



Published in final edited form as:

J Subst Abuse Treat. 2022 November ; 142: 108870. doi:10.1016/j.jsat.2022.108870.

Barriers to accessing treatment for substance use after inpatient managed withdrawal (Detox): A qualitative study

Allison R. DAVID, MD^a, Carlos R. SIAN, MPH^b, Christina M. GEBEL, MPH^c, Benjamin P. LINAS, MD, MPH^{b,c,d}, Jeffrey H. SAMET, MD, MA, MPH^{a,c}, Linda S. SPRAGUE MARTINEZ, PhD^e, Jordana MUROFF, PhD^e, Judith A. BERNSTEIN, PhD^c, Sabrina A. ASSOUMOU, MD, MPH^{b,d}

^aSection of General Internal Medicine, Department of Medicine, Boston Medical Center, Boston, MA, USA

^bSection of Infectious Diseases, Department of Medicine, Boston Medical Center, Boston, MA, USA

Corresponding author Sabrina A. Assoumou, MD, MPH, Louis W. Sullivan, MD, Endowed Professor of Medicine, Assistant Professor, Department of Medicine, Section of Infectious Diseases, Boston University School of Medicine, Boston Medical Center, 801 Massachusetts Ave., Crosstown Center, 2nd Floor, Boston, MA 02118, P: 617-414-2896, F: 617-414-3534, sabrina.assoumou@bmc.org.

Author statement

Conceptualization: Assoumou, Bernstein

Data curation: Assoumou, Bernstein, Sian

Formal analysis: David, Assoumou, Bernstein, Sian, Gebel,

Funding acquisition: Assoumou

Methodology: Assoumou, Bernstein, Gebel

Project administration: Assoumou, Sian

Resources: Assoumou

Software: Assoumou, Gebel

Supervision: Assoumou, Bernstein

Validation: David, Assoumou, Bernstein, Gebel, Sian

Roles/Writing - original draft: David, Assoumou, Bernstein

Writing - review & editing: David, Assoumou, Bernstein, Gebel, Linas, Sian, Samet, Sprague Martinez, Muroff

Allison R. David, MD, Department of Medicine, Boston Medical Center, 72 East Concord Street, Evans 124, Boston, MA 02118, Allison.david@bmc.org

Carlos R. Sian, MPH, Section of Infectious Diseases, Boston Medical Center, 801 Massachusetts Ave., Crosstown Center, 2nd Floor, Boston, MA 02118, csian@bu.edu

Christina M. Gebel, MPH, Boston University School of Public Health, cgebel@gmail.com

Benjamin P. Linas, MD, MPH, Professor of Medicine, Boston University School of Medicine, Professor of Epidemiology, Boston University School of Public Health, 801 Massachusetts Ave., Crosstown Center, 2nd Floor, Boston, MA 02118, P: 617-414-5238, F: 617-414-3534, Benjamin.Linas@bmc.org

Jeffrey H. Samet, MD, MA, MPH, John Noble, MD Professor of Medicine and Professor of Community Health Sciences, Boston University Schools of Medicine and Public Health, Vice Chair for Public Health, Department of Medicine, 801 Massachusetts Avenue, 2nd Floor, Boston, MA 02118, P: 617-414-7288, F: 617-414-4676, jsamet@bu.edu

Linda S. Sprague Martinez, PhD, Associate Professor, Boston University School of Social Work, 264 Bay State Road, Boston, MA 02215, P: 617-358-0782, lsmarti@bu.edu

Jordana Muroff, PhD, Associate Professor and Chair, Clinical Practice Department, Boston University School of Social Work, jmuroff@bu.edu

Judith A. Bernstein, PhD, Emerita Professor, Boston University School of Public Health, Dept of Community Health Sciences, 801 Massachusetts Ave, Crosstown Center, Boston, MA 02118, P: 617-414-1415, jbernste@bu.edu

Conflict of interest: The authors have no conflicts of interest to declare. Linda Sprague Martinez is an external evaluator for the Boston Public Health Commission and Action for Boston Area Development and a research consultant for BMC and The City School.

Publisher's Disclaimer: This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

^cDepartment of Community Health Sciences, Boston University School of Public Health, Boston, MA, USA

^dSection of Infectious Diseases, Department of Medicine, Boston University School of Medicine, Boston, MA, USA

^eBoston University School of Social Work, Boston, MA, USA

Abstract

Introduction: Access to and uptake of evidence-based treatment for substance use disorder, specifically opioid use disorder (OUD), are limited despite the high death toll from drug overdose in the United States in recent years. Patient perceived barriers to evidence-based treatment after completion of short-term inpatient medically managed withdrawal programs (detox) have not been well studied. The purpose of the current study is to elicit patients' perspectives on challenges to transition to treatment, including medications for OUD (MOUD), after detox and potential solutions.

Methods: We conducted semi-structured interviews (N=24) at a detox center (2018–2019) to explore patients' perspectives on obstacles to treatment. The study managed the data in NVivo and we used content analysis to identify themes.

Results: Patients' characteristics included the following: 54% male; mean age 37 years; self-identified as White 67%, Black 13%, Latinx 8%, Native Hawaiian/Pacific Islander 4%, and other 8%; heroin use in the past 3 months 67%; and ever injecting drugs 71%. Patients identified the following barriers: 1) lack of continuity of care; 2) limited number of detox and residential treatment program beds; 3) unstable housing; and 4) lack of options when choosing a treatment pathway. Solutions proposed by participants included: 1) increase low-barrier access to community MOUD; 2) add case managers at the detox center to establish continuity of care after discharge; 3) increase assistance with housing; and 4) encourage patient participation in treatment decisions.

Conclusions: Patients identified lack of continuity of care, especially care coordination, as a major barrier to substance use treatment. Increasing treatment utilization, including MOUD, necessitates a multimodal approach to continuity of care, low-barrier access to MOUD, and support to address unstable housing. Patients want care that incorporates options and respect for individualized preferences and needs.

