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Disease-related stigma among people who inject drugs in Toronto amidst the COVID-19 pandemic

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HIGHLIGHTS

- Disease-related stigma has led to discriminatory acts against people who use drugs.
- People who inject drugs [PWIDs] are especially prone to disease-related stigma.
- PWIDs reported hardships and life-threatening discrimination after COVID began.
- This was especially pronounced among those also facing structural vulnerabilities.
- Anti-stigma strategies are discussed to enhance the wellbeing of PWIDs.

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ABSTRACT

Background: Stigma overwhelmingly affects people who inject drugs. The COVID-19 pandemic posed unique challenges for people who inject drugs, who are already stigmatized as being "dangerous and spreading disease." The present study explored ways in which stigma was experienced by a sample of people who inject drugs in Toronto, Canada following COVID-related public health precaution measures.

Methods: Qualitative interviews were conducted with people who inject drugs ($n = 24$) recruited from supervised consumption sites in Toronto, Canada. The semi-structured interview guide focused on the impact of COVID-19 on participants' health and social well-being. Interviews took place six-months after initial COVID-19 precautions (September-October 2020). We used thematic analysis to examine findings, with stigma being an emergent theme.

Results: Participants described heightened acts of stigma after COVID-19 restrictions were implemented, including feeling treated as "diseased" and the cause of COVID-19′s spread. They reported being less likely to receive emergency care during events such as overdoses. Participants perceived increased disease-related stigma evident through actions of stigma, including amplified dehumanization by the public, others avoiding all contact with them, and more discrimination by police and hospital systems.

Conclusion: Participants provided specific examples of how stigmatizing behaviors harmed them after COVID-19 precautions began. It is plausible that stigma contributed to the dramatic increase in fatal overdoses, difficulty accessing housing, and further difficulty accessing needed healthcare in our setting. Integrating evidence-based harm reduction approaches in areas where stigma is evident might offset harms stemming from disease-related stigma and mitigate these harms during future public health emergencies.

Abbreviations: AIDS, acquired immunodeficiency syndrome; Covid-19, severe acute respiratory syndrome coronavirus 2 (i.e. sars-cov-2 disease); HIV, human immunodeficiency virus; HOPS, housing overdose prevention sites; SCS, Supervised Consumption Service; SROM, Sustained-Release Oral Morphine; SOS, Safer Opioid Supply; OAT, Opioid Agonist Treatment.

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1. Introduction

The function of social stigma aims to (1) oppress marginalized groups with certain innate or immutable characteristics (e.g., race, gender), (2) dissuade and punish deviant behaviors that violate social norms (e.g., drug use, sex work), and (3) reduce perceived threats to health to ones' self or group by attributing diseases to specific populations and behaviors (i.e., contagion avoidance) (Phelan et al., 2008). As such, stigma is perpetuated through ongoing negative stereotypes, prejudice, and discrimination (Canadian Mental Health Association, 2023) towards drugs and people who use them and is used to justify laws criminalizing drug use, and various interpersonal and structural forms of discrimination (Lloyd, 2010).

Specifically, stigma enacted upon people who inject drugs is evident through policy (Tyndall and Dodd, 2020; Strathdee and Beyrer, 2015), within healthcare systems (Paquette et al., 2018; Skinner et al., 2007), via police interactions and the criminal justice system (Kruis et al., 2020), in drug treatment systems (Barry et al., 2014), by communities and families, and internalized by individuals who use drugs (Muncan et al., 2020). Collectively, these experiences can place people who use drugs at higher risk of adverse health outcomes such as disease acquisition and overdose as a result of avoiding engagement with health and social resources (Latkin et al., 2019a; Lloyd, 2010). Indeed, stigma towards people who inject drugs is a primary impediment to seeking early care for infections such as abscesses, endocarditis, or osteomyelitis often due to previous poor experiences in hospital, which can be hostile settings for people who inject drugs (Paquette et al., 2018; Strike et al., 2014). Stigma thus impacts the ways in which people who use drugs are treated by and experience social and healthcare systems, and contributes to a range of negative outcomes (Courtwright, 2013; Earnshaw et al., 2013; Latkin et al., 2019a; Muncan et al., 2020; Rivera et al., 2014; Smith and Earnshaw, 2017; Tsai et al., 2019).

