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'I'm on the coast and I'm on methadone': A qualitative study examining access to opioid agonist treatment in rural and coastal British Columbia

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Abstract

Introduction: Despite rural regions being disproportionately impacted by the toxic drug supply, little is known about the contextual factors influencing access to opioid agonist treatment (OAT) specific to rural residents. The present study examines these factors in a rural and coastal setting in British Columbia, Canada.

Methods: The qualitative methods were used to examine the barriers and facilitators to OAT access. Between July and October 2021, semi-structured interviews were conducted with people who use drugs who reside in a rural and coastal community. Thematic analysis was used to identify emergent themes and subthemes. Results were corroborated by the research team and a local community advisory board.

Results: Twenty-seven (n = 27) participants described both limiting and facilitating factors that influenced OAT accessibility. Access was less challenging when participants' OAT dispensing pharmacy was in close proximity, had extended hours of operation, or when pharmacies provided delivery services. Barriers to OAT access identified by participants included the high cost of transportation, residing or working in remote communities and few local OAT prescribers. A variety of treatment motivations and goals that impacted OAT satisfaction are also highlighted.

Conclusion: This study demonstrates that patient satisfaction with OAT service access in a rural and coastal setting is multi-factorial and geographic proximity alone does not fully explain OAT accessibility issues in these settings. Accessibility to OAT may be improved through delivery services, expanded OAT prescribing authorisation beyond physician-only regulations, health authorities covering transportation costs and continual assurance that prescribing practices meet individuals' goals.

Keywords: Accessibility of health services, Canada, opioid agonist treatment, opioid use disorder, patient satisfaction, rural and remote health

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Résumé

Introduction: Bien que les régions rurales soient touchées de manière disproportionnée par l'approvisionnement en drogues toxiques, on sait peu de choses sur les facteurs contextuels qui influencent l'accès au traitement par agoniste opioïde (TAO) spécifique aux résidents ruraux. La présente étude examine ces facteurs dans un contexte rural et côtier en Colombie-Britannique, au Canada.

Méthodes: Des méthodes qualitatives ont été utilisées pour examiner les obstacles et les facilitateurs de l'accès aux TAO. Entre juillet et octobre 2021, des entretiens semi-structurés ont été menés avec des personnes qui consomment des drogues résidant dans une communauté rurale et côtière. L'analyse thématique a été utilisée pour identifier les thèmes et sous-thèmes émergents. Les résultats ont été corroborés par l'équipe de recherche et un comité consultatif communautaire local.

Résultats: Vingt-sept (n = 27) participants ont décrit les facteurs limitants et facilitants qui ont influé sur l'accessibilité au TAO. L'accès était moins difficile lorsque la pharmacie du TAO des participants était proche, avait des heures d'ouverture prolongées ou lorsque les pharmacies offraient des services de livraison. Parmi les obstacles à l'accès au TAO mentionnés par les participants, il y avait le coût élevé du transport, le fait de résider ou de travailler dans des collectivités éloignées et la rareté des prescripteurs locaux du TAO. Les participants ont également fait état de divers objectifs et motivations liés au traitement qui ont eu une incidence sur la satisfaction à l'égard du TAO.

Conclusion: Cette étude démontre que la satisfaction des patients à l'égard de l'accès aux services du TAO en milieu rural et côtier est multifactorielle et que la proximité géographique n'explique pas à elle seule les problèmes d'accessibilité au TAO dans ces milieux. Cette accessibilité peut être améliorée par des services de livraison, l'élargissement de l'autorisation de prescrire un TAO au-delà des règlements réservés aux médecins, la prise en charge des coûts de transport par les autorités sanitaires et l'assurance continue que les pratiques de prescription répondent aux objectifs des individus.

