Published in final edited form as:

J Assoc Nurses AIDS Care. 2018 ; 29(5): 642–654. doi:10.1016/j.jana.2018.05.010.

Prescribing Opioids as an Incentive to Retain Patients in Medical Care: A Qualitative Investigation into Clinician Awareness and Perceptions

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Abstract

HIV treatment retention remains a significant public health concern. Our qualitative analysis used emergent data from a larger HIV treatment study to explore clinician perspectives on prescribing opioids to incentivize retention in HIV care. Data from individual interviews with 29 HIV and substance use (SU) clinicians were analyzed using thematic analysis. Prescribing opioids as a retention strategy emerged as a theme. 9 of 11 HIV clinicians reported prior knowledge of this practice; only 1 of 12 SU clinicians indicated prior knowledge. Positive perceptions included: harm reduction approach, increased appointment attendance, and sustained engagement in HIV care. Negative perceptions included: addiction potential, increased engagement not leading to better health outcomes, and prescriptions becoming the appointment focus. Some clinicians used prescriptions as a strategy to improve treatment retention, which may be particularly problematic in light of the current opioid epidemic. Understanding motives, outcomes, and clinical decision-making processes is needed.

Keywords

adherence; addiction; engagement; HIV; opioids; prescribing behavior; treatment retention

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Disclosures

The authors report no real or perceived vested interests that relate to this article that could be construed as a conflict of interest.

The World Health Organization and the Centers for Disease Control and Prevention have prioritized improving outcomes across the HIV care continuum with a goal of diagnosing 90% of all people living with HIV (PLWH), prescribing antiretroviral therapy (ART) to 90% of diagnosed PLWH, and 90% of all PLWH in treatment being virally suppressed by the year 2020 (Joint United Nations Programme on HIV/AIDS, 2017). Currently, less than half of PLWH receive consistent HIV health care (Bradley et al., 2014). Certain subpopulations of PLWH are at increased risk for treatment drop-out including individuals with co-occurring substance use (Karch, Gray, Shi, & Hall, 2016). In order to achieve targeted outcomes, it is imperative to better understand the range of strategies that providers use and the effectiveness of each strategy to retain high-risk patients in treatment throughout the life course.

HIV Care Retention Strategies

Multiple studies have focused on systems-level changes to improve HIV retention in care including providing onsite comprehensive services and reducing structural barriers via patient navigation (Gardner et al., 2005; Higa, Marks, Crepaz, Liao, & Lyles, 2012; Willis et al., 2013). Financial-based contingency management approaches have also demonstrated efficacy in promoting treatment engagement and viral suppression in patients with comorbid HIV and substance use disorder (SUD; (Stitzer et al., 2017). A recent systematic review reported that only three studies have tested contingency management interventions among PLWH with a comorbid substance use disorder (Herrmann et al., 2017). All of these studies used a variety of financial incentives to target medication adherence (Sorensen et al., 2007), reduce viral load (Farber et al., 2013; Solomon et al., 2014), and facilitate linkage to and retention in HIV care (Solomon et al., 2014). Contingency management improved the target behavior in each of these studies. Although evidence exists for the efficacy of contingency management models, implementing and sustaining these in real-world clinic settings has been limited, often due to the costs associated with the intervention (Petty, 2011). Lower cost HIV retention strategies that have demonstrated positive results include patient education and enhanced patient contact (e.g., reminder calls), and digital health support tools (Gardner et al., 2014; Risher et al., 2017).

Prescriptions as an Incentive to Increase Treatment Adherence and Retention

DeFulio and Silverman (2012) conducted a review of incentives that were given to patients contingent upon medication adherence. Incentive-based medication adherence interventions demonstrated promising results, increasing adherence by a mean of 20%. Most incentives were financial; however, additional incentives for adults included methadone prescriptions and food. Two studies conducted in the 1970s used methadone as an incentive to increase adherence to disulfiram medication in methadone patients with an alcohol use disorder. These studies included very small sample sizes; results showed a lower percentage of drinking days and reduced arrest rates in the methadone-contingent groups. Similarly, two studies with methadone patients from the 1990s utilized daily doses of methadone as the contingency for taking isoniazid, a medication to treat latent tuberculosis (Elk et al., 1993; Elk et al., 1995). Patients in the methadone contingency group were retained in treatment about 3 months longer than control groups.

A recent qualitative study of HIV providers in New York investigated providers' perspectives on opioid prescribing. A theme emerged throughout the interviews highlighting that some HIV providers believed that prescribing opioids could help engage and retain patients in care (Starrels et al., 2016). The authors noted that HIV treatment tended to supersede guideline-based opioid prescribing in an effort to retain patients in care, and that the focus on HIV care may have lead providers to overlook opioid misuse.