Moreover, stigma towards people who inject drugs as deviant and dangerous, is further heightened by risk of infectious diseases such as HIV/AIDS and hepatitis C transmission through injection-related behaviors (Jacka et al., 2020; Lourenço et al., 2021; Takahashi et al., 2007). This intersection of drug use and infectious disease related stigma has led to reluctance among policymakers to develop and implement policies that prioritize the health and wellbeing of people who use drugs, even when there is ample evidence of effectiveness (Kolla et al., 2019; Potier et al., 2014; Strathdee and Beyrer, 2015; Tyndall and Dodd, 2020; Watson et al., 2020). For example, a rural town in Indiana, United States, faced a major and preventable HIV/AIDS outbreak because it criminalized syringe services which led to increased syringe sharing and service avoidance among people who inject drugs (Strathdee and Beyrer, 2015; Chan et al., 2007). This occurred despite concrete evidence that harm reduction interventions like syringe access prevent such outbreaks (Kerr et al., 2010).

Given this history, it is plausible that the pandemic caused by the SARS-CoV-2 virus (i.e. COVID-19), a historic global event that has resulted in worldwide restrictions to prevent disease transmission and acquisition, might have heightened experiences of stigma among people who inject drugs; (World Health Organization, 2023; Logie, 2020). COVID-19 restrictions intended to keep the public safe drastically changed experiences of daily life, which included suggested physical distancing parameters, businesses temporarily closing, shuttering public washrooms, stay-at-home orders, and alterations to social and health services (Public Health, 2020). There remain open questions as to whether these changes also contributed to experiences of stigma among people who inject drugs. The present paper therefore explores how people who inject drugs in Toronto, Canada experienced stigma during the six months following the implementation of COVID-19 public health risk mitigation guidelines in March 2020 in response to the first wave of the COVID-19 pandemic.

2. Methods

The present study is nested within a longitudinal cohort study, the Ontario integrated Supervised Injection Services (OiSIS) longitudinal study, that examines how supervised consumption services [SCSs] influence the health and social well-being of their clients (Scheim et al., 2021; Canadian Institutes of Health Research, 2022). In response to the COVID-19 pandemic, our research team developed a project to rapidly assess the impact of the pandemic on health and social outcomes of people who inject drugs in Toronto (Canadian Institutes of Health Research, 2022). Data from the present study is derived from the qualitative component that aimed to understand how COVID-19 and associated public health requirements, such as stay-at-home orders, wearing face masks, suggestions to socially distance, limits on social and health services, and the temporary closing of business and public washrooms, impacted people who inject drugs who access SCSs. We conducted in-depth qualitative interviews using a semi structured interview guide designed to elicit details on the experience of participants accessing health and social services during the initial period of COVID-19 pandemic lock-downs that began in March 2020. While coding for emergent themes, "stigma" was identified early, and further probes were added on this topic. We interviewed 24 people in total, between September and October 2020, which is approximately six months after pandemic emergency restrictions, including COVID-19 stay-at-home orders, went into effect (which occurred on March 17th, 2020 in Ontario).

