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Creating safe, inclusive spaces for hospital-based health care staff and people who use drugs: an exploratory qualitative study in Vancouver, Canada

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Abstract

Objectives This project sought to contribute to healthy, safe organizational cultures within Vancouver's hospital system healthcare system as one method to address indirect harms of the province's drug toxicity and housing syndemic. A tertiary care inner-city hospital in western Canada partnered with the Eastside Illicit Drinkers Group for Education and Vancouver Area Network of Drug Users to convene a participatory action research project to identify systemic and personal barriers to safe, non-stigmatizing, and effective care at a local health care setting and to propose ways of responding to these conditions.

Methods We convened semi-structured Listening Circles held in October 2023 with people who have sought care at the urban health care setting, and frontline healthcare workers who respond to them. The Listening Circles included a graphic recorder who illustrated themes as participants spoke about their experiences, perceived barriers to safety and comfort in health care settings, and challenges faced by service providers and service users when interacting with one another.

Results Common themes identified by a graphic recorder included: (1) the importance of time and in the absence of time, relational space between healthcare workers and people who use drugs, (2) shared desire to scale approaches like peer navigation which consider the wellbeing of both service recipients and providers, and (3) the role of systemic forces and organizational practices that obstruct both quality of care and healthcare worker wellbeing.

Conclusions Healthcare workers and people who use drugs and alcohol report an urgent need for resourced, relational care spaces and peer advocates within their area hospital systems. We will use these themes to inform our next steps in an investigation-as-action effort to improve respect, safety, and equity for all stakeholders across multiple stages of care.

Keywords Drug toxicity crisis, Frontline healthcare workers, Emergency care, Acute care, Peer navigation, Harm reduction

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Background and objectives

Over 14,000 preventable deaths have been attributed to British Columbia's (BCs) unregulated drug toxicity and housing syndemic as of July 2024, equating to nearly 7 deaths per day. [1] Since the declaration of a public health emergency by the Provincial government in 2016 in response to the gradual arrival of potent fentanyl and fentanyl analogues to the unregulated drug supply, BCs unregulated drug death rate rose from 20.5 per 100,000 people in 2016 to 46.3 per 100,000 people in 2023. [1] Accidental opioid poisoning-related hospitalizations in BC rose from 663 incidents to 1655 during the same time period. [2] Beginning in 2020, guest restrictions in supportive housing facilities and hospitals, harm reduction service disruptions, and introduction of new adulterants to the drug supply in response to strict border control measures implemented during the COVID-19 pandemic created new challenges for crisis responders. [3, 4] While fentanyl is present in 85% of drug poisoning deaths in BC, novel benzodiazepines and veterinary tranquilizers including xylazine and medetomidine have contributed to a new landscape of drug prohibition-related harms in addition but not unrelated to overdose death. [1] These include worsening housing stability, vulnerability to violence, complex withdrawal, hypoxic brain injuries, difficult to manage skin and soft tissue infections, chronic non-healing wounds, and neuromusculoskeletal injury associated with prolonged sedation. All of these factors contribute to more frequent and increasingly traumatic episodes of hospitalization for people who use drugs (PWUD). [5, 6] People who primarily smoke drugs and illicit drinkers¹ who are vulnerable to fentanyl-contaminated stimulants are presently at especially high risk of drug toxicity-related harm [1, 7].

Urban hospitals, patients who use drugs, and frontline healthcare workers (HCWs) providing inpatient care have been acutely impacted by the worsening drug toxicity crisis in the wake of COVID-19. In BC, the increasingly complex health and wellbeing needs of people who experience drug poisoning related to prohibitionist drug policy intersected with a health system weakened by COVID-19 to create resource constraints, fatigue, moral distress, and burnout amongst HCWs [8]. According to the Canadian Institute for Health Information, Canadian hospitals observed a 50% increase in overtime hours reported between 2021 and 2022, alongside a deficit of approximately 6500 staff positions. [9] Iatrogenic harms

to hospitalized patients subsequently increased to 6% in 2022–2023 from 5.4% in 2014. [9] These trends align with HCW experiences in Vancouver. In their study of HCW responses to COVID-19 in Vancouver, Alonso-Prieto and colleagues found that respondents' self-reported ability to provide adequate care is challenged by worsening fatigue from increased demands on individual workers related to COVID-19, including short staffing. [10] HCWs also reported experiencing moral distress related to navigation of personal risk and prioritization of patient quality of care, which negatively impacted their wellbeing. [10] A 2021 analysis documented substantial increases in the prevalence of anxiety and depression amongst BC nurses over the course of the pandemic [11]. Instances of reported mistreatment, stigmatizing behaviour, and mistrust resulting in concealed substance use, inadequate pain management, and mutual frustration between HCWs and PWUD in the context of hospital-based care settings is a historically and geographically consistent finding within harm reduction literature [12–14].

These findings are also reflected in health services research specific to Vancouver. Poor and racialized people who use illicit alcohol and access the unregulated drug supply consistently report frequent and poor experiences seeking hospital care related to stigmatizing attitudes from HCWs and unresponsive treatment, which are likely exacerbated by worsening workplace conditions facing frontline HCWs. [15–18] A 2022 study involving PWUD in Vancouver found that previous experience of mistreatment and unresponsive care made respondents less likely to seek healthcare when they needed it, and therefore more likely to eventually present to an Emergency Department (ED) seeking care for preventable complications. [19] The Western Aboriginal Harm Reduction Society previously documented the many ways in which Indigenous PWUD experience specific forms of unresponsive substance use and pain care, racism, and stigma in Vancouver hospitals. [20] Despite consistent demands made by HCWs and patients for resourced and compassionate care delivery for PWUD, the government of BC has drawn criticism for its pursuit of new, punitive substance use policies in hospitals which emphasize surveillance without accompanying harm reduction support in response to complex patient needs [21].

Notably, health services and harm reduction research related to hospital care in Vancouver has rarely been action oriented or sought to bring together the experiences and policy recommendations of both care HCWs and patients who receive care while accessing the unregulated drug supply. Rather than silo the challenges of HCWs and patients who use drugs, we suggest that collaboratively identifying and intervening on felt system-level determinants of poor care experiences held in

¹ EIDGE defines illicit drinkers as people who use non-beverage alcohol substitutes (e.g., mouthwash, rubbing alcohol, hand sanitizer) and people who drink in ways that are criminalized, usually because they take place in public spaces as a result of precarious housing situations (Brown et al. 2018).

common holds new potential for research-as-action to improve acute care outcomes. The intersection of burn-out and repeat traumatization by a healthcare system that has not been designed to serve poor and racialized PWUD is likely to contribute to behavioural escalation, conflict, poor quality care, and potentially reactive violence in hospital settings. There is, therefore, high potential for mutual benefit for both HCWs and people who use substances seeking care in understanding how we create safe, inclusive spaces in our healthcare system to include the wellbeing needs of both groups. Led by community-based researcher (EB) and supported by a Convene Grant from the Vancouver Foundation, an urban tertiary-care hospital in Vancouver partnered with the Eastside Illicit Drinkers Group for Education (EIDGE) and Vancouver Area Network of Drug Users (VANDU) to conduct an exploratory participatory action research (PAR) project. Together, we sought to identify systemic and personal barriers to safe, non-stigmatizing, and effective care for PWUD at the hospital in the wake of COVID-19, while also considering the wellbeing of HCWs, and to propose ways of responding to these conditions to inform a multi-year research-as-organizing effort. In the following section, we provide context for the process of relationship building between HCWs at the hospital and EIDGE / VANDU participants that was integral to the project's success to demonstrate alignment with principles of PAR. Then, we describe the use of semi-structured, peer co-facilitated Listening Circles ($n=4$) and iterative graphic recording to collect, analyze, and share patient and HCW experiences of barriers and facilitators to compassionate, responsive, and safe care at our chosen setting as components of a safe and inclusive care environment. Finally, we close with emergent recommendations for policy change in healthcare settings informed by preliminary findings and directions for future research by the authorship team.