Keywords

Drug detoxification center; People who inject drugs; Continuity of care; Linkage to care; Access to care; Medications for opioid use disorder

1. Introduction

Approximately 20 million adults in the United States have a substance use disorder (SUD), with 1.6 million individuals having an opioid use disorder (OUD) (Substance Abuse and Mental Health Services Administration, 2020). Opioid-related premature deaths have increased over the past decade (Gomes et al., 2018), and opioid-related overdose deaths

have continued to rise in the context of the coronavirus-19 pandemic, with an estimated 104,000 fatal drug overdoses in the 12 months preceding February 2022 (Ahmad et al., 2022). Despite advances in treatment, gaps remain in access and uptake of evidence-based treatment, particularly related to accessing medication treatment for OUD (Knudsen et al., 2011; Mojtabai et al., 2019).

Short-term inpatient medically managed withdrawal programs, commonly referred to as drug detoxification (detox) centers, often serve as a step in the recovery process for many individuals with SUD. Over several decades approaches to detoxification have evolved as substance use is being recognized as a chronic medical condition necessitating medical intervention. Within the “medical model” for detoxification, a detox center provides management of withdrawal symptoms through administration of medications to safely assist patients through withdrawal. In contrast, the “social model” of detoxification focuses on providing a supportive nonhospital environment for individuals during the period of withdrawal and addressing personal aspects of addiction. As the perception of addiction and treatment options have evolved, inpatient detoxification programs are largely becoming a combination of these two models, with the goal of providing medical and social support for patients (Center for Substance Abuse Treatment, 2006). The goal of detoxification centers is therefore to manage the acute symptoms of withdrawal and potentially prevent their complications. However, this goal is distinct from substance use treatment, which involves therapies intended to promote recovery. Given that the majority of individuals are not receiving further substance use care after completing detox (Morgan et al., 2020; Zhu & Wu, 2018), these facilities have the potential to provide a bridge between detoxification and substance use treatment, and, therefore, save many lives. For individuals with OUD, detox alone, without medications for OUD such as methadone or buprenorphine, carries an increased risk for fatal drug overdose (Strang et al., 2003), while research has shown initiation of MOUD to decrease rates of overdose (Wakeman et al., 2020).

Previous studies have explored barriers and facilitators to treatment access for opioid use. These studies focused on various settings including primary care clinics (Tofighi et al., 2019), residential treatment programs (Alanis-Hirsch et al., 2016), and rural communities (Lister et al., 2020). However, little information exists on barriers faced in the transition from detox discharge to outpatient treatment for opioid use. A recent qualitative study including interviews of clinicians at a detox elicited barriers experienced by people transitioning from detox; it found that barriers included stigma, lack of financial resources, and a difficult living environment (Timko et al., 2016), but it did not specifically elicit information from detox patients themselves. Engaging people who are most affected in the design and implementation of service delivery can help to ensure that policies and services reflect the priorities, needs, and values of the population, and that potential challenges are taken into account (L. Sprague Martinez et al., 2018; L. S. Sprague Martinez et al., 2020).

In the current study, we interviewed patients with self-reported substance use, admitted to the largest drug detoxification center in Boston, a city highly impacted by the US opioid crisis, to determine barriers to accessing further substance use treatment, including medications for OUD, after admission to detox, and to elicit patients’ input on solutions to address these gaps in care. The data presented are from a secondary analysis of information

initially collected to determine facilitators and barriers to behavioral change in regard to hepatitis C treatment among individuals undergoing detox (Assoumou et al., 2021). These data were then used to inform a behavioral intervention to improve hepatitis C treatment. The current analysis specifically focuses on the experiences with substance use care among patients seen at a drug detoxification center.

2. Methods

2.1 Conceptual framework and interview guide development

The Information-Motivation-Behavioral skills theoretical model (Fisher & Fisher, 1992) guided development of the interview structure and content. The model underscores behavioral change necessitates that individuals at-risk receive accurate *information*, develop *motivation* for change, and acquire *behavioral skills* in the form of self-efficacy. The Information-Motivation-Behavioral skills theoretical model has been applied to a variety of areas since its development in 1992, including to assess adherence to antiretroviral therapy for HIV (Starace et al., 2006) and diabetes medication adherence (Mayberry & Osborn, 2014). This model that guided the larger study is applicable to findings reported here, because it contextualizes facilitators and barriers to behavioral change in regard to hepatitis C treatment among individuals undergoing detox (Assoumou et al., 2021).

2.2 Study design and sample

We used qualitative methods to describe challenges that patients with a history of substance use after admission to detox face. We conducted semi-structured interviews from 2018 to 2019 with individuals admitted to the Boston Treatment Center (BTC), a 50-bed drug and alcohol detoxification center that functions similarly to detox programs across the country. Patients usually stay at BTC for approximately five days while undergoing medically managed withdrawal. The Boston University Medical Campus IRB approved the study.

2.2.1 Sampling and recruitment—We used facility-based sampling to identify participants. This approach is used to identify populations that are difficult to engage, including people who use drugs (Magnani et al., 2005; Shaghghi et al., 2011). Patients were eligible for the study if they were 18 years of age, English speaking, and had a history of self-reported drug use. At the end of the general information session offered at the detox to all admitted patients, case managers informed patients that there was an opportunity to participate in a study designed to learn about facilitators and barriers to follow-up care after detox. Patients who were interested in the study later met one-on-one in a private room with the research assistant to learn about the study. Patients were informed that participation in the study would not impact the care that they received at the detox. Individuals who were interested in participating in the study underwent informed consent. Given findings from the literature showing that the majority of patients return to detox facilities multiple times (Morgan et al., 2020), we believed that interviewing individuals on admission to detox would provide information about their prior experience after leaving similar facilities; such prior experiences, negative or positive, are often determining factors in being able to engage with and sustain future treatment.

