



HHS Public Access

Author manuscript

Addict Behav. Author manuscript; available in PMC 2019 June 01.

Published in final edited form as:

Addict Behav. 2019 June ; 93: 14–19. doi:10.1016/j.addbeh.2019.01.020.

Challenges on the road to recovery: Exploring attitudes and experiences of clients in a community-based buprenorphine program in Baltimore City

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Abstract

Objective: This qualitative study identifies and describes experiences and challenges to retention of individuals with opioid use disorder (OUD) who participated in a low-threshold combined buprenorphine-peer support treatment program in Baltimore.

Methods: In-depth semi-structured interviews with staff and former clients of the Project Connections Buprenorphine Program (PCBP) (9 people) and focus group discussions with current and previous clients of PCBP (7 people) were conducted. Content analysis was used to extract themes regarding barriers to enrolling and remaining in, and transitioning from the program.

Results: Primary challenges identified by the participants included struggles with cravings and symptoms of withdrawal, comorbid mental health issues, criminal justice system involvement, medication stigma, and conflicts over level of flexibility regarding program requirements and the role of employment.

Conclusions: This study identified several obstacles clients face when seeking care through a combined buprenorphine-peer support model. Findings highlight potential programmatic factors that can be improved and additional resources that may support treatment retention rates and better outcomes. Despite challenges, low-threshold and community-based programs can increase access to effective maintenance treatment for OUD, especially among vulnerable populations who may not have access to formal health services.

Keywords

Buprenorphine; Low threshold treatment; Medication assisted treatment; Opioid use disorder; Community-based treatment; Peer support

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Declarations of interest

None.

1. Introduction

The opioid epidemic is a critical public health issue that has led to a dramatic rise in overdose deaths throughout the United States. As of 2016, the estimated number of drug overdose deaths rose to over 64,000, an amount that has nearly doubled in a decade (NIDA, 2017). Of these deaths, approximately 66% involved an opioid (CDC, 2017). Paralleling national trends, fatal overdoses in Maryland have nearly doubled to 2089 between 2014 and 2016, of which one-third occurred in Baltimore City (MDH, 2017). The number of deaths in Baltimore has been sharply driven by illicitly manufactured fentanyl, which has tripled overdose deaths from 2015 to 2016 (CDC, 2018; MDH, 2017). Other consequences of the opioid epidemic include increases in injection drug use (IDU), heightened transmission risk of hepatitis C and HIV, and an economic burden of \$78.5 billion annually (Zibbel et al., 2018; CDC, 2018; Florence, Luo, Xu, & Zhou, 2016).

There is an urgent need to increase access to effective treatment for people with an opioid use disorder (OUD). Medication-assisted therapies (MAT) for OUD have been found to be safe, significantly reduce risk of overdose, increase treatment adherence, and decrease transmission of infectious disease (Voklow, Frieden, Hyde, & Cha, 2014; Sordo et al., 2017; Mattick, Breen, Kimber, & Davoli, 2009; Tsui, Evans & Lum, 2014; Metzger et al., 1993). Opioid agonist therapies (OAT), including methadone and buprenorphine, are considered the highest standard of care for OUD (Connery, 2015). Studies have found methadone to be most effective for treatment retention, and buprenorphine to be safer in overdose and easier for withdrawal (Mattick, Kimber, Breen & Davoli, 2014; Barnett, Rodgers, & Bloch, 2001).

Despite the evident need for treatment, there is still a large disparity in the number of services available and their accessibility. In 2012, an estimated 96% of U.S states had higher OUD rates than buprenorphine treatment capacity (Jones, Campopiano, Baldwin, & McCance-Katz, 2015). In addition, OATs have been underutilized in specialty substance use programs (Krawczyk, Feder, Fingerhood, & Saloner, 2017). Other barriers include MAT stigma, long waiting lists, treatment costs, non patient-centered treatment designs, lack of access through primary care, and zero tolerance approaches (Krawczyk, Negron, Nieto, Agus, & Fingerhood, 2018; Voklow, 2014; Kourounis et al., 2016).

