Harm Reduction Journal

RESEARCH

Open Access

Conceptualizing 'cannabis harm reduction': lessons learned from cannabis compassion clubs and medical dispensaries in British Columbia (Canada)

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Abstract

Objectives Drawing on a qualitative case study of cannabis compassion clubs and medical dispensaries in British Columbia (Canada), the main goal of this paper is to generate insights that have the potential to advance and broaden the conceptualization of 'cannabis harm reduction'.

Methods We undertook a qualitative case study by drawing on seven data sources: (1) online content, (2) news stories, (3) legal documents, (4) policy documents, (5) information about enforcement, (6) interviews with (i) key informants, (ii) participants with operational experience (i.e., people engaged in the active operations of compassion clubs/dispensaries in various roles), and (iii) participants with lived experience of medicating with cannabis, and finally (7) field notes. For this paper, we applied a harm reduction lens to the participant interview data.

Results Applying a harm reduction lens to the participant interview data allowed us to identify two main conceptual dimensions: structural and operational. The structural dimension focused on the work undertaken by cannabis compassion clubs and medical dispensaries to address a risk environment created by systems, laws, and policies. The main themes identified here were access, safety, and quality. The operational dimension focused on the characteristics of the services provided cannabis compassion clubs and medical dispensaries. The main themes identified here were low-threshold, compassion, and supports. Our findings suggest that these two dimensions worked together to generate conditions conducive to 'cannabis harm reduction'.

Conclusions Based on our findings, we identified research, policy, and advocacy implications. We argue that research should focus on loss of access, regulation, a broader conceptualization of cannabis substitution, and better integration between cannabis and harm reduction. We also highlight the need for a harm reduction analysis of the *Cannabis Act*, new community-oriented models to meet the needs of people who medicate with cannabis, and non-profit supply pathways. Finally, we suggest that structurally-oriented advocacy is needed to achieve community-oriented models of cannabis cultivation, distribution, and consumption and that this advocacy would benefit harm reduction more broadly.

Keywords Cannabis, Compassion club, Case study, Dispensary, Harm reduction, Qualitative

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R.I.P Vancouver Island Compassion Society

On July 7, the non-profit Vancouver Island Compassion Society quietly closed its doors after nearly 20 years of distributing whole-plant cannabis products to persons with a serious illness and a doctor's specific recommendation.

Ironically, this occurred as a result of Canadian cannabis legalization and B.C. retail cannabis storefront requirements. There was no hoopla, no party, just some hugs, goodbyes and the clink of the door locking behind the last client served.

That was also the day I lost my job and my community of 3000 persons.

Personally, I'm still grieving the loss—not the loss of work, so much, but the relationships that were forged while at work over countless face-to-face encounters with people dealing with serious and chronic health conditions. It was very humbling, gratifying and educational.

The losses to our community are large. Gone is the knowledge of cannabis used for medicinal purposes. Gone are dosage suggestions and harm-reduction measures. Gone is the monthly newsletter devoted to medical cannabis research and news, with more than 115 issues archived.

Gone is the safe, welcoming reception room with art, plants and donation bin. Gone are the amazing stories our members related to us, and gone are the smiles and tears.

I am immensely proud of the benefit and quality of life improvements that we witnessed while helping our 3000 members. I was fortunate to work with some amazing, caring staff. Our big picture goal was to make every day the best day for our members, and it was important to listen and lend support to them during some very arduous and painful times.

When I first joined the society, people were a bit confounded. I even lost some friends. Family was skeptical. I even had one acquaintance ask me "Is that all?" when I told them of what we did. Seen as just a way to get "pot," many misunderstood and scoffed at what medical cannabis and compassion clubs are/were really about.

The reality is that many of our members are very ill, have tried countless pharmaceutical options, and were looking for a gentler and safer approach to their well-being. Chronic pain, including arthritic pain and fibromyalgia, was the most common condition, followed by hepatitis-C, anxiety, cancer, HIV/AIDS, Crohn's and bowel issues, multiple sclerosis and depression.