2.3 Data collection and procedures

After obtaining verbal consent of all individuals who agreed to participate, a research assistant conducted interviews in a private office at the facility. Interviews lasted approximately 45–60 minutes and were audio-recorded. As part of the interview data, we collected information on patients' demographics, substance use history, social history and housing stability (defined as living in a shelter, on the street, or with family or friends). These questions were followed by semi-structured items exploring barriers to accessing treatment for substance use, with prompts for known barriers described in the literature and probes for additional perspectives. For individuals with reported opioid use, the interviews culminated with sections exploring participants recommendations for improving access specifically for treatment for opioid use, including medications. All participants received a \$20 gift card for their participation. We conducted interviews until the study achieved saturation (Morse, 1995). We had all audio recordings professionally transcribed verbatim and we managed de-identified recordings in NVivo 12 (QSR International).

2.4 Data analysis

We used a thematic analysis. Three different research team members independently coded transcripts, focusing on the data itself without preconceived categories. Members of the team read interview transcripts multiple times to familiarize themselves with the data and to search for meaningful patterns (Braun et al., 2019). The team reflected on their questions and reactions to the codes (Charmaz, 2006). Members then met to discuss their initial reaction and to assess consistency in the analytic approach (Boyatzis, 1998). We determined initial codes and developed a codebook. Once the codebook was completed, a member of the team (CMG) labeled the text using NVivo and applied codes to the remaining transcripts (Braun et al., 2019; Braun & Clarke, 2006). Once the coding was completed, the team reviewed the data to determine overarching themes (Vaismoradi et al., 2013). The final stage of the analysis involved selecting text segments from the data to illustrate each of the themes.

3. Results

3.1 Patient characteristics

We interviewed 24 participants for the study; 54% (13/24) were male (Table 1). The mean [SD] age of all individuals in the study was 37 [10] years. Eighteen individuals identified as White (67%), while three (13%) identified as Black, two (8%) as Latinx, one (4%) as Native Hawaiian/Pacific Islander, and two (8%) as other. Fourteen (58%) participants reported unstable housing within the past six months, while three (12%) were recently living in a residential treatment facility. Fourteen (58%) participants were currently unemployed. Eighteen (75%) individuals reported opioid use in the past three months, with 16 (67%) individuals using heroin, seven (29%) using prescription painkillers, three (13%) using non-prescribed methadone, and two (8%) using non-prescribed buprenorphine. Seventeen (71%) participants reported injecting drugs at least once in their lifetime.

3.2 Themes

Five categories of themes emerged related to facilitators and barriers to accessing care, including medications for opioid use, following time spent at the drug detox. The most commonly reported barriers to care included the lack of continuity of care and limitations to physical capacity of the detox facility. We also identified five potential solutions to these challenges that were proposed by patients. Solutions most commonly reported by participants were the importance of having options for substance use treatment and having access to low-barrier treatment. In the following paragraphs, we examine each theme and provide narrative support.

3.2.1 Patients' perspectives on barriers to definitive care after detox:

1. The care that individuals receive after detox lacks continuity with outpatient management. Patients expressed that the lack of care continuity was an important barrier to transitioning from inpatient detox to outpatient treatment for substance use. Some patients reported feeling as though detox did not serve as a starting point in their recovery process because a clear plan for continuity of care was often lacking. Many participants described challenges faced after leaving detox. These challenges included the lack of definitive follow-up care, specifically assistance with establishing care at a methadone clinic or scheduling appointments with clinicians who can prescribe outpatient medications for opioid use disorder (MOUD), such as buprenorphine and extended-release naltrexone.

“I remember when I called after I left here one time. I called here to get help, like, on a day program or a suboxone program, any type of help. And the lady upstairs, [NAME], told me, like, once you leave here, we're not responsible for you guys.”

(32-year-old, Black female)

Many patients shared examples of leaving detox without any plans for further treatment or being cycled through multiple similar stays at short-term substance use facilities.

“I've left detox on my sixth or seventh day because they couldn't find further treatment for me...”

(35-year-old, White male)

Sometimes this lack of a definitive care plan led to patients being readmitted to inpatient detox.

“Some people go back on the street, go use for a few more days or a week or two, and then come back and try and do the same shit over again.”

(29-year-old, White male)

2. Inpatient detox lacks the necessary support staff to help with transitions in care. Many participants noted that facilities did not have enough staff such as case managers who are tasked with helping patients with continuity of care.

“There's only four case managers here. So, it makes it more difficult to get placed from this place.”

(38-year-old, White male)

“In places like this, there's a lot of people and, you know, sometimes there's more than one person at the door, more than one person wanting to speak to the case manager, you know. And one person takes up the time and then before you know it, they [case managers]’re gone.”

(57-year-old, Black male)

3. Time at inpatient detox is not long enough for individuals to remain in recovery after discharge. Participants discussed the short amount of time spent at inpatient detox and feeling that the limited amount of time is not enough to remain in recovery after discharge. They expanded on difficulties with finding somewhere else to go to continue their recovery after completion of inpatient detox.

“Yeah, well, I always get nervous, because detox is only, like, the seven days or whatever. So, then it’s beds. It’s, like, you have to be able to find a bed to go to another place.”

(27-year-old, White female)

“I’ve also had it where there's been no placement. I've had to leave detox after seven days and just hang in there, checking in with certain holdings that take you off the street as long as you can give a clean urine. It is much more difficult...”

(38-year-old, Latinx male)

“I’ve seen guys in here that were in here like a few months ago when I was here. Again. Like, I feel like they just come in and try...and try and do what I’m saying, you know? For where they want to go. So, they’ll fucking go out and go do the same shit, and then come back and try it again hoping that they can get a CSS [Clinical Stabilization Services] or TSS [Transitional Support Services] bed and then go to a sober house or hallway house.”