There is a growing body of evidence that suggests low-threshold programs with fewer access and treatment barriers might have better outcomes than high-threshold designs (Deering et al., 2011; Kourounis et al., 2016; Nolan et al., 2015). These options can increase access to services for marginalized populations such as the justice-involved, people who inject drugs, and women who engage in sex work (Krawczyk, Picher, Feder, & Saloner, 2017; Nolan et al., 2015; Marchand et al., 2012).

Integrating buprenorphine into existent community-based treatment programs can play a powerful role in connecting individuals who are otherwise disconnected from much of the healthcare sector. Community programs often have established relationships and credibility with community members and can offer additional supportive services to clients. In an effort to provide OUD treatment to hard-to-reach populations, the Behavioral Health Leadership Institute (BHLI), a Baltimore non-profit organization dedicated to increasing access to

behavioral health services for disadvantaged populations, established the Project Connections Buprenorphine Program (PCBP) in 2010. The PCBP is a treatment program based on a low-threshold and harm reduction care model that is housed within a community-based, peer-led recovery center (Daniels, Salisbury-Afshar, Hoffberg, Agus, & Fingerhood, 2014; Krawczyk et al., 2018). Services consist of an experienced clinical team of peer advisors, nurse, doctor, and social worker as well as other recovery supports. The PCBP aims to engage individuals in buprenorphine treatment and transition stable clients to buprenorphine maintenance in an integrated primary care setting, where clients can continue to receive OUD treatment while simultaneously addressing other comorbid health needs.

With the critical state of the opioid epidemic both nationally and locally in Maryland and Baltimore City, it is imperative that research explore how to best utilize and maximize retention in community-based treatment programs that offer evidence-based treatment for OUD. Despite PCBP's innovative model, attrition for this program is high: approximately 59% of PCBP clients leave the program without being transitioned to ongoing care (BHLLI, 2016). Other low-threshold programs have similar attrition rates that are lower than in traditional treatment (Simon et al., 2017; Amato et al., 2005). This underscores how essential it is to identify barriers for access, retention, and treatment continuation in order to gain a better understanding of the factors that contribute to attrition in these settings. The aim of this qualitative study was to identify key challenges faced by PCBP clients and better inform community treatment program strategies to increase client-centered care, improve treatment experience and retention, and promote long-term recovery.

2. Methods

2.1. Study setting

This study took place from February to June 2017 at the PCBP site located at Dee's Place, a Baltimore City peer-recovery center. Dee's Place hosts peer recovery meetings, refers clients to treatment programs, and connects them to other health and social services. From 2010 to 2017, PCBP has served a total of 333 clients at Dee's Place. The mean client age is 51 years ($SD \pm 9.4$) and ranges between 16 and 85 years old. A majority of clients are male (61%) and African American (87%). In addition, most clients report living with family or friends (59%), having a history of criminal justice involvement (84%), and being unemployed (65%) (BHLLI, 2016).

2.2. Recruitment

Researchers were trained to conduct in-depth, semi-structured individual interviews, focus group discussions (FGDs), and data analysis. Staff participants for individual interviews were identified by the PCBP leadership, and later recruited by the research team. These participants all had worked with buprenorphine treatment and were actively providing services in the program. Former and active client participants were recruited through convenience and snowball sampling. Potential participants were invited to interview at Dee's Place or at another public and safe location through flyers and a recruitment script.

2.3. Interviews and focus group discussions

For each individual interview and FGD, participants were informed of confidentiality and their right to withdraw from the study at any time. The purpose of the study was explained before orally confirming participant consent. Permission for audiotaping and confidential transcription was sought verbally prior to interviews and FDGs. All participants were encouraged to speak freely, and interviewers probed follow-up questions based on topics that arose during the interview.

Duration of interviews and FGDs was approximately one hour. A semi-structured guide explored benefits and motivations for participation (Krawczyk & Dejman et al., 2018), challenges faced in participating and remaining in the PCBP, reasons for leaving the program before transition to ongoing care, and strategies for better retention and transitioning onto maintenance MAT.

2.4. Qualitative analysis

All transcripts were analyzed using an inductive process and content analysis with the help of Dedoose, a data analysis application used for data management and coding (Lieber, Weisner & Taylor, 2018). There were 5 coders among the research team and all transcripts were reviewed by at least 2 of them. At least two coders reviewed each transcript. Interview questions and FGD topics were utilized as guides for initial code development. During analysis, coders independently created and modified themes based on recurrent ideas that emerged from the narratives, driven by consensus between study members and theme saturation.