The society, like a few other clubs, distributed the cannabis for medical purposes that the courts permitted, but that the system wasn't providing (or wasn't good enough). The society also threw in compassion, empathy and humour, qualities lacking in today's health care system and medical cannabis online purchasing platform.

Who would have known that cannabis can allow people suffering from irritable bowel syndrome to leave their home, not locked to the toilet? Or that folks suffering chronic pain can reduce, and sometimes eliminate, their use of opioids? Or how cannabis can calm and mitigate tremors and seizure-related incidents?

The stories that we heard over the years were testament to not only how cannabis can help, but the numerous conditions that it can be beneficial for. We heard daily how people's health and lives were transformed.

Alas, those voices are no more. The non-profit society still exists but the storefront is closed.

I will continue to grieve as long as it takes, but we were all blessed to be part of such a unique and caring organization.

R.I.P.
Robin Krause (Times Colonist, July 28, 2019)

Introduction

Operating in plain sight and in a grey legal area for decades prior to cannabis legalization, cannabis compassion clubs and medical dispensaries in British Columbia (Canada) knew that they were doing meaningful harm reduction work and operating according to harm reduction principles. This is clearly described in the opening passage, written by a person who worked for 17 years at the Vancouver Island Compassion Society [1], and documented in the literature [2–8]. Yet, 'harm reduction' was not a central organizing concept in advocacy efforts to decriminalize personal possession for

people who self-medicated with cannabis, legitimize and regulate cannabis for therapeutic purposes, normalize the prescription of cannabis in the health care system in the hopes that it would eventually achieve the same status (and coverage) as pharmaceuticals, and finally legalize cannabis altogether. It was through the central concept of 'medical cannabis' that most of these efforts were organized with the resulting effect of locating cannabis within the medical/medicinal[1] space and focusing on the therapeutic properties of cannabis for people experiencing chronic pain, neurological disorders, autoimmune diseases, cancer, HIV/AIDS, and so forth [7, 9, 10]. This concept also contributed to creating a distinction between 'medical' and 'recreational' cannabis, which became deeply entrenched into law as courts were asked to rule on cases engaging the *Charter of Rights and Freedoms* and subsequently, into policy as courts mandated the federal government to create and then improve what became known as the 'medical cannabis program' [10]. In reality, however, this distinction can be conceptually challenging because cannabis is seldom exclusively medical (i.e., treating a symptom with no additional benefits) nor recreational (i.e., taken for leisure without some relief) [11]. Despite this, the distinction has remained firmly in place and was reproduced in the *Cannabis Act* when cannabis was legalized in October of 2018 [10]. Concretely, this means that cannabis legalization created a new taxable for-profit recreational cannabis market while preserving the old 'medical cannabis program'—thus creating two distinct access pathways and marking the end of the grey legal area that characterized cannabis compassion clubs and medical dispensaries.

In harm reduction research, practice and advocacy, cannabis has been mostly discussed through the concept of 'substitution'. This concept encompasses different practices of substitution, including using cannabis as a replacement for prescribed pharmaceuticals, a full or partial alternative to alcohol or illicit drugs, and/or an adjuvant therapy in the context of craving and withdrawal management, substance use treatment, and pain management [12, 13]. In the Canadian and American contexts, in particular, interest in 'cannabis substitution' has grown in recent years because of the scale and severity of the toxic drug supply crisis, which is calling for creative and effective ways of reducing risks, saving lives, and providing alternatives to the toxic drug supply [14, 15]. In this context, 'cannabis harm reduction' has been primarily conceptualized through the lens of 'cannabis substitution' and research has been aimed at understanding substitution practices, exploring the motivations and experiences of people who engage in these practices, and documenting self-reported (subjective) benefits as well as measurable (objective) outcomes of substitution (e.g., reduce cravings, relieve pain, prevent unpleasant side effects, manage withdrawal symptoms, decrease substance use and associated health risks such as overdosing, etc.) [12, 13, 16–41]. Recently, the emergence of cannabis substitution programs in both Canada [39–41] and the United States [42] has contributed to making a case for implementing 'cannabis substitution' as part of harm reduction programming with the goals of removing access barriers, preventing and reducing drug-related harms, and improving symptom/withdrawal/craving management, health, and wellbeing. In other words, to formalize, support, and scale-up substitution practices that have long existed in community and are now being rebranded as 'cannabis harm reduction' in response to the toxic drug supply crisis [40].