Participatory methodology and relationship building

The partnership between lead investigator EB, HCWs at an urban tertiary-care hospital in Vancouver, and EIDGE participants began in December 2023. Initially motivated by existing relationships between EB and hospital-system research leaders, a funding call from the Vancouver Foundation, a semi-public and endowment-based granting body in BC, presented an opportunity to design a research project to address mounting concerns amongst hospital leadership and HCWs related to burnout, workplace safety, and violent incidents suspected to be related to the drug toxicity crisis. Specifically, the Foundation's Convene Grants provide community-partnered investigators with startup funds to conceptualize and develop

Participatory Action Research (PAR) projects intended to better understand or begin to address complex, systemic health issues. [22] Funded projects are then invited to apply for a multi-year Investigate Grant to carry out the proposed research.

PAR is a community-driven, action-oriented research methodology that is commonly used in hospital settings. [23, 24] PAR seeks to directly involve those materially impacted by a specific social problem in a democratized process of inquiry whereby affected individuals work alongside academic researchers to identify, systematically investigate, understand, and ultimately intervene on conditions of oppression, poor health, or policy abandonment from which the problem in question originates. [25, 26] In practice, qualitative research grounded in PAR principles requires cultivating authentic relationships with research partners with grounded expertise, supporting partners to develop research questions and set direction of the research, empowering community members to collect and analyze data, and iteratively mobilizing research findings to work towards liberatory forms of social change. According to Baum, PAR's utility as a research tool lies in the methodological and ethical rigor that may be added to health research by acknowledging the grounded expertise of participant-researchers as a core component of research activities. [26] These principles informed our approach to establishing relationships between two groups of people with grounded expertise, HCWs and PWUD, to develop a better understanding of the barriers and facilitators to safe, responsive care in this hospital setting.

EB approached VANDU in January 2023 with a formal invitation to join the research team and participate in developing a project designed to bring HCWs and patients who use drugs together to discuss how to improve acute care experiences for both parties. This invitation was well received for several reasons. EIDGE members have historically had regular and high-stakes interactions with BC's hospital system, reporting repeat Emergency department visits and difficulty receiving timely, responsive and effective care for acute and chronic illnesses in hospital. [27, 28] Additionally, previous work in partnership with staff at this urban tertiary-care hospital contributed to a perception of the organization amongst EIDGE staff and members as typically receptive to harm reduction-oriented program and policy change. For example, illicit drinkers participated in development and early studies related to implementation of the Managed Alcohol Program (MAP) at this hospital which was a first of its-kind intervention in an acute care setting in BC. [29–31] The year prior to the invitation to collaborate, EIDGE worked closely with co-investigator ED to better understand and support members to navigate

hospital-based MAPs. VANDU members are also aware of, and have accessed, the in-hospital Overdose Prevention Site and Rapid Access Addiction Clinic, with some reporting positive experiences. [32] These instances of action-oriented research leading to positive changes for PWUD within the hospital resulted in immediate interest in member involvement from an EIDGE perspective.

Several early examples of participant-partner input and relationship building are worth describing here as examples of PAR principles at work in a joint HCW-drug user research initiative. First, EIDGE supported the initial funding application and participation in the research project was decided through a democratic vote by the elected Steering Committee, a group of members who are empowered to support EIDGE governance with the help of a Program Coordinator. Our guiding research question was also subject to change following participant-researcher feedback. An early project proposal was circulated to EIDGE and emphasized the role of hypoxic brain injury related to the toxic drug supply as a central determinant of violent or otherwise disruptive incidents that create unsafe work environments for HCWs. All parties agreed that worsening toxicity of the unregulated drug supply, and the inadequate scaling of interventions to reduce harms related to that supply,² has resulted in new, significant health harms including traumatic brain injuries related to repeat overdose events or chronic hypoxia associated with deep sedation. These novel injuries regularly challenge survivors and HCWs to navigate a new landscape of physical and mental healthcare. However, illicit drinkers, EIDGE staff, and VANDU leaders expressed concern that a strict focus on brain injury obscured other, more systemic determinants of conflict, burnout experienced by HCWs, and drug-related harms resulting in poor quality care experiences in hospitals. The volatility of the drug supply under prohibition, understaffing of the public healthcare system as a result of chronic system underfunding, a lack of available workplace supports for HCWs, entrenched racism within the colonial healthcare system,³ stigma, and recurring trauma experienced by PWUD when accessing health

care were all identified as upstream determinants of hostile interactions in healthcare settings. The research team agreed that violent and disruptive incidents were not solely explained by the behavior of people using unregulated substances, and could also be better understood by exploring HCW's responses to such incidents.

With this grounded context in mind, we shifted the objective of our PAR project to investigate perceived interpersonal and systemic barriers and facilitators to compassionate, responsive care delivery at the chosen site from the perspective of HCWs and patients who use drugs, inclusive of, but not strictly limited to, brain injury. After EIDGE agreed to be involved, co-investigators EB and ATB attended a meeting of the VANDU Board of Directors, and EB attended a board meeting of the BC Association of People on Opiate Maintenance. Attending meetings provided an opportunity for the academic and clinical researchers within the research team to share information about the research initiative with several organizations operating under the umbrella of VANDU, ensuring full transparency and opportunity for members to volunteer to participate in the work. Finally, EIDGE members led two walking tours with partnered researchers through the Downtown Eastside (DTES) in the summer of 2023. Walking tours were guided by EIDGE leaders with support of a community Elder, and allowed non-resident researchers to learn more about the unique historical and cultural context of the highly-stigmatized neighborhood with a specific focus on programming geared towards illicit drinkers. These tours assisted in building authentic trust between EIDGE members and researchers. By the late summer and fall of 2023, all members of the research team were comfortable with beginning exploratory data collection. At this time, we were not required to apply for and obtain internal ethics approval from hospital-system partners. Instead, and to ensure compliance with best practices in ethical health research with PWUD, the project and its many elements were vetted by the EIDGE Steering Committee according to the principles of Research 101: A Manifesto for Ethical Research in the Downtown Eastside [33].

Methods

To identify systemic and individual barriers to safe, non-stigmatizing, and non-stigmatizing care at the hospital, and to begin to propose ways of responding to these barriers through a future multi-year PAR project, we convened a series of four semi-structured focus groups with people who use unregulated drugs and illicit alcohol ($n=2$) and HCWs serving people who use substances ($n=2$) in October 2023. Recruitment for focus groups, referred to as Listening Circles, occurred differently for HCWs and people with lived/living experience of

² We define interventions designed to reduce harms related to the contamination of the unregulated drug supply as harm reduction-informed programs and care modalities including, but not limited to Overdose Prevention Sites, prescribed pharmaceutical alternatives, "safe supply", low-barrier drug testing, withdrawal management, Opioid Agonist Treatment, peer support, and voluntary, adequately regulated abstinence-oriented treatment.