Credibility, dependability, conformability, and transferability are used to describe various aspects of trustworthiness in qualitative methods (Graneheim & Lundman, 2004; Rolfe, 2006; Dahlgren, Emmeline & Winkvist, 2007). To enhance credibility, we utilized two qualitative techniques: semi-structured individual interviews and FGDs with participants of different genders, levels of education, and experiences in the PCBP. To address conformability, we shared summarized interview findings with participants to ensure results accurately represented their ideas. Transferability was addressed by attempting to clearly detail methods of data collection, analysis, and meaning interpretation. For dependability, researchers used peer checking to reanalyze portions of the data, performed consistency checks between members throughout the coding process (respondent validation), and discussed emergent codes.

The Institutional Review Board (IRB) at Johns Hopkins University Bloomberg School of Public Health approved the research protocol for this study (IRB #: 00007637).

3. Results

Sixteen individuals participated in this study, with nine completing semi-structured interviews and seven participating in two focus groups. Interviews were conducted with PCBP staff ($n = 5$; nurse, doctor, social worker, and two peers) and former clients ($n = 4$) who left the PCBP before they could transition to primary care maintenance. Focus group discussions were conducted with client alumni ($n = 2$) who successfully completed the

program and transitioned to maintenance, and active clients (n = 5). Table 1 summarizes selected characteristics of this sample.

3.1. Symptoms and triggers of addiction

Participants described symptoms of addiction, such as withdrawal and cravings, as a prominent challenge to engaging and remaining in treatment. Both factors negatively impacted participants' lives and often led to relapse. As a former male client explained:

“Some days the disease is more active than other days. When you just want to go back to your old behaviors... ‘What if’ - ‘cause you’re grounded some days, it’ll flash cross your mind. It’s your thinking. You can’t stop your thoughts from happening. That’s why I say you’re not responsible for your disease, but you’re responsible for your recovery.”

A female staff participant further described the struggle and how it impacts program retention:

“So many times people would start and enroll and then just not show up the second week [...] they were just so physically unhappy and, like, not feeling well physically that it’s really hard to feel much of anything other than that.”

In addition, participants recognized relapse risk was especially elevated due to the high availability of drugs in clients' neighborhoods; their social and home environments were often triggers. This temptation continues to be an obstacle even after a client has been actively engaged in treatment. In one focus group, an alumni male client described this difficulty:

“You know the compulsion. Once you start something it’s hard to stop it and you usually go back to what’s familiar. Your old neighborhood, old friends, old thinking patterns. Because it’s a familiarity in it.”

3.2. Mental health needs

Participants recognized comorbid mental health problems as a major challenge to retention. Clients often required greater mental health support to help them properly engage in recovery than the program was able to provide. Staff also recognized this need and detailed how these issues could affect treatment progress. As one female staff participant explained:

“A lot of it has to do with things that haven’t been addressed with their mental health. [...] I feel like we have a pretty, like, fairly lax requirements for someone. Um, but for someone who’s, like, dealing with anxiety or depression-like just asking the bare minimum from somebody or what we see as like the bare minimum is over-whelming.”

3.3. Criminal justice involvement

Clients with illicit substance use histories, who also often experienced living in poverty and unstable housing conditions, were often subject to criminal sanctions that disrupted their medication use. These sanctions became barriers for continued participation in the program-

even when clients were actively engaged and doing well in treatment. As a female staff participant recounted:

“There have been other clients where that has happened to. Where they were locked up for the weekend [...] for giving an opiate-positive urine, but it can be like weeks old? So...I just, it doesn't seem, even particularly accurate or like a reflection of how people are actually doing.”

3.4. Medication stigma

Another challenge was the ideological clash that often occurred due to the nature of the joint peer-support buprenorphine model: those of buprenorphine maintenance and those of medication-free abstinence. Participants explained that many clients internalized the stigma against medication, and this led some of them to want to stop treatment. As one alumni detailed:

“The total key to getting into NA is that you don't have no experience in living right. You were living, but you don't have no experience in living a normal life. Being responsible. So when you get here, you really want that. And all it takes for one of them guys in their 15 to say ‘you gotta stop taking that stuff to be clean’” (Male, 50).