This paper builds on the premises that: (1) 'cannabis harm reduction' is not new and that it pre-dates the current toxic drug supply crisis, (2) that 'cannabis harm reduction' has been practiced in community for decades, developed by people with lived experience, and championed by compassion clubs and medical dispensaries that not only provided low-threshold access to medical cannabis but also worked together to develop guidelines for community-based distribution of medical cannabis that incorporated harm reduction principles [43], (3) that conceptualizing 'cannabis harm reduction' based on the substitution effect of cannabis is too narrow in focus, and finally (4) that turning to cannabis compassion clubs and medical dispensaries to understand how 'cannabis harm reduction' was practiced before cannabis legalization is imperative to resist epistemic erasure. Drawing on a qualitative case study of cannabis compassion clubs and medical dispensaries in British Columbia (Canada), our goal is to generate insights that have the potential to advance and broaden the conceptualization of 'cannabis harm reduction'. To achieve this, we start by providing an overview of the conceptual literature on harm reduction and describing our case study. Drawing on the conceptual literature, we then apply a harm reduction lens to the case study participant interview data to generate new conceptual insights. Finally, we discuss the implications of our findings for research, policy and advocacy.

[1] We include both medical and medicinal here to reflect that cannabis is often described as a medicine and defined more broadly than in medical terms while also recognizing that cannabis has proven medical benefits and is used to alleviate diagnosed medical conditions and symptoms (with or without a medical authorization).

Conceptualizing harm reduction

In order to unpack the interview data and contribute to a meaningful discussion of 'cannabis harm reduction' in the context of cannabis compassion clubs and medical dispensaries, it is important to first turn to the conceptual literature on harm reduction. We do not claim that this literature, written by scholars studying harm reduction and practitioners of harm reduction, gets to determine what harm reduction is and is not. Harm reduction did not originate in academic spaces and the most important conceptual strides have been made in communities, within the larger context of what Hassan [44] describes as "revolutionary organizing" (p.25), and through the collective power of people keeping each other alive, safe, and well while getting to the root causes of so-called "drug-related harms" [44]. As such, it is important to recognize the limits of the literature we reviewed for this paper and focus not so much on providing a conceptual definition of what harm reduction is but rather how harm reduction has been conceptualized to date. This conceptual lens helped us identify patterns in our data and contextualize our findings, serving as a framework to describe the harm reduction work of cannabis compassion clubs and medical dispensaries.

The conceptual literature on harm reduction can be organized in three categories, each one reflecting a specific focus and goal: the first category focuses on identifying core characteristics with the goal of defining harm reduction; the second category focuses on mapping philosophical and practical differences with the goal of identifying sub-groups in harm reduction, and the third category focuses on articulating new frameworks with the goal of better understanding drug-related harms in the context of harm reduction. Each category will be briefly described below.

The most commonly cited characteristics of harm reduction in the literature are: (1) value neutrality and nonjudgement across a continuum of drug use experiences, (2) meeting people where they are at and centering their (i) needs, priorities, and goals, (ii) dignity, autonomy, and rights, and (iii) self-determination and meaningful participation, (3) supporting as opposed to punishing or coercing people who use drugs, (4) preventing and mitigating drug-related harms (e.g., health, social, economic, etc.) while challenging the notion that drugs are inherently harmful and working to address root causes of harms such criminalization, racism, and poverty, (5) providing low-threshold services using pragmatic, adaptive, and innovative approaches to respond to community needs, and most importantly (6) adopting a *Nothing About Us Without Us* approach to policy, practice, service delivery, and research to ensure that people who use drugs are involved in decisions that (i) affect their health and wellbeing, (ii) the availability of and access to services, and (iii) the harms they experience in various aspects of their lives (e.g., incarceration, employment, housing, parenting, etc.) [44–65]. These characteristics broadly capture the various definitions of harm reduction included in the literature, the values and principles used to differentiate harm reduction from other approaches such as prohibition [63] and medicalization [48], and attributes identified by scholars who conducted concept analyzes of harm reduction [45, 52]. Together, these characteristics provide a basic framework for understanding how harm reduction has been conceptualized. However, these characteristics are understood, positioned, emphasized, discussed, and taken up differently across various sub-groups in harm reduction.