(29-year-old, White male)

4. Physical beds are lacking at long-term residential treatment programs after completion of acute inpatient detox, a particular problem for patients without stable housing. When discussing barriers to treatment for opioid use, many participants focused on the physical capacity of the system as a limiting factor to accessing care. This barrier included the number of available beds within post-detoxification treatment centers. This issue was especially prevalent among patients with unstable housing.

“One thing that I see a lot lately is people coming to detox looking to get placed into further treatment as like a holding, and they can’t get a bed. And that sucks. You know, when you see people that, you know, they really want to stay clean, they don’t just want a bed for whatever other reasons, and you know, you see their last day with them walking out of there with their bags over their shoulder, it hurts to see...”

(35-year-old, White male)

“Sometimes I wasn’t able to receive the care that I needed. I had to hit the streets, or I had to go to other organizations.”

(28-year-old, Native Hawaiian male)

“Yeah, because it was like in the middle of wintertime, and like everything was full. Everyone was like, you know, trying to get beds at the same time...”

(38-year-old, White male)

Some participants pointed out that many individuals face triggers for their opioid use when they do not have a place to go after inpatient detox. Participants noted that being discharged to live on the streets, or to a shelter without placement in a recovery house, created many challenges.

“It’s so easy for a case worker to look at someone and say, ‘Oh we couldn’t get you a bed, but you can follow up at Paths [a walk-in drug treatment clinic] tomorrow or the next day.’ Like okay, but you know what? Now I’m staying in a safe environment and you’re sending me to the shelter and telling me to go to Paths. At the shelter where everybody’s using, everybody’s getting high. And whether I do or I don’t want to, even if I go with the greatest intentions, I don’t feel like six days is enough clean time to go stay in a shelter with 60 people that are getting high, and the rest are, you know, whatever, you know.”

(35-year-old, White male)

5. The lack of stable housing is an important barrier to recovery from substance

use. Many participants discussed that lack of resources, such as stable housing or finances, leads to difficulty with maintaining recovery.

“You know, if I had a job and I had money saved, you know, to have my own, you know, room to rent or my own apartment, you know, just keep going with my sobriety, you know.”

(61-year-old, White male)

3.2.2 Patients’ perspectives on potential solutions to barriers and challenges:

1. The importance of having options to select the best treatment plan for each patient’s unique experience. Patients underscored the importance of having options for accessing further treatment to facilitate the transition to outpatient care.

“I was kind of forced into going back to the Salvation Army. I mean, you know, it’s kept me clean and stuff, but it’s, you know, it’s not good when it’s, like, the only option. You know? Like, you want to try something else, too, sometimes.”

(29-year-old, White male)

They identified the importance of a forgiving system and the ability to have multiple opportunities to try different forms of treatment. Such a system was highlighted as an important ingredient that could lead to success.

“I think that the way things are now, to date, I mean, people are, insurance is more, like, forgiving now than they were a few years ago, on how many places you go and

how many chances you get and what not. Now it's like, you know, they keep giving you opportunities.”

(34-year-old, White male)

Participants also noted that the lack of options in the past might have contributed to gaps in continuity of care and that when they were not given options to select from alternative plans, they were less likely to continue with treatment.

“You can tell them as many places as you want to go. They can send as many referrals as you like, but at the end of the day if, you know, they tell you that you can only go here and it's, like, you don't want...it's like your last resort thing, it's like some people don't take it.”

(29-year-old, White male)

Patients emphasized the chronic relapsing nature of substance use, specifically opioid use, and reported multiple different treatment attempts during their recovery process, highlighting the importance of having options to choose a treatment path that best served their current needs.

“I've left detox looking to get on Suboxone. I've left detox having myself set up for direct admits to get on the methadone clinic. I've left detox on my sixth or seventh day because they couldn't find further treatment for me, and they couldn't find a bed for me. I've left detox with plans on going to IOPs [intensive outpatient programs], just you know, outpatient programs while staying at my family's house. Pretty much any type of way, any type of treatment there is, I've come to detox and left with planning to do or go to or follow up with. You know, some of it worked out well, some of it didn't.”

(35-year-old, White male)

2. The need for assistance with establishing continuity of care after completion of

inpatient detox. Some participants reported that leaving detox without a plan in place left them without the necessary support to complete critical next steps necessary for success on the path to long-term recovery, and suggested solutions to address these gaps in treatment, which largely included leaving inpatient detox with a plan in place to access follow-up care. Patients highlighted the difficulty of being able to navigate the process of finding a clinic and getting an appointment when they lacked phones or other modes of communication. They also described the need for help with scheduling appointments and communicating with the follow-up care team.

“I feel like if they had it set up for me, the detox, when I was leaving, then it, you know, worked okay. I'd go to my appointment and follow up. If I didn't, then I wouldn't end up going, you know. Be too many roadblocks. I wouldn't know where to go. Yeah, I think that's pretty, yeah, that's it. Yeah. 'Cause if it's-if it wasn't, then like you said it would just be too hard or too overwhelming, you know, to do it myself. Or I wouldn't have a phone or, you know, I wouldn't exactly know where to.”

(50-year-old, White female)

3. Additional case managers and more time available with them could help with continuity of care. Some participants suggested a need for more case managers to facilitate continuity with care postdetox. They also noted that what was important was not only the number of support staff, but also the amount of time that participants were able to spend with case managers.

“So, there should be more case managers who we can all, you know, have equal amounts of time to talk to, you know what I'm saying?”

(57-year-old, Black male)

4. Some participants thought that low-barrier access to substance use treatment, including MOUD, with same-day and walk-in clinic visits, can improve access to long-term treatment. Participants shared that having access to a walk-in clinic where they could be connected to same-day care for substance use is an important option that could provide an additional linkage to long-term treatment. One participant specifically referenced a nearby bridge clinic where patients can walk in and receive same-day treatment for SUD, including access to MOUD such as buprenorphine and naltrexone or referral to methadone treatment programs.