A female staff participant described one client's situation:

“He didn't believe that he would be truly in recovery if he was taking buprenorphine and [...] he consistently struggled every week at some point with using. [...] But in talking more with him, like, he had a lot of shame about using medication and a lot of, like, deeply held beliefs about what recovery is supposed to look like. And he internalized a lot messages that he got from NA or from his family members or from his peers or whoever who just believed that um-that using. that he wouldn't really be “clean” until he was not taking medications.”

3.5. Flexibility vs. structure

Another main challenge was the level of flexibility for mandated program requirements. Some participants believed that structure and accountability were the most essential for successful recovery and should be prioritized regardless of client circumstances. As a male staff participant explained:

“A lot do get on medication or whatever and they been on there for awhile-they always think they got this. I'm better now. I feel better now. Uh, I need less help. I don't need that much structure. You know that they think they got it then before you know it-they relapse and they back out the door again.”

Others instead preferred flexibility as the most effective approach for recovery, especially when clients faced several competing needs. One of the main reasons raised for increasing flexibility was clients' need to balance employment with program requirements. As one staff member noted:

“What the clients were saying made sense to me, which was like ‘I'm bored all day, I'm idle, I have nothing to do’, so those are all triggers to wanting to use. And

working or being able to get a job would give me something else to do with my time and would make it easier to not use.”

Other PCBP staff contended that clients should first and foremost focus on their recovery; they believed that missing program activities and recovery meetings due to employment could act as a trigger for relapse and be counterproductive to the recovery process. For some clients, however, this arrangement did not seem feasible. One female active client described:

“I’ve seen a lot of people come and go since I’ve been here. That a lot of people are leaving because they don’t have a choice to get-well they have a choice, but the choice is they need employment and they-by being in the program-it’s conflicting with that... so they have to leave even though they don’t want to. They have to leave because need to provide, you know, provide for their household and everything.”

4. Discussion

This study explored challenges to participation and retention in a low-threshold combined buprenorphine-peer support treatment program. One common challenge was struggling with cravings and withdrawal symptoms. Participants described how these symptoms not only influenced their decision to engage in treatment, but also interfered with their ability to continue in the program. Many individuals with OUD experience high stress and extended withdrawal symptoms early in the recovery process, and these factors increase cravings and vulnerability to relapse; those with withdrawal symptoms that quickly decline after receiving treatment often fare better, especially when receiving buprenorphine (Northrup et al., 2015). While many participants agreed that medication helped in reducing these symptoms, it was still difficult to resist relapse when they return to neighborhood environments that can often cause stress due to competing responsibilities. In addition, associating with social networks that engage in substance use can increase the temptation to relapse. Both of these factors have been found to be significantly associated with increased risk of problem substance use and relapse (Brewer, Catalano, Haggerty, Gainey, & Fleming, 1998; Sinha, 2001). Since buprenorphine is protective against overdose, it is critical that these vulnerable clients with high relapse risk continue to engage in treatment (Sordo et al., 2017).

Managing comorbid mental health problems while undergoing treatment is another struggle that participants recognized as significant. Comorbid mental health problems have been found to be significant factors for continued substance use and relapse (Bradizza, Stasiewicz, & Paas, 2006; Brewer et al., 1998). To overcome this, alternative care models integrate mental health and substance use treatment. One robust model is the Behavioral Health ECHO (Extension for Community Healthcare Outcomes) program that uses videoconferencing to provide consultation regarding psychopharmacological and non-pharmacological treatments to primary care teams and community health workers (Hager et al., 2018). Another approach is Behavioral Health Homes that provide co-located primary care and wellness services in community mental health centers (Viron, Zioto, Schweitzer, & Levine, 2014).