Mots-clés: Santé en milieu rural et éloigné, traitement par agonistes opioïdes, troubles liés à la consommation d'opioïdes, accessibilité des services de santé, satisfaction des patients, Canada

INTRODUCTION

Opioid use disorder (OUD) disproportionately impacts rural and coastal populations.[1-3] In British Columbia, rural and coastal regions experience the highest rates of toxic drug deaths from the contamination of the unregulated drug supply with contaminants such as fentanyl and benzodiazepines.[4] Rurality has contextual factors contributing to disproportionate harms amongst people who use drugs (PWUDs) when compared to urban communities,[4,5] including lack of access to evidence-based, first line OUD therapy (i.e., opioid agonist treatment [OAT]) and novel approaches such as prescribed safer supply (PSS; i.e., short-acting opioids such as hydromorphone prescribed to address overdose risk from the toxic drug supply).[1,6-8] Low availability of specialty substance-use clinics, prescriber discomfort managing OUD, and general healthcare provider shortages contribute to reduced accessibility of OAT in rural and remote settings.[9] However, OAT accessibility is not simply determined by the geographic density of OAT prescribers; rather, OAT site dispensation proximity and service delivery approaches in rural and remote communities also play a critical role in OAT retention.[10]

When characterizing Canadian geography, population size alone does not fully describe the isolation experience of many rural, remote and coastal communities that are only accessible by airplane or ferry. There is increasing recognition that rurality is a major social determinant of health, which is magnified for PWUDs who experience other social risk factors: for example, poverty, chronic disease, unstable housing and fluctuating economic opportunities.[7,11] Rural and remote communities have fewer specialty health services, leading to less service utilisation by people who require them.[12] Moreover, these communities lack the resources to collect data on prevalence rates of specific conditions, which would inform funding allocation for needed services.[13] This is apparent in BC as there is poor coordination of funds between health authorities and local service agencies. Combined, these factors contribute to poorer health outcomes, particularly amongst populations who experience marginalisation, such as PWUD with OUD.[2] As such, access to

treatments such as OAT is imperative in rural, remote and coastal settings, but there are high rates of attrition in rural and remote BC.[3]

To that end, knowledge of barriers and facilitators of OAT provision is critical, but there is a dearth of research on this topic from the perspective of PWUD. In order to improve service delivery in rural and remote areas, this information is sorely needed. The aim of the present qualitative study is to identify and characterise the unique factors that influence access to OAT in a rural and coastal community in BC disproportionately impacted by toxic drug deaths.

METHODS

This study was conducted in a jurisdiction with a population of approximately 21,000 residents and covers 5000 km^2 of land (inclusive of small islands and more remote areas). The study community is characterised by a coastal town-centre that is more densely populated compared to nearby smaller inhabited areas that are isolated by 40–60 km of roads or require approximately 45 min of ferry travel to and from an inhabited island. Remote areas of the region are limited in health infrastructure, have no local pharmacies or other substance use services, and residents are restricted to a corner store or gas station for amenities.

A community-based and applied public health research approach was undertaken to combat community marginalisation, and to ensure results inform policy and programmatic changes that are relevant and useful. To achieve this, the research team partnered with a group of local PWUDs, clinicians and other community groups that were established to address the impacts of toxic drug crisis in the region. The team was consulted throughout the study, including during the formation of research objectives and interview guide, for participant recruitment and for the presentation of preliminary results, which provided opportunities for community engagement, to acquire feedback and enhance the accuracy and trustworthiness of the results. Approval for this study was obtained through our Institution's Research Ethics Board.

The COVID-19 pandemic and associated in-person restrictions occurred during data collection. To prevent disruptions to the research process, local harm reduction service providers and healthcare clinicians supported the study by recruiting and screening participants, and coordinating interview logistics. Eligibility criteria included frequent illicit substance use (minimum 3–4× per week), minimum 19 years old, and living in the surrounding region. Semi-structured one-to-one interviews were conducted remotely from July to October 2021. After providing written informed consent, PWUD participated in interviews through telephone from their own homes or a private office space. Authors GB and MM conducted the interviews from their private home offices. Interviews lasted 45–60 min and were audio recorded. A cash honorarium of $30 CAD was provided to participants.

