But I’m in constant pain of my knee and my back.” 54 y/o male(a)ⁱⁱ

In one of the focus groups, a participant expressed concern about the quality of care another participant was getting from his doctor and advised him to see a different doctor.

“No, but I’m just saying there’s better doctors that understand what you going through. I’m not saying that these doctors gonna prescribe you what you want, but they better understand what you going through, and him, no. [...] 54 y/o male(b)

Participant concern of disclosure of history or current drug use leading to distress—Participants were reticent to disclose their drug use or history of use to their doctors, or to request more medication. Participants reported concern that such disclosure would result in their doctor withholding the prescription due to suspected drug seeking or abuse. One male participant was receiving Oxycodone for pain, though at a reportedly inadequate dosage, which caused him to use more than his prescribed dose. Although he was sober for several years, he said chronic pain and inadequate dosage of analgesics caused him to relapse to heroin use. While on prescription opioids he admitted himself into a detoxification center within the same health care system to stop his use of heroin. When the participant went to his next HIV medical appointment, his doctor told him that she found out he was in the program through linked medical records. She informed him that she could no longer continue to treat him because he had been dishonest with her about his use of illicit drugs. The participant decided to be less open with subsequent doctors.

“But the 15 milligram Oxycodone they give me is not enough. It’s not strong enough and I’m afraid to tell her I take two of them to do what one won’t because I

ⁱⁱThere are two 54 y/o males quoted in this paper. To differentiate them, they are labelled them a and b.

don't want to get in no trouble. I'd rather have something as opposed to nothing and that's just my history." *53 y/o male*

This apprehension regarding the consequences of disclosure similarly led other participants to refrain from telling their doctors about their drug use history.

"Well, I'm going to try [to be open with my new doctor] but I got to feel the doctor out first, you know, because [...] I don't want to tell him too much right yet but not enough information [...] I always think that sometime when you tell them too much they don't respond well as far as giving you medication for it." *51 y/o male(b)*

Pain treatment regimen surveillance leading to participant dissatisfaction—

Participants felt they were often questioned on their integrity in seeking medication to alleviate their pain. They reported that continued discussion about pain with their doctors often resulted in doctors stopping pain treatment and referring them to an off-site specialty pain management clinic where they received limited care and treatment. For participants who had prescriptions opioids, they described a strict treatment regimen at pain management clinics wherein doctors regularly checked their urine and blood levels for analgesic compliance. While these practices are aligned with existing guidelines, patients perceived this regimen as frustrating and their providers as untrusting.

"Like I said, my pain management doctor well, me myself I have a strict [treatment regimen]. When you go there he wants to know what [is in your system through urine tests] every time you come, if you don't have it in your system, he is not going to give it to you no more... [If it shows up in your system] it means that you are taking it like you are supposed to... [If it does not show up on the tests] he [the doctor] figure you selling it. You are not taking it. *63 y/o female*

Participants' use of the emergency department to receive pain medication—A number of participants reported seeking pain relief from the emergency department when they felt their pain management was insufficient and the pain unbearable. One woman, who was on a regular dose of opioid analgesics for pain, went to the emergency department when she became unable to handle the pain.

"[Pain] tolerance levels [vary] for every one. I [had] excruciating, quite severe the pain. So I rushed to an emergency room because there's sometimes we'll sit back and let things happen to us and we'll dwell on it and we will make a choice. It will go away in the morning. But this was the type of pain that you couldn't sit still for." *60 y/o female*

Theme Two: Pain management experiences in relation to prescribed opioid analgesics

Receiving an insufficient dosage or an insufficiently powerful class of analgesic—The second theme regarded participants' response to pain medications. Most participants focused on experiences with pain medications as opposed to other therapies. Participants generally reported lack of satisfaction with their prescription pain medications. Participants' prescription pain medications varied from over the counter medications (e.g., Tylenol, Motrin) to opioids (e.g., Tramadol, Oxycodone). A few participants felt that their

dosage of pain medication sufficiently managed their pain; however, the majority felt they were either receiving an insufficient dosage or an insufficiently powerful class of analgesic.

