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# Implementation of a hospital-based intervention for MOUD initiation and referral to a Bridge Clinic for opioid use disorder

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ABSTRACT

*Introduction:* Individuals struggling with opioid use disorder (OUD) utilize the adult emergency department (ED) and psychiatric emergency department at high rates. In 2019, Vanderbilt University Medical Center created a system for individuals identified in the emergency department with OUD to transition care to a Bridge Clinic for up to three months of comprehensive behavioral health treatment, alongside primary care, infectious diseases, and pain management, regardless of their insurance status.

*Methods:* We conducted 20 interviews with patients enrolled in treatment in our Bridge Clinic and 13 providers in the psychiatric emergency department and emergency department. Our provider interviews focused on understanding experiences identifying people with OUD and referring them to care at the Bridge Clinic. Our patient interviews focused on understanding their experiences of care-seeking, the referral process, and their satisfaction with treatment at the Bridge Clinic.

*Results:* Our analysis generated 3 major themes around patient identification, referral, and quality of care from providers and patients. The study found general agreement between both groups around the high quality of care delivered in the Bridge Clinic compared with OUD treatment at nearby treatment facilities, specifically because it offered a stigma-free environment for the delivery of medication for addiction therapy and psychosocial support. Providers highlighted the lack of a systematic strategy for identifying people with OUD in an ED setting. They also found the referral process cumbersome because it could not be done through EPIC and there were limited patient slots available. In contrast, patients reported a smooth and simple referral from the ED to the Bridge Clinic.

*Conclusions:* Creating a Bridge Clinic for comprehensive OUD treatment at a large university medical center has been challenging but has resulted in the creation of a comprehensive care system that prioritizes quality care. Funding to increase the number of patient slots available, coupled with an electronic system of patient referral, will increase the reach of the program to some of Nashville's most vulnerable constituents.

## 1. Introduction

Individuals struggling with opioid use disorder (OUD) use the emergency department (ED) and psychiatric emergency department at high rates in the United States (Dwyer et al., 2015; McGuire et al., 2020; Powell et al., 2019; Rubin, 2018). The use of ED service to provide care for people with OUDs leads to growing financial and logistical burdens for health care systems (Peterson et al., 2021). Individuals with OUD presenting to the ED also often have high rates of comorbidities (Mahoney et al., 2021), and low rates of insurance coverage, employment, and stable housing (Chatterjee et al., 2018; Weinstein et al., 2020). Consequently, these patients tend to have poor health outcomes following an ED visit, including high rates of mortality and ED re-utilization (Mahoney et al., 2021; Samples et al., 2018). Providers working in an ED setting have historically struggled to effectively identify and treat patients with substance use disorder. However, health

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outcomes within this patient population (reduction in drug use and mortality) have improved with implementation of evidence-based screening and treatment protocols (Hawk & D'Onofrio, 2018). For example, studies have found greater treatment initiation among patients with OUD and reduced unplanned discharges after ED-based initiation of medication for opioid use disorder (MOUD) (Bogan et al., 2020; Dunkley et al., 2019; Fox & Nelson, 2019). Thus, patient presentation for care at an ED represents an opportunity for substance use screening, providing MOUD, and referring patients with OUD to appropriate care (Strayer et al., 2020).

The United States lacks sufficient opioid treatment programs to meet demand. For example, as of March 2021, more than 2 million people lived with OUD whereas only 1816 opioid treatment facilities provided treatment services (PEW Charitable Trusts, 2021). Individuals with OUD often struggle to find a treatment location in their region for several reasons including fear of stigma from health care providers (Patel et al., 2021) and lack of insurance acceptance (Madras et al., 2020a, 2020b). Moreover, highly restrictive, federally regulated methadone treatment is less broadly geographically available than other treatment services (e.g., abstinence-based programs) and may present significant barriers to care engagement due to daily dosing requirements at intake. Lack of services contributes to drug overdose deaths. The CDC estimated at least 100,306 individuals died from drug overdose in the United States from April 2020 to April 2021, an increase of 28.5 % compared to the prior year (Centers for Disease Control and Prevention, 2021a). In that same time period, the number of predicted overdose deaths rose 34 % in Tennessee, with an estimated 3690 people losing their lives to OUD (Centers for Disease Control and Prevention, 2021a).

