Research Article

“They talk to me like a person” Experiences of people with opioid use disorder in an injectable opioid agonist treatment (iOAT) program: A qualitative interview study using interpretive description

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Background: One avenue of treatment for opioid use disorder is injectable opioid agonist treatment (iOAT). It provides clients with injectable hydromorphone as an alternative to oral agonists, like methadone. iOAT is a relatively new treatment, and there have been limited studies of clients’ experiences in iOAT programs.

Aim: The aim of this study was to explore client experiences in an iOAT program in Alberta, Canada.

Methods: The research team conducted secondary interpretive description analysis on qualitative interviews with iOAT clients. Interviews were analyzed for themes, which were arranged to create an understanding of clients’ experiences.

Findings: Participants accessed iOAT through other health services, for treatment of opioid use disorder. Participants reported that building trusting and supportive relationships with staff was crucial to their success in the program. Through these relationships, participants experienced stopping and starting. They stopped behaviours such as illicit drug use, having withdrawal symptoms and anxiety, and prohibited income generation. They started taking care of themselves, accessing housing, increasing financial stability, receiving primary care, and connecting with friends and family. The global experience of iOAT was one of positive change for participants.

Discussion:

The findings of this study are largely consistent with other published examples - iOAT programs create benefits for both clients and their communities. While clients may join the program to access

the hydromorphone, the relationships between staff and clients are the key driver of success.

Background

With the ongoing adulteration of illicit drug supplies with fentanyl and fentanyl analogues, the overdose crisis remains a major public health challenge in Canada and the United States. There were more than 2600 opioid overdose deaths in Canada between January and June 2020, 75% of which involved fentanyl. This translates to a death rate of 14.6 per 100,000 population, a 45% increase from the rate observed in 2019 [1]. The expansion of evidence-based treatment for opioid use disorder (OUD), including injectable opioid agonist therapy (iOAT), has been identified as an essential strategy to address the overdose crisis [2]. Although oral opioid agonist therapies such as methadone are the first-line treatment options for OUD, challenges such as treatment retention and relapse are well documented [2-5].

iOAT has been found to effective for some clients with OUD as an alternative to methadone, particularly people with severe OUD who have not had success with oral OAT. Indeed, there is a growing body of evidence demonstrating the safe, clinical efficacy, and cost effectiveness of iOAT programs [5-10] However, in addition to clinical outcomes, there is a need to understand client experiences in iOAT programs. Although there have been qualitative studies of client experiences as sub-studies of clinical trials [10-13], few studies have examined client experiences in iOAT programs when they are established as treatment avenues in 'real-world' settings [14] rather than clinical trials. The aim of this study was to explore client experiences in an established iOAT program in Alberta, Canada.

Setting

The iOAT program under study is a province-wide program that has been operating in Alberta, Canada, since 2018, with one location in Calgary (with a mobile service extension), and two locations in Edmonton. There are approximately 90 clients in the program at time of writing. Clients visit the clinics 2-3 times per day, and either self-inject or request an intramuscular injection from a nurse. Clients also receive oral agonists (i.e. long acting oral hydromorphone) to prevent withdrawal overnight.

The clinics are nurse and nurse-practitioner led, with support from family physicians and a psychiatrist. Nurses assess each client before and after injecting, provide support and clean supplies, and monitor for adverse events. There are peer support workers, outreach workers, and social workers available to provide psychosocial support, with referrals for housing and other services. Clients can request in-person support to attend legal, medical, or financial appointments. There are also volunteers available to help clients file taxes and update identification cards. This study offered an opportunity to explore clients' experiences in an iOAT program and identify strengths and limitations of the iOAT health service delivery.

Methods

The research team conducted secondary thematic analysis of qualitative interviews with iOAT clients. Semi-structured interviews were conducted with clients by iOAT program staff? as part of a quality improvement project in 2019. These interviews were used at the program level to improve service delivery but have not previously been formally analyzed or used for research purposes. The research team obtained the verified interview transcripts, following the receipt of ethics approval by the University of Calgary Research Ethics Board and Alberta Health Services REB20-1193.

The semi-structured interviews focused on strengths of the program, areas for development, client access to resources, and program impact (the interview guide is provided as a supplementary file to this article). The interview questions included why clients had chosen to participate, how they were involved in their care, strengths/limitations of the service delivery, and the impact of the service on the clients' lives.