“I mean luckily, like, being in Boston where we are, like, you know, we got Paths [a walk-in drug treatment clinic] right around the corner. You can go there, that's great.”

(35-year-old, White male)

In addition, a participant shared the sense of relief that he experienced after knowing that he had a plan for MOUD after leaving detox.

“Yeah, like, just being able to leave and have, like, a suboxone program set up. Like, now I have the shot set up so when I leave, I'm going to have the shot set up in the day program, so I feel a lot more safe leaving here knowing that I have that stuff set up...And I just feel more hopeful of not just being thrown out there, like, just leaving with nothing.”

(32-year-old, Black female)

Another participant shared his difficulty with accessing treatment for OUD despite multiple encounters with the current recovery system to assist individuals seeking treatment. This example illustrates the need for additional care coordination.

“Many of times I went to seven some odd halfway houses and holdings and I've done the whole nine and then, so now I'm on maintenance [methadone maintenance].”

(34-year-old, Latinx female)

While some participants expressed enthusiasm for MOUD, others shared their skepticism about these treatments, which they perceived as developing a dependence to another substance.

“So, I don’t feel like you should. And I don’t knock anybody for being on, like, you know what I mean, stuff like that, like ... Suboxone, Methadone, all that stuff, ‘cause if that keeps them away from drugs then that’s fine. But I still think that’s just a ball and chain on your ankle that just somewhere down the line you gotta kick that too.”

(27-year-old, White female)

5. Assistance with securing stable housing would allow individuals to focus on recovery from substance use.: Some participants identified safe and stable housing as an important factor for success and discussed using treatment as a means to getting help with housing instability.

“So, like, I would take pride in, like, where I’m, like...you know, I’m not living on the street, so I said, “Okay, I guess that’s where I want to go.”

(29-year-old, White male)

“And like the first time I couldn’t get a bed at the detox when I went to it, so I went right, I didn’t even use, I went right to another detox. And then, it was actually on the state line, and then they got me into a halfway house down in Newberry called the Link House, so I stayed there for a while. And I did good down there.”

(38-year-old, White male)

4. Discussion

We found that individuals with substance use who utilized short-term inpatient medically managed withdrawal programs (detox) as part of their recovery process identified lack of care continuity and limited support services as major barriers when transitioning to outpatient treatment. Many participants were not linked with appropriate outpatient care after discharge. For individuals with opioid use, this gap limited access to further treatment with medications. As a result of limited available time with case managers, who are tasked with helping with this transition, many participants encountered multiple barriers when navigating the options for outpatient care after detox. The lack of support often hindered their follow-up care, leading to patients cycling through short-term detox after episodes of relapse. When patients were at a detox program, they noted that the limited time spent was not long enough to continue on the path to recovery upon discharge and participants noted that they often did not have options from which to select a treatment path that would best serve their recovery. Finally, participants noted that lack of stable housing was a critical barrier to continuing on a path to recovery. Some participants felt that without stable housing upon completion of detox, they were left to return to unstable environments that could serve as triggers for their substance use. The current findings are important because detox is often the first step taken by individuals who are interested in the recovery process. The study identifies some of the barriers associated with long-term recovery after detox and provides some solutions directly proposed by patients.

To our knowledge, only one other qualitative study has evaluated barriers faced by individuals with opioid use when accessing treatment after inpatient detox (Timko et al.,

2016). Our findings are in line with this prior study; however, it also adds to the previous literature by identifying potential solutions to these barriers from patients' perspective. Participants voiced the need for additional support in the recovery process, starting with increased access to case managers at the detox facility. Case managers can help to connect patients to outside clinicians to improve continuity of care when transitioning from detox to long-term outpatient treatment. Prior studies have shown that case managers and other health care professionals such as patient navigators could be important partners in bridging the gap between clinical settings and life in the community (Drainoni et al., 2014). To increase the effectiveness of time spent with case managers, case managers need to be especially well versed in options for MOUD and the specifics of linkage to outpatient treatment. Other solutions that participants proposed included increased access to low-barrier treatment, such as walk-in clinics, and increased assistance with housing resources.

Some of the solutions that participants suggested are in line with proposals developed by policymakers, including the US Department of Health and Human Services's (HHS) plan to address the opioid overdose epidemic. For example, the HHS plan relies on 4 main pillars, including primary prevention, harm reduction, evidence-based treatment, and recovery support services. Within this framework, recovery support services include peer support, employment, and housing services. Participants in the current study underscored the importance of housing services and the need to improve recovery support services currently in place, such as case management. Nevertheless, study participants suggested solutions that are not currently integrated into the HHS plan, namely the need for same-day and walk-in clinics to improve care. Such an addition would greatly enhance the care provided, as it would expedite access to evidence-based measures such as MOUD.

Prior studies have shown that detox is frequently used as part of the recovery process, but without further treatment the relapse rate is high (Broers et al., 2000; Strang et al., 2003). A recent study found that 61% of all inpatient detoxification admissions result in readmission sometime in the future (Morgan et al., 2020), highlighting that many individuals with substance use are not successfully connected to services for further treatment options after completing detox (Williams et al., 2018). In addition, studies have shown that individuals with OUD are at increased risk for death after completing inpatient detox due to loss of tolerance (Strang et al., 2003), while initiation of MOUD has been shown overall to decrease fatal overdoses (Savinkina et al., 2022; Wakeman et al., 2020). In the current study, although participants with opioid use discussed the positive impact of a low-barrier access bridge clinic that provides same-day access to MOUD after detox, participants engaged in limited discussion about the need to initiate MOUD directly upon discharge or while at detox.

Research has proposed that inpatient detox may be more effective as a venue for implementing access to further substance use treatment in addition to managing the acute symptoms of withdrawal, including initiation of MOUD for individuals with opioid use (Friedmann & Suzuki, 2017; Williams et al., 2019). Previous research has shown benefits to initiating MOUD in other hospital settings such as the emergency department where initiation of buprenorphine/naloxone significantly increased engagement in outpatient addiction treatment and reduced self-reported opioid use (D'Onofrio et al., 2015).