Office-based buprenorphine opioid treatment offers the possibility of lower-barrier OUD treatment access (Sharma et al., 2017). In May 2019, Vanderbilt University Medical Center (VUMC) implemented a novel Bridge Clinic program funded by VUMC with additional grant support from the Tennessee Department of Mental Health and Substance Abuse (PI: Marcovitz). The program included a path for referral to Bridge Clinic Services for both hospital- and ED-based patients who require follow-up for OUD treatment. The Bridge Clinic represents a brief "health home" model by providing patients with OUD up to three months of comprehensive behavioral health treatment, alongside primary care, infectious diseases, and pain management, regardless of their insurance status. Clinic services include weekly appointments (Friday only) and no-cost medication, treatment for co-occurring behavioral and somatic disorders, as well as support from licensed counselors and peer recovery support specialists. At the end of Bridge Clinic care, patients receive a referral to an outpatient OUD clinic in their community for continued treatment (Marcovitz et al., 2021).

Our qualitative study assessed the experiences of patient referral from the adult ED and psychiatric ED to the Bridge Clinic from both patient perspectives and provider perspectives. From February 2021 to January 2022, patients with OUD spent a collective 19,000 h in the adult ED. For this study, we selected providers employed in the adult ED and psychiatric ED settings (hereafter referred to as provider participants) because identification and referral to treatment are more difficult for ED patients than for inpatient providers (given time constraints, acute needs of the patient, competing priorities). We specifically wanted to gain insights about how to improve that process within the ED context. We also spoke with patients (hereafter referred to as patient participants to avoid confusion with provider participants) about their experience receiving treatment at the Bridge Clinic. We hope our study will inform patient- and system-level improvements for EDs seeking to provide treatment and referral to Bridge Clinics across the United States.

## 2. Methods

### 2.1. Setting

In 2019, the new Bridge Clinic at VUMC became the first in TN for patients leaving the general hospital and ED who have been identified as requiring follow-up OUD care. The multidisciplinary clinic brings together expert faculty in addiction medicine/psychiatry, internal medicine/primary care, infectious diseases, and pain medicine as well as interdisciplinary staff to offer post-acute care for patients seen in the VUMC ED, Vanderbilt Psychiatric Hospital ED, or general hospital setting for a period of up to three months following discharge.

### 2.2. Ethics approvals

The Institutional Review Board at Vanderbilt University Medical Center approved the study (IRB# 200816).

### 2.3. Patient sample

The team identified about 50 patients who had begun treatment at the Bridge clinic within the previous two months and selected a convenience sample from that population for this qualitative study. Interviewers informed patients about the study and invited them to participate in the research study immediately after their clinical visit. Those interested in participating came to the interviewer's room to discuss the study. Only one person who came to discuss the study refused to participate (reportedly due to lack of time). After providing consent, patients were interviewed at the Bridge Clinic following their regularly scheduled appointment. Researchers conducted interviews in-person on 5 different Fridays between June and September 2020. Patient participants received a $20 Walmart gift card.

### 2.4. Provider sample

Providers could participate if they worked at either VUMC's adult ED or psychiatric ED (referred to hereafter as psychiatric assessment service [PAS] providers) after the launch of the Bridge Clinic. More than 70 ED/PAS attendings and 200 ED nurses were eligible. The study recruited provider participants using snowball sampling, beginning with two key providers in leadership roles in the ED and PAS. Our original two seeds referred four and three providers, respectively (they were not limited on the number they could refer). Four of these secondary seeds successfully referred one additional person into the study. At the time of the study, 70 physicians and over 200 ED nurses were eligible to participate. After participants provided consent, they participated in a phone- or Zoom-based one-on-one interview between August and September 2020. Provider participants received a $15 Starbucks gift card for their time. All recruited provider participants completed the interview.