“It [Percocet] subsides it [pain]. It subsides. It’s not a point of helping. It subsides the pain. You don’t deal with the pain on a constant basis, like I said, if you take the medication as prescribed.” *56 y/o male*

“I tried that, I tried, one is the shots in the back, Hydrocortisone shots, get them in your back, in your spine [...] It would last for a couple of months and then, after a while you got to get another shot. But you can only get like three of those shots.” *55 y/o male*

Participants’ modification of their dosages and/or rationing of prescription

opioids—Many participants discussed modifying their dosage of medication on their own. Some participants described rationing practices, such as only taking prescription opioids when the pain became intolerable, or taking more than prescribed but then going without the medication until a refill was allowed. One participant, who suffered from debilitating pain in his legs described a frustration not only with the dosage of the medication, but the type of analgesic.

“He gave me some Tramadol, but that’s not doing anything for it, you know. And I take, but I’m supposed to take three a day, I take six of them a day, and that still ain’t working, you know.” *52 y/o male*

Participants’ use of illicit drugs to manage pain when prescription pain medication was either not sufficient or not prescribed by physicians—Some participants, whose providers would not prescribe them such medications or who would prescribe what they perceived to be minimal dosages, used illicit drugs to manage their pain. One participant felt like he had no choice but to either live with constant pain or relapse to heroin use.

“They had me on pain pills and they took me off and put me on something mild called Tramadol that don’t work and my body’s used to that, that’s not working [...] Like I told them, ‘I’m going to do what I’m going to do; I’m not going to hurt. If you don’t want to give it to me then I got to buy it off the street. You all suggest I don’t buy it off the street, but you all don’t want to give it to me. Make your mind up.’” *53 y/o male*

Reluctance to taking analgesics because of history of illicit drug use—One of the most recurring themes was the ambivalence that former drug using persons had with receiving prescription pain medication for concern that it would lead to drug abuse. There was a tension between recognizing a need for these medications to alleviate the pain, while acknowledging their high risk for drug dependence. One participant, who was in recovery from drug dependence, expressed his concerns for taking prescription opioids.

“It’s not that I don’t want to try them [prescription opioids]. It’s just that I don’t—I know if I use them I know what the possibility—I know what the outcome possibly

going to be is... anything that's addictive, nine times out of ten I will abuse it. And I don't want to do that." *57 y/o male*

Participants sought to differentiate between their past use of drugs for non-medical purposes and their current need for drugs to alleviate chronic pain.

"I've been on the Morphine like a couple of years now. And it really trips me up, because I used to be an addict. I used to be an IV drug user, and 'd gotten off of shooting up and all that just to go back to... But, see, I'm not taking it for the same reason. I'm not taking it to be high. I'm taking it to basically function, okay?" *55 y/o male*

Some participants stopped taking prescription pain medications, despite continuing pain, because they feared relapse to non-medical drug use.

"I could handle [the prescription pain medication]. I knew. I followed the instructional. [...] I stayed at the level it was when I supposed to take it. How many I supposed to take. I wasn't abusing it. And then some days I wouldn't take it because I didn't like that feeling." *52 y/o female*

"[Prescription opioids] just didn't sit well with me because I had been clean and sober for a lot of years and alright like that. [...] I knew that I was starting to feel a way that I didn't want to feel anymore." *59 y/o female*

Participants opting for extreme treatments to address pain—One participant reported years of extreme bilateral foot and lower leg pain even with morphine use, which in time necessitated his use of a wheelchair. His doctor referred him to a series of specialists who administered knee and hip replacement surgery and vascular grafting over a two-year period, none of which relieved his pain. He eventually opted for double leg amputation below the knee and was grateful for that choice. At the time of the interview, the participant reported symptoms of phantom limb pain and continued use of morphine, though at a lower dose than before amputation.

"[B]efore the doctor amputated my right leg [...] he said: 'A lot of patients said that they wish they had had it done way before [...] I know it sounds crazy now, but you'll probably understand as things go along,' which I do. [...] I'm not in the pain that I was in... I'd rather be a half of me than no me at all." *55 y/o male*

Additional quotations aligned with the themes can be found in Table 3.

DISCUSSION

Our study found that chronic pain among PLHIV with a history of drug use may lead to conflicted interactions with their health care providers, decreased functioning, and worse clinical outcomes and quality of life. To our knowledge, this study is one of the few to explore the role of patient-provider interactions from the patient's perspective as it relates to pain treatment among PLHIV with substance use disorders.