Further, Calcaterra et al. (2016) conducted a qualitative assessment of hospital-based (non-HIV specialty) physician perspectives for prescription opioids. Physicians were recruited from hospitals in Colorado and South Carolina. Findings revealed that opioid prescribing practices were shaped by clinical practice experiences due to lack of formal training. Similar to Starrels' findings (Starrels et al., 2016), these physicians reported that guideline-based opioid prescribing tended to be at odds with the priorities of current hospital care, which focused on patient-reported pain control rather than the potential long-term consequences of opioid use. Physicians reported feeling pressure from the institution to reduce hospital readmissions and facilitate patient discharges. As uncontrolled pain often prolonged hospital stays, "physicians viewed opioid prescriptions as a tool to buffer against readmission or long hospital stays" (Calcaterra et al., 2016, p. 539). Calcaterra et al. (2016) noted that physicians felt conflicted by this prescribing behavior, recognizing that "It may not be in the patient's best interest to receive a higher than necessary quantity of opioids at discharge" (p. 540); however, it would improve the efficiency of the organization. No studies have specifically investigated this phenomenon a priori.

Our Study

Our analysis used emergent data from a larger HIV treatment study (Claborn et al., 2018) to develop a tailored antiretroviral medication adherence intervention for people who used drugs. The first phase of this larger study collected qualitative interviews from clinicians to assess clinical experiences working with PLWH who used drugs, current strategies to improve adherence and retention in HIV care, and feedback on the proposed intervention. The use of prescriptions as an incentive to improve treatment retention emerged in the initial interview; consequently, we added a probe for this topic to the interview guide for all subsequent interviews. Our secondary analysis aimed to explore HIV and SUD clinical staff awareness and perspectives on prescribing opioids to incentivize retention in HIV care. Research questions included: (a) Does awareness of the prescriptions-as-incentive prescribing practice differ between HIV and SUD disciplines?; (b) What advantages do providers perceive in regard to using prescriptions as an incentive to retain and engage patients in care?; and (c) What are the perceived concerns for health care ethics of the prescriptions-as-incentive prescribing practice?

Materials and Methods

Participants

Health care providers ($N = 29$) employed within an HIV or SUD treatment facility in the New England area were recruited via email in 2015 to take part in the parent study (Claborn et al., 2018). Participants met the following inclusion criteria: (a) at least 18 years of age; (b)

currently employed for at least 6 months at an HIV or SUD treatment clinic; (c) had a minimum of 1 year experience working with PLWH or patients at-risk for HIV, with a co-morbid SUD disorder; and (4) had one of the following position titles: counselor, case manager, medical liaison, medical resident, nurse practitioner, nurse, outreach worker, physician, or social worker. Participants were excluded if they did not speak English or were unable to provide written informed consent.

Procedure

Study procedures were approved by the Lifespan Institutional Review Board and all participants provided written informed consent prior to study participation. A semi-structured interview guide was designed to assess treatment provider perceptions of care engagement and retention gaps among PLWH who used drugs and characterized recommendations to improve linkage and retention in dual care services; it was pre-tested with an eligible nurse practitioner. Subsequently, qualitative in-depth interviews were conducted with HIV and SUD treatment providers by a trained qualitative facilitator (time range = 45–90 minutes). Participants also completed a brief demographic questionnaire. Use of medications to incentivize patient retention in HIV care emerged as a theme during the first participant interview. Consequently, the interview guide was modified to probe for this phenomenon in subsequent interviews. Our study was a secondary analysis of emergent qualitative data. All participants were compensated \$50 for participation.

Data Analysis

Debriefs and data summaries were completed immediately following each interview with the interviewer and either the study principal investigator or a co-investigator. Each interview was audio recorded and transcribed verbatim. Transcripts were reviewed to verify accuracy with the audio recording and any identifiers were redacted/re-labeled. Applied thematic analysis (Guest, MacQueen, & Namey, 2012), a rigorous, yet inductive approach designed to identify and examine themes from textual data, was used to analyze qualitative interview data. Strategic techniques were used to enhance both scientific rigor and the integrity of the qualitative analysis, with coding occurring in two major stages. In Stage 1, a qualitative coding structure was developed initially from the semi-structured interview agenda and refined throughout the coding process to include emergent topics. Each transcript was individually coded by a PhD-level researcher trained in qualitative analysis. Using an open coding process, each line of the transcript was evaluated to identify constructs (Glaser & Strauss, 1967). Codes were refined as the analysis progressed, and related codes were grouped to develop themes within the data. Coders met weekly to discuss and resolve coding discrepancies and to identify points of consensus. Final codes were subsequently entered into NVivo qualitative data management software (QSR International, 2008) to facilitate thematic analyses.