### 2.5. Data collection and analysis

The team created two separate interview guides for patient and provider interviews. The patient interview guide consisted of open-ended questions designed to gain insights into patient perception of the referral process to the clinic, their experience receiving treatment at the clinic, and suggestions for improvement. The provider interview guide elicited insight into how providers identified patients with OUD, their process treatment referral, perceived barriers to screening and treatment referral implementation, and suggestions for programmatic improvement (Appendix A). The interviewer took notes during each interview to ensure appropriate follow-up on key issues. The team continued to collect data until reaching saturation and no new themes emerged. The study PI (CMA who has a PhD in Anthropology) and a trained qualitative researcher (MPP who has an MPH) conducted the interviews with no one else present in the room. Both interviewers are female and neither had any relationship with those interviewed before the study. Interviewers described the goal of the study as the desire to evaluate clinical services provided to people with OUD in effort to improve the care provided in the future. The interviewer recorded all interviews using Rev., an audio recording phone application, or Zoom, a

video conferencing service, and subsequently transcribed them. The team did not return transcripts to participants for their review. MPP and CMA conducted a reflexive thematic analysis using MAXQDA 2020© software. A hierarchical coding scheme was generated based on similar studies among providers (Madras et al., 2020a, 2020b; Patel et al., 2021) and people with OUD (Hoover et al., 2021) in the United States. They conducted qualitative analysis first using a deductive approach followed by the application of inductive codes identified within our data (Azungah, 2018). MPP and CMA met to develop, define, and compare application of codes to the transcribed interviews; after which, they reached complete agreement of deductive and inductive codes and sub-codes to the 33 interviews.

## 3. Results

Overall, 20 patient participants and 13 provider participants completed an interview (Table 1). Patient interviews lasted an average of 14 min, and provider interviews were an average of 22 min. Across both groups, most participants were men (78 %). Eleven provider participants practiced in the adult hospital ED and two provider participants practiced in the PAS. Most provider participants were physicians (Table1).

### *3.1. Providers report difficulty identifying people with OUD and referring people into the Bridge Clinic*

Providers described an informal process that typically identified patients appropriate for Bridge Clinic referral in one of two ways. Either a patient explicitly requested treatment for their substance use, or a provider informally assessed a patient's mental, physical, and behavioral health history. Instead of using screening tools, providers reported relying on nonstigmatized, open conversation with the patient to identify patients for referral.

> [W]e definitely know what to look for. There's not a standardized screening tool. [W]hen I sit with a person, I try to make it less like a screening, checklist kind of thing as possible and more like I'm having a conversation with another human being. Because they appreciate a therapeutic alliance and not just a boilerplate, sort of cookie cutter type of intervention, that's where we get the most success. They feel like there's a connection, that you care and by that you're able to really sort of hook people in. And by that, I mean engage them and get them on board…It's a conversation. Absolutely…Unless somebody offers up [substance use], then you have like a natural path into that. But if they don't a real common thing is, "I'm depressed, I'm getting more depressed, I'm suicidal". They're telling you all of that stuff and then you sort of say, folks who struggle with addiction, will notice that they're drinking more or using substances as a way to kind of cope with that. Have you noticed this for yourself? And so that's how I'll ask. So it's not just like, do you use drugs? It's like this path, normalize it. And have you noticed this with yourself? Then they say yes or no, and then you get into more details about what they're using, how they're using it, how much they're using.
>
> (ED psychiatrist, female)

Provider participants identified stigma- and bias-based barriers to identifying people with OUD in the ED, unless the patient specifically requested help. One provider participant noted that providers are often only identifying a specific type of patient profile, and neglecting, sometimes willfully, to identify and address OUD in patients that do not fit the typical "profile".