Philosophical and practical differences across sub-groups in harm reduction are frequently highlighted in the literature. When they are not, it is often the case that the authors are either unaware that these differences exist, privileging a particular narrative or counter-narrative (e.g., the origins of harm reduction) and/or writing about harm reduction from the perspective of the sub-group they identify with. To cut through the complexity of this literature, we draw on the conceptual framework proposed by Tammi [62] to identify and understand the sub-groups that form along the "epistemic fractions" that exist in harm reduction. These three fractions—professional public health, global justice, and drug user movement—can overlap and interact, but also contribute unique and sometimes contradictory perspectives on the evolving conceptualization of harm reduction [45, 51, 53, 54, 60, 62]. The *professional public health* fraction privileges science and evidence-based interventions, centres professional voices and expertise, and is often deployed as state-run, public health interventions that emulate and institutionalize programs and services (e.g., needle exchange) that originated in community organizing and activism [62]. The *global justice* fraction is oriented to human rights and justice for people most impacted by the global drug war, positioned against imperialism and neoliberalism, and engaged in solidarity with other movements focusing on social, developmental and environmental implications of the global drug war and global inequality more generally [62]. Finally, the *drug user movement* fraction continuously re-centers the voices, knowledge and expertise of people with lived experience of drug use, and ultimately aims to shift power to people experiencing the harms of prohibition and medicalization and the impact of criminalization, coercion, colonization, racism, and poverty [62]. In this fraction, peer-based mutual aid paired with rights-based activism culminates in a movement for equal citizenship

and meaningful participation in policy, research, and practice [62].

As noted by Tammi [62], harm reduction should not be understood as a "homogeneous whole" but rather as "a policy community consisting of epistemic fractions that are in dialogue with each other and thus constantly redefining the meaning of harm reduction" (p.395). Over the past 20 years, we have seen evidence of this with the drug-user movement organizing internationally and working on human rights and global justice issues (see [66]), fractions converging together to advocate for harm reduction programs and services amid challenging political climates (see [54]), and the drug-user movement professionalizing and entering institutional spaces via paid peer roles (see [67]). We have also seen dialogue about the philosophical and practical differences of conceptualizing harm reduction with a "small h-r" or a "capital H-R" [68]. As Monique Tula, the then Executive Director of the Harm Reduction Coalition, explained at the 2018 National Harm Reduction Conference in New Orleans (United States):

> *"When we talk about harm reduction, we often reduce it to a public health framework, [one of] reducing risks. That's harm reduction with a small 'h-r'. Harm reduction is meeting people where they are but not leaving them there. But Harm Reduction with a capital 'H' and 'R'—this is the movement, one that shifts resources and power to the people who are most vulnerable to structural violence" (quoted in [68], emphasis added).*

In conceptualizing harm reduction with a "small h-r", we keep it small and work within existing systems (e.g., criminal justice system, health care system, etc.) to reduce drug-related harms. Commonly used in the *professional public health* fraction, this approach obscures the root causes of drug-related harms and fails to change any of the structural conditions that put the lives and the health of people who use drugs at risk while also creating barriers to upstream and community-led solutions [47, 51, 60]. In contrast, conceptualizing harm reduction with a "capital H-R" draws from liberatory and abolitionist approaches, both of which have grown out of the *drug user movement* and *global justice* fractions. These approaches focus on working outside systems to centre community-led solutions (for example, see [69–71]) and against systems to dismantle the structures of policing and punishment [44, 55, 61, 63]. They also focus on getting to the root causes of harms [44], building alternatives within a "politics of solidarity" (p.456) [65], and redistributing power and resources to communities directly impacted by the drug war and other forms of structural violence [55].