High substance use and mental health disorder comorbidity can increase the risk of criminal involvement and incarceration, especially among minority groups and marginalized populations that experience poverty and other risk factors (Lamberti, 2007; McNiel, Binder, & Robinson, 2005). A prominent challenge that arose was the disruption of treatment due to involvement of the criminal justice system. Clients underwent incarceration for previous transgressions despite successful adherence to treatment. In addition, staff also reported that clients who recently returned from prison settings felt increased stress and negative self-feelings. This is particularly dangerous given that mortality risk increases immediately after OAT discontinuation. Studies have estimated that individuals experience significantly higher risk of fatal overdose in the weeks after release from incarceration (Cousins et al., 2011; Binswanger et al., 2007). Structured drug treatment programs and community-based resources can serve as protective factors against relapse and overdose after release, but assuring linkage upon release was key (Binswanger et al., 2012).

Medication stigma was another challenge that clients faced. Stigma frequently stemmed from recovery groups that believed in complete abstinence as the true form of recovery, and viewed using medication as a weakness. Oftentimes, this ideology is also a common viewpoint in the community (White, 2011). As a result, clients who take medication are often treated differently and are not viewed as “clean” while participating in support groups like Narcotics Anonymous (NA). Clients internalized this pressure and stigma, and often stopped medication in an attempt to recover without it, which can subsequently increase risk of relapse or overdose. This barrier has been observed in other studies, and often serves as a persistent deterrent to long-term OAT maintenance (Monico et al., 2015; Cooper & Nielsen, 2017). In an effort to combat this, it has been suggested that there is a need for recovery groups that recognize individuals on medication as being in recovery and destigmatize medication use to treat OUD (Krawczyk et al., 2018).

While in treatment, participants reported tension between a rigid program structure and the need for individual flexibility. Participants emphasized the value of structure in restoring routine and promoting recovery. But many also acknowledged the need to balance recovery with other life responsibilities. One significant issue of contention was employment and how program requirements made it difficult for clients to maintain it. Some participants believed in complete focus on treatment, and consequently viewed employment as a harmful distraction. However, many others felt employment was essential for providing for themselves and family, which they also saw as important to their recovery. Studies have found positive associations between employment and improved treatment outcomes, lower rates of substance use relapse, and improved treatment duration (Richardson, Wood, Montaner, & Kerr, 2012). Some studies have suggested that the workplace can serve as a channel for administering and reinforcing SUD treatment (Everly et al., 2011). This disagreement stresses the importance of finding a balance between establishing structure, a large recovery component that is often lost during active addiction, and individualizing care.

This study does not aim to represent client experiences in buprenorphine programs in Baltimore or the U.S. generally and is limited by its small sample. In addition, because information gathered was self-reported, attitudes and responses could have been subject to social desirability effects (Davis, Thake, & Vilhena, 2010; Zemore, 2012). The research

team, based on their ongoing work with the program, may have had previous interactions with participants that could have influenced responses. Researchers utilized multiple interviews and FGDs, included different respondent types (staff and client), and emphasized study confidentiality in order to limit this bias. In addition, staff and client responses often aligned with each other, adding strength to study findings.

5. Conclusion

Clients with OUD, especially those who experience several vulnerabilities and co-morbid psychosocial needs, face a range of barriers to care. Addressing these barriers is essential to ensuring long-term recovery and reducing opioid related morbidity and mortality. Findings highlight the need to integrate mental health and SUD services, modify criminal justice protocols to allow for continued care, increase training and education regarding medication stigma, and develop individualized treatment plans to balance the need for flexibility and structure. Expanding programs like PCBP that provide low-barrier care can help fill the service gap for individuals with OUD. Still, more research needs to be conducted to understand the factors that impact treatment out-comes for community recovery programs. Increased understanding can inform future strategies to promote treatment retention and successful transition rates to long-term medication maintenance.

Acknowledgements

This work is supported by the Johns Hopkins Urban Health Institute under Student-Community Small Grant Awards. Ms. Krawczyk and Tormohlen's work was supported by grant number T32DA007292 (PI: Renee M. Johnson). Dr. Dejman's work was supported by grant number T32MH103210 (PI: Judith Bass)