Rigour enhancing strategies such as thick description [15-17], use of data management software (NVivo v. 12 Plus) for organization [17-19] and reflexive writing [17-19] were used throughout the study. There were also ongoing discussions among the research team to foster peer review and reflection [15 17]

Research Method

This interview study used a qualitative approach called interpretive description (ID) [20] Research using ID describes and interprets a phenomenon, considers the meaning of related behaviours, and formulates a valuable clinical response [20].

Data Analysis

Inductive coding was the data analysis strategy applied in this study [20] Transcripts were coded to interpret participants' experiences. The transcript analysis began with the labelling of short segments of text [21]. After two interviews had been coded, the primary investigator and research assistant met to discuss the early findings. The coding moved to larger portions of text, which were organized as themes [20] to illustrate the participants' experiences [22]. This process was repeated until the themes created a robust account of the clients' experiences [19].

Findings

Participants

Twenty-three participants were interviewed. Demographic information was not collected as participants could risk crimination due to some activities disclosed in interviews. All participants lived in urban centers and had OUD with a history of injecting opioids. Thirteen participants accessing iOAT services were referred through supervised consumption services, four through social networks, two through hospital-based programs, two participants through an oral methadone program, and one participant was referred by their family doctor. One referral source was unknown.

Interpretive description

The overall experience with the iOAT program for participants was one of change. Participants described many aspects of their lives that had been transformed by enrolling in iOAT. Engaging with iOAT was generally characterized by significant positive changes in participants' physical and mental health, and social well-being.

Participants reported that their experiences in iOAT had followed a process (Figure 1). They accessed the program, for reasons that are explained below. Next, they built relationships with staff based on mutual respect. These relationships enabled participants to co-create change in their lives, including stopping some behaviours and starting others. Each part of this process is described further in the following sections.