After the completion of open-coding review of the transcripts, Stage 2 of the qualitative analysis plan was initiated. Specifically, all codes pertaining to use of medications to incentivize patient retention in HIV care were reviewed. In addition, data mining tools in NVivo were used to ensure that all passages relevant to the emergent theme were included. Specific coding queries, for example, included “marijuana,” “narcotics,” and “incentive.”

The medication incentivization-related content was then subjected to further coding and analysis: Additional medication-incentivization-specific codes were created and applied to the data. The codes were then reviewed and summarized to identify the themes reported here. Illustrative quotes were subsequently selected to reflect each theme.

Results

Sample Characteristics

Twenty-nine participants (24% male, 72% female, 4% genderqueer) who were employed at a local HIV clinic (55%) or a local SUD treatment facility (45%) completed the study. Participants included: prescribers (physician, medical resident, physician assistant; 27%), clinical supervisors (14%), counselors (21%), social workers (4%), case managers (4%), nurses (28%), and medical assistants (1%). Participant characteristics are described in Table 1. The quotes presented below represent the clearest, most illustrative quotations and are not meant to minimize the data of others. As this was a secondary analysis of data from a larger qualitative study, the semi-structured interview guide was not designed to elicit data from each participant for the themes presented below. Consequently, the percentages presented are reflective of the number of participants for which that theme was discussed and not the total number of study participants.

Reported Awareness of Prescriptions-as-Incentive Prescribing Practice

Results indicated that 9 of the 11 (82%) HIV providers reported prior knowledge or experience with incentivizing treatment retention by prescribing narcotics or recommending medicinal marijuana; only 1 of 12 (8%) SUD providers indicated prior knowledge of this kind of incentive. The remaining providers indicated that they did not have prior knowledge about this practice when asked by the facilitator. One HIV provider noted: “That is something that a lot of providers – whether providers openly talk about it – a lot of people think that, and a lot of people do that. I think it probably is more common in HIV care” (#121, HIV Physician). Another HIV provider indicated that this was “a strategy all providers have used, irrelevant of HIV or otherwise” (#124, HIV Physician).

Emergent Themes in Support of Prescriptions-as-Incentive Prescribing Practice

Both HIV and SUD providers highlighted possible benefits of using prescriptions as an incentive for PLWH, including improved treatment engagement and medication adherence, sustained retention in HIV care and attendance at clinic appointments, improved patient health outcomes such as a decrease in viral load, and public health benefits through decreased HIV transmission in the community. (See Table 2.)

A majority of HIV providers thought that prescribing opioids would motivate patients to attend HIV medical appointments and would result in improved medication adherence and suppressed viral load. One HIV provider characterized another HIV provider’s perspective:

“Oh, they have to come back at least every month to pick up their prescription; at least I can touch base with them then.” [The provider] saw it almost as an incentive. [The provider] said, “I know this is not popular opinion, but it does make my patients come back to see me.” (#121, HIV Physician).

HIV providers noted that this strategy could result in sustained retention in HIV care for high risk populations.

In general, substance use providers agreed that this method might improve appointment attendance through increasing patient motivation. One SUD provider said that medication-assisted therapy specifically could increase compliance with treatment protocols for other chronic conditions.

Providers in both disciplines agreed that such prescribing practices might serve as a harm reduction approach for vulnerable populations. SUD providers noted that this prescribing practice could give patients an opportunity to improve their lives as they would be more likely to stay connected to the health care system instead of dropping out of care. This would allow more openings to capitalize on windows of opportunity to connect patients to substance use treatment when patients were ready and to monitor their health in general. An HIV provider expanded this perspective and considered it to be a public health strategy to reduce HIV transmission:

I think there's a handful of doctors here who do that...they've always looked towards a harm reduction model... "Well, at least if I'm prescribing them this, I know it's still continuing their drug use, but at least they're taking care of their HIV, and they're not spreading the virus." (#143, HIV Social Worker)

Emergent Themes in Opposition to Prescriptions as Incentive Prescribing Practice

Both disciplines expressed concern about the potential effects of incentivizing treatment via prescriptions, such as the capacity to perpetuate addiction, negative effects on the patient-provider relationship, failure to improve patient outcomes, and ethical considerations. Several HIV providers expressed concern that improved clinic appointment attendance might not translate into improved patient health outcomes:

Just because people are coming to pick up their opioid prescription does not translate to them necessarily taking the [HIV] medications or engaging in other aspects of their medical care. I think we [HIV providers] conflate that more than we should. I hear people say all the time, particularly here in HIV care, "Well, it keeps them coming to the clinic." (#121, HIV Physician)

Another HIV provider agreed that clinic appointment attendance was not a strong metric for patient health:

It's called dangling the carrot...Personally, I'm not for any other drug – marijuana, a narcotic – to get a patient in care because if you look at our patients that have been on longstanding opioids given by our providers to get them into care, they're still on [the] retention high viral load list [a list of patients who have a detectable viral load and are at-risk for treatment drop-out]...I don't think that giving them a little carrot is going to make them take their medications. (#132, HIV Nurse)

Other HIV providers expressed concerns that this prescribing practice might detract from HIV health care whereby the prescription becomes the focus of the HIV care appointment

and health status becomes a secondary concern. Some HIV providers described experiences of patients yelling and demanding their medications, which created a disruption in the clinic.