³ Entrenched racism here is conceptualized as discriminatory treatment and wilful neglect of Indigenous People in healthcare settings throughout Canada that is inseparable from extensive histories of health system complicity in state surveillance, family separation, involuntary sterilization, and related abuse of Indigenous Peoples. For further reading, the authors recommend McCallum's and Perry's (2018) *Structures of Indifference*, Goodman et al. (2017), and Kelm's (1998) *Colonizing Bodies*.

substance use. We chose the term “Listening Circle” to convey the relative informality, relational- and listening-oriented nature of the semi-structured focus groups, which is distinct from the term “Talking Circle” which refers to an Indigenous and culturally-specific qualitative methodology with defined features and protocols. While cultural safety for Indigenous participants and Elder support were included in Listening Circle design, the study in question did not convene Talking Circles.

Co-investigators ATB and ED circulated recruitment materials for HCWs from multiple departments in the hospital through formal communication channels (e.g., email), posted flyers in the hospital, purposely sampled practitioners known to provide care for PWUD within the hospital-system network. Those interested were invited to attend one of two focus groups for HCWs occurring at the hospital. Meanwhile, EIDGE Program Coordinator AB maintained a sign up sheet of up to 10 participants for each of two focus groups with PWUD taking place at VANDU offices. Five of 10 participant spots in each focus group were reserved for EIDGE members, and the remaining five were reserved for representatives of the British Columbia Association of People on Opiate Maintenance, VANDU Board, and Western Aboriginal Harm Reduction Society. Participants were recruited by word of mouth, and AB approached representatives from each of the above organizations who were known to be concerned about hospital care for PWUD and likely to be comfortable speaking about their experiences. HCWs and PWUD participated in separate focus groups to ensure participant comfort, more accurately record the priorities and experiences of each group,⁴ build rapport with research team members, and orient participants to the wider goals of the project. Building on our exploratory findings, a future project would aim to bring these groups together to the end of building solidarity-oriented relationships to improve workplace wellbeing for HCWs and care experiences for PWUD.

A total of 12 HCWs participated in the two provider-oriented focus groups at the hospital, and 13 people with lived and living experience of unregulated substance and/or illicit alcohol use attended two focus groups at the VANDU offices. All participants completed a consent form (Appendix A) and compensated with a \$50

honorarium. HCW and PWUD listening circles were led by EB, a professionally trained and experienced healthcare and workplace safety facilitator. PWUD listening circles at VANDU were co-facilitated by GS, an EIDGE Steering Committee member and participant-researcher. Although not explicitly named as a methodological tool, EB's facilitation practice and research focus is informed by The Conscious Service Approach (CSA). [34] The CSA is a research-based set of principles designed to explore, develop, and support the role, wellbeing, and contribution of service providers in healthcare and human services. It is a dynamic, interactive, and evolutionary tool that lends itself to development of personalized strategies and collective processes to respond to the needs of individual practitioners, while simultaneously considering the systemic and structural factors that co-influence the health of organizational culture. Specifically, CSA explores the relationship between self-connection, enlightened communication, transformative relationships, and co-creating community through the implementation of self-reflective practices, embodiment exercises, and relational strategies. The research team will consider the explicit integration of CSA in future research proposals.

Interview guides were co-constructed and iteratively refined by the research team in the summer of 2023. HCW-facing questions asked participants to consider and reflect on their experiences providing care to PWUD, challenges providing responsive care, and suggestions for system-level improvement. Working from early drafts prepared by EB, the EIDGE Steering Committee convened multiple meetings to review, redesign, and approve questions for PWUD to ensure appropriateness, accessibility, relevance to the research question, and respectfulness for respondents. These meetings became skill-building activities for EIDGE members who developed new, critically-oriented health research skills together with affiliated researchers. Questions posed to VANDU members asked participants to reflect on previous experiences accessing care at the hospital, felt barriers to responsive care, and suggestions for improved response from HCWs. Finalized semi-structured interview guides for HCWs and PWUD are listed in Appendix B. Each Listening Circle lasted approximately 90 min. VANDU listening circles were supported by MH, who held space as a community Elder, offering cultural safety and emotional support to participants if required and opening and closing groups in a good way. Two Elders affiliated with the hospital provided similar support at HCW-focused Listening Circles.

The exploratory function of the project led the research team to prioritize engaging methods for collecting and understanding Listening Circle participant responses to

⁴ For the purposes of this exploratory study, people who access the unregulated drug supply and people identifying as illicit drinkers participated in the same focus groups. Shared experiences of community life, risk of drug-related harms wrought by the toxic drug supply, and joint membership in drug user unions justified this grouping. For further reading related to the politics of co-organizing by drinkers and people who use other drugs, the authors recommend Crabtree et al.'s (2016) *Results of a participatory needs assessment demonstrate an opportunity to involve people who use alcohol in drug user activism and harm reduction*.

capture high-level themes in an accessible way. Data collection, note taking, and thematic analysis of Listening Circles were completed by real-time graphic recording. Graphic recording is a process through which the statements, emotions, ideas, and experiences shared by participants are interpreted and translated into a narrative composite of hand drawn images in real-time, often in full view of the speaker, who is encouraged to validate the artist's observations. [35] For the purposes of this project, the research team employed CN, an established graphic recorder and independent artist with in-depth experience capturing and translating quality improvement-oriented and qualitative health research in partnership with a number of non-profit organizations and the tertiary-care hospital.

Having established consent to do so at the outset of each Listening Circle, graphic recorder CN digitally projected their work onto a large wall of the group space. We chose to utilize graphic recording for its utility in promoting accessibility to participants, the speed at which the medium can produce high-level themes to guide future work, and the exploratory nature of this project. Graphic recording is an uncharacteristically approachable and iterative method of qualitative data collection and analysis in clinical and community settings. This is particularly true in the context of an exploratory project such as ours, where the focus groups described were designed to promote relationship building and solicit high-level themes to guide a qualitatively rigorous multi-year

study to follow. Through observing the graphic recording occurring throughout the focus group, participants were given full access in real time to the collection and translation of their experiences and had the opportunity to offer feedback and clarification if necessary. The study team felt that this approach was consistent and congruent with the community-based and participatory nature of the project. The type of simple thematic analysis provided by graphic recording was appropriate for the focus groups given their purpose of identifying a small number of high-level points of mutual interest to inform design of a future, qualitatively rigorous, research-as-action effort.

Results

Listening Circles led to rich discussion, with emergent themes, topics, and points of common interest captured by four graphic recordings. In this section, we summarize high-level thematic findings reflected by the graphic recordings before reflecting on the process through which the research team translated findings into policy action. Graphic records are depicted below. Figures 1 and 2 reflect findings from the two Listening Circles with HCWs, while Figs. 3 and 4 reflect similar discussions that occurred in focus groups with PWUD and illicit drinkers residing in Vancouver's DTES.