2.1. Setting, recruitment, and eligibility

All recruitment and interviews took place at two community health centres that offer comprehensive health services and harm reduction programming, including SCS, in Toronto, Canada. Interviews were conducted by Authors 1 & 2. Participants were recruited through three routes: 1) venue-based engagement by qualitative interviewers, 2) referral from onsite harm reduction staff, or 3) referral from the OiSIS study interviewer after verification of eligibility. Eligible participants were people who used drugs and accessed the harm reduction services at the community health centres. All interviews were held in private rooms at the health centre. We used verbal consent for participation as a means of enhancing privacy, and participants were told during the consent process that their interviews were confidential, audio-recordings for the interview would be typed by a professional transcriptionist, and that any names or identifying details mentioned would be redacted from transcripts. Interviewers were trained by medical staff at one of the partner community health centres on best practices for the use of personal protective equipment. Interviewers and participants wore face masks, had hand sanitizer in interview rooms, and maintained 2 m distance during interviews. Participants were remunerated $30 per interview, which, on average, lasted 45 min. The study was approved by the Research Ethics Boards at Unity Health Toronto and Toronto Public Health.

2.2. Interview guide, data collection, analysis, & assessing trustworthiness

The present study aimed to collect data at two different point in time: six-months (wave one) and one-year (wave two) post-COVID emergency restrictions, amongst the same group of participants. This analysis is restricted to data from wave one which was collected between September – October 2020. The interview guide contained 7 domains of inquiry investigating participant experiences during the time period after COVID-19 restrictions were enacted: (1) service access, (2) harm reduction, SCS, or treatment access, (3) overdose experience, (4) social networks, (5) experience with policing, (6) experience with healthcare, and (7) basic demographics. The interview guide was checked by other members of the research team and piloted with the first three participants to ensure proper flow of the interview and to adjust questions as

needed. The semi-structured nature of the guide allowed for adding probes where necessary as spontaneous themes emerged. Authors 1 & 2 collected all data and are both trained and experienced qualitative interviewers and analysts.

Narratives gained through in-depth interviews were analyzed via thematic analysis (Braun and Clarke, 2012). The core steps in thematic analysis include (1) familiarizing oneself with the data, (2) generating initial codes, (3) searching for themes, (4) reviewing themes, (5) defining and naming themes, and (6) producing the report (Braun and Clarke, 2006). The present paper is the product of a spontaneous theme that emerged through this process, as stigma was not a domain we intentionally sought to explore. However, given the interview guide domains and their association with stigma (Barry et al., 2014; Skinner et al., 2007; Kruis et al., 2020; Lloyd, 2010; Paquette et al., 2018), we consistently heard narratives of how people who inject drugs, particularly those who were experiencing homelessness at the time of interview, were treated by police and the general public. This allowed interviewers to probe further on these topics, for example "Why do you think people moved away from you on public transportation?". Authors 1 & 2 engaged in a reflexive process of interrogating one another on emergent themes and completed data audits to assess the trustworthiness of the analysis (Elo et al., 2014).

3. Results

3.1. Participant demographics

Twenty-four participants ($n = 24$) were interviewed, of whom 10 identified as trans or cisgender women and fourteen as cisgender men. Fourteen participants identified as white, 8 participants identified as Indigenous, and 2 participants identified as being members of specific racial/ethnic groups, public disclosure of which might impact privacy. At the time of interview, eleven participants were receiving opioid agonist treatment (e.g. methadone, buprenorphine/naloxone (*Suboxone*) or sustained-release oral morphine (SROM), while seven were participants in safer opioid supply [SOS] programs (Young et al., 2022; Bonn et al., 2020), where they receive a prescription of daily-dispensed, take home hydromorphone tablets, which is often paired with a prescription for a long-acting opioid (methadone or SROM). At the time of interview, twelve participants reported that they were experiencing homelessness (including staying at shelter hotels), and one person did not state their housing status. The mean age of participants was 42 (Range: 28–63).