In the current study, patients frequently discussed the limited time spent at inpatient detox as a barrier to managing their recovery. Using inpatient detox as a starting point for treatment, beyond just managing symptoms of withdrawal, could provide patients with ways to aid their recovery process upon discharge. This approach would also contribute to efforts to increase access to low-barrier treatment (Jakubowski & Fox, 2020; Wiercigroch et al., 2020), a solution that participants in the current study proposed as a way to redirect limited resources toward measures that research has shown to be effective (Wakeman et al., 2020).

The limited discussion regarding initiation of MOUD was in contrast to the many participants who noted the lack of treatment beds at detox centers as a barrier to accessing treatment. It seems many participants perceived treatment for substance use as being able to have access to a detox bed; however, evidence-based medication can be initiated in the outpatient setting, does not require access to a detox bed, and may actually be more beneficial if initiated in the outpatient setting. A recent study evaluated the comparative effectiveness of outpatient treatment with MOUD versus inpatient care. The study found that when compared to the inpatient setting, starting MOUD outpatient was associated with a lower rate of overdoses and hospitalizations one year after initiation (Morgan et al., 2020). Based on participants' discussion, a large advantage of inpatient detox facilities may be that they provide additional resources to the unstably housed (e.g., temporary shelter) and thus address social determinants of health. For other patients who have stable housing, an inpatient setting might not be necessary, as evidence-based MOUD can be initiated as an outpatient. Given the widespread use of detox as part of patients' recovery journey, however, MOUD could be initiated in these settings, as the literature has suggested (Friedmann & Suzuki, 2017). Currently the majority of inpatient detox programs do not offer MOUD (Mojtabai et al., 2019). Although patients described the need for options when choosing the appropriate treatment path, they put limited emphasis on the need to make these choices while at detox or directly upon discharge when the initiation of MOUD would have the largest benefit. The Information-Motivation-Behavioral skills theoretical model requires individuals to acquire accurate information before making behavioral change; however, based on the current study it appears that individuals are lacking information regarding evidence-based treatment options for substance use.

We learned from examining patients' perspectives that structural problems present important barriers but do not explain the totality of the challenges that patients face on discharge from detox. Patients' concerns about having options for the recovery process, finding the right treatment fit, and addressing housing instability offer important new information and provide new avenues to explore in the effort to increase the likelihood of transition to definitive treatment after detox discharge.

This study is not without limitations. The study took place at a single site, which may limit generalizability of the findings. Additionally, the majority of the participants interviewed for the study were White males, which reflects the racial/ethnic distribution of opioid use during the opioid epidemic, but also may limit the generalizability of the findings. In addition, we recruited only participants who were fluent in English, thus limiting the generalizability to non-English speaking individuals. Nonetheless this study makes important contributions to the literature by providing solutions for accessing care that patients at a detox proposed.

In addition, our approach provides a useful strategy for detox centers seeking a strategy to include patients' voices in planning.

In conclusion, individuals interviewed while undergoing inpatient detox reported a lack of continuity of care after completing the program. They proposed solutions to this lack of continuity, including access to low-barrier treatment and additional assistance from case managers to help with the transition to long-term care. Among individuals with opioid use, MOUD was rarely mentioned as part of the solution, which shows that access to this key dimension of treatment for opioid use may be limited in settings that are most often used by patients on their recovery journey. Providing increased access to treatment will necessitate a multimodal approach, with attention to low-barrier access to evidence-based treatment and additional resources to address housing, while customizing care to meet a patient's individualized needs. For individuals with opioid use, the approach should include emphasis on starting treatment with MOUD while in detox or directly upon discharge. To assist individuals in their recovery process, next steps should focus on: 1) providing individuals with information on the benefits of initiating treatment for OUD while at detox and the ability to initiate treatment at that time if they chose; (2) creating more and better pathways of access to evidence-based medications for substance use; (3) adding a navigation component to assist with bridging from detox to sustainable treatment, likely involving case managers at inpatient detox facilities; and 4) scheduling short interval follow-ups prior to discharge. Future studies should continue to explore solutions for increasing access to treatment after inpatient detox, with an additional focus on non-English speaking populations.

Acknowledgements

The authors would like to thank study participants and our research team for their contributions to this work. This work was supported by the National Institute of Drug Abuse [K23DA044085 to S.A.A., R01DA046527 to B.P.L., P30DA040500 to B.P.L., R25DA13582 to J.H.S.] and a Boston University School of Medicine Department of Medicine Evans Career Investment and Evans Junior Faculty Merit Awards to SAA. The content is solely the responsibility of the authors and does not necessarily represent the official views of National Institutes of Health.

6. References

- Ahmad FB, Cisewski JA, Rossen LM, & Sutton P (2022). *Provisional Drug Overdose Death Counts* (National Vital Statistics System). Centers for Disease Control and Prevention: National Center for Health Statistics. <https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm>
- Alanis-Hirsch K, Croff R, Ford JH, Johnson K, Chalk M, Schmidt L, & McCarty D (2016). Extended-release naltrexone: A qualitative analysis of barriers to routine use. *Journal of Substance Abuse Treatment*, 62, 68–73. 10.1016/j.jsat.2015.10.003 [PubMed: 26654934]
- Assoumou SA, Sian CR, Gebel CM, Linas BP, Samet JH, & Bernstein JA (2021). Patients at a drug detoxification center share perspectives on how to increase hepatitis C treatment uptake: A qualitative study. *Drug and Alcohol Dependence*, 220, 108526. 10.1016/j.drugalcdep.2021.108526 [PubMed: 33465604]
- Boyatzis RE (1998). *Transforming qualitative information: Thematic analysis and code development*. Sage Publications, Inc.
- Braun V, & Clarke V (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. 10.1191/1478088706qp063oa
- Braun V, Clarke V, Hayfield N, & Terry G (2019). *Thematic Analysis*. In *Handbook of Research Methods in Health Social Sciences*. Springer, Singapore.