Participant-investigators, clinical researchers, and academic team members learned more about the challenges that people who use unregulated substances and/or illicit alcohol face when they access healthcare services.

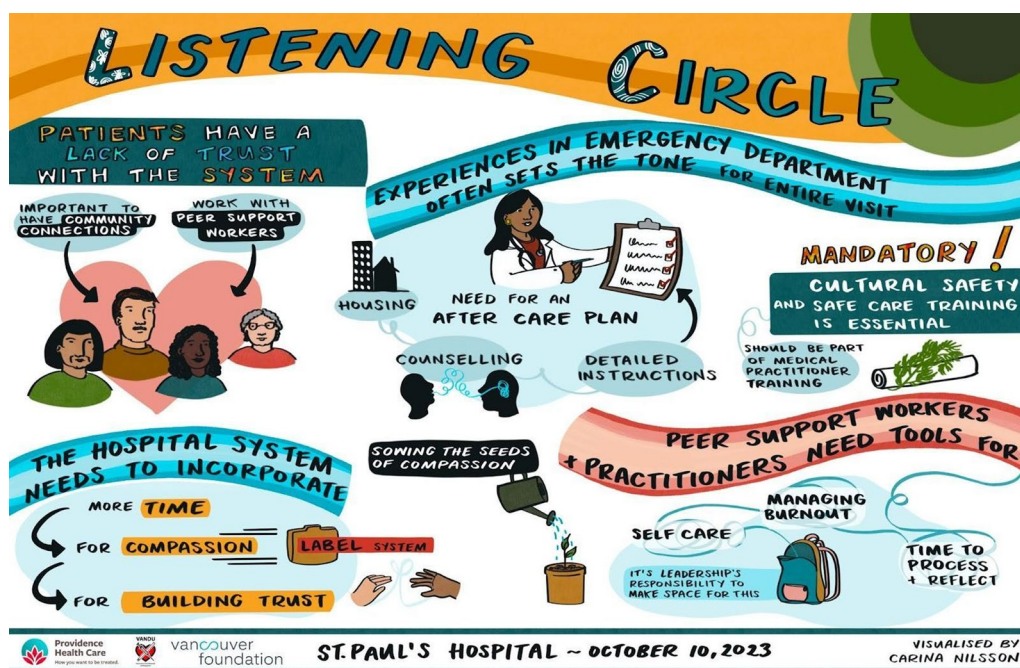


Fig. 1 Graphic recording depicting HCW-described barriers to supportive care for PWUD

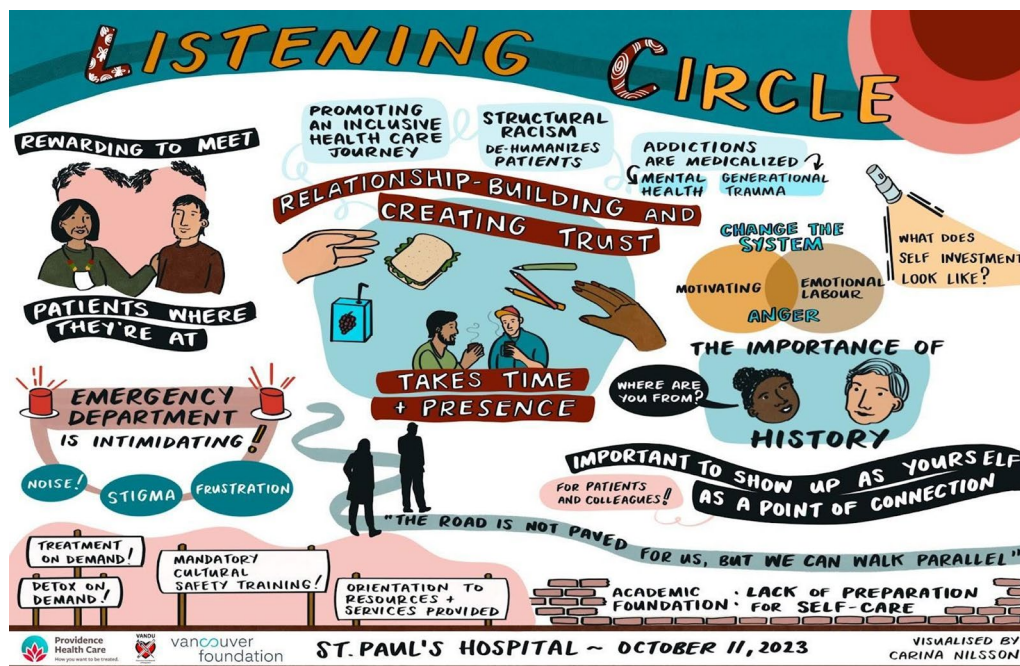


Fig. 2 Graphic recording depicting HCW-described barriers to supportive care for PWUD

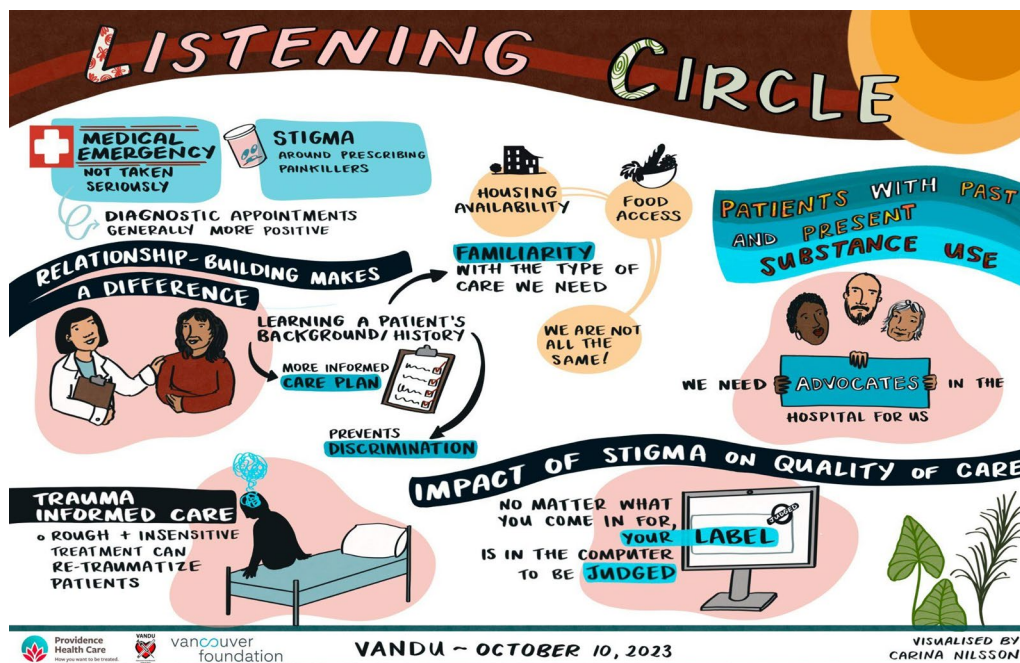


Fig. 3 Graphic recording depicting barriers to supportive hospital care reported by PWUD