Many participants who received prescription pain medications from their providers were dissatisfied with the dosage and articulated that the medications were not sufficiently

addressing their pain. Many participants perceived few options besides enduring pain or relapsing to illicit drug use. Moderate to severe chronic pain among former or current drug using PLHIV has been selectively associated with opioid (heroin or prescription opioid) use, but not use of other illicit drugs or alcohol (10).

This perceived lack of effective treatment points to the limitations of health care providers in adequately managing chronic pain in this population using the most common (pharmacologic) clinical approach. Past studies suggest that common analgesics lack efficacy in treating HIV-related (neuropathic) pain (14, 31), and long-term use of opioids for HIV-related pain may not contribute to clinically significant pain relief or improve functioning or quality of life (19). One study found that PLHIV with chronic pain who were on chronic opioid therapy had significantly higher levels of pain than PLHIV with a chronic pain diagnosis but not on daily opioid therapy (32).

The ineffectiveness of these medications exacerbates both health disparities in this population who are vulnerable to chronic pain due to drug use disorders, as well as exacerbates this population's risk of misuse or abuse of prescription opioids and other analgesics. Patients in this population seek alternatives—such as rationing practices, using non-prescription opioids, and going to the emergency department for prescriptions (20)—which pose threats to patients, such as worsening of pain, negative drug interactions, misuse, overdose, withdrawal, and lack of continuity of care.

Given the limitations in pain management pharmacological treatment, it is important to ensure providers and patients have an understanding of the complexity of chronic pain and up to date principles of pain management, including the role of opioid-induced hyperalgesia, the negative consequences of using opioids as a long-term solution, drug tolerance, and interpersonal factors (e.g., patient-provider interactions) affecting pain. Improved patient-provider communication is key to ensuring this understanding is established.

Patients negatively reacted to surveillance approaches used in the provision of pain management, despite these approaches being aligned with current guidelines. The perceived erosion of trust regarding pain management may hinder gains that have been made over the past decades of the HIV epidemic in improving drug using, racial/ethnic minority and other vulnerable populations' access to and engagement with medical care providers and adherence to treatments. To help alleviate this distress, providers could employ proven techniques, such as empathy and rapport building, which have been shown to impact patients' perception of pain and access to pain management therapies and pain relief (33, 34). Providers need to clarify patient and provider pain management goals, and establish a collaborative counseling style that helps patients maintain realistic expectations of pain management strategies.

The community-based research facility wherein interviews were conducted is affiliated with and located in close proximity to a hospital where patients have high access to pain specialty care. Consequently, this population's reported pain does not result from a lack of care, but rather because they are not perceiving to receive sufficient relief from existing treatments and therapies.

While the nature of the described relationship between patients and their providers cannot be attributed to pain alone, we are unable to determine in this qualitative study to what extent other social determinants of health might have impacted this relationship (e.g., race, drug use). The interviews and focus groups centered around patient perceptions of how pain impacted their relationship with their providers and as such that is the focus of the analysis. Two possible patient characteristics that may influence the tensions in the patient-provider relationship are patient race and drug use. Past research has demonstrated that primary care providers' judgments regarding African American patient analgesic misuse have been found to be discordant with patient self-reports (19), which may suggest that providers treat African American differently when it comes to pain management. One study found that the quality of patient-provided communication was similar or better for illicit drug users compared to non-users in an HIV clinic and the authors suggest that this outcome may relate to this population receiving more questions from their providers and more counseling statements (35).

Limitations

The results of this study are not necessarily generalizable to a broader population, as the study participants were African Americans with drug use disorders, living in Baltimore City, with access to medical services (i.e., HIV treatment and pain management).

Importantly this study presents the perspectives of patients with respect to their encounters with their providers, but did not include interviews with providers themselves. In this study, we have strived to represent the perceptions of patients. Future research should explore providers' perspectives regarding pain management for PLHIV patients with a history of substance use.