- Broers B, Giner F, Dumont P, & Mino A (2000). Inpatient opiate detoxification in Geneva: Followup at 1 and 6 months. *Drug and Alcohol Dependence*, 58(1–2), 85–92. 10.1016/S0376-8716(99)00063-0 [PubMed: 10669058]
- Center for Substance Abuse Treatment. (2006). *Detoxification and Substance Abuse Treatment. A Treatment Improvement Protocol (TIP) Series, No. 45.* (HHS Publication No. (SMA) 15-4131). Substance Abuse and Mental Health Services Administration.
- Charmaz K (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* SAGE Publications.
- D’Onofrio G, O’Connor PG, Pantalon MV, Chawarski MC, Busch SH, Owens PH, Bernstein SL, & Fiellin DA (2015). Emergency Department–Initiated Buprenorphine/Naloxone Treatment for Opioid Dependence: A Randomized Clinical Trial. *JAMA*, 313(16), 1636. 10.1001/jama.2015.3474 [PubMed: 25919527]
- Drainoni M-L, Farrell C, Sorensen-Alawad A, Palmisano JN, Chaisson C, & Walley AY (2014). Patient Perspectives of an Integrated Program of Medical Care and Substance Use Treatment. *AIDS Patient Care and STDs*, 28(2), 71–81. 10.1089/apc.2013.0179 [PubMed: 24428768]
- Fisher JD, & Fisher WA (1992). Changing AIDS-risk behavior. *Psychological Bulletin*, 111(3), 455–474. 10.1037/0033-2909.111.3.455 [PubMed: 1594721]
- Friedmann PD, & Suzuki J (2017). More beds are not the answer: Transforming detoxification units into medication induction centers to address the opioid epidemic. *Addiction Science & Clinical Practice*, 12(1), 29. 10.1186/s13722-017-0092-y [PubMed: 29141667]
- Gomes T, Tadrous M, Mamdani MM, Paterson JM, & Juurlink DN (2018). The Burden of Opioid-Related Mortality in the United States. *JAMA Network Open*, 1(2), e180217. 10.1001/jamanetworkopen.2018.0217 [PubMed: 30646062]
- Jakubowski A, & Fox A (2020). Defining low-threshold buprenorphine treatment. *Journal of Addiction Medicine*, 14(2), 95–98. 10.1097/ADM.0000000000000555 [PubMed: 31567596]
- Knudsen HK, Abraham AJ, & Roman PM (2011). Adoption and Implementation of Medications in Addiction Treatment Programs. *Journal of Addiction Medicine*, 5(1), 21–27. 10.1097/ADM.0b013e3181d41ddb [PubMed: 21359109]
- Lister JJ, Weaver A, Ellis JD, Himle JA, & Ledgerwood DM (2020). A systematic review of rural-specific barriers to medication treatment for opioid use disorder in the United States. *The American Journal of Drug and Alcohol Abuse*, 46(3), 273–288. 10.1080/00952990.2019.1694536 [PubMed: 31809217]
- Magnani R, Sabin K, Saidel T, & Heckathorn D (2005). Review of sampling hard-to-reach and hidden populations for HIV surveillance. *AIDS*, 19(Supplement 2), S67–S72. 10.1097/01.aids.0000172879.20628.e1
- Mayberry LS, & Osborn CY (2014). Empirical Validation of the Information–Motivation–Behavioral Skills Model of Diabetes Medication Adherence: A Framework for Intervention. *Diabetes Care*, 37(5), 1246–1253. 10.2337/dc13-1828 [PubMed: 24598245]
- Mojtabai R, Mauro C, Wall MM, Barry CL, & Olfson M (2019). Medication Treatment For Opioid Use Disorders In Substance Use Treatment Facilities. *Health Affairs (Project Hope)*, 38(1), 14–23. 10.1377/hlthaff.2018.05162 [PubMed: 30615514]
- Morgan JR, Barocas JA, Murphy SM, Epstein RL, Stein MD, Schackman BR, Walley AY, & Linas BP (2020). Comparison of Rates of Overdose and Hospitalization After Initiation of Medication for Opioid Use Disorder in the Inpatient vs Outpatient Setting. *JAMA Network Open*, 3(12), e2029676. 10.1001/jamanetworkopen.2020.29676 [PubMed: 33320266]
- Morse JM (1995). The Significance of Saturation. *Qualitative Health Research*, 5(2), 147–149. 10.1177/104973239500500201
- Savinkina A, Madushani RWMA, Eftekhari Yazdi G, Wang J, Barocas JA, Morgan JR, Assoumou SA, Walley AY, Linas BP, & Murphy SM (2022). Population- level impact of initiating pharmacotherapy and linking to care people with opioid use disorder at inpatient medically managed withdrawal programs: An effectiveness and cost- effectiveness analysis. *Addiction*, add.15879. 10.1111/add.15879
- Shaghghi A, Bhopal RS, & Sheikh A (2011). Approaches to Recruiting ‘Hard-To-Reach’ Populations into Re- search: A Review of the Literature. *Health Promotion Perspectives*, 1(2), 9.