Clinical decision-making processes emerged as a theme. Both disciplines expressed concern about perpetuating SUDs in a vulnerable population. When describing the decision process, one HIV provider noted: “There’s always the question of are you just causing their substance abuse to get worse and longer and longer? Are you just creating addiction behind it?” (#143, HIV Social Worker). Another HIV provider stated:

I think it’s creating an expectation of the therapeutic relationship where you’re almost bribing the patient. Rather than trying to give them tools to deal with their substance abuse in a healthy way, you’re replacing maybe one abuse with another. (#131, HIV Fellow)

Several other providers expressed concern with the potential negative impact on the patient-provider relationship, including creating an imbalance in the relationship, potential coercion, and perceived manipulation.

More SUD providers expressed concern with the potential to negatively impact the therapeutic relationship between the patient and provider. Specifically, concerns related to “treating the patient like a child,” and the potential for one party in the relationship to coerce or manipulate the other party. For example, the patient might feel manipulated by the provider; on the other hand, the provider could feel manipulated by the patient: “[the patient] could manipulate it in some kind of way or give [the provider] a really hard time to try to get what they want” (#139, SUD counselor).

In addition to possible coercion, SUD providers highlighted other ethical concerns related to this prescribing practice. An SUD provider noted,

Let’s say hypothetically there’s a physician who is writing scripts for folks because they know that an addict is gonna continue to come back for that script, and the reason that they’re writing that script is not for the patient’s benefit, but rather to be able to manage their diabetes, or meet their quota, or meet their health homes expectations, or pay the bills. It’s just wrong. It’s unethical...It’s abuse, I think, in another way. (#141, SUD Nurse)

One HIV provider emphasized that the providers who engaged in this prescribing practice “have the best intentions” (#143, HIV Social Worker) and did so in an effort to improve the patient’s health and reduce the likelihood of HIV transmission. When discussing the use of this prescribing practice to incentivize sustained retention in care, one HIV provider highlighted the struggle that providers working with high-risk, vulnerable populations experience in making prescribing decisions:

I think with the best intention, the doctors are like, “I wanna see them in care...I’m still taking care of them.” They’re afraid that if they stop and discontinue [the opioids], the [patients] are not gonna show up and get their care at all. (#143, HIV Social Worker)

Perceived Effects of Prescriptions-as-Incentive Prescribing Practice

In addition to potential benefits and harms associated with this prescribing practice, providers noted several additional effects that had the potential to impact the patient and public health in general. A substance use provider expressed concern that this prescribing practice reduced patient autonomy and created a paternalistic patient-provider relationship. Concerns regarding legal issues were expressed by both HIV and SUD providers. Specifically, one provider noted the potential for physician use of prescriptions to meet state requirements for other chronic health conditions (e.g., diabetes, HIV) and patients misusing prescriptions through diversion, which might lead to the patient being incarcerated or developing an addiction. Other concerns surfaced related to some patients who used drugs wanting opioid prescriptions in order to be able to misuse substances legally:

They like their narcotics. If they're not doin' 'em illegally, they like to do 'em legally if possible. If they have some kind of issue that warrants some pain medicine, and the doctor says, "You have to come every 2 weeks. I'm writing it for 2 weeks. You have to come, and you have to do a urine, and then I will give it to you," they will be here every 2 weeks. (#133, HIV Nurse)

Additional concerns that some patients might sell the prescribed narcotics and profit from these prescriptions emerged.

In contrast, other providers across disciplines viewed this as a harm reduction approach:

They might be doing it, but it's risk reduction. They're not robbing cars anymore. They're not breaking into people's houses ... What happens is, by giving that kind of treatment, we're saying, we're gonna let you—I have to say this very carefully. We're gonna let you feel the way you feel somewhat, than if you were doing a drug without all of the risk involved" (#116, SUD Case Manager).