> So we ask everybody who's checked into the emergency department if they're suicidal, which is not at all the same thing, but there's a lot of overlap. Outside of the patient asking specifically for treatment for substance use disorder, there is not a great mechanism to identify these patients. And actually … So for example, if we've got an elderly patient who's been prescribed opioids for long periods of time, and let's say they're admitted to the hospital because they fell, there's not, in my experience … The few times that I've broached these kinds of situations where I think there is an opioid use disorder, but it's not our classic quote "druggie" … We have these preconceived notions of what people with opioid substance use disorder look like, so to speak. If it's not that group of people, if it's the cute little old lady, there is so much resistance to identifying those patients, much less treating them. The short answer is we don't have a great way, to be honest.
>
> (ED physician, female)

Provider participants described variability in how providers implemented Bridge Clinic referrals after identifying a patient needing a referral to OUD treatment. Specifically, they thought that knowledge about the program within providers' professional networks drove patients' successful linkage to the clinic. Most providers admitted they were only somewhat familiar with the clinic and had not referred any patients. Only three providers described being intimately familiar with the process. Provider participants who participated in the Bridge Clinic's strategic planning reported the most familiarity with the program. Leaders have implemented only minimal education and training of providers on the best ways to identify a patient with OUD or how to access the Bridge Clinic to avoid overwhelming a program with limited availability.

> I try to keep on top of these things. Typically, if we have something set up that's new, like a new referral thing, it'll be in the communications and it'll be in the protocols. And I am not aware of a, "Here's a quick protocol for somebody shows up requesting substance use disorder resources, here's how you get them into the Bridge Clinic." I am not aware of that.
>
> (ED physician, female)

Efficiency and fulfillment of patient referrals varied extensively and required physician-to-physician communication (via texting or direct call) among colleagues to determine provider availability.

> …I will call them. Especially if it's [psychiatrist], who I have her cell phone, [and] say "good person for this…can you help? I can't write a prescription, and can you help get them in?"
>
> (ED physician, male)

> If I had a patient and I texted with [psychiatrist] individually and I was like, "Hey, do you have room in your clinic on this day?" And he was like, "Yes, I could see that patient," that's the only way that I know of to get a good, effective follow-up. And that's entirely based on relationships.
>
> (ED physician, female)

Nonphysician providers in the ED largely relied on cold calls to clinic administrators to get referrals setup. Although initially eager to refer patients, they reported high levels of frustration. These initial experiences led to later avoidance of attempted referrals.

**Table 1**
Participant demographics.

| | Patients | Providers |
|---|---|---|
| N | 20 | 13 |
| Male (%) | 17 (85 %) | 9 (69 %) |
| Average interview length, minutes (range) | 14 (8–33) | 22 (11–34) |
| ED providers | – | 11 |
| Physician | – | 6 |
| Psychiatrist | – | 2 |
| Social worker | – | 2 |
| Nurse | – | 1 |
| PAS providers | – | 2 |
| Psychiatrist | – | 1 |
| Social worker | – | 1 |

> I guess in the beginning when it first opened, I had tried a couple of times with different patients and I would make a phone call. Barriers were like, "We're not accepting patients today."…or, "We're not open today," or, "We don't have a provider today." Just nobody would respond to the call. And so that was early on, and ever since then, to be honest, I've not even tried.
>
> (ED social worker, female)

### 3.2. Patient perception of the referral system

Patient participants unanimously reported a smooth referral process from the ED to the Bridge Clinic, involving a discussion about treatment options, a short supply of buprenorphine MOUD for opioid stabilization, and an initial appointment at the clinic that was arranged for them. One described the process,

> It was smooth as can to be able to come in and, you know, answered a few questions and did a drug test. And they gave me a week's worth [of MAT] and I come back every Friday, it's just easy. They even gave me a bus pass to get here.
>
> (Patient, female)

Overall, patients who received an appointment described the referral and engagement process as seamless.

### 3.3. Providers identify need for greater appointment availability

Among the providers who knew about and felt comfortable with the process of referring people to the Bridge Clinic, a lack of new patient openings at the clinic prevented setting quick appointments. Limited new patient slots (around 2 per week) did not meet the identified patient volume, as most providers reported seeing about 5–10 patients with OUD-related concerns per shift.

> The issue, from my perspective, is that the clinic is fantastic for the folks that we can get in there… The drawback is we get maybe one or two appointments a week. And those, I'm often bridging folks with prescriptions and telling them to come back on Monday morning to try to get into that program.
>
> (ED psychiatrist, male)

Additionally, providers unanimously reported having limited success referring patients to other OUD treatment in the community.