- Sprague Martinez L, Richards-Schuster K, Teixeira S, & Augsberger A (2018). The Power of Prevention and Youth Voice: A Strategy for Social Work to Ensure Youths' Healthy Development. *Social Work*. 10.1093/sw/swx059
- Sprague Martinez LS, Tang Yan C, Augsberger A, Ndulue UJ, Libsch EA, Pierre JS, Freeman E, & Gergen Barnett K (2020). Changing The Face Of Health Care Delivery: The Importance Of Youth Participation: Study describes a youth-led health assessment conducted with researchers from an academic medical center accountable care organization and stakeholders from a local community center. *Health Affairs*, 39(10), 1776–1782. 10.1377/hlthaff.2020.00728 [PubMed: 33017230]
- Starace F, Massa A, Amico KR, & Fisher JD (2006). Adherence to antiretroviral therapy: An empirical test of the information-motivation-behavioral skills model. *Health Psychology*, 25(2), 153–162. 10.1037/0278-6133.25.2.153 [PubMed: 16569106]
- Strang J, McCambridge J, Best D, Beswick T, Bearn J, Rees S, & Gossop M (2003). Loss of tolerance and overdose mortality after inpatient opiate detoxification: Follow up study. *BMJ: British Medical Journal*. 326(7396), 959–960. [PubMed: 12727768]
- Substance Abuse and Mental Health Services Administration. (2020). Results from the 2019 National Survey on Drug Use and Health. Substance Abuse and Mental Health Services Administration. <https://www.samhsa.gov/data/release/2019-national-survey-drug-use-and-health-nsduh-releases>
- Timko C, Schultz NR, Britt J, & Cucciare MA (2016). Transitioning from Detoxification to Substance Use Disorder Treatment: Facilitators and Barriers. *Journal of Substance Abuse Treatment*, 70, 64–72. 10.1016/j.jsat.2016.07.010 [PubMed: 27692190]
- Tofghi B, Williams AR, Chemi C, Suhail-Sindhu S, Dickson V, & Lee JD (2019). Patient barriers and facilitators to medications for opioid use disorder in primary care: An in-depth qualitative survey on buprenorphine and extended-release naltrexone. *Substance Use & Misuse*, 54(14), 2409–2419. 10.1080/10826084.2019.1653324 [PubMed: 31429351]
- Vaismoradi M, Turunen H, & Bondas T (2013). Content analysis and thematic analysis: Implications for conducting a qualitative descriptive study: Qualitative descriptive study. *Nursing & Health Sciences*, 15(3), 398–405. 10.1111/nhs.12048 [PubMed: 23480423]
- Wakeman SE, Larochelle MR, Ameli O, Chaisson CE, McPheeters JT, Crown WH, Azocar F, & Sanghavi DM (2020). Comparative Effectiveness of Different Treatment Pathways for Opioid Use Disorder. *JAMA Network Open*, 3(2), e1920622. 10.1001/jamanetworkopen.2019.20622 [PubMed: 32022884]
- Wiercigroch D, Sheikh H, & Hulme J (2020). A rapid access to addiction medicine clinic facilitates treatment of substance use disorder and reduces substance use. *Substance Abuse Treatment, Prevention, and Policy*, 15(1), 4. 10.1186/s13011-019-0250-1 [PubMed: 31931831]
- Williams AR, Nunes EV, Bisaga A, Levin FR, & Olfson M (2019). Development of a Cascade of Care for responding to the opioid epidemic. *The American Journal of Drug and Alcohol Abuse*, 45(1), 1–10. 10.1080/00952990.2018.1546862 [PubMed: 30675818]
- Williams AR, Nunes EV, Bisaga A, Pincus HA, Johnson KA, Campbell AN, Remien RH, Crystal S, Friedmann PD, Levin FR, & Olfson M (2018). Developing an opioid use disorder treatment cascade: A review of quality measures. *Journal of Substance Abuse Treatment*, 91, 57–68. 10.1016/j.jsat.2018.06.001 [PubMed: 29910015]
- Zhu H, & Wu L-T (2018). National trends and characteristics of inpatient detoxification for drug use disorders in the United States. *BMC Public Health*, 18(1), 1073. 10.1186/s12889-018-5982-8 [PubMed: 30157815]

HIGHLIGHTS

- Patients report care lack of continuity as a major barrier to substance use treatment
- Patients would like assistance with establishing continuity of care after detox
- Patients want increased low-barrier access to medication treatment for OUD (MOUD)
- Patients equate treatment with residential detox, overlooking the potential of MOUD
- Increasing treatment will also necessitate addressing housing instability

Table 1

Demographics and reported substance use behaviors for patients (n=24) interviewed at a drug detoxification center

Demographics	n (%)
Gender	
Male	13 (54)
Female	11 (46)
Race/ethnicity	
White	16 (67)
Black or African American	3 (13)
Latinx	2 (8)
Native Hawaiian/Pacific Islander	1 (4)
Other ^a	2 (8)
Education	
Some college	8 (33)
Completed high school or GED ^b	11 (46)
Some high school	5 (21)
Employment	
Unemployed	14 (58)
Employed full-time (30+ hours per week)	4 (17)
Employed part-time (<30 hours per week)	2 (8)
Disabled	4 (17)
Housing status (past 6 months)	
House or apartment	7 (29)
Street	7 (29)
Overnight shelter	4 (17)
Friend or relative's home	3 (13)
Residential treatment facility	3 (13)
Substance Use Behaviors	n (%)
Drug use (past 3 months), categories are not mutually exclusive	
Crack	18 (75)
Marijuana	17 (71)
Heroin	16 (67)
Alcohol	16 (67)
Cocaine	16 (67)
Sedatives	12 (50)
Crystal methamphetamine	7 (29)
Prescribed painkillers	7 (29)
Street methadone	3 (13)

Non-prescribed buprenorphine	2 (8)
Non-prescribed benzodiazepine	2 (8)
Non-prescribed alprazolam	1 (4)
Non-prescribed methamphetamine	1 (4)
Frequency of drug injection (past 6 months)	
Everyday	11 (46)
2 to 6 days a week	1 (4)
Less than once a month	1 (4)
Not injected in the past month	4 (17)
Never injected in lifetime	7 (29)

^aLebanese, Black/Middle Eastern

^bGED: graduate equivalency degree

Author Manuscript

Author Manuscript

Author Manuscript

Author Manuscript