This included stigmatizing approaches to care delivery (e.g., one participant reported that staff “mocked” and “ignored” her, while another participant stated that after he told staff that he was “part of VANDU” and what he “did for a living” they gave him “more attention”), long

waits for emergency care, some of whom reported at times not being seen before leaving hospital. Frequent reports of inadequate pain and withdrawal management for PWUD, and the impact of stigma held by HCWs on how pain is treated, were reported by PWUD in Figs. 3

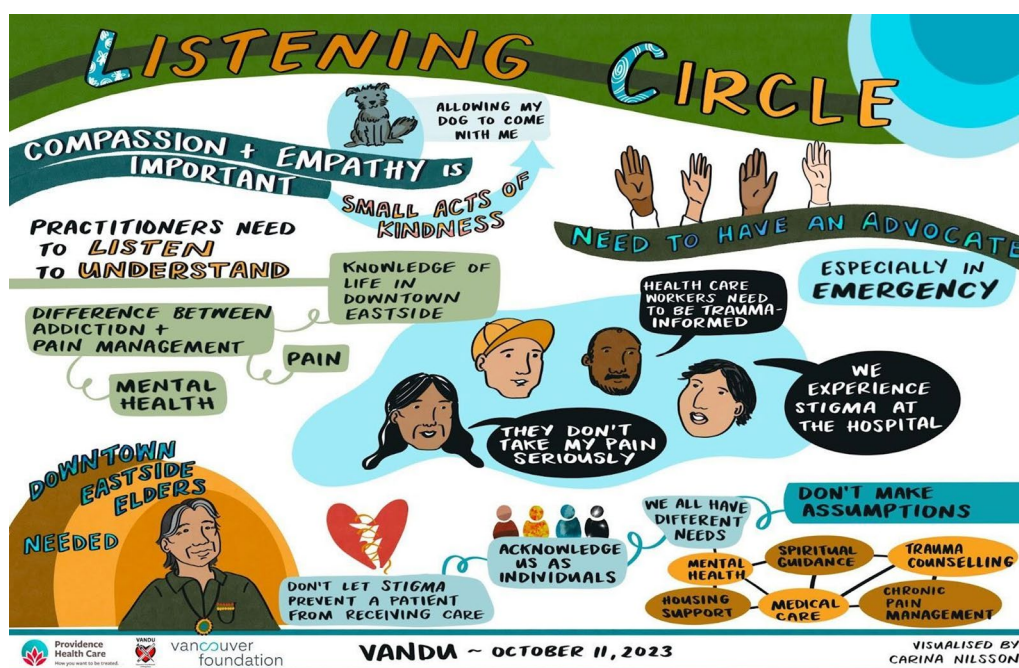


Fig. 4 Graphic recording depicting barriers to supportive hospital care reported by PWUDs

and 4. For example, one participant stated “they think everyone is just drug seeking” and another emphasized that “everyone has different tolerances” and the importance of HCWs recognizing that. PWUD and illicit drinkers also reported other difficult interactions with HCWs including lack of direct support to navigate the hospital system during an acute medical episode and after discharge, and overly restricted access for friends, family members, and pets who could provide valuable psychosocial support while in hospital.

We also learned about practices that support positive outcomes and experiences within the healthcare system, specifically when HCWs are emotionally and materially resourced to develop and/or maintain positive relationships with individual patients. Research participants from PWUD Listening Circles also shared a number of examples of healthcare providers responding to the medical needs of PWUD with compassion, including taking time to speak with people, checking in on them during long waits, offering refreshments, and facilitating connection with other supports. One listening circle participant with experience working in overdose prevention sites recalled being seen immediately by staff at an unspecified emergency department after presenting with a needlestick injury. Another participant explained that they were seen promptly and treated respectfully after a head injury. Others recounted positive experiences with diagnostic imaging at the urban tertiary hospital, hospital staff’s willingness to contact family on their behalf, and

explained how a responsive Indigenous Wellness liaison empowered them to advocate for themselves and their family. Multiple participants stated that positive experiences were often related to longstanding relationships with doctors and nurses developed through frequent appointments or presentations to the emergency room. Participants noted the significant difference these interactions made in their outcomes for those visits.

Multiple HCWs noted that they faced challenges with colleagues who approached PWUD through a stigmatized lens, and expressed curiosity about approaches that might improve awareness and support for other HCWs to confront the assumptions that underlay these beliefs. Like service users, HCWs acknowledged the importance of building relationships with service users within and across departments to help promote systemic change. Discussion of relationship building between HCWs and patients is depicted in Fig. 1, while themes of compassion and required investment of time to build relationships to improve patient care were common findings and depicted in all four graphic recordings. HCWs also noted the high levels of emotional labour and time involved in providing responsive, comprehensive healthcare services for PWUD, lack of academic preparation they received to prepare for the realities of providing this care for PWUD, and need for additional supports within the healthcare system to prevent burnout including orientation and cultural safety training (See Figs. 1 and 2). Reported difficulties securing adequate time to provide meaningful

patient-centred care reported by HCWs and PWUD is consistent with a body of health services literature suggesting that human resource constraints impact quality of care delivered particularly by hospital-based HCWs who spend comparatively little time interacting directly with patients. [35–39] HCWs also emphasized a pressing need for improved access to withdrawal management and comprehensive substance use treatment on demand.

According to PWUD and HCWs, formalized peer-support networks including hands-on system navigators for HCWs and patients are likely to assist people accessing hospital care that may reduce wait times, confronting stigmatizing attitudes that impede responsive care, allowing for HCWs to implement self-care practices, de-escalating conflict when it arises, and ensuring improved adherence to post-discharge medical recommendations in community. The need for peer advocates or support workers to assist with in-hospital care and system navigation is depicted in Figs. 1, 3 and 4, which encompass responses from both HCWs and PWUD.

Discussion

Despite differing positionalities of participating HCWs and healthcare service users who access the unregulated drug supply and/or illicit alcohol in Vancouver, all participants reported several shared barriers, and accompanying facilitators, to responsive healthcare delivery captured by the graphic recordings. Each Listening Circle represented an opportunity for joint policy advocacy and future participatory research. Following completion of initial Listening Circles, the project team reconvened with EIDGE for a series of roundtable meetings to review graphic recordings, discuss policy implications and their alignment with EIDGE's work, and propose future directions for a multi-year research proposal. While not an exhaustive list of potential areas for policy action originating from the above findings, the following section draws on Listening Circle findings and graphic recordings to discuss two emergent directions for PAR in Vancouver's urban tertiary hospital. We close with a discussion of next steps informed by our exploratory findings and now established relationships between HCWs at the hospital, academic researchers and PWUD and/or illicit alcohol.

Action area 1: relational care requires system-level investment

Both HCWs and PWUD expressed a desire for relationship-based care in hospital settings. The ability of HCWs to provide relationship-based care, and patients' interest in engaging with such an approach, was framed by participants as a system-level problem,

and typically not the result of a lack of interest or intent from either party. For example, participants noted that the time required to establish rapport, develop an understanding of patient needs, and for patients to feel heard and believed when discussing pain levels and/or other health concerns is not feasible in the current under-resourced context of hospital-based care. Where sufficient time to do so is not possible as a result of financial and human resource constraints, patients and HCWs point to a need for new and better practices for maintaining HCW wellbeing and ability to provide compassionate care. For example, PWUD noted that access to an Indigenous Wellness liaison, being seen quickly, and receiving support to contact family from the emergency room, approaches that are likely to be supported by improved HCW resourcing, improved their experiences of hospital care at the urban hospital. We extend this analysis to suggest that understaffing, unit operations beyond planned capacity, increased demand for emergency department services as a result of worsening drug supply toxicity, extended stays for patients with multiple comorbidities, HCW burnout, and structural challenges related to HCW retention within BCs healthcare system undermine mutual intent to develop common understandings of patient goals for provider-patient wellbeing and available strategies to meet them.