References

- Amato L, Davoli M, Perucci CA, Ferri M, Faggiano F, & Mattick RP (2005). An overview of systematic reviews of the effectiveness of opiate maintenance therapies: Available evidence to inform clinical practice and research. *Journal of Substance Abuse Treatment*, 28(4), 321–329.
- Barnett PG, Rodgers JH, & Bloch DA (2001). A meta – analysis comparing buprenorphine to methadone for treatment of opiate dependence. *Addiction*, 96(5), 683–690. [PubMed: 11331027]
- Behavioral Health Leadership Institute (BHLI). Project connections buprenorphine program: program and Client summary 2010–2016. <http://mail.bhli.org/pdf/BHLIBupeProgramReportSept2016.pdf>. Published September 2016.
- Binswanger IA, Nowels C, Corsi KF, Glanz J, Long J, Booth RE, & Steiner JF (2012). Return to drug use and overdose after release from prison: A qualitative study of risk and protective factors. *Addiction Science & Clinical Practice*, 7(1), 3. [PubMed: 22966409]
- Binswanger IA, Stern MF, Deyo RA, Heagerty PJ, Cheadle A, Elmore JG, & Koepsell TD (2007). Release from prison—A high risk of death for former inmates. *New England Journal of Medicine*, 356(2), 157–165. 10.1056/NEJMsa064115 . [PubMed: 17215533]
- Bradizza CM, Stasiewicz PR, & Paas ND (2006). Relapse to alcohol and drug use among individuals diagnosed with co-occurring mental health and substance use disorders: A review. *Clinical Psychology Review*, 26(2), 162–178. [PubMed: 16406196]
- Brewer DD, Catalano RF, Haggerty K, Gainey RR, & Fleming CB (1998). RESEARCH REPORT a meta – analysis of predictors of continued drug use during and after treatment for opiate addiction. *Addiction*, 93(1), 73–92. [PubMed: 9624713]
- Centers for Disease Control and Prevention (CDC) (2017). Understanding the Epidemic. Retrieved April 18, 2018, from. (<https://www.cdc.gov/drugoverdose/epidemic/index.html>).

- Centers for Disease Control and Prevention (CDC) (2018). U.S drug overdose deaths continue to rise; increase fueled by synthetic opioids. Retrieved May 10, 2018, from. (<https://www.cdc.gov/media/releases/2018/p0329-drug-overdose-deaths.html>).
- Connery HS (2015). Medication-assisted treatment of opioid use disorder: Review of the evidence and future directions. *Harvard Review of Psychiatry*, 23(2), 63–75. 10.1097/HRP.0000000000000075. [PubMed: 25747920]
- Cooper S, & Nielsen S (2017). Stigma and social support in pharmaceutical opioid treatment populations: A scoping review. *International Journal of Mental Health and Addiction*, 15(2), 452–469.
- Cousins G, Teljeur C, Motterlini N, McCowan C, Dimitrov BD, & Fahey T (2011). Risk of drug-related mortality during periods of transition in methadone maintenance treatment: A cohort study. *Journal of Substance Abuse Treatment*, 41(3), 252–260. [PubMed: 21696913]
- Dahlgren L, Emmelin M, & Winkvist A (2007). *Qualitative methodology for International public health*. Umea, Sweden: Epidemiology and Public Health Sciences, Department of Public Health and Clinical Medicine, Umea University.