3.2. Interaction of stigma towards COVID-19 and drug use

When asked to think back to the period prior to COVID-19 restrictions, participants often described their lives as much simpler, e.g., "everything was easier" (*Interview 10)*. However, in the period following the enactment of the first wave of COVID-19 restrictions, which included a province-wide stay-at-home order, participants discussed significant difficulties including disruptions to their income, "Cause money was so bad. It went from being able, for me to make a hundred bucks in, like, three hours, to making twenty or thirty bucks in four or five" (*Interview 3*), often on account of fewer people being around, "There's nobody else on the streets to pan to get the money" (*Interview 4)*. Participants discussed perceptions of increased hostility and discrimination from the general public. Stigma towards participants from the general public preceded COVID-19 restrictions; however, participants reported that the public kept greater distance from people who inject drugs due to fear of disease acquisition after restrictions were implemented. For example, one participant reported smoking a cigarette outside of a harm reduction centre and stated feeling as though people were looking at her in a manner suggesting "Ooh, she must be (diseased) You know? … Yeah. It's awful" (*Interview 8*). Another participant noted feeling as though she was treated poorly based on being viewed as not only a COVID-19 carrier, but as the cause of the pandemic:

> Like, rich people, there's, I remember at one point, they were trying to blame us, like, the homeless. Yeah, we brought it in. It's just like, well, it came in on a frigging plane, like, travelling. So how do you think it was us? (*Interview 14*).

Her insight regarding COVID-19 entering Canada by air travel juxtaposed to her perception of her community being to blame for the pandemic illustrates the pervasiveness of internalized stereotypes that people who inject drugs are dangerous and to blame for spreading disease, no matter how unfounded. Although maintaining physical distancing was mandated by public health authorities, one participant stated that it was not a new phenomenon for people who inject drugs: "it (*distancing from people who inject drugs*) happened before already, and now it's even worse". This participant theorized that "the stigma increased, I think … with the drug users, right? I think the stigma increased … since the COVID started" (*Interview 8)*.

3.3. Stigma's impact on public helping behaviours towards people who use drugs

Participants felt at higher risk of fatal overdose due to the COVID physical distancing orders, both due to increased isolation as well as due to concerns that overdose response would be impeded by fear of COVID transmission, "Well, frig, who's going to put themselves at risk, right, like of COVID 19?" (*Interview 6*). This had direct impacts on the way bystanders responded to overdose, with one participant describing witnessing someone overdosing, and her belief that the public's fear of COVID-19 among people who inject drugs directly increased risk of mortality due to reticence to intervene:

> Anyways, I was trying to help him, and there was a security guard, kind of like, just in the building. And he's just standing there, I'm like, 'Yo, can you help?', all this stuff. I told (name redacted) 'Get the naloxone. This guy is - he was purple. If we were even a little bit later, he would have been dead. And nobody cared. They were trying to kick me away from it, and tell me to leave him alone. And I was just like, 'Whoa, this guy's going to die. You guys gotta help him.' But I find, now that COVID, people are not caring at all about it. They're just like, 'I don't want to get COVID, so I'm going to leave it. Somebody else will deal with it.' (*Interview 14*)

This narrative showcases the additional burden of COVID-19-related stigma, where the participant perceived that bystanders were less likely to assist in emergency situations such as overdose, which left untreated, can result in death. This participant also noted that income was disrupted on account of stigma via the act of physical distancing: "Like, even panhandling, they don't want to drop change in your cup, because they're scared they're going to get it [*COVID-19*] or something. It's weird." Although physical distancing was guidance by public health authorities to prevent COVID-19, this participant felt that it was potentially discriminatorily used as an excuse to maintain distance from a people who use drugs. Another participant agreed: "people don't want to come near you on the street," because "maybe some people are scared of catching COVID coming here (*downtown*)" (*Interview 5)*. In spite of knowledge of citywide stay-at-home orders, this participant perceived that people might have been staying away from the downtown corridor of the city, where there is a concentration of homelessness and public drug use, due to fear of acquiring COVID-19. He further noted that squeegeeing people's car windshields to make money was also curtailed: "people didn't want them (*people who inject drugs*) approaching their cars."