> The challenge from my perspective is the 90% of folks that aren't connected with them [the Bridge Clinic] and struggling to see them get a similar level of care.
>
> (PAS psychiatrist, male)

> And [ED-based MOUD initiation] makes me a little bit nervous, because there are just not very many providers in the community for us to refer these patients to…And the time commitment it takes to try and help get those patients into some of these outpatient resources is really hard.
>
> (ED social worker, female)

### 3.4. Providers view the Bridge Clinic positively

Provider participants unanimously believed that the ED-based OUD screening and treatment referral to the Bridge Clinic provided a critical service for patients. They recognized that patients often only have access to the ED and that the program may provide better care than other options in the community.

> But certainly, the ED is one of the primary, if not the primary spot, for patients with opioid use disorder and addiction and withdrawal symptoms…I think unfortunately…we may be the only people that have the wherewithal to refer these patients in their moment of need.
>
> (ED physician, female)

> If it was my family member, I would prefer sending them to Bridge rather than any other like opioid use disorder treatment center. Because I think those patients are getting [the] best care and probably most innovative care.
>
> (ED psychiatrist, female)

They highlighted access to MOUD in the ED at VUMC as a vast improvement from the care extended to patients previously, where patients would need to call a provider during the next working day to schedule an appointment to receive medication.

> But when I trained, there was no opiate detox, it was tenuous, some clonidine, some anti-nausea medications, and good luck. This won't kill you, 'hang in there' kind of coaching. And then to be able to actually provide someone with a medication that will, has actually been shown to sort of reduce the harm associated with this in the long run and give them some form of actual follow-up. I mean, follow-up is gold for us in the emergency department. If you can actually set up an appointment for somebody that is huge. It doesn't matter what the disease process is. That's a big deal for us.
>
> (ED physician, male)

> Yeah, so for me, especially since we've been able to provide buprenorphine from the emergency room, it has really changed our ability to take care of patients with opiate use disorder. But that I actually am having, from a physician or provider perspective, this really positive experience of feeling like I'm providing hope and help to patients.
>
> (ED psychiatrist, female)

### 3.5. Patients report receiving high-quality care

Patient participants repeatedly credited reliable access to free medication via easy access to the Bridge Clinic as the critical factor for their continued recovery. "This is the longest I've ever complied to a program in my life…It's changed my life." (Patient, male) Another noted:

> I've never been in a program like this. This is the best program that I've ever been in, and I've never been successful. I've never… Even with my mental health, that's the reason I'm not on disability now is I'll go one or two, but then my paranoid… It always …that ruins all. It always kicks in, and then I'm gone. And I don't follow through with my appointments. And here they made me feel real comfortable. And there's been sometimes that I couldn't be here. And they totally understood, got me in and out as quick as possible. And that made it easier for the next time that this comes up, that anything comes up. I can be calm and be comfortable that they'll be understanding of anything that I need.
>
> (Patient, female)

Last, one man reported, "It's probably the best clinic I've ever been to and I've been going to clinics for 20 years. I've been to day clinics, weekly clinics, every clinic you could think of. And this one really helps people."

(Patient, male)

Although most patients described challenging socioeconomic circumstances (e.g., homelessness, no reliable transportation or employment, little to no social support), patients described receiving supportive, nonjudgmental treatment from a wide array of providers, including treatment for co-occurring medical issues and comprehensive social support. Non-MOUD treatment support included assistance with medication grants and insurance, mental health treatment, bus passes, housing and rehabilitation placement, and check-ins between appointments.

### 3.6. Stigma is still a problem for patients struggling with substance use

Five providers shared concerns about stigma still limiting provider interest in identifying and referring people with OUD into treatment. None discussed personal stigmatizing attitudes, but instead believed others in their departments may have negative perceptions about people with OUD.