- Daniels AM, Salisbury-Afshar E, Hoffberg A, Agus D, & Fingerhood MI (2014). A novel community-based buprenorphine program: Client description and initial outcomes. *Journal of Addiction Medicine*, 8(1), 40–46. [PubMed: 24394496]
- Davis CG, Thake J, & Vilhena N (2010). Social desirability biases in self-reported alcohol consumption and harms. *Addictive Behaviors*, 35(4), 302–311. [PubMed: 19932936]
- Deering DE, Sheridan J, Sellman JD, Adamson SJ, Pooley S, Robertson R, & Henderson C (2011). Consumer and treatment provider perspectives on reducing barriers to opioid substitution treatment and improving treatment attractiveness. *Addictive Behaviors*, 36(6), 636–642. [PubMed: 21276664]
- Everly JJ, DeFulio A, Koffarnus MN, Leoutsakos JMS, Donlin WD, Aklin WM, ... Silverman K (2011). Employment – based reinforcement of adherence to depot naltrexone in unemployed opioid – dependent adults: A randomized controlled trial. *Addiction*, 106(7), 1309–1318. [PubMed: 21320227]
- Florence C, Luo F, Xu L, & Zhou C (2016). The economic burden of prescription opioid overdose, abuse and dependence in the United States, 2013. *Medical Care*, 54(10), 901. [PubMed: 27623005]
- Graneheim UH, & Lundman B (2004). Qualitative content analysis in nursing research: Concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105–112.
- Hager B, Hasselberg M, Arzubi E, Betlinski J, Duncan M, Richman J, & Raney LE (2018). Leveraging behavioral health expertise: Practices and potential of the project ECHO approach to virtually integrating care in underserved areas. *Psychiatric Services*, 69(4), 366–369. [PubMed: 29446334]
- Jones CM, Campopiano M, Baldwin G, & McCance-Katz E (2015). National and state treatment need and capacity for opioid agonist medication-assisted treatment. *American Journal of Public Health*, 105(8), e55–e63.
- Kourounis G, Richards BDW, Kyprianou E, Symeonidou E, Malliori MM, & Samartzis L (2016). Opioid substitution therapy: Lowering the treatment thresholds. *Drug & Alcohol Dependence*, 161, 1–8. [PubMed: 26832931]
- Krawczyk N, Feder KA, Fingerhood M, & Saloner B (2017). Racial and ethnic differences in opioid agonist treatment for opioid use disorder in a U.S. national sample. *Drug and Alcohol Dependence*, 178 10.1016/j.drugalcdep.2017.06.009 .
- Krawczyk N, Negron T, Nieto M, Agus D, & Fingerhood MI (2018). Overcoming medication stigma in peer recovery: A new paradigm. *Substance Abuse*, 1–6.
- Krawczyk N, Picher CE, Feder KA, & Saloner B (2017). Only one in twenty justice-referred adults in specialty treatment for opioid use receive Methadone or Buprenorphine. *Health Affairs (Project Hope)*, 36(12), 2046–2053. [PubMed: 29200340]
- Lamberti JS (2007). Understanding and preventing criminal recidivism among adults with psychotic disorders. *Psychiatric Services*, 58(6), 773–781. [PubMed: 17535936]
- Lieber E, Weisner T, & Taylor J (2018). Dedoose [Web-based application]. Retrieved from. (<https://www.dedoose.com>).