3.4. Stigma from police, in health and housing

Participants also noted increased acts of stigma from police towards people who inject drugs as they kept their distance as well: "Ah, you

know how the stigma is with police anyway, but I find it's more now too. I just find it, … 'Stay away. Don't get too close.'" (*Interview 8*). Another participant agreed that interactions with police had changed stating police showed a "lack of wanting to communicate… I've noticed they probably only take in consideration the serious calls," (*Interview 7*) which could be concerning given that the dehumanizing effect of stigma could lead police to not consider a call by someone who uses drugs to be "serious." "When asked about the general tenor of interactions with police, many participants noted that police would interact with them but kept distance. Responses included, "they're (*police*) scared of probably catching it … you see them mostly in the newspaper or on TV more than on the streets" (*Interview 22*) and "yeah they (*police*) messed with me, but they didn't want to touch me" (*Interview 6*) and "Because some (*police*) were, I guess they were iffy. Some were iffy on interacting with us … because of the COVID. They figured that because we were outside, we had a higher chance of contracting the disease or whatever" (*Interview 20*)." Narratives of perceptions of distance on account of being "diseased" led to further harm. One participant theorized that police keeping distance increased crime onto people who use drugs as assaults and threats with weapons had occurred "a lot" more since COVID-19 precautions began (*Interview 21*). Finally, while outside of the city, a participant was engaged by police:

> I think the police are afraid that I carry disease. So I actually feel like they're going to leave me alone… (*in one interaction*) the officer asked: 'When were you in Toronto?' And it was like, 'Like, two months ago.' Right? 'I'm definitely not sick.' So, you could tell, you know, this police officer was afraid that I was sick." (*Interview 13*)

This participant sensed that police in smaller cities and towns outside of the city assessed her as sick due to her being a resident of Toronto, which, as a large urban center, had the highest number of COVID-19 cases throughout most of the initial COVID wave.

This participant also described negative hospital experience after the COVID-19 orders were enacted, which she similarly attributed to stigma, and added that her Indigeneity was a factor shaping her maltreatment, in addition to her poverty and drug use: "The hospital's a little, you know, I'm an Indigenous person … I'm poor and I'm addicted. I didn't enjoy the process. So I don't find hospitals treated me well … there's stigma there" (*Interview 13)*. When asked how she had been treated in the hospital recently she stated,

> Terrible. They (*hospital staff*) treat you like scum. They don't understand, you know, [that] people use (*drugs*)…people use. And there's no sites (SCSs in this area) to open people's eyes to that, right. They think you're worse off to have a site than you are better off. There's so many lives that could've been saved; I've lost so many friends due to that factor, yeah, of using outside, using alone, where they've found them dead. You know. It's been hard (*Interview 24*).

In addition to discrimination experienced in hospital systems, some participants noted additional structural vulnerabilities such as living in pop-up encampments as shelter systems were either full or known to be dangerous because of COVID-19 outbreaks. Although sleeping in a tent was viewed as the safest option, for some it was also resulted in shame: "I'm living outside like a fucking animal. Who wants to live this way? I would rather be dead" (*Interview 2*).

4. Discussion

Amidst the COVID-19 pandemic, the present study revealed that among a sample of people who inject drugs experiences of stigma were amplified. This was especially pronounced among those experiencing hardships associated with poverty, including structural vulnerabilities like homelessness. Our study did not set out to investigate stigma, rather the topic emerged during our process of thematic analysis. Stigma towards people who inject drugs is greater among those with lower socioeconomic means than those with greater socioeconomic means (McGinty and Barry, 2020). We found that participants perceived that the general public, police, and healthcare systems viewed them as being carriers of COVID-19 and thus engaged in stigmatizing behaviors that were potentially hazardous to, and internalized by, participants (e.g., enhanced social distancing, discrimination, and refusal to assist in medical emergencies). To that end, intersecting stigmas of drug use and low socioeconomic status has been identified as a barrier to enacting policies in the best interest of people, which includes underinvestment in evidence-based interventions and suboptimal consideration of needs from individual to structural levels (Kolla et al., 2019; McGinty and Barry, 2020; Potier et al., 2014; Strathdee and Beyrer, 2015; Tyndall and Dodd, 2020; Watson et al., 2020).