Interviews were transcribed by an external transcription service and checked for accuracy by the study team. Authors GB and MM reviewed the transcripts individually and then met to discuss potential themes and develop the coding framework. Transcripts were uploaded and coded according to thematic analysis using NVivo V.12.[14] The lead author coded OAT and rural-specific data into sub-themes described herein.

The authors' positionalities further informed data interpretation. Authors have varied positionalities, inclusive of those with lived experience with substance use and residing in rural communities, clinical experience as prescribers and research expertise in substance use and public health. Due to the small size of the community, and based on feedback from community advisors, limited demographic information is provided to ensure participant confidentiality.

RESULTS

Overall study sample demographic characteristics and prescribed and non-prescribed substance use are provided in Tables 1 and 2, respectively. Twenty-seven PWUD participated in this study. Their perceptions and experiences related to OAT access are in the following pages.

Proximity to health services

Living in a more densely populated area of the study's rural and coastal setting was a cornerstone to the accessibility of pharmacies and substance use programmes amongst respondents. Nearly all of the study participants reported living in a

Table 1: Study participant demographics (*n*=27)

Characteristic	#
Age, median (range)	42.6 (19–62)
Ethnicity	
Indigenous	8
White	19
Gender	
Cis man	13
Cis woman	14
Income source (last 30 days)	
Full-time employment	2
Part-time employment	8
Drug selling	6
Reselling goods	2
Social assistance	26
Sex work	1
Other	13
Housing	
Supportive housing	13
Apartment	2
House	3
Shelter	4
Other	5

Table 2: Prescribed and non-prescribed substance use (*n*=27)

Characteristic	#
Substance use (last 30 days)	
Fentanyl	25
Heroin	12
Opiates (diverted)	1
Crystal meth	17
Crack cocaine	14
Cocaine (powder)	7
Alcohol	6
Benzodiazepines	9
Cannabis	6
Other	6
Type of OAT[a]	
Buprenorphine (SL or IM)	3
Methadone	11
Slow-release oral morphine	5
Fentanyl transdermal	1
Hydromorphone	3

[a]Prescribed and non-prescribed OAT. OAT: Opioid agonist treatment, SL: Sublingual, IM: Intramuscular

centrally-located neighbourhood consisting of private residences and apartment buildings that were within walking distance to an overdose prevention site, community pharmacies and medical offices and the local OAT clinic. Living within walking distance to a pharmacy in particular eased the burden of OAT mediation pickup and required daily witnessed ingestion (DWI; i.e., pharmacist observation and verification of medication consumption). To illustrate: *'I live close, so it's really, it's not inconvenient to get up in the morning and go for a walk'* (P1), and *'I just walk across the street. I'm usually the first one there [pharmacy] so I don't have to see anyone and I'm in and out'* (P9). For participants who lived in particularly isolated areas far from the pharmacy, DWI created OAT access struggles.

Some participants lived in areas considered particularly isolated (including on small islands). These areas were characterised by having few neighbours, limited community infrastructure and lacked reliable private or public transportation; which were described as burdens to OAT access. For example: *'It's not like you just hop off the ferry and you're in town.'* (P26), showcasing how the burdensome travel to an OAT-dispensing pharmacy continued following a ferry ride from a small island. Broadly, participants in isolated areas described feeling trapped: *'Yeah, I feel locked down. I'm on the Coast. I'm on the Coast, and I'm on methadone'* (P1). Most participants emphasised that owning a personal vehicle is necessary in their community, for example, *'without a vehicle you're pretty much screwed'* (P18), but their travel options were restricted to walking, bicycling or hitchhiking: *'We had a truck and when the truck died… we had to hitchhike into town and stuff'* (P11). Resources required to own and operate personal vehicles are largely unattainable due to cost: *'Because not all of us can afford the gas too. Like it's just, everything's tripled, doubled, the [price of] drugs, the gas, the [housing] rentals'* (P8).