Another provider highlighted the risk-benefit decision process that prescribers may experience:

First of all, who are they selling them to, cuz people use them to get high. You may not be putting your client at risk, but who else are you putting at risk out there? I guess that was my concern. I can see the benefits on the other hand. They're keeping their client safe, and they're monitoring them. I guess it's the risk factor that comes down. (#111, SUD Clinical Supervisor)

Discussion

Summary of Findings

Our study highlighted a strategy used by some clinicians with the intention to improve HIV treatment retention. To our knowledge, this is the first study to examine HIV and SUD treatment provider awareness and perspectives on the use of prescribing opioids as incentives to retain high-risk patients in care. We found that almost all HIV providers in our sample knew about this prescribing practice; only one of the SUD treatment providers reported being aware of this phenomenon. Further, providers in our sample reported diverse

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opinions pertaining to the prescriptions as incentive prescribing practice. In general, HIV clinicians expressed more support and optimism regarding positive patient health and clinic outcomes than SUD providers; however, both disciplines expressed concern about potential harms, including perpetuating addiction among vulnerable populations and potential negative effects on the patient-provider relationship. Some HIV providers acknowledged that improved retention in care might not translate to improved patient health outcomes such as an undetectable viral load. Several substance use providers expressed ethical concerns including potential coercion and manipulation, and concern that providers may use the strategy solely to improve reporting on patient outcomes.

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As one participant noted, the prescriptions-as-incentive practice might be a product of the early history of the HIV epidemic when few treatment options existed and mortality was high, resulting in a culture of prescribing narcotics more freely. Despite this, PLWH have reported higher rates of chronic pain (Jiao et al., 2016) and higher rates of substance misuse relative to the general population (Mimiaga et al., 2013). The syndemic effects of HIV, chronic pain, and substance misuse present significant challenges for health care providers, place patients at increased risk for overdose, and increase the likelihood of health service utilization (Jiao et al., 2016). Further, objective measures of chronic pain have been lacking and opioid prescribing guidelines could conflict with HIV disease management goals (Starrels et al., 2016). These factors contribute to significant challenges for clinicians with prescribing privileges to accurately diagnose chronic pain and manage PLWH with complex issues. Of note, a majority of clinical staff who reported awareness of this phenomenon stated that clinicians were well meaning and their goals were to improve the health of their patients. Better understanding of clinical decision-making processes and tools to assist with complex chronic pain and substance use are needed. Prescriptions-as-incentive prescribing behavior may be a product of existing HIV-related policies and institutional pressures to achieve viral suppression in PLWH and to retain all patients in HIV care. Immediate research is needed to understand the prevalence of prescribing narcotics to enhance retention in care and warrants an investigation into the impact of policy and reimbursement models on prescribing behavior.

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Retaining patients in care is a high priority for patient health and reducing HIV transmission. Innovative chronic care retention models are needed to ease provider burden and sustain patients in care across the lifespan. Furthermore, new models must be easily implemented into existing health care infrastructures and clinic workflows. To date, no research has identified the prevalence of the use of prescriptions, with and without abuse liability, by care providers with prescribing privileges. Prescriptions-as-incentive prescribing behavior may not be relegated to the field of HIV, although it may be more predominant considering the historical context of the epidemic, the current international pressures to eradicate HIV transmission and retain patients in care, and policies and funding models that create an environment to promote this behavior by HIV clinicians with good intentions. Immediate research is needed to understand the potential benefits, harms, and ethical considerations associated with this approach for patient retention. A potential trend in prescriptions as incentive practices may be particularly problematic in light of the current opioid epidemic in the United States.

Study Limitations

Findings from our study should be considered in light of several limitations. First, data were collected from community clinicians who specialized in either HIV or SUD treatment and were located in New England, potentially limiting the generalizability of findings. Additionally, we did not collect data from patients and, therefore, cannot speculate about patient perspectives related to this prescribing practice. Due to the emergent and exploratory nature of this study, we were unable to collect data from all types of prescribers, for example, nurse practitioners and addiction medicine physicians. Finally, our study was limited to retention practices for HIV patients. However, findings from our research may translate to other chronic conditions such as diabetes, cancer, hypertension, or depression, and thus should be investigated in subsequent studies.

Conclusions

Our study is an important first step toward understanding prescription-based incentives to retain patients in care. More research is urgently needed to understand the prevalence of these prescribing practices, particularly within the context of the worsening opioid epidemic in the United States. Consideration of the ethics and legality of such an approach is important to determine whether additional use of such prescribing practices is justifiable. Future studies should assess potential benefits and harms of the use of prescribing opioids on patient and population health outcomes. Observational and controlled studies may provide further insight into patient and clinic outcomes related to medication adherence, viral load suppression, and treatment retention.

Acknowledgments

The current protocol was funded by a grant from National Institute on Drug Abuse (NIDA; K23DA039037; PI: Claborn). Dr Aston's involvement has been supported by NIDA (K01DA039311; PI: Aston). Research method was supported by the qualitative science mentorship program of K24HD062645 (PI: Guthrie). The content is solely the responsibility of the authors and does not necessarily represent the official views of NIDA or the National Institutes of Health.