The resulting brief and seemingly impersonal interactions with hospital staff are reported to contribute to or reinforce stigmatizing attitudes towards PWUD, create misunderstanding, and create avoidable conflict. We draw from participant experiences that point to the compounding, pervasive, and retraumatizing influence of structural racism on the healthcare experiences of poor and racialized PWUD. Participants noted that who is believed, whose medical concerns are taken seriously, and how people are treated is closely related to ethnicity and Indigeneity. While the decolonization of BCs health system requires a broad and comprehensive unmaking and remaking of historically violent hospital systems and public health institutions throughout the province in accordance with principles of material self governance that are beyond the scope of this article, we are interested in exploring the contribution of equitably-resourced, relationship-driven, and solidarity-oriented health service delivery to this end. Enhancing the ability of HCWs and people who access the unregulated drug supply to benefit from longer, intentional, and continuous interactions with an effectively resourced healthcare team where relationship development is not foreclosed on by fatigue, racism, retraumatization, or burnout is subsequently a shared priority for research-as-action to improve patient and provider wellbeing.

Action area 2: universal access to peer navigation for people who access the unregulated drug supply and HCWs

Expansion of peer navigation initiatives consistently emerged in Listening Circle discussions as a concrete example of how system-level investment from provincial health authorities might alleviate human resource pressures while immediately encouraging relationship-based, trauma-informed care. Several Listening Circle participants and project team members from EIDGE spoke repeatedly to the need for healthcare leaders to consider increasing the number of specially trained peer navigators with substance use expertise as part of the emergency department (ED) and other inpatient settings within the partnered hospital system. In this context, peer navigation referred to distinct but communicating teams of people with lived and living experience of accessing the unregulated drug supply and HCWs with experience of providing care for PWUD in hospital whose responsibilities include supporting patients and providers to build trust, share best practices in harm reduction-informed care, providing one-on-one peer support, arranging access to supportive resources in-hospital and in-community (i.e. overdose prevention and withdrawal management services) addressing and mediating conflict, identifying and addressing stigmatizing language or actions, and generally smoothing relations between HCWs and PWUD. Increasing the number of trained peer navigators and creating new navigation positions within the ED could assist and educate ED HCWs and support patients while informing further health services and health care quality improvement research in this area. Enhanced training was recommended for emergency department staff by both HCWs and patient participants regarding working with people who use substances. From the perspective of the research team, peer navigation emerged as the principal policy recommendation of the exploratory phase of this project. Accordingly, the thoughtful design, implementation, or evaluation of a peer navigation pilot within the partnered hospital system is likely to inform a proposal for a multi-year research-as-action effort.

Participation in PAR work related to acute and emergency care also resulted in unexpected changes to EIDGE's advocacy priorities. Inspired by the group's experiences carrying out this work alongside HCWs and allied researchers, EIDGE has begun to prioritize non-traumatizing, hospital-based peer navigation within BC's hospital system as an urgently needed advocacy priority. This could address both the cascade of harms related to the toxicity of the drug supply and governmental policy responses to said crisis. Importantly, EIDGE's new advocacy priorities arose from the interaction of project

involvement with the political context in which this project occurred. From the independent perspective of the authors affiliated with EIDGE, an organized retreat from harm reductionist health policy discourse and practice by the BC government has obstructed attempts to reduce drug toxicity-related harm in BC, heightening the need for compassionate and evidence-based care for PWUD in hospital settings. EIDGE points to the government of BC's discursive and policy-based shifts towards the terminology of abstinence-oriented recovery, the arrest of the administrators of an effective compassion club [40–42], legislation aimed at the criminalization of substance use in public places by unhoused people [43], the rollback of decriminalization [44], new punitive forms of oversight for people who use substances in hospitals including that are not accompanied by necessary supports in most settings [45, 46], and walking back a proposed directive to require safe inhalation services in BC hospitals as emblematic of this shift.

While harm reduction services including overdose prevention and response, in which both inhalation and injection are permitted and supervised, and a MAP has been integrated into the urban tertiary care hospital that is the subject of this article, EIDGE remains concerned that new governmental policies may threaten hard fought gains by HCWs and PWUD to advance this model of evidence-based care throughout BC hospitals. In 2024, highly politicized controversy surrounding hospital-based substance use has contributed to a counterproductive, adversarial framing of the relationship between HCWs and PWUD in BC, both of whom desire safe and responsive interactions in hospital settings and an end to the unregulated drug toxicity crisis. Crucially, insights from this work show that many perceived structural determinants of positive, safe care experiences are in fact held in common by both patients who use drugs and HCWs in Vancouver's urban tertiary care hospital, pointing to the potential for collective action to address those conditions. The continued empowerment of hospital-based peer navigators for HCWs and PWUD is a promising, relational alternative to carceral forms of surveillance of PWUD in hospital settings that stands to improve participant wellbeing, workplace safety, and substance use-related health outcomes.

Conclusions and directions for future research

Our exploratory work illustrates the extent to which HCWs and people who access the unregulated drug supply in Vancouver perceive, and are acutely interested in addressing, similar system-level determinants of poor quality care experiences in an urban tertiary care hospital in the wake of COVID-19 and the worsening drug toxicity crisis. By convening Listening Circles of HCWs and

patients with lived experience of substance use-related care at this chosen hospital and capturing participant experiences through graphic recording, we note stigma, burnout, problems of hospital-based HCW retention, retraumatization, systemic, structural, and interpersonal racism, experience of neglect in healthcare settings, and a lack of sufficient time to establish rapport between HCWs and patients who use drugs, as a non-exhaustive list of perceived barriers to responsive care. Multiple participants clearly pointed to the need for adequate resourcing of HCWs to provide attentive, relational care, and the potential utility of increased use of peer navigation throughout the hospital system as policy-based interventions to protect the wellbeing of HCWs and address a lack of safety felt by patients.

As such, preparations for a multi-year PAR investigation will continue to explore how research-as-action might inform a sustained effort to better understand the impact of time and resource constraints on relationality in health service delivery for PWUD in hospital settings, the potential for solidarity-based policy advocacy between HCWs and patients, and the utilization of peer navigation throughout the partnered hospital system. The research team identified that such a research project could create opportunities for HCWs and patient participants share space, build relationships, and participate in a process of collective “problem posing” whereby HCWs and PWUD are supported to share their perceptions of system-level barriers to responsive care with one another and connect those experiences with social forces. EIDGE members also expressed an interest in exploring additional arts-based methods including photovoice [47] and Theatre of the Oppressed [48] alongside HCWs to advance a shared understanding of advocacy priorities and better understand the potential impacts of effective peer navigation in Vancouver’s hospitals for all parties. The project team continues to work together in the knowledge exchange and translation phase of the project including presentations to care teams in hospital settings, the development and circulation of information posters using our graphic illustrations from the Listening Circles, and early policy advocacy alongside hospital system partners.