Variations in pharmacy operations

OAT access was facilitated by pharmacies with extended hours of operation. For example, one pharmacy held hours of 8 am to 10 pm, which participants described as aligning with their work and sleep schedules: *'I don't have to worry as much about missing it [OAT], you know, because I've got till 10:00 o'clock to go get it'* (P22). Many participants also highlighted the benefit of pharmacies with OAT delivery services, especially given the transportation challenges within the setting: *'They actually bring it right here, getting it delivered is the best thing I guess'* (P15). When asked about OAT program improvement, some participants brought

up pharmacy delivery services: *'I wish they'd bring it right to my building actually'* (P7).

DWI requirements were the most frequently mentioned barrier to OAT. Participants who lived in isolated geographic locations spoke of the burden of DWI and how this amplified feeling stuck:

I don't get carries (take-home OAT doses), which is a big thing because it keeps me really locked down in town. Like I can't go anywhere, right? Because if I want to go somewhere, I have to make plans, right? And it's because I'm using. Because if you want to have the privilege of a freedom and be on opioids in this province, you have to be clean. You can't be using (P1).

Some participants identified that the energy and resources required to get to a pharmacy daily, or in some cases multiple times per day, in a rural community were physically and emotionally exhausting. One participant likened their experience of being on OAT to being *'on parole'* (P8). Others noted that DWI requirements felt coercive as the physical consequences of not picking up OAT resulted in painful physical withdrawal, as illustrated by one participant:

You can't go away from the city or from the town or whatever and go to another place because it seems like you've got to get that, get that drink [methadone] and, I don't know. It just seems like a leash where you just can't go too far or go for a while away for, because you need that drink (P25).

Participants emphasised that OAT delivery to residences or shelters and/or being prescribed take-home doses would be more convenient and provide more freedoms than required DWI at pharmacies.

Prescriber characteristics and opioid agonist treatment access

Participants described characteristics of healthcare providers that facilitated access to OAT that included: (1) being able to *'count'* on prescribers; (2) responsiveness to dose changes or other needs, (3) being located within close proximity, and (4) providing wrap-around social supports. Prescribers who made dose adjustments by phone, particularly during non-working hours, were facilitators of OAT access and prevented OAT termination. To illustrate:

[The prescriber] helped me with legal like issues and police problems and helped me with treatment and housing and helped me with all sorts of shit that I didn't think I would be able to or ever do and [they've] done it. And [they've] been available like after hours, you know. Like sometimes at 10:00 o'clock at night, [they've] been available to answer [their] phone so I could get a prescription, you know, if mine was cut off or something (P22).

Conversely, several participants raised concerns about patient-provider power imbalances and not feeling like a partner in OAT decisions. One participant explained having an allergy to morphine to a prescriber, but it was prescribed nonetheless:

And it said right on my medical stuff, right? It says you can't – you know, I'm allergic to it [morphine], right? I can't take that. I got to take Oxys. And [they] says, 'Oh, no, no. It's got this Special K in it. You're allowed to take it.' And I says, 'Are you sure?' I said, 'Okay, well, I'll start taking it.' Well, I started taking it, and then after about a week I was just I turned into like a jellyfish or some fucking thing (P2).

Others described providers suggesting one OAT agent over others: *'They just want to put you on Suboxone and then straight onto Sublocade and honestly it wouldn't matter to me but I feel like they're pushing the Sublocade'* (P3) and *'I never wanted to get on methadone in the first place. They kind of pushed it on me'* (P9). Some participants said that their OAT was discontinued by their prescriber due to challenging therapeutic relationships:

I got off the program a few times, just because of not seeing eye to eye with [my prescriber] at the times. So um… yeah, so then I would buy it [OAT medication] on the street, basically, right? And which is, I guess, better, because it's actual pharmaceutical (P18).