In closing, we turn to two frameworks that have played a significant role in conceptualizing harm reduction and more specifically, in conceptualizing the *harm* in *harm reduction*. The first is the drug-set-setting framework developed by Zinberg [72] and the second is the risk environment framework developed by Rhodes [57, 58]. Both frameworks have contributed to an understanding that drugs and drug use are not inherently risky or harmful. They have also provided conceptual tools for articulating how risks and harms are spatially, situationally, and structurally produced. Zinberg's framework has been particularly useful in guiding harm reduction work because it provides a three dimensional approach to reducing risks and harms at the intersection of the drug consumed, the mindset (i.e., set) of the person consuming the drug, and the environment in which they consume [44]. As noted by Hassan [44], this framework "accounts for the fact that harm reduction applies to more than drug use" (p.132). As such, it brings into focus the fact that the same drug used by two different people with different mindsets and in two different settings will be experienced differently [72]. Intervening at the level of the mindset (e.g., helping someone feel less scared or alone) and the setting (e.g., creating a safer consumption environment through safer consumption spaces, safer public bathroom protocols, virtual witnessed consumption, etc.) can therefore help change the drug experience and its outcomes [44]. Rhode's framework goes a step further by suggesting that risks and harms are shaped by intersecting risk environments (i.e., *micro* and *macro* physical, social, economic, and policy environments). In harm reduction research, practice, and advocacy, this framework has been instrumental "in *explaining* the conditions giving rise to harm (such as environments conducive to rapid HIV spread) but also assists in *predicting*, and thus also, *preventing* them" (p.91, *emphasis in original*) [57]. Additionally, it has broadened the scope of harm reduction interventions to include structural interventions directed at environmental conditions such as legal reform, reallocation of funding and resources, and policy changes to increase access to health care [57, 58].

Cannabis is notably absent from the conceptual literature on harm reduction. Outside of the 'cannabis substitution' empirical literature cited above, we could only locate six articles and one book chapter with a clearly stated 'cannabis harm reduction' focus. Areas discussed in this small body of literature included, law and policy [73, 74], biology [75], cannabis social clubs [76], older cannabis users [77], and the need to move beyond harm reduction to focus on wellness, mindful consumption, and pleasure [78, 79]. These articles largely echoed the conceptualizations of harm reduction detailed above. It is

our hope that the findings and discussion that follow can make a meaningful contribution to this body literature, while also bridging the conceptual literature on harm reduction and cannabis.

Methods

Qualitative case study methodology as defined by Stake [80–82] offers a flexible approach to explore and describe a particular case in a real-life setting. As Stake [82] explains, "qualitative case study was developed to study the experience of real cases operating in real situations" (p.3). The case can be defined as an individual, a group, a program, a city, a country or a particular phenomenon of interest [80–82]. Stake [80–82] identifies three types of case studies: intrinsic, instrumental, and collective (or multiple). An intrinsic case study is undertaken to analyze a unique case and develop a better understanding of this case alone [80, 81]. In contrast, an instrumental case study is primarily undertaken to examine a case that can provide insights into a broader phenomenon [80, 81]. When this approach is extended to multiple cases, it becomes a collective case study (or multiple case study) [80–82].

Case study research starts from a simple question: "what can be learned from the single case?" (p.443) [81]. As such, the goal of the researcher is to understand the case as an integrated and bounded system that is located in a particular situation and in a broader context [80, 82]. Exploring the inside of the case while also paying close attention to what is going on outside is important when conducting this type of research [80, 82]. Drawing from multiple data sources data such as interviews, questionnaires, observations, documents and field notes is, therefore, expected [80–82]. Moreover, remaining responsive to the case in real-time is important and it may require the addition of new data sources or lead to the emergence of new questions. Finally, in analyzing the case, the process of identifying particularities through interpretive inquiry (as opposed to generating findings for generalizability) is what makes case study research valuable [80, 82]. As Stake [80] notes, "the real business of case study is *particularization*, [through understanding of the case itself], not *generalization* (p.8, *emphasis added*).