Figure 1: Process of participant experiences of iOAT

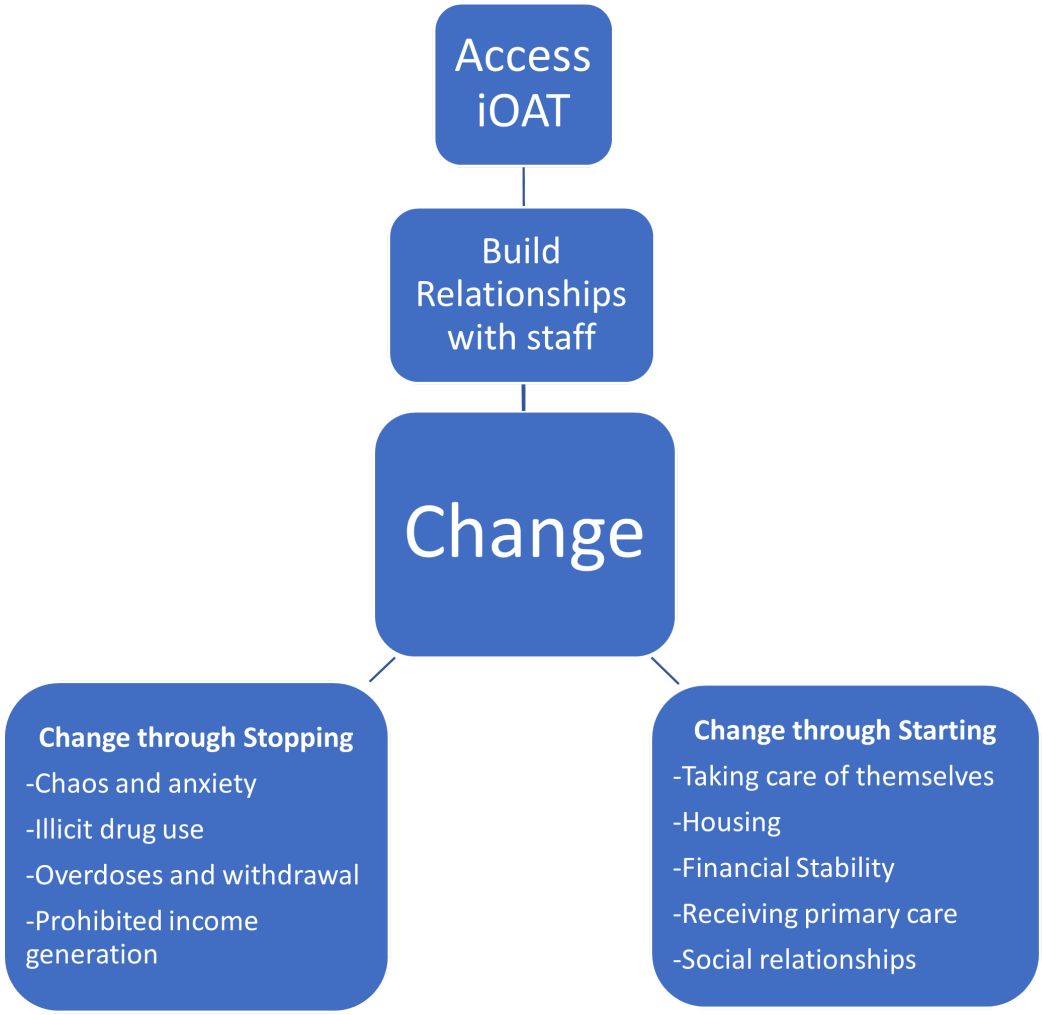

Figure 1: Process of participant experiences of iOAT

All of these participants utilized other opioid agonist programs prior to iOAT, such as oral methadone, without success. Participants reported that such other services were challenging to access due to physical location, limited hours of operation and missed dose protocols. For example:

"[iOAT] is definitely working more for me because, for one, I was on Kadian [oral morphine]. And, I was stuck with the hours of the pharmacy downstairs. They're really not great hours. So I was always missing it and stuff. And, then you miss it even one day and they cut you down and stuff. So it just wasn't working at all." [P07].

Participants were also acutely aware of the severity of their OUD and wanted to participate in iOAT as a means to reduce their risk of overdosing. One participant described their experience of losing their

hearing after overdosing followed by naloxone administration. Another was motivated to participate in iOAT by their terrifying overdosing experiences:

"Being around it and I ended up, starting to use too. And then, I died right. I killed myself. I OD'd. And she had to Narcan me. And then, twice that happened. And then that scared me so bad that, I wanted – thought I'd better do something right." [P23].

Participants recognized that they risked dying from overdose given the ongoing adulteration of illicit drug supplies with fentanyl and its analogues, which served as a key motivator for participating in the iOAT program:

"Two people died and they weren't in the program for that long. One of them left the program and stopped. And started using street drugs again and ended up dying because they weren't in the program. They left the program because of that they died." [P08]

One participant stated that their initial reason for accessing iOAT was for "free dope" [P18]. However, this participant reported that since starting the iOAT program, they experienced an array of benefits, beyond the medication. These benefits were co-created with iOAT staff, which is reported in the following section.

Relationships with staff

All participants reported positive relationships with iOAT program staff, notably receiving non-judgemental emotional support:

"Staff celebrate my successes and are here to commiserate with me. If I had to pick between the meds and the staff, I'd choose the staff. People come here mistrusting…staff are non-judgmental, they really care." [P01].

This participant highlighted the value of the relationships with staff, privileging these relationships over other aspects of the program. Other participants reported that they were treated with respect, which was a unique experience. This participant shared how the relationships with staff made them feel:

"I have a place where I can come where I feel safe. Where I feel like people care. Where people don't look at me like a junkie. Like an addict. They look at me like a person. They talk to me like a person. I like that we have that family structure. It's like that family-orientated kind of set up. I like that… It helped me get my life back, and… I like that no matter what's going on, they'll always make time for you. Really. It's – doesn't matter what's going on, if you're having a bad day, they're there for you. No matter what." [P07].

This participant stated that they were treated poorly in other contexts. The respect shown to participants by iOAT staff formed the basis of trusting relationships, which enabled participants to engage with the healthcare service. Relationships with staff were a crucial element of the program for participants, as these relationships enabled participants to bring about change in their lives, to stop some activities and start others. The activities that participants reported stopping are described in the following section.

Change through stopping

Stopping in this context refers to participants ending a variety of activities, or the ending some of the challenges associated with OUD, as a result of accessing iOAT. These categories overlap in practice and are explained separately here for clarity.