When asked about access approaches such as PSS, no participants had access: *'Like I asked [my prescriber] about why they're not doing it [PSS] and [they] said … it would be giving up on us. And I told [them], "The only thing that's giving up on us is not giving us a choice"' (P5)*. Similarly, another participant explained, *'I asked [my prescriber] about the safer supply program and [they] said that clinic does not support the safer supply program. I asked why and [they] wouldn't tell me'* (P23), which further left participants not feeling like partners in medical decisions.

Individuals' goals and opioid agonist treatment access

Participants who had positive experiences with OAT and routinely accessed it often had goals of wanting to live a *'normal'* life: *'I'm getting 1,000*

milligrams a day, ten pills a day. And that lasts me 24 h and it keeps me, well, normal. Functioning' (P24). Others wanted to cease illicit drug and OAT use: '*I don't want to be, you know, just addicted to this [OAT medications] forever, right. I want to slowly… once I finally get clean and, in a spot, where I feel stable, I want to come down and finally get off of it [OAT medications]*' (P22). Participants who described OAT as meeting their needs and controlling withdrawal symptoms were often on higher doses of OAT: '*I have slowed down in years … but I'm on a high dose right now*' (P12). Some participants augmented their use of illicit opioids with OAT as withdrawal management: '*We're using it [unregulated opioids] recreational. But if we stop altogether, we'd be pretty sick but the Kadian would smooth it over so that we're not pooping and throwing up and everything*' (P24). In addition, participants who felt that OAT brought reprieve from the *'chaos'* of a life *'overrun with drugs',* also generally reported positive OAT experience.

Amongst participants who were dissatisfied with accessing OAT, ongoing illicit substance use was commonly mentioned: '*People like to get high. Like is it – is it okay to be high?*' (P1). Participants who expressed challenges shared intentions of reducing harm related to their active substance use, rather than aiming to end illicit drug use. All participants expressed the desire to avoid experiencing opioid withdrawal at all costs. According to one participant, '*If I missed my meds, then I was twice as sick, and twice as liable to go out and go do stupid shit to make money*' (P6).

DISCUSSION

Our study results highlight several intersecting contextual-specific factors impacting access to OAT in a rural and coastal setting. OAT facilitators included a dispensation site that was close to participants' residences, pharmacies with extended hours of operation, pharmacy delivery options, ability to reach OAT prescribers off-hours and being prescribed higher doses of OAT. Barriers included inadequate or unreliable transportation to pharmacies, lack of service delivery models with a harm reduction approach, no take-home doses and required DWI. Participant-identified goals also factored into participant dis/satisfaction. Participant experiences revealed practical ways to improve OAT access in our study setting.

Geographical and transportation barriers to OAT have been well-described in existing literature.[1,2] Evidence demonstrates that increased distance travelled to an OAT dispensation site is negatively associated with treatment retention.[15] Every additional mile a person must travel to an OAT provider or a dispensing pharmacy reduces their likelihood of engaging in or maintaining on OAT.[16,17] Based on our results and some of the authors' clinical experience, there are many reasons that affect OAT retention in rural settings (e.g., lack of reliable transportation coupled with individual's chronic pain or mobility issues, precarious housing and extreme weather). However, further longitudinal research is needed to confirm these factors. Results from our study highlighted the positive influence pharmacy home deliveries had on OAT satisfaction amongst participants. Expanding OAT home delivery to rural and remote areas would help mitigate a variety of travel burdens (e.g., transportation, finances, time). Additional investments in public transportation systems would help to address travel barriers, a common social determinant experienced by PWUD and other populations that experience marginalisation when accessing healthcare.[8]

Many participants in the present study resided in the area's more densely populated neighbourhood in close proximity to pharmacies. Nonetheless, there was dissatisfaction with OAT services, indicating that travel alone does not fully explain barriers to OAT, which has also been identified in other North American settings.[16] Stigma and conservative attitudes towards drug use in rural and coastal settings, along with limited patient-provider co-decision making, created barriers to routine access to OAT.[18,19]