The historic perception of people who use drugs, and particularly those that inject drugs, as 'diseased' due to higher risk of HIV, Hepatitis C, and high rates of other infections (Muncan et al., 2020; Paquette et al., 2018; Logie, 2020; World Health Organization, 2020), might have created the foundation for disease-related stigma to extend to COVID-19. The effects of stigma leading to internalized devaluation and other negative outcomes among people who inject drugs have been demonstrated in prior research; in particular perceived and anticipated stigmas resulted in poor self-esteem, depressive symptoms, avoidance coping, and self-blame, which can perpetuate harmful cycles of drug use and act as a barrier to health and social services (Paquette et al., 2018; Turan et al., 2017; Earnshaw et al., 2013). Addressing the impact of perceived stigma among people who inject drugs is particularly critical as the time period following COVID-19 public health mandates was characterized by the highest rates of drug overdose deaths on record in North America (Press release; Haley and Saitz, 2020; Imtiaz et al., 2021). In 2020, 532 deaths occurred in Toronto; a staggering 81% increase from the previous year (Public, 2021).

Stigma is a factor that increases the likelihood that people will overdose and lessens the likelihood that bystanders will render aid to a person overdosing (Latkin et al., 2019b; Fomiatti et al., 2020). In our study, a participant's peer overdosed and a nearby bystander refused to assist, which was perceived to be an act of disease avoidance, a core feature of disease-related stigma (Phelan et al., 2008). To address the impact of perceived stigma associated with such events, harm reduction interventions play a key role as they are often rooted in anti-stigma ideology, reduce drug-related harms, and provide various forms of social support (Suárez and Clua-García, 2021; Marlatt, 1996; Muncan et al., 2020). Our study sample were all recruited from inside harm reduction centres that had to had to limit service provision while COVID-19 restrictions were implemented, which might have augmented experiences of perceived stigma throughout this time period. Nonetheless, participants' commitment to harm reduction was reflected by their continued use of harm reduction centres despite limited services. Future research should consider if harm reduction centres function to offset the impacts of stigma among people who inject drugs.

Participants discussed how strategies implemented to protect the public from COVID-19 - such as stay-at-home orders, closing multiple businesses and public washrooms, and limiting social and health services - did not account for the ways in which these changes would create harm and add to existing inequities onto them. Lessons from the HIV/AIDS epidemic has demonstrated that collectivizing efforts are beneficial for reducing disease-related stigma (Logie, 2020). Following this lead, using participatory approaches to boost the voices of those harmed by COVID-19 policies and adjusting pandemic policies accordingly might be a step towards remediating and preventing future harm among people who inject drugs experiencing structural vulnerabilities (Humphreys et al., 2022).

Public health systems are also challenged with developing anti-stigma frameworks in preparation for future health crises. Given that data from the city of Toronto demonstrate that as of September 2021, only 8% of persons residing in encampments in Toronto had found permanent housing (Beattie, 2021), additional housing strategies are sorely needed. Many participants in the present study were experiencing

homelessness at the time of interview, which greatly harms health and has underscored housing as an essential social determinant of health (Hwang and Burns, 2014; Perri et al., 2020). One participant likened living in an outdoor encampment to being animalistic, which is a feature of stigma [i.e., dehumanization] (Brown, 2020). In our setting [Toronto], a citywide task force found that staff of shelter-hotels had difficulty dually upholding overdose response and COVID-19 precautions (web page). The task force, along with findings from other areas in Canada (MacKinnon et al., 2020; Hyshka et al., 2020), recommended expanding and scaling up harm reduction housing approaches such as integrating onsite primary healthcare, pharmacy, managed alcohol programs, facilitating virtual healthcare visits, implementing SCS & peer spotting/witnessing interventions, and enhanced staff training (Bardwell et al., 2017, 2019; Ivsins et al., 2022; web page). Many of these strategies were implemented in COVID-19 recovery hotels, and along with access to private bathroom and television, were noted by residents to be a positive and dignified experience (Kolla et al., 2021). These facilities were temporary but the positive findings associated with them suggests the development of housing with dignity as a permanent strategy (Kolla et al., 2021).