We note several limitations of this work that have informed our framing of early findings and collective decisions related to next steps. First, the project in question was exploratory in nature, and did not aim to rigorously apply qualitative research methods, including audio recording and transcription, to analyze Listening Circle discussions to make conclusive statements about individual participant experiences. ListeningCircles may also discourage participants from expressing dissenting opinions. For the purposes of this project, and recognizing

the limitations, Listening Circles and graphic recordings captured high-level themes and priorities early in the research process to inform the design of a larger, more rigorous, participatory action research project aimed at developing solidarity relationships and joint policy advocacy between HCWs and patients. The research team will seek additional funding to carry out this work in 2025. Second, while the use of graphic recording as a data collection method creates opportunity for individual interpretation bias, the interactive process used in Listening Circles allowed participants to actively view and comment on the construction of the graphic recording in the moment, which may have helped to mitigate this bias. Additionally, Listening Circles were conducted solely in English, limiting engagement opportunities for HCWs and PWUD who were not primarily English speakers. Finally, our findings reflect the collective interests of a small and select sample of HCWs and people who have accessed hospital-based care at a single Vancouver area hospital. Future research will seek a larger, more diverse group of participants to maintain methodological rigor and support the building of new relationships between HCWs, patients, and research team members expressing shared interest in health system improvement.

Contributions to knowledge

What does this study add to existing knowledge?

Previous investigations of HCW and the experiences of PWUD in healthcare settings in Vancouver have not typically engaged both patients and providers and have not been action-oriented. To the best of the authors’ knowledge, the present study is the first to explore the use of participatory methods to identify shared barriers and facilitators to safe, responsive care, and related opportunities for hospital-system-level policy advocacy by HCWs and people who access the unregulated drug supply in Vancouver as a response to the impacts of BCs drug toxicity crisis.

What are the key implications for public health interventions, practice or policy?

British Columbia has begun to implement punitive, enforcement-oriented policies in response to politicized reports of substance use and compromised workplace safety in provincial hospitals. Our exploratory study points to system-level resourcing of HCWs to provide relationship-based care and the essential role of peer navigation for both providers and patients as harm reduction-informed, structurally-focused alternatives that are supported by both HCWs and PWUD alongside other hospital-based substance use services.

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Author contributions

All authors participated in conceptualization and project facilitation. AB led manuscript preparation with support from EB and ATB. EB and ATB provided substantive review feedback. AB and ED led revisions.

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Availability of data and materials

No datasets were generated or analysed during the current study.

Declarations

Competing interests

The authors have no conflicts of interest to declare.

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References

- BC Coroners Service. Unregulated Drug Deaths - Summary. Statistical report. [Posted 2024 August 30; Cited 2024 October 1]. Available from: <https://www2.gov.bc.ca/gov/content/life-events/death/coroners-service/statistical-reports>
- Health Canada. Opioid and Stimulant-related harms in Canada. Statistical report. [Updated 2024 September 13; Cited 2024 October 1]. Available from: (https://health-infobase.canada.ca/substance-related-harms/opioids-stimulants/graphs.html?ind=625&unit=0_)
- Ivins A, MacKinnon L, Bowles JM, Slaunwhite A, Bardwell G. Overdose prevention and housing: a qualitative study examining drug use, overdose risk, and access to safer supply in permanent supportive housing in Vancouver. *Can J Urban Health*. 2022;99(5):855–64.
- Simha S, Ahmed Y, Brummett CM, Waljee JF, Englesbe MJ, Bicket MC. Impact of the COVID-19 pandemic on opioid overdose and other adverse events in the USA and Canada: a systematic review. *Reg Anesth Pain Med*. 2023;48(1):37–43.
- Russell C, Law J, Bonn M, Rehm J, Ali F. The increase in benzodiazepine-laced drugs and related risks in Canada: the urgent need for effective and sustainable solutions. *Int J Drug Policy*. 2023;1(111):103933.
- Xavier CG, Kuo M, Desai R, Palis H, Regan G, Zhao B, Moe J, Scheuermeyer FX, Gan WQ, Sabeti S, Meilleur L. Association between illicit drug overdose and encephalopathy in British Columbia, Canada: A cross-sectional analysis.
- Bailey A, Graham B, Harps M, Sedore G. Vancouver's alcohol knowledge exchange: lessons learned from creating a peer-involved alcohol harm reduction strategy in Vancouver's Downtown Eastside. *Harm Reduct J*. 2023;20(1):93.
- Government of British Columbia. Responding to British Columbia's Drug Poisoning Crisis Progress Update January to July 2021. [Posted 2021 July 31; Cited 2025 January 10]. Available from:
- Canadian Institute for Health Information. Hospital staffing and hospital harm trends throughout the pandemic. Online report. [Posted 2023 October 19; Cited 2024 October 1]. Available from: <https://www.cihi.ca/en/hospital-staffing-and-hospital-harm-trends-throughout-the-pandemic#ref7>
- Alonso-Prieto E, Longstaff H, Black A, Virani AK. COVID-19 outbreak: understanding moral-distress experiences faced by healthcare workers in British Columbia, Canada. *Int J Environ Res Public Health*. 2022;19(15):9701.
- Havaei F, Smith P, Oudyk J, Potter GG. The impact of the COVID-19 pandemic on mental health of nurses in British Columbia, Canada using trends analysis across three time points. *Ann Epidemiol*. 2021;1(62):7–12.
- Van Boekel LC, Brouwers EP, Van Weeghel J, Garretsen HF. Stigma among health professionals towards patients with substance use disorders and its consequences for healthcare delivery: systematic review. *Drug Alcohol Depend*. 2013;131(1–2):23–35.
- Chan Carusone S, Guta A, Robinson S, Tan DH, Cooper C, O'Leary B, de Prinse K, Cobb G, Upshur R, Strike C. "Maybe if I stop the drugs, then maybe they'd care?"—hospital care experiences of people who use drugs. *Harm Reduct J*. 2019;16:1.
- Strike C, Robinson S, Guta A, Tan DH, O'Leary B, Cooper C, Upshur R, Chan CS. Illicit drug use while admitted to hospital: patient and health care provider perspectives. *PLoS ONE*. 2020;15(3):e0229713.
- Lavergne MR, Shirmaleki M, Loyal JP, Jones W, Nicholls TL, Schütz CG, Vaughan A, Samji H, Puyat JH, Kaoser R, Kaulius M. Emergency department use for mental and substance use disorders: descriptive analysis of population-based, linked administrative data in British Columbia, Canada. *BMJ Open*. 2022;12(1):e057072.
- Mayer S, Langheimer V, Nolan S, Boyd J, Small W, McNeil R. Emergency department experiences of people who use drugs who left or were discharged from hospital against medical advice. *PLoS ONE*. 2023;18(2):e0282215.
- Pearce LA, Homayra F, Dale LM, Moallef S, Barker B, Norton A, Hayashi K, Nosyk B. Non-disclosure of drug use in outpatient health care settings: findings from a prospective cohort study in Vancouver, Canada. *Int J Drug Policy*. 2020;1(84):102873.
- Russolillo A, Guan M, Dogherty EJ, Kolar M, Du J, Brynjarsdóttir E, Carter M. Attitudes towards people who use substances: a survey of mental health clinicians from an urban hospital in British Columbia. *Harm Reduct J*. 2023;20(1):7.
- Moallef S, Dale L, Homayra F, Zonneveld C, Milloy MJ, Nosyk B, Hayashi K. Suboptimal nonmedical qualities of primary care linked with care avoidance among people who use drugs in a Canadian setting amid an integrated health care reform. *J Subst Abuse Treat*. 2022;1(139):108784.
- Goodman A, Fleming K, Markwick N, Morrison T, Lagimodiere L, Kerr T, Society WA. "They treated me like crap and I know it was because I was Native": The healthcare experiences of Aboriginal peoples living in Vancouver's inner city. *Soc Sci Med*. 2017;178:87–94.
- BC Healthcare Staff. Vancouver Island physicians, healthcare staff sign open letter on political weaponization of workplace safety. *Drug Data Decoded*. 2024. Retrieved from: <https://drugdatadecoded.ca/vanisle/>
- Vancouver Foundation. Types of Participatory Action Research Grants. 2023. Webpage. Retrieved from: [https://www.vancouverfoundation.ca/grant-seekers/find-grants/participatory-action-research-grants/#:~:text=Convene%20Grants%20\(up%20to%20%2420%2C000%2C%20for%20up%20to%20one%20year\)&text=The%20funding%20requested%20should%20be,community's%20participation%20in%20that%20process.](https://www.vancouverfoundation.ca/grant-seekers/find-grants/participatory-action-research-grants/#:~:text=Convene%20Grants%20(up%20to%20%2420%2C000%2C%20for%20up%20to%20one%20year)&text=The%20funding%20requested%20should%20be,community's%20participation%20in%20that%20process.)
- Koch T, Kralik D. Participatory action research in health care. John Wiley & Sons; 2009.
- Hynes G, Coghlan D, McCarron M. Participation as a multi-voiced process: action research in the acute hospital environment. *Action Research*. 2012;10(3):293–312.
- Freire P. Pedagogy of the oppressed (revised). New York: Continuum. 1996;356:357–8.
- Baum F, MacDougall C, Smith D. Participatory action research. *J Epidemiol Commun Health*. 2006;60(10):854.
- The Eastside Illicit Drinkers Group for Education. Understanding EIDGE: Illicit alcohol use in the DTES. 2018.
- Crabtree A, Latham N, Morgan R, Pauly B, Bungay V, Buxton JA. Perceived harms and harm reduction strategies among people who drink non-beverage alcohol: community-based qualitative research in Vancouver. *Can Int J Drug Policy*. 2018;1(59):85–93.