Our study further supports previous research identifying that DWI restricts people's sense of freedom and negatively affects OAT treatment satisfaction.[20,21] To address DWI impediments, take-home doses were commonly requested amongst participants but under current guidelines for the treatment of OUD, patients can only receive take-home doses if they demonstrate urinalysis free from illicit substances, a period of cognitive and emotional stability demonstrated by regular OAT appointment attendance, and no signs of injection drug use.[22] Amending these requirements to a lower barrier model may

reduce OAT attrition. For example, relaxed regulations during the COVID-19 pandemic have demonstrated that providing take-home doses of methadone can be effective to improve OAT access, with reported rates of OAT discontinuation or interruptions declining and no increases in overdose mortality amongst this population.[23,24] Prescribing take-home doses of full-agonist OAT to people who experience a high degree of health and social instability (e.g., living in shelters, sleeping outside, drug-induced psychosis and sleep deprivation) must balance the benefits versus risk of unintended consequences, including intended or unintended diversion, overdose and loss of medication. For such individuals who do not live close to clinics or pharmacies, there is a need to explore other options that support access to OAT but also promotes patient safety including peer delivery of OAT and virtual-witnessing technologies,[25,26] although future research is needed to fully understand the feasibility of these novel programmes across the rural and coastal settings.

While success with buprenorphine/naloxone programmes in rural and remote settings has been documented, in the literature, due to advantages in safety and granting early take-home doses,[27] our study is unique due to the variety of OAT medications that were discussed and available to the study sample. Active substance use was a common characteristic of study participants and from the authors' clinical experience, full-agonist OAT medications are often the treatment of choice for this population, and prescribers must collaborate with patients and provide options based on available treatments.

Scale-up of OAT delivery systems is challenging due to federal regulations that restrict OAT dispensing to few providers. Our study reinforces previous results that low-OAT prescriber availability leads to homogenous prescribing practices.[9] Moreover, rural healthcare organisations are less likely to implement novel practices due to lack of training and support from local health leadership and community.[28] To expand the OAT prescribing workforce in BC, training programmes have been developed to authorise nurses' scope of practice to include OAT prescribing.[29] Nurses, particularly those who already work in substance use settings, are well-positioned to prescribe OAT due to pre-existing therapeutic relationships with PWUD and experience administering OAT medications. In addition to nurses, pharmacists also have working relationships with people prescribed OAT, due to linkages as healthcare professionals at OAT dispensing sites, and may be available during times that OAT clinics may be closed (e.g., evenings and weekends).[30]

Limitations

Due to pandemic-related restrictions, in-person research activities were limited and this may have impacted interview length, rapport and recruitment. Despite aiming to recruit a diverse study sample that represented the region, most participants lived centrally and actively used unregulated street drugs. Future research should aim at recruiting a diversity of participants who represent both isolated communities of the region and people who are in early or prolonged remission from substance use. In addition, while some of the study participants self-identified as Indigenous, given the small sample size, themes related to Indigeneity were not identified. These limitations highlight the need for future research that specifically explores barriers that may be exacerbated for racialised and isolated communities. Finally, this study focused on characterising the unique drug use and harm reduction features of a rural and coastal community and not solely on OAT access. Therefore, more in-depth and longitudinal studies that focus specifically on OAT accessibility and acceptability are warranted.

CONCLUSION

OAT access in rural and coastal settings is confronted with various challenges. To the authors' knowledge, this is the first qualitative study to analyse factors that impact OAT accessibility from the perspectives of PWUD in rural and coastal BC. The results demonstrate that OAT access is multi-factorial, and geographic proximity alone does not fully explain OAT accessibility issues in the rural and coastal regions. People prescribed OAT who live in rural and coastal regions make significant economic and social sacrifices to adhere to OAT regimens. There are clear opportunities to improve health equity

by taking the onus of associated costs and time off patients and redirecting it to health systems. Greater innovation in OAT dispensing that is tailored to treatment goals is urgently required to improve OAT access and uptake in rural and coastal Canadian communities.

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