We undertook a qualitative (instrumental) case study of cannabis compassion clubs and medical dispensaries in British Columbia (Canada) at the critical juncture in the province, following the near-total dismantlement of these access points as part of the enforcement of the *Cannabis Act*. Case study methodology allowed us to situate cannabis compassion clubs and medical dispensaries in the broader socio-political-legal context of medical cannabis in Canada while also attending to the particularities of the province; tracing the history of cannabis compassion clubs and medical dispensaries, analyzing the experiences of people involved in operating these access points and those accessing them (i.e., members or clients), exploring the interactions with structural forces such as systems, laws, and policies, and piecing together a picture of the province before and after cannabis legalization. Using an instrumental case study approach also allowed us to dive into the broader phenomenon of "grey area" cannabis compassion clubs and medical dispensaries in the context of medical cannabis—a phenomenon that has been documented across multiple jurisdictions and different legal schemes. Using the province with the highest concentration of cannabis compassion clubs and medical dispensaries in Canada was a good starting point.

To study the inside and the outside case, we spent 6 months collecting data across multiple sources and another 6 months engaging with the data. However, it is important to note that this paper is not a presentation of the full case study but rather an in-depth conceptual and empirical exploration organized around harm reduction. As we explain below, the need for such an exploration emerged during the case study analysis and generated momentum for analyzing participant interview data—as a way to uncover (and document) the harm reduction work of cannabis compassion clubs and medical dispensaries. It is also important to note that we both embarked on this case study project with significant experience working and organizing in harm reduction. We also contributed our respective experiences of working in the HIV sector and understandings of medical cannabis in this context. As such, we came to this work already sensitized to the concept of harm reduction, equipped to recognize when this concept presented itself in the participant interview data, and motivated to address existing gaps in conceptualizing 'cannabis harm reduction.'

The case

In the years leading to cannabis legalization, hundreds of cannabis medical dispensaries and a smaller number of high-profile compassion clubs were operational in the British Columbia. The city of Vancouver alone had an estimated 176 medical dispensaries in 2015 [83] and a large compassion club providing access to medical cannabis and complementary health services to close to 15,000 members [84]. Situated along a continuum of services and practices, compassion clubs adopted a community health approach while medical dispensaries adopted a hybrid approach, midway between a community health and retail approach [3–5, 8]. Prior to cannabis legalization, a majority of people medicating with cannabis in British Columbia accessed cannabis via

this continuum of access points. In a study conducted by Belle-Isle and colleagues [85], for example, 70% of participants residing in British Columbia reported accessing cannabis at cannabis compassion clubs and/or medical dispensaries compared to 2% who reported accessing through the medical cannabis program. This is consistent with other studies, which found cannabis clubs and medical dispensaries to be significantly more accessible and scoring better than the national medical cannabis program on (1) affordability, (2) product quality, safety, diversity, availability, and consistency, and (3) quality of the service [85–87]. Two main reasons explain this. First, the high number of cannabis compassion clubs/medical dispensaries in the province. Second, the difference between a high-threshold model that requires medical authorization, imposes limits on all aspects of medical cannabis use, creates access barriers, and prohibits storefront access, and a low-threshold model that provides storefront access to education, support, community, and a range of properly dosed and compassionately priced cannabis products that can be consumed in ways that generate optimal therapeutic relief. What happens when cannabis compassion clubs and dispensaries disappear? What is lost as a result? These have been central questions in our work. This paper focuses specifically on our efforts to explore how 'cannabis harm reduction' was practiced in these spaces as a way to advance conceptualization—and further document the community loss described in the opening passage and experienced by people who medicate with cannabis.