References

- Bradley H, Hall HI, Wolitski RJ, Van Handel MM, Stone AE, LaFlam M, ... Valleroy LA (2014). Vital Signs: HIV diagnosis, care, and treatment among persons living with HIV--United States, 2011. *MMWR. Morbidity And Mortality Weekly Report*, 63(47), 1113–1117. [PubMed: 25426654]
- Farber S, Tate J, Frank C, Ardito D, Kozal M, Justice AC, & Braithwaite RS (2013). A study of financial incentives to reduce plasma HIV RNA among patients in care. *AIDS and Behavior*, 17(7), 2293–2300. doi:10.1007/s10461-013-0416-1 [PubMed: 23404097]
- Gardner LI, Giordano TP, Marks G, Wilson TE, Craw JA, Drainoni M-L, ... Mugavero MJ (2014). Enhanced personal contact with HIV patients improves retention in primary care: a randomized trial in 6 US HIV clinics. *Clinical Infectious Diseases: An Official Publication Of The Infectious Diseases Society Of America*, 59(5), 725–734. doi:10.1093/cid/ciu357 [PubMed: 24837481]
- Gardner LI, Metsch LR, Anderson-Mahoney P, Loughlin AM, del Rio C, Strathdee S, ... Holmberg SD (2005). Efficacy of a brief case management intervention to link recently diagnosed HIV-infected persons to care. *AIDS (London, England)*, 19(4), 423–431.
- Glaser B, & Strauss A (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine Publishing Company.

- Herrmann ES, Matusiewicz AK, Stitzer ML, Higgins ST, Sigmon SC, & Heil SH (2017). Contingency management interventions for HIV, tuberculosis, and hepatitis control among individuals with substance use disorders: A systematized review. *Journal of Substance Abuse Treatment*, 72, 117–125. doi:10.1016/j.jsat.2016.06.009 [PubMed: 27394070]
- Higa DH, Marks G, Crepaz N, Liao A, & Lyles CM (2012). Interventions to improve retention in HIV primary care: a systematic review of U.S. studies. *Current HIV/AIDS Reports*, 9(4), 313–325. doi: 10.1007/s11904-012-0136-6 [PubMed: 22996171]
- Jiao JM, So E, Jebakumar J, George MC, Simpson DM, & Robinson-Papp J (2016). Chronic pain disorders in HIV primary care: clinical characteristics and association with healthcare utilization. *Pain*, 157(4), 931–937. doi:10.1097/j.pain.0000000000000462 [PubMed: 26683238]
- Karch DL, Gray KM, Shi J, & Hall HI (2016). HIV Infection Care and Viral Suppression Among People Who Inject Drugs, 28 U.S. Jurisdictions, 2012–2013. *The Open AIDS Journal*, 10, 127–135. doi:10.2174/1874613601610010127 [PubMed: 27386014]
- Mimiaga MJ, Reisner SL, Grasso C, Crane HM, Safren SA, Kitahata MM, ... Mayer KH (2013). Substance use among HIV-infected patients engaged in primary care in the United States: Findings from the centers for AIDS research network of integrated clinical systems cohort. *American Journal of Public Health*, 103(8), 1457–1467. doi:10.2105/AJPH.2012.301162 [PubMed: 23763417]
- Petry NM (2011). Contingency management: What it is and why psychiatrists should want to use it. *The Psychiatrist*, 35(5), 161–163. doi:10.1192/pb.bp.110.031831 [PubMed: 22558006]
- Risher KA, Kapoor S, Daramola AM, Paz-Bailey G, Skarbinski J, Doyle K, ... Shah M (2017). Challenges in the evaluation of interventions to improve engagement along the HIV care continuum in the United States: A systematic review. *AIDS and Behavior*, 21(7), 2101–2123. doi: 10.1007/s10461-017-1687-8 [PubMed: 28120257]
- Solomon SS, Srikrishnan AK, Vasudevan CK, Anand S, Kumar MS, Balakrishnan P, ... Lucas GM (2014). Voucher incentives improve linkage to and retention in care among HIV-infected drug users in Chennai, India. *Clinical Infectious Diseases: An Official Publication Of The Infectious Diseases Society Of America*, 59(4), 589–595. doi:10.1093/cid/ciu324 [PubMed: 24803381]
- Sorensen JL, Haug NA, Delucchi KL, Gruber V, Kletter E, Batki SL, ... Hall S (2007). Voucher reinforcement improves medication adherence in HIV-positive methadone patients: a randomized trial. *Drug And Alcohol Dependence*, 88(1), 54–63. [PubMed: 17056206]
- Starrels JL, Peyser D, Haughton L, Fox A, Merlin JS, Arnsten JH, & Cunningham CO (2016). When human immunodeficiency virus (HIV) treatment goals conflict with guideline-based opioid prescribing: A qualitative study of HIV treatment providers. *Substance Abuse*, 37(1), 148–153. doi:10.1080/08897077.2015.1129391 [PubMed: 26860130]
- Stitzer M, Matheson T, Cunningham C, Sorensen JL, Feaster DJ, Gooden L, ... Metsch LR (2017). Enhancing patient navigation to improve intervention session attendance and viral load suppression of persons with HIV and substance use: a secondary post hoc analysis of the Project HOPE study. *Addiction Science & Clinical Practice*, 12(1), 16–16. doi:10.1186/s13722-017-0081-1 [PubMed: 28651612]
- Willis S, Castel AD, Ahmed T, Olejemeh C, Frison L, & Kharfen M (2013). Linkage, engagement, and viral suppression rates among HIV-infected persons receiving care at medical case management programs in Washington, DC. *Journal Of Acquired Immune Deficiency Syndromes* (1999), 64 Suppl 1, S33–S41. doi:10.1097/QAI.0b013e3182a99b67 [PubMed: 23982662]