- Marchand K, Oviedo-Joekes E, Guh D, Marsh DC, Brissette S, & Schechter MT (2012). Sex work involvement among women with long-term opioid injection drug dependence who enter opioid agonist treatment. *Harm Reduction Journal*, 9(1), 8. [PubMed: 22276954]
- Maryland Department of Health (MDH). (2017). Drug- and Alcohol-Related Intoxication Deaths in Maryland, https://bha.health.maryland.gov/OVERDOSE_PREVENTION/Documents/Maryland%202016%20overdose%20Annual%20report.pdf
- Mattick RP, Breen C, Kimber J, & Davoli M (2009). Methadone maintenance therapy versus no opioid replacement therapy for opioid dependence. *Cochrane Database of Systematic Reviews*, 3.
- Mattick RP, Breen C, Kimber J, Davoli M. (2014) Buprenorphine maintenance versus placebo or methadone maintenance for opioid dependence. *Cochrane Database of Systematic Reviews* 2014, Issue 2 Art. No.: CD002207 DOI: 10.1002/14651858.CD002207.pub4 .
- McNeil DE, Binder RL, & Robinson JC (2005). Incarceration associated with homelessness, mental disorder, and co-occurring substance abuse. *Psychiatric Services*, 56(7), 840–846. 10.1176/appi.ps.56.7.840. [PubMed: 16020817]
- Metzger DS, Woody GE, McLellan AT, O'Brien CP, Druley P, Navaline H, ... Abrutyn E (1993). Human immunodeficiency virus seroconversion among intravenous drug users in- and out-of-treatment: An 18-month prospective follow-up. *Journal of Acquired Immune Deficiency Syndromes*, 6, 1049.
- Monico LB, Gryczynski J, Mitchell SG, Schwartz RP, O'Grady KE, & Jaffe JH (2015). Buprenorphine treatment and 12-step meeting attendance: Conflicts, compatibilities, and patient outcomes. *Journal of Substance Abuse Treatment*, 57, 89–95.
- National Institute on Drug Abuse (NIDA) (2017). Overdose Death rates. Retrieved April 18, 2018, from. (<https://www.drugabuse.gov/related-topics/trends-statistics/overdose-death-rates>).
- Nolan S, Hayashi K, Milloy MJ, Kerr T, Dong H, Lima VD, ... Wood E (2015). The impact of low-threshold methadone maintenance treatment on mortality in a Canadian setting. *Drug and Alcohol Dependence*, 156, 57–61. [PubMed: 26455554]
- Northrup TF, Stotts AL, Green C, Potter JS, Marino EN, Walker R, ... Trivedi M (2015). Opioid withdrawal, craving, and use during and after outpatient buprenorphine stabilization and taper: A discrete survival and growth mixture model. *Addictive Behaviors*, 41, 20–28. [PubMed: 25282598]
- Richardson L, Wood E, Montaner J, & Kerr T (2012). Addiction treatment-related employment barriers: The impact of methadone maintenance. *Journal of Substance Abuse Treatment*, 43(3), 276–284. [PubMed: 22301085]
- Rolf G (2006). Validity, trustworthiness and rigor: Quality and the idea of qualitative research. *Journal of Advanced Nursing*, 53(3), 304–310. [PubMed: 16441535]
- Simon CB, Tsui JI, Merrill JO, Adwell A, Tamru E, & Klein JW (2017). Linking patients with buprenorphine treatment in primary care: Predictors of engagement. *Drug and Alcohol Dependence*, 181, 58–62. [PubMed: 29035705]
- Sinha R (2001). How does stress increase risk of drug abuse and relapse? *Psychopharmacology*, 158(4), 343–359. [PubMed: 11797055]
- Sordo L, Barrio G, Bravo MJ, Indave BI, Degenhardt L, Wiessing L, ... Pastor-Barriuso R (2017). Mortality risk during and after opioid substitution treatment: Systematic review and meta-analysis of cohort studies. *BMJ*, 357, j1550. [PubMed: 28446428]
- Tsui JI, Evans JL, Lum PJ, Hahn JA, & Page K (2014). Association of opioid agonist therapy with lower incidence of hepatitis C virus infection in young adult injection drug users. *JAMA Internal Medicine*, 174(12), 1974–1981. [PubMed: 25347412]
- Viron M, Zioto K, Schweitzer J, & Levine G (2014). Behavioral Health Homes: An opportunity to address healthcare inequities in people with serious mental illness. *Asian Journal of Psychiatry*, 10, 10–16. [PubMed: 25042945]
- Voklow ND, Frieden TR, Hyde PS, & Cha SS (2014). Medication-assisted therapies—Tackling the opioid-overdose epidemic. *New England Journal of Medicine*, 370(22), 2063–2066. [PubMed: 24758595]
- White WL (2011). *Narcotics Anonymous and the Pharmacotherapeutic Treatment of Opioid Addiction in the United States*. Chicago, IL: Philadelphia Department of Behavioral Health and Intellectual

Disability Services and Great Lakes Addiction Technology Transfer Center (<http://atforum.com/documents/2011NAandMedication-assistedTreatment.pdf>).

Zemore SE (2012). The effect of social desirability on reported motivation, substance use severity, and treatment attendance. *Journal of Substance Abuse Treatment*, 42(4), 400–412. [PubMed: 22119180]

Zibbell JE, Asher AK, Patel RC, Kupronis B, Iqbal K, Ward JW, & Holtzman D (2018). Increases in acute hepatitis C virus infection related to a growing opioid epidemic and associated injection drug use, United States, 2004 to 2014. *American Journal of Public Health*, 108(2), 175–181. [PubMed: 29267061]

HIGHLIGHTS

- Individual client barriers include cravings, withdrawal, and comorbid mental health issues.
- Treatment was often disrupted by criminal justice system involvement and medication stigma.
- Participants disagreed on the level of program flexibility and role of employment.

Table 1

Study participant characteristics ($n = 16$).

	Number of participants	Age Range	Gender
Individual staff interview	5	28–60	2 Male & 3 Female
Individual former client interview	4	33–56	All Male
Focus group active clients	5	30–70	3 Male & 2 Female
Focus group graduated clients	2	50–51	1 Male & 1 Female