Data collection

In total, we included seven data sources (Fig. 1): (1) online content, (2) news stories, (3) legal documents, (4) policy documents at the federal, provincial, and municipal levels, (5) information about the CSU and its enforcement activities, (6) interviews with (i) key informants, (ii) participants with operational experience (i.e., people engaged in the active operations of compassion clubs/medical dispensaries in various roles), and (iii) participants with lived experience of medicating with cannabis, and finally (7) field notes. After obtaining harmonized ethics approval from the University of Victoria and the University of British Columbia, we completed a series of advanced Google searches to locate news stories mentioning compassion clubs and/or medical dispensaries. We found a total of 86 news stories that mentioned 37 cannabis compassion clubs/medical dispensaries in British Columbia. We also searched Cannabis Digest and Cannabis Culture Magazine, two popular websites that publish entries related to cannabis, which respectively generated 209 entries referencing 29 cannabis compassion clubs/medical dispensaries and 114 entries referencing 10 additional ones. Using the above web searches and removing duplicates, we catalogued under 55 cannabis compassion clubs/medical dispensaries and extracted information to create

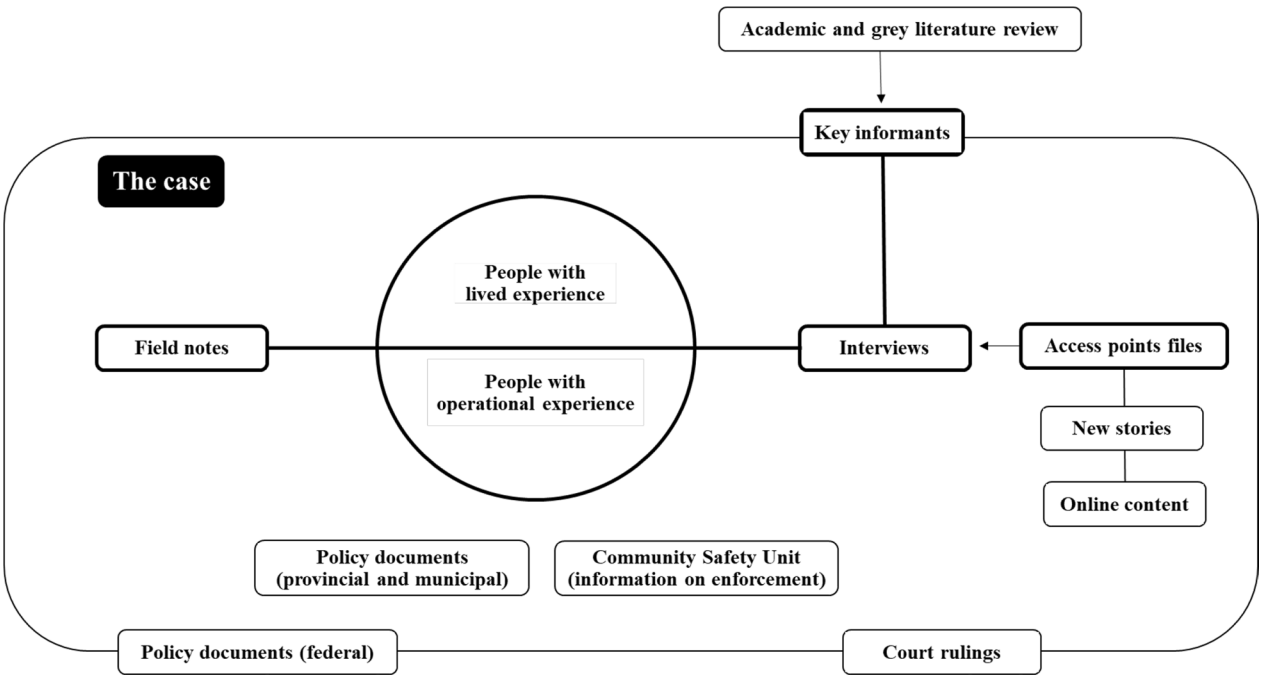

Fig. 1 Overview of the case study sources

a file for each one (e.g., history, names and contact of people involved, services provided, etc.). In addition to this, we conducted a search to identify all relevant policy documents, legal documents, and enforcement activities related to community safety unit (CSU)—the unit responsible for compliance and enforcement of the British Columbia's *Cannabis Control and Licensing Act*.