> I think the stigma, especially with some health care providers, and I do see this sometimes more often with some of our more seasoned nurses, and even some of our older physicians who have a little bit more of an attitude of "this is sort of something they could control on their own", as opposed to this is a chronic illness just like diabetes or hypertension.
>
> (ED physician, male)

> I realized that, not only my colleagues, but there's a great number of doctors who work here, who feel like if a patient wants it bad enough, they'll make the calls and get in themselves.
>
> (ED social worker, female)

Despite these concerns, all but two patient participants reported a nonjudgmental environment at both the hospital and the clinic. One man reported,

> Well, them telling me that addiction is a disease, letting me know that it's not my fault, the way I am or what's happening, what happened to me. And them just as people themselves they're very nice people. I like it here; I have no complaints.
>
> (Patient, male)

One participant who felt unfairly treated reported that his provider reprimanded him unfairly after the patient was upfront about his continued alcohol use. Similarly, one participant confessed to his provider that he was experiencing withdrawal symptoms and had concerns that his medication and dosage may not be appropriate.

> "I'm telling you that I'm thinking about going and using, and you're not helping…my next appointment is in two weeks."
>
> (Patient, male)

These unsatisfied patients stated that continued issues may prevent them from returning for treatment.

### 3.7. Patient recommendations for improvement

Patient participants reported satisfaction with their treatment, with 9 of 20 stating that the clinic and its services did not need improvement. Suggestions from the other patient participants included help with food and clothing, an open line to the peer recovery coaches (rather than messaging and waiting for a response), and more leniency around appointment times. A few patient participants wanted a more efficient process from appointment to prescription pickup; patients reported waiting hours to receive medication and reserving half the day or more for the whole process, creating challenges with employment and transportation.

### 3.8. Provider recommendations for improvement

#### 3.8.1. Improve dissemination and integration

Future efforts are required to disseminate knowledge of the Bridge Clinic intervention to providers more broadly and integrate the screening and referral process into a provider's existing workflow. Suggestions included an online scheduling platform that all ED providers can access, and a walk-in model like the PAS.

#### 3.8.2. Provide appropriate incentives

One provider stressed that mitigating conflicting goals and appealing to providers' professional fulfillment may support their ability and willingness to provide the best care for patients with OUD.

> Right now, our goal [is] "We want the ED length of stay to be shorter." [That] means I can't spend time with this patient if it means that my metrics are going to be thrown out of whack. So not having disincentives that make it a personal cost for me to take care of this patient. And that might be kudos from the department chairman or kudos from the medical director or a note from the Bridge Clinic saying, "Hey, you really helped this patient." That would be professionally meaningful in a system where you can't really reward us monetarily.
>
> (ED physician, female)

## 4. Discussion

This qualitative study explored perceptions from health care providers and individuals seeking SUD treatment in the ED about referral to treatment and quality of received treatment at the VUMC Bridge Clinic. In-depth interviews suggested that clinical services provided by this program are in high demand among individuals with OUD. The need for comprehensive OUD care, particularly among uninsured populations, is substantial (Madras et al., 2020a, 2020b). Providers believed the Bridge Clinic services to be of high quality but found the process of referral to the clinic to be difficult, in part due to limited appointment availability (the clinic is only open on Fridays due to funding/staffing limitations) and the lack of a formal referral mechanism. Patient participants with OUD believed that they received the best clinical services in the area and found the ED to Bridge Clinic referral process to be smooth.

Identification of individuals with OUD and referral to treatment is important given the public health crisis, exacerbated by the spread of illicit fentanyl (Centers for Disease Control and Prevention, 2021b; Palumbo et al., 2020) and the sheer number of people with OUD who seek care in EDs across the country (Hawk et al., 2019; Hawk & D'Onofrio, 2018). However, as with other studies (Palumbo et al., 2020), providers reported difficultly in identifying people with OUD who did not fit their preconceived notion of someone with addiction. Other EDs have implemented screening, brief intervention and referral to treatment (SBIRT) programs (Hawk et al., 2019; Hawk & D'Onofrio, 2018) with varying degrees of success. However, some providers in this study pushed back against the idea of screening patients, preferring a more natural discussion with individuals seen to be at risk. At the same time, they also recognized the difficulty in having informal discussion about substance use with patients due to perceived stigma (Garpenhag & Dahlman, 2021) and time constraints.