Chaos and anxiety

The majority of participants described an overall improvement in mental health related to the elimination of "chaos" and "reduced anxiety" that had previously stemmed from their daily hustling, drug-related behaviours, and constant attempts to avoid withdrawal symptoms and manage their OUD. Many clients described reduced anxiety once they attended iOAT's scheduled appointments:

"[I'm] not worrying about where my next fix is going to come from. That anxiety of being dope sick. iOAT allowed me to get to a place where I can start thinking about how I can better my life, getting into NA meetings." [P07].

The certainty of the iOAT appointments provided considerable relief to participants, who were able to focus on other aspects of their lives. This participant explained how decreased urgency to 'hustle' was a benefit of iOAT.

"I just totally stopped hustling. I totally stopped, doing all I had to do to get money for drugs. My whole lifestyle was to seek dope. Like my next fix, my next fix, my next fix. Now this has made it possible to cut it. That I don't have to chase that right. It's killed my crime. I don't even do anything for crime. And I used to be pretty active in the criminal-type ship." [P18].

These hustling behaviours were driven by anxiety about obtaining drugs and avoiding withdrawal symptoms. However, iOAT provided consistent access to medication, thereby removing their need for hustling and substantially decreasing anxiety.

Illicit drug use

All participants reported a reduction or cessation of illicit drug use through their participation in iOAT. Many participants shared that they no longer used unregulated opioids or other illicit drugs as long as they had access to the iOAT program: *"I don't use – I haven't used – and I don't even think about using. As long as I can get medication here, then I'm okay." [P08]*. A few participants reported continued use of illicit drugs such as crystal meth, but to a lesser extent than when they joined the program.

Overdoses and withdrawal symptoms

Additionally, increased access to a safer, regulated supply of opioids supported participants in managing opioid withdrawal symptoms and decreased their reliance on unregulated drug supplies, which served to reduce their risk of overdose. Many participants experienced life-threatening overdoses prior to participating in iOAT. Zero participants experienced overdoses after enrolling in the program. This outcome created considerable relief for participants, who described previous withdrawal symptoms as agonizing:

"In a sense, my health is huge, number one change. I've got more energy, more strength, more patience from being on this. It's actually turned me back to being, feeling, and realizing that I can be normal again and function in an everyday life. From before I didn't even want to get out of bed. I had horrible withdrawals and horrible pain. I didn't even as much as want to live. So, not having that is huge." [P14].

All participants reported improved management of withdrawal symptoms since enrolling in the iOAT program. This was attributed to achieving therapeutic opioid dosages in collaboration with the iOAT staff during the program, which significantly impacted participants' health.

Prohibited income generation activities

The other element of 'stopping' were decreased rates of prohibited income generation activities, such as theft. This outcome was associated with decreased hustling and prohibited income generation that was driven by OUD. One participant described their feelings about the change in their behaviour:

"And it was just disgusting to look back and see that and realize that I pretty much did anything, even sacrificed relationships and sold personal belongings even if they didn't belong to me, you know. I broke the law, I did a lot of horrible things that helped me get what I needed." [P14].

One participant noted changes in their experiences with law enforcement: "Totally, the best thing that's ever happened to me is this place. Instead of cops beating me up, they pull over now and shake my hand." [P19].

Prior to iOAT, most participants reported that they were involved in prohibited income generation activities such as theft and drug selling to access illicit substances. Some participants reported prior incarceration related to these activities. After enrolling in iOAT, all participants reported that they were not involved with prohibited income generation and had not faced any new criminal charges.

Change through starting

Another aspect of change for the participants was starting new activities and behaviours in their lives that replaced hustling. These activities included participants looking after their physical health, obtaining secure housing, and rebuilding relationships.

Taking care of themselves

Participants reported that they were able to dedicate more time and resources to better care for themselves since enrolling in iOAT. For example, their physical health improved through increased access to frequent meals. One client shared their personal experience of having access to food, through iOAT clinic and through increased money for food:

"I have put on weight. I look better. People tell me all the time. I'm eating regularly right. I used to eat a lot of garbage bin food. I even noticed I was getting food poisoning on the regular." [P18].

Participants benefited from both access to food at the iOAT sites, as well as having greater resources that they could direct to purchasing food. Increased food security helped participants recover their self-worth and belief in themselves.