While the study participants were PLHIV who experienced chronic pain, the study did not have resources to determine the types chronic pain. Given the high prevalence of chronic pain among PLHIV at 39%–55% (1–5), we assume there is a high probability that the participants experienced HIV-related chronic pain. The study also did not collect information regarding the types of pain that the participants experienced and their current and past treatments (opioid or otherwise).

CONCLUSION

This study revealed the effects of chronic pain on patient-provider interactions surrounding clinical pain management and the impact of prescription opioid use. Given participants' dissatisfaction and challenges with commonly used analgesics, future research and clinical practice should consider non-pharmacological biopsychosocial therapies (36–40) that are socioculturally tailored, the creation of harm reduction-oriented clinic environments where patients can openly discuss their drug use disorders to ensure appropriate pain management regimens (harm reduction refers to strategies and approaches that aim to reduce the negative consequences of drug abuse, rather than focusing on eliminating the use of licit or illicit drugs (41)), and empowering patients with pain-self management strategies to improve patients' quality of life (21, 42, 43).

The findings support the Institute of Medicine panel's call for programs to better educate health professionals on pain management and for health care systems to offer multidisciplinary care in the primary care context for more effective management of chronic pain (36). Provider trainings on chronic pain should be harm reduction-oriented and promote providers' appreciation of and empathy toward chronic pain in this population. These trainings may improve patients' trust and communication with providers.

The findings also have implications for the recently published Centers for Disease Control's Guideline for Prescribing Opioids for Chronic Pain. The guideline aims to "ensure that clinicians and patients consider safer and more effective treatment" and "reduce the number of persons who develop opioid use disorder, overdose, or experience other adverse events related to these drugs" through recommendations such as the preference for non-pharmacologic therapy and non-opioid pharmacologic therapy for chronic pain, consideration of opioid therapy only if benefits for pain and function outweigh risks to patient, and the prescription of the lowest effective dosage (44). The challenges to the patient-provider relationship explored in this paper may be exacerbated by limiting access to these medications. Future research should explore how these guidelines impact the population explored in this paper.

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Table 1

Characteristics of HIV seropositive persons with a history of illicit drug use and current moderate to severe chronic pain

Characteristic	(%) or median (IQR) (n=21)
Age	54 (51–56)
Sex: male	11 (52)
African American	21 (100)
Education ¹	
Some high school, no diploma	5 (31)
High school diploma or G.E.D.	8 (50)
Some college or technical training	2 (13)
College degree, like BA or BS	1 (6)
Relationship Status ¹	
Married	4 (25)
In a committed relationship	3 (19)
Separated	1 (6)
Divorced	2 (13)
Single	6 (38)
Sexual Orientation ¹	
Gay	2 (13)
Straight	13 (81)
Bisexual	1 (6)
Pain interference with normal work or activities ^{1,2}	
Not at all	2 (13)
A little bit	4 (25)
Moderately	4 (25)
Quite a bit	4 (25)
Extremely	2 (13)
Average pain level on a scale of 1–10 ^{1,4}	6 (5–8)
Prescription opioid use, current ^{1,3}	7 (44)
Currently on HIV medications ¹	15 (94)
Stable housing: house or apartment rented or owned ¹	
Unstable housing: Transitional single-room	2 (12)
House or apartment that you rent or own	14 (88)
Employment ¹	
Employed	1 (6)
Unemployed	4 (25)
Disabled	11 (69)
Income from all sources, including food stamps ¹	

Characteristic	(%) or median (IQR) (n=21)
Less than \$1000	15 (94)
\$1000 or greater	1 (6)

¹We are missing data for five participants, percentages exclude those five individuals. We only have complete data for all 21 participants in the categories of age, sex, race, and HIV status. These five participants were new recruits to the AFFIRM study and did not end up participating in the quantitative portion of the study, as such, we did not collect extensive demographic data from them.

²Reflect characteristics within the past 30 days

³Reflects data in the past three months. The question did not specify whether the opiate use was doctor-prescribed or purchased illicitly.

⁴Type of pain (e.g., neuropathic, or also musculoskeletal) was not specified.