Across healthcare systems, anti-stigma interventions are urgently needed, which has to date been a difficult task (Oliveira et al., 2012). Anti-stigma interventions developed in collaboration with community health centres that provide harm reduction programming and implemented in collaboration with hospital systems might be key in reducing the harmful effects of stigma experienced by people who inject drugs in need of hospital-level care (Khenti et al., 2019). Trainings in which hospital staff reflect on their own biases towards marginalized groups and exposure to the personal stories of those impacted by the effects of stigma is another beneficial stigma mitigation measure that can cultivate compassion and reduce dehumanization (Nyblade et al., 2019). Finally, calls for the decriminalization of drugs are increasingly common among scholars, civil society, and policymakers (Canadian Drug Policy, 2021; Fomiatti et al., 2020; Health Canada Expert Task Force on Substance Use, 2021; Public, 2022; Vashishtha et al., 2017), as drug criminalization, poverty, and resulting stigmas are linked issues (Mendes et al., 2019). Drug decriminalization could – over time - reduce stigma broadly, which is an important area of evaluation inquiry for areas considering decriminalization, such as Toronto (Public, 2022) and a range of other settings (City of Vancouver, 2021; Canadian Drug Policy, 2021; Quinton, 2021).

4.1. Limitations

The present study has limitations. First, all participants reported injection drug use and many were currently or recently homeless. As such, this study does not represent all people who use drugs and poverty likely have played an important intersecting role in experiences of stigma. Moreover, our recruitment setting was within community health centres that include harm reduction interventions like SCSs. Therefore, our participants represent a group that maintained use of harm reduction services and selection bias is likely as the voices of people who do not or did not continue to use harm reduction interventions amid COVID-19 are not represented in this study. Our single geographic region restricts the generalizability of our findings. And finally, our small sample size ($n = 24$) might impact the transferability of findings, however, are consistent with qualitative research approaches in our field that successfully gain in depth knowledge of a certain topic, setting the stage for future inquiry (Creswell and Miller, 2000).

5. Conclusion

Drug use stigma negatively impacts the health of people who inject drugs while COVID simultaneously amplified intersecting experiences of disease-related stigma among people who inject drugs (Paquette et al., 2018). Our findings suggest that the amplification of existing stigma following introduction of a public health emergency were experienced by people who inject drugs in our setting during the COVID-19 pandemic. Disease-related stigma has long impacted people who inject drugs given the increased risk of HIV/AIDS, Hepatitis C, and other infectious disease transmission related to injection drug use. Anti-stigma strategies are needed in interventions and policies that support or impact people who inject drugs.

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Ethics approval

The authors declare that they have obtained ethics approval from an appropriately constituted ethics committee/institutional review board where the research entailed animal or human participation. Unity Health Research Ethics Board – REB # 18–156

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CRediT authorship contribution statement

Jeanette M. Bowles: Conceptualization, Methodology, Data curation, Formal analysis, Writing – original draft. **Gillian Kolla:** Conceptualization, Methodology, Data curation, Supervision, Writing – review & editing. **Laramie R. Smith:** Supervision, Writing – review & editing. **Ayden Scheim:** Supervision, Writing – review & editing. **Zoe Dodd:** Supervision, Writing – review & editing. **Dan Werb:** Conceptualization, Methodology, Formal analysis, Supervision, Writing – review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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