Participants reported that they had a leading role in their care at iOAT through shared decision-making with and support from iOAT program staff. This helped with participants' sense of control over their health, and improved their self-confidence:

"You're involved in the choices and they'll come to you with an idea. A recovery plan about what's gonna work for you and how you can move forward...able to start working towards doing things and having normality back in their lives. Rather that just be a guy homeless on the street who just wants to find try and find a place to rent. They've helped us with that, they'll help us look for places to rent. They'll help us seek

jobs, if we wanted to. Anything that we need help with, that's going to help us, better us and make us be able to put our best foot forward, is what they do. They're the dream team…you're involved in any decisions in your recovery." [P07].

The majority of participants reported that their engagement with iOAT staff supported an overall increase in their personal capacity and autonomy, describing increased hope for the future, personal ownership over their lives, and improved personal sense of self-worth.

"I have confidence in the decisions I'm making to move forward in my life. They help me, get into a place where I'm starting to love myself again. Help me get set up so I can get into treatment and stuff. They helped me feel like I wasn't a junkie, and that's something I never got from any other program." [P07].

This self-worth helped participants move forward in other areas, like obtaining housing and financial responsibility, connecting with family, and improving their health.

Housing

Housing was another major issue for participants. Prior to joining iOAT, three participants were experiencing homelessness, and others were insecurely housed. Many participants were connected with housing agencies through iOAT, or supported with stopping evictions. All participants reported receiving housing support through direct access or referrals, which helped participants achieve stability, in addition to medications. One participant shared their experience of having housing after being homeless:

"For the first time in four years I got a, got into [COMMUNITY AGENCY HOUSING]. It's a place that gets you off the street. I have been homeless for four years- it was, just on dope right. Decided to pretty much give up on my life." [P18].

Financial stability

Most participants experienced improved financial circumstances, given that access to iOAT reduced the amount of income spent on illicit opioids, as well as time spent on illegal behaviours to obtain money for illicit drugs. Some participants reported improving skills for budgeting, saving money and understanding taxes. For example:

"I haven't spent anything on opioids. No plans to either. Savings, I've been able to be accomplishable because I don't have to take those extra funds and put it all towards a bad habit." [P08].

Although one participant noted that their financial circumstance declined because of frequent taxi rides to the clinic, others noted that the iOAT staff helped arrange subsidized transportation for appointments. For most participants, the decreased funds and time directed towards acquiring drugs meant that they could focus on other goals.

Receiving primary care

Participants reported an improvement in their overall health as they had access to health care professionals and referral services, especially primary care, through the iOAT program. For example, several participants had latent and ongoing lung infections when they started iOAT, leading to fatigue and feeling unwell. The program physicians and nurse practitioners provided primary care, in addition to titrating opioid doses. Other healthcare that participants reported included HIV support, Hepatitis C support, treatment for sexually transmitted infections, dental abscesses, lung conditions, acute and chronic wounds, and chronic pain management. One participant described the improvement in their health:

"Hepatitis C is going away. I haven't gotten any abscesses. I have not overdosed. My heart valves were in trouble because I've overdosed so much. It's just an all-around good program. Can't say enough about it. I'd be dead without it by now. Guarantee it. Guarantee it." [P19].

Many participants shared similar experiences and reported that the iOAT staff took their concerns seriously. These included participants who had significant pain and had been labelled as drug-seeking in prior attempts to obtain care, especially participants with chronic pain. Healthcare professionals who were involved with the iOAT program also referred and connected participants to other external health services, which helped participants obtain specialist care.

Social relationships

All participants reported an improvement in personal relationships that had previously been negatively affected by their illicit drug use, prohibited income generation, substance withdrawal, and social withdrawal. Many participants were able to reconnect with family:

"My relationships have improved. I had Thanksgiving at my parents' for the first time in 4 years. I used to be too dope sick or would fall asleep at the table. I text my mom a few times a month now." [P02].

Other participants created supportive relationships with each other and others outside the program, which improved their sense of self.

"it's been successful and meeting people that... we're not the same druggie downers that we used to be. This is a clean drug, I think anyways. And I am able to have normal friends even though." [P09].

Additionally, some participants reported that they had left unhealthy and abusive relationships. The stability in participants' lives enabled them to build relationships, instead of focusing on hustling and managing their OUD.

Overall impact of participating in iOAT

Overall, participants reported that their lives had drastically improved through the iOAT program. Several participants shared that they were fearful they would be dead if the program were to cease operating:

"The only fear is I'm scared what's gonna happen if the program ever stops. What would I do? Like, that's a scary thought." [P19].