While studies reflect mixed satisfaction with many hospital and clinic-based OUD services (Hoover et al., 2021; Rawson et al., 2019), both patients and providers perceived the Bridge Clinic to deliver quality care. They describe care as compassionate and nonjudgmental, as well as accessible to all given that the clinic provides consults and medications free of charge. In 2020, the American Society for Addiction Medicine recommended that all FDA-approved medications for treatment of OUD should be available to all patients in conjunction with psychological counseling services (American Society of Addiction Medicine, 2020).

Our participants appreciated each component of care, including buprenorphine MOUD, and perceived care to be of better quality than other facilities in the region. Patients' experiences with the Bridge Clinic were similar to findings about patients' experiences with other transitional and integrated treatment programs (Drainoni et al., 2014; Liebmann et al., 2022; Snow et al., 2019), but more positive than patients' experiences with standard treatment programs (Tarasoff et al., 2018). Data on patients' satisfaction among people in opioid use treatment is lacking in general. The few existing studies pre-date the use of MOUD in treatment programs (Deering et al., 2012). Patient satisfaction may be correlated with treatment success (Kendra et al., 2015), although no studies have assessed the durability of this relationship over time (Boden

& Moos, 2013).

This study has several limitations. We were unable to interview patients who sought access to the Bridge Clinic after a referral but did not acquire an appointment or who were referred elsewhere. No records existed about such patients. Those individuals may view the referral process quite differently than individuals who successfully linked to care. Additionally, we did not interview patients who were linked to the clinic and had an appointment, but did not show up (i.e., 29 % of patients since clinic inception). We did not document the race of participants at the time of the interview, although the vast majority of the patient population in the Bridge Clinic are White. For example, since the inception of the Bridge Clinic, 90 % of clinic patients identify as White. Seventy-seven percent of patients are uninsured. In terms of participants, the snowball sampling method used in this study beginning with only two seeds working in the ED identified providers who may already have some experience identifying and referring patients with OUD to treatment. Thus, this study lacks perceptions from providers who may not have been as familiar with the Bridge Clinic. Finally, we recognize that we do not have sufficient voices from nurses in this area. Our use of physician seeds to begin the process resulted in fewer nurse referrals. Additionally, several nurses approached by providers for study recruitment refused to participate. They did not feel responsible for the identification of someone with OUD and subsequent referral process (no standard screening protocol exists in the ED) and thought that their experience would not provide helpful information.

Despite these limitations, findings from this qualitative study about a new addictions Bridge Clinic program highlight how implementing a program that supports ED referrals of patients with OUD to an outpatient treatment clinic within the hospital setting could benefit both patients and providers. Many people using ED services have OUD. Establishing a simple and consistent strategy for identifying and referring patients into treatment, coupled with a well-staffed program capable of enrolling a sufficient numbers into care each week, would support success of a bridge program.

## 5. Conclusions

People with OUD referred from an ED at a large academic hospital to an addiction Bridge Clinic reported a smooth process from diagnosis/identification in the ED to their first appointment at the Bridge Clinic to receiving treatment. Both referring providers and patients reported the availability of exceptional care quality at the clinic. Improvements are needed in the areas of patient identification in the ED and the process of provider referral. Expansion of Bridge Clinic capacity may improve the referral process to mitigate provider and patient frustrations with lack of appointment availability and communication between the clinic and ED providers.

## CRediT authorship contribution statement

**Carolyn M. Audet**: Conceptualization, Methodology, Investigation, Writing- Original draft preparation **Mariah Pettapiece-Phillips** Investigation, Writing- Original draft preparation, Formal Analysis **Kristopher Kast**: Writing- Review and Editing **Katie D. White**: Writing- Review and Editing **Jessica M. Perkins** Writing- Review and Editing **David Marcovitz**: Conceptualization, Funding acquisition, Project administration, Writing- Reviewing and Editing.

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## Declaration of competing interest

There is no conflict of interest to report.

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## Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.josat.2023.208961.

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