29. van Heukelom H, Parappilly BP, Magee E, Corse E, Williams C, Pauly B. Exploring nurses' perceptions of a managed alcohol program at an acute care hospital. *Can J Addict*. 2019;10(1):24–8.
30. Parappilly BP, Garrod E, Longoz R, Eligh E, van Heukelom H, Fairgrieve CK, Pauly B. Exploring the experience of inpatients with severe alcohol use disorder on a managed alcohol program (MAP) at St. Paul's Hosp Harm Reduct J. 2020;17:1–9.
31. Nolan S, Fairgrieve C, Dong H, Garrod E, van Heukelom H, Parappilly BP, McLean M, Tsui JI, Samet JH. A hospital-based managed alcohol program in a Canadian setting. *J Addict Med*. 2023;17(2):190–6.
32. Dogherty E, Patterson C, Gagnon M, Harrison S, Chase J, Boerstler J, Gibson J, Gill S, Nolan S, Ryan A. Implementation of a nurse-led overdose prevention site in a hospital setting: lessons learned from St. Paul's Hospital, Vancouver, Canada. *Harm Reduction Journal*. 2022;19(1):13.
33. Boilevin L, Chapman J, Deane L, Fresz G, Joe DJ, Leech-Crier N, Winter P. A manifesto for ethical research in the Downtown Eastside. Unpublished report. 2019.
34. Bishop E. *Conscious Service: Ten Ways to Reclaim Your Calling, Move Beyond Burnout, and Make a Difference Without Sacrificing Yourself*. United Kingdom: Hazelden Publishing; 2022.
35. Dean-Coffey J. Graphic recording. *N Dir Eval*. 2013;2013(140):47–67.
36. Tabler MSJ, Scammon MS, Debra L, Kim PhDJ, Farrell MDT, Tomoaia-Cotisel MP, Magill MDMK. Patient care experiences and perceptions of the patient-provider relationship: a mixed method study. *Patient Exp J*. 2014;1(1):75–87.
37. West E, Mays N, Rafferty AM, Rowan K, Sanderson C. Nursing resources and patient outcomes in intensive care: a systematic review of the literature. *Int J Nurs Stud*. 2009;46(7):993–1011.
38. Butler R, Monsalve M, Thomas GW, Herman T, Segre AM, Polgreen PM, Suneja M. Estimating time physicians and other health care workers spend with patients in an intensive care unit using a sensor network. *Am J Med*. 2018;131(8):972–e9.
39. Westbrook JI, Duffield C, Li L, Creswick NJ. How much time do nurses have for patients? A longitudinal study quantifying hospital nurses' patterns of task time distribution and interactions with health professionals. *BMC Health Serv Res*. 2011;11:1–12.
40. Kalicum J, Nyx E, Kennedy MC, Kerr T. The impact of an unsanctioned compassion club on non-fatal overdose. *Int J Drug Policy*. 2024;22:104330.
41. Nyx E, Kalicum J. A case study of the DULF compassion club and fulfillment centre—a logical step forward in harm reduction. *Int J Drug Policy*. 2024;1(131):104537.
42. Bowles J, Nyx E, Kalicum J, Kerr T. Qualitative findings from North America's first drug compassion club. *PLoS ONE*. 2024;19(12):e0315804.
43. Ali F, Law J, Russell C, Crépault JF, Goulão JC, Lock K, Rehm J. Navigating the nexus between British Columbia's public consumption and decriminalization policies of illegal drugs. *Health Res Policy Syst*. 2024;22(1):60.
44. CBC News. British Columbia to recriminalize use of drugs in public spaces. 2024. Retrieved from: <https://www.cbc.ca/news/canada/british-columbia/david-eby-public-drug-use-1.7186245>
45. CBC News. Opposition alleges open drug use, dealing at Vancouver hospital. 2024. Retrieved from: <https://www.cbc.ca/news/canada/british-columbia/st-pauls-hospital-drug-use-1.7168786>
46. Hoekstra G. More security, outdoor drug-use sites help address illicit drug use in B.C. Hospitals. *The Vancouver Sun*; 2024. Retrieved from: <https://vancouversun.com/news/local-news/more-security-new-measures-to-address-illicit-drug-use-in-bc-hospitals>
47. Wang C, Burris MA. Photovoice: Concept, methodology, and use for participatory needs assessment. *Health Educ Behav*. 1997;24(3):369–87.
48. Boal A, McBride MO. Theatre of the oppressed. In: *The Applied Theatre Reader*. Routledge; 2020. pp. 134–140.

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