Participants appreciated the structure and wanted to preserve the improvements in their lives that iOAT provided. However, the program was also taxing for participants, who reported that iOAT consumed much of their time:

"[iOAT] is literally a full-time job. iOAT is pretty much all I do, all I can really do. I try to squeeze in appointments, but then I'm running like an idiot all day long. And with this weather, iOAT is all I am able to do." [P03].

Nonetheless, there was universal agreement that the iOAT program was a positive influence for participants.

I just really think this program is, if it's allowed to continue, it'll be a great thing. It'll be something that will change a lot of peoples' existence. Make it a life, not an existence. [P15]

Discussion

This study illustrates the positive changes experienced by iOAT clients as a process that could provide a useful model for supporting iOAT services in other areas. The results indicate that the iOAT program not only provided participants with effective treatment for OUD, but also supported clients in building relationships with iOAT staff, which was crucial in positioning clients to achieve positive outcomes. These positive outcomes can be viewed as stopping a series of behaviours and starting others. Specifically, access to iOAT improved withdrawal management among participants and decreased

their reliance on the unregulated, toxic drug supply, which reduced overdose risk. The decreased time and resources dedicated towards acquiring illicit drugs to manage their OUD, coupled with access to supports and services provided by iOAT staff, fostered improvements in participants' general health and social well-being, including by improving housing and financial stability, social connections, and access to essential health services. Although the time requirement for program engagement was substantial, the program had an overall positive effect on the lives of participants.

Overall, the findings of this study are consistent with other published examples indicating that iOAT programs improve physical and mental health outcomes for clients [2 7 10-14 23 24]. Clients report that they have been able to achieve stability, and rebuild relationships, obtain secure housing, and look toward a return to employment [25]. Studies reported that participants engaged in less "hustling", theft, and other problematic activities to obtain money for drugs [7 10-12 14 25].This study adds to existing literature by being among the first published studies on patient experiences of iOAT outside the context of a clinical trial. The Alberta iOAT program is an addition to the literature, demonstrating that iOAT programs produce positive outcomes for clients in multiple contexts.

The role of trusting relationships with staff is crucial to the success of iOAT. These relationships have been identified as important in another study as well. There, participants have reported it was the first time they were able to build trust with healthcare professionals, instead of receiving "shame-based" care [14, p.4] Participants may have initially joined the studies to obtain medication but reported that they stayed involved because of the service-related benefits [12 14]. Providing non-judgemental and supportive care is central to success in iOAT services.

Limitations

In this study, the benefit of using previously conducted interviews meant that there was decreased burden for the participants. It is an acknowledged limitation that the researchers received limited demographic data and did not have the opportunity to ask participants additional questions. The interview transcripts were anonymized prior to the data transfer. Therefore, it was not possible to identify participants, limiting opportunities for member checking or repeated interviews. This trade-off was accepted as a means of respecting client confidentiality.

Implications

Participants in this study reported positive outcomes across many aspects of their lives. In this study, iOAT proved to be a safe and effective health service. It is likely that continuation of the program would create additional benefits. In one study, 25% of people in an iOAT program had no mental, physical, or social health problems, and no illicit drug use at the follow-up assessment four years after starting an iOAT program [10]. Programs in the study setting (Alberta, Canada) have only been open for around two years and have likely not realized their potential outcomes. However, clients' success can be fragile, and discontinuation of services elsewhere has resulted in rapid deterioration [10] and client deaths in 13% [12] to 20% [26] of the population. Sustainability of iOAT is a crucial issue which should be considered during planning phases.

iOAT programs have been assessed as cost effective in other studies [6]. It was beyond the scope of this study to assess cost effectiveness, but there are indications from participants that the iOAT program creates social and economic benefit. Future research can explore the program outcomes through different metrics.

Additionally, participants reported that the relationships with iOAT staff were a central part of their experiences. Little is known about the experiences of healthcare professionals working in iOAT, as there are no known published studies that explore providers' experiences. Future research can investigate how healthcare professionals approach their work, and how they build the relationships that support client success.

Conclusion

This study confirms that having iOAT as part of a health service continuum for people with OUD, has great value. Participants reported that they build relationships with staff, which enable them to stop or reduce harmful behaviours and start positive behaviours. iOAT services can continue to be strengthened by exploring healthcare professionals' views and adapting services to reduce the time commitment for clients.

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