Key Considerations

- Policy and organizational requirements may encourage opioid prescribing behaviors outside of recommended guidelines.
- Some clinicians perceive the use of opioid prescriptions to be a method to incentivize patient engagement and retention in health care.
- Research on understanding clinical decision-making regarding opioid prescribing is needed.

Table 1

Participant Demographics (N = 29)

	Employed in HIV care (n = 16) n (%)	Employed in SU care (n = 13) n (%)	Total (n = 29) n (%)
<i>Gender Identity</i>			
Male	2 (7%)	5 (17%)	7 (24%)
Female	14 (48%)	7 (24%)	21 (72%)
Gender Queer	0 (0%)	1 (3%)	1 (4%)
<i>Age</i>			
18–24	0 (0%)	1 (3%)	1 (4%)
25–34	2 (7%)	6 (21%)	8 (28%)
35–44	4 (14%)	1 (3%)	5 (17%)
45–54	7 (24%)	3 (10%)	10 (34%)
55+	3 (10%)	2 (7%)	5 (17%)
<i>Education</i>			
Some college	1 (3%)	3 (10%)	4 (14%)
Licensed Practical Nurse	3 (10%)	0 (0%)	3 (10%)
College Graduate	3 (10%)	6 (21%)	9 (31%)
Master's Degree	2 (7%)	4 (14%)	6 (21%)
Doctorate	7 (24%)	0 (0%)	7 (24%)
<i>Position Title</i>			
Medical Assistant	1 (3%)	0 (0%)	1 (3%)
Nurse (LPN and RN)	6 (21%)	2 (7%)	8 (28%)
Case Manager	0 (0%)	1 (3%)	1 (4%)
Social Worker	1 (3%)	0 (0%)	1 (4%)
Counselor	0 (0%)	6 (21%)	6 (21%)
Clinical Supervisor	0 (0%)	4 (14%)	4 (14%)
Physician Assistant	1 (3%)	0 (0%)	1 (3%)
Fellow	2 (7%)	0 (0%)	2 (7%)
Attending Physician	5 (17%)	0 (0%)	5 (17%)
<i>Experience working with PWUD (in years)</i>			
0–1	0 (0%)	0 (0%)	0 (0%)
2–5	2 (7%)	3 (10%)	5 (17%)
6–10	3 (10%)	6 (21%)	9 (31%)
11–15	3 (10%)	1 (3%)	4 (14%)
>15	8 (28%)	3 (10%)	11 (38%)
<i>Experience working with PLWH (in years)</i>			
0–1	1 (3%)	0 (0%)	1 (4%)
2–5	2 (7%)	4 (14%)	6 (21%)
6–10	3 (10%)	5 (17%)	8 (28%)
11–15	2 (7%)	0 (0%)	2 (7%)

	Employed in HIV care (n = 16) n (%)	Employed in SU care (n = 13) n (%)	Total (n = 29) n (%)
>15	8 (28%)	4 (14%)	12 (41%)

Note: SU = substance use; PWUD = people who use drugs; PLWH = people living with HIV; LPN = licensed practical nurse; RN = registered nurse.

Study Themes and Representative Quotes Regarding Prescription Opiates as Incentives to Retain Patients in Care