Table Two**High-Level Themes and Sub-Themes Overview**

<p>Theme One: Participants' positive and negative interactions with health care providers regarding chronic pain</p> <ul style="list-style-type: none">• Participants' positive discussion with physicians regarding pain• Participants' perception of their physicians' difficulty in identifying the source(s) of pain and alleviating it• Participants' perception of physicians' lack of empathy regarding participants' pain• Participant concern of disclosure of history or current drug use leading to distress• Pain treatment regimen surveillance leading to participant dissatisfaction• Participants' use of the emergency department to receive pain medication
<p>Theme Two: participants' complicated relationship with pain medications in light of a history of drug use</p> <ul style="list-style-type: none">• Receiving an insufficient dosage or an insufficiently powerful class of analgesic• Participants' modification of their dosages and/or rationing of prescription opioids• Participants' use of illicit drugs to manage pain when prescription pain medication was either not sufficient or not prescribed by physicians• Reluctance to taking analgesics because of history of illicit drug use• Participants opting for extreme treatments to address pain

Table Three

Representative Quotations from the Interviews and Focus Groups

Theme One: Participants' positive and negative interactions with health care providers regarding chronic pain	
Sub-Theme	Quotation
Participants' perception of their physicians' difficulty in identifying the source(s) of pain and alleviating it	<ul style="list-style-type: none"> • "If they wanted to, they could have been having me on pain management and I wouldn't be going through what I'm going through today, if they do their job and diagnose me correctly and address my pain, they could. They could address my pain and I can take my pain medicine the way they prescribe it and everything. And I think that— I know for sure— I could be doing a whole lot better." <i>53 y/o male</i>
Participants' perception of physicians' lack of empathy regarding participants' pain	<ul style="list-style-type: none"> • "You [doctors] don't know what we're going through, you don't have our body. Don't diagnose me when as soon as you see me walk through your office because if I don't tell you what's all going on with me, then don't you try to analyze and diagnose me. Let me explain to you [...] the pain and you go through it with me and you see how best you can help me. Nobody ain't got my pain, nobody don't know what I go through, so you can't tell me jack about it, you don't have this body, I am stuck with this body, not you. And I just want a way out; I just want to be normal, that's not asking for too much." <i>53 y/o male</i>
Participant fear of disclosure of history or current drug use leading to distress	<ul style="list-style-type: none"> • "I was able to tell her it ain't working because they're not. But I just didn't back off because I don't want them to think that I'm trying to get them for— I don't even know what reason they might have but other than what I need them for. So I won't even say it. I just keep on dealing with the way I do." <i>53 y/o male</i> • "Nowadays doctors don't want to give you the right kind of pain medicine. They— they prefer to give you Aspirin, Motrin. They don't want to give— want to give you no Dilaudid, Percocets or nothing because all of those things are addictive too if you abuse it. And they don't want to give it to you." <i>51 y/o male(b)</i>
Theme Two: participants' complicated relationship with pain medications in light of a history of drug use	
Sub-Theme	Quotation
Receiving an insufficient dosage or an insufficiently powerful class of analgesic	<ul style="list-style-type: none"> • "...My doctor had me on some lidocane, I think it's like three milligrams, it's the cream. And every time that I get pain, I'm supposed to rub it on my knees wherever the joints are and it helps for maybe about an hour and then I have to go right back and keep using it. And he gives me a tube about like that but I would use that way before the week's up, maybe like two days." <i>51 y/o male(a)</i>
Participants' modification of their dosages and/or rationing of prescription opioids	<ul style="list-style-type: none"> • "[The doctor] gave 120 [mg of oxycodone] on this last round, I guess, around 30 days [ago] because I go every 30 days because you can't refills on opiates and I'm cool with that. But if I'm taking them two [at a time as] opposed to one then I'm running out before time. That's my whole dilemma [...] So opposed to going to her and telling her the truth I'm afraid she's going to cut me off so I did what I—[...] I did what I thought— it was stupid and it cost me more than I'm willing to pay. I won't do it again." <i>53 y/o male</i>
Participants struggle with differentiating between their past use of drugs for non-medical purposes and their current need for drugs to alleviate chronic pain	<ul style="list-style-type: none"> • "Oh yeah I'm, well I'm off the Oxycontin period [...] I got off of that... 'Cause I don't want to be addicted to nothing. I mean this is only like a certain moment, this is you typically you take it all, you feeling me? I don't have too much." <i>58 y/o female</i>