Table 2

Theme	Provider Discipline	ID	Position Title	QUOTE
Reported Awareness of Prescriptions-as-Incentives Prescribing Practice				
	HIV	#131	Fellow	Wow. I've never contemplated doing that...I've never actually thought about using it as a bargaining chip.
	HIV	#138	RN	We used to have physicians say, "Hey, I'll give them their pain medications, if they come to their appointments. I'll give them their pain meds." And it didn't work.
	HIV	#121	Physician	Yes. That is something that a lot of providers – whether providers openly talk about it – a lot of people think that and a lot of people do that.
	HIV	#132	RN	Yeah. It's called dangling the carrot. Heard that a lot when I first started.
	SU	#130	Clinical Supervisor	They're almost incentively giving them meds to [get] them to come to HIV appointments? I have not come across that.
Themes in Support of the Use of Prescriptions as an Incentive				
	HIV	#121	Physician	I used to work for a nurse practitioner (NP) who always said – she didn't necessarily have a great indication for the reason people were taking pain medications... [the NP] sort of saw it as a way of engaging people and of keeping people coming back. "Oh, they have to come back every month to pick up their prescription; at least I can touch base with them then." [The NP] saw it almost as an incentive. She said, "I know this is not a popular opinion, but it does make my patients come back to see me."
	HIV	#143	Social Worker	People are always like, "Well, at least if I'm prescribing them this, I know it's still continuing their drug use, but at least they're taking care of their HIV, and they're not spreading the virus," which is a true statement... I think ultimately [the providers] are afraid that if they stop and discontinue, [the patients] are not gonna show up and get their care at all.
	HIV	#124	Physician	There's a partnership. "I'm taking care of all of your health." That's an agreement that you allow me to take care of all of your health. Part of that is being adherent to your HIV medication, whatever, diabetes medications, blood pressure medications. "If I'm agreeing to do this for you, then that means you are also agreeing to do this for you." It goes into both sides. I don't think that's an unreasonable approach to say, "Yes, I agree to do this and you do that."
	SU	#139	Counselor	It's like they're bribing them, kind of. [Chuckles]. Yeah. I guess they would definitely come...but I think that's huge motivation for them to go to their treatment if they're getting medical marijuana. If you missed your treatment, you lose your marijuana.
	SU	#111	Clinical Supervisor	I can see the benefits on their hand. They're keeping their client safe, and they're monitoring them. I guess it's the risk factor that comes down. I'm sure they're saying, "Well, if I'm giving them the Suboxone, it's low risk."
Opposition to the Use of Prescriptions as an Incentive				
	HIV	#131	Fellow	That seems like maybe not a great idea because I think it's creating an expectation of the therapeutic relationship where you're almost bribing the patient... To say, "If you come and see me and take your medications, I will give you marijuana," seems a little strange.
	HIV	#121	Physician	Just because people are coming to pick up their opioid prescription does not translate to them necessarily taking their [HIV] medications or engaging in other aspects of their medical care. I think we more often conflate that than we should... I have not seen that using that as an indicator – using people showing up for their visit to pick up their prescription – it has not shown that that actually has been positive for patients.
	HIV	#143	Social Worker	On the other hand, there's also the question of are you just causing their substance abuse to get worse and longer and longer. Are you just creating addiction behind it?
	SU	#112	Clinical Supervisor	I'm just kinda processing what you're saying as far as it's the patient's choice or we're keeping patients on treatment just so we can watch 'em. Keep an eye on 'em. I don't agree with that. It's not their plan. If it's not their plan, I don't feel it's gonna be successful... I

Theme	Provider Discipline	ID	Position Title	QUOTE
				know it's, "We know better than you, because we're the experts and you're not." ...It may cause patients to feel kept or feel like, "I'm not allowed to make my own decisions. I don't know what's best for me."
	SU	#141	RN	Well, at first I'd be making the assumption that they don't care, and I don't know if I can make that or not. Let's say hypothetically there's a physician who is writing scripts for folks because they know that an addict is gonna continue to come back for that script, and the reason that they're writing that script is not for the patient's benefit, but rather to be able to manage their diabetes, or meet their quota, or meet their health home expectations, or pay the bills, it's just wrong. It's wrong. It's unethical. It's abuse, I think.
Perceived Effects of Prescriptions-as-Incentives Prescribing Practice				
<i>Impacts the Patient-Provider Relationship</i>				
	HIV	#131	Fellow	I think it's creating an expectation of the therapeutic relationship where you're almost bribing the patient.
<i>Disrupts Clinic Flow</i>				
	HIV	#138	RN	When they come to their appointments, they're causing a scene and chaos because all they want is their pain medication. They don't want to hear about their HIV. They don't want to hear about their diabetes. They are here for the sole purpose of getting their pain medication. They will cause a scene.
<i>Focus of the Appointment</i>				
	HIV	#138	RN	It's driving – it's the focus. "I am here for my pain medication" [Patient]. "Well, you're here to see the doctor to discuss your HIV. Your viral load is too high, your diabetes is out of control, your blood pressure is too high."
<i>Treatment Retention</i>				
	HIV	#121	Physician	I hear people say it all the time, particularly in HIV care. "Well, it keeps them coming back to the clinic." Coming to the clinic is not actually a meaningful clinical outcome. I think we do have to separate that. It does keep people coming to the clinic to show up and get their prescription. On the other side of that, I worry that it becomes a focus of why they come to clinic rather than their health.
<i>Patient Health Outcomes</i>				
	HIV	#121	Physician	I have not actually looked this up, but I would be interested to see if that is actually tied – like if receiving narcotics is actually tied with better outcomes. I would highly doubt that's the case.