Together, the above searches allowed us to understand the case and identify a list of potential key informants as well as participants with operational experience. From there, we started interviewing key informants ($n=11$) with known expertise in one or several domains (e.g., law, research/scholarship, advocacy, policy-making, enforcement) to gather important contextual information about the case. We tailored the interview guide to each key informant, focusing on their realm of expertise. Then, using our access point files, we emailed potential participants with operational experience and recruited additional participants through snowball sampling. We interviewed a total of 15 participants (5 in person and 10 by phone) with the goal of understanding their experience, contextualizing that experience before and after legalization, and exploring access to cannabis as a medicine. All of the participants consented orally to taking part in the study after reviewing the consent form and received a $50 compensation. After completing this round of interviews, we recruited people with lived experience via the Victoria Cannabis Buyers Club[2] (VCBC) and The Medicinal Cannabis Dispensary[3] (TMCD) and completed 12 phone interviews, each preceded by the completion a short socio-demographic and cannabis consumption questionnaire. This round of interviews focused primarily on the experiences of medicating with cannabis and accessing cannabis compassion clubs/medical dispensaries before and after legalization. All of the participants consented orally to taking part in the study after reviewing the consent form and received a $50 compensation. Finally, we recorded field notes throughout the data collection, including during weekly site visits at the Victoria Cannabis Buyers Club (VCBC) and at gatherings where members provided testimonials on the importance of cannabis compassion clubs/medical dispensaries to media and policy-makers. These notes were helpful in documenting the research process, the decisions made throughout the case study, the ideas emerging during data collection and analysis, and the general (not formally structured) observations made during site visits.

Data analysis

To organize the full case study, we started from the inside of the case with the transcribed interviews of participants and moved toward the outside of the case where key informant interviews and document/online search results provided context to situate cannabis compassion clubs/medical dispensaries over time and across policy eras. We also worked with the entirety of the data, identifying a need to analyze the interview sets together and separately as well as the need to conduct theory-driven [5] analysis and generate the conceptual insights we present in this paper. As noted above, this paper does not present the full case study and is limited in scope to the interview data and to harm reduction. While it cannot be completely isolated from the full case study, it is strategically focused on the data sources that can shed light on the harm reduction work of cannabis compassion clubs and medical dispensaries. For example, policy documents are helpful to understand this work *in context* but they do not speak to the work itself. As such, these documents were helpful to contextualize the findings and their implications but were not included in the data analysis per se.

After reviewing and summarizing the conceptual literature on harm reduction—a process that qualitative researchers described as conceptual or theoretical sensitization [88]—we turned to the participant interview data and started analyzing using Applied Thematic Analysis (ATA) [89]. We started by coding the data and then identifying possible themes, which were compared, contrasted, grouped, and moved until we were able to identify a thematic structure (Fig. 2). This thematic structure focused on the structural and operational work of cannabis compassion clubs and medical dispensaries (i.e., how they practiced 'cannabis harm reduction'). In the context of this paper, we define 'structural' using the work of Rhodes [57, 58] as well as the work of scholars in the fields of structural determinants to health [90, 91], structural violence [92], and structural racism [93]. At its core, this concept refers to the invisible yet powerful forces that move through social structures in ways that create and maintain power relations, hierarchies, and differential (and unjust) experiences across all aspects of life (e.g., economic, health, social, etc.). For this analysis, we paid close attention to structures such as systems, laws, and policies. More specifically, how theses

[2] At the time of the study, VCBC (founded in 1996) was the only remaining "grey area" pre-legalization cannabis compassion/buyers club in British Columbia. Since cannabis legalization, it has been raided a total of three times, fined a total of 6.5 million in administrative penalties and displaced twice. It was also denied an exemption request by Health Canada to continue to operate as is, outside the new legal licensing scheme.

[3] At the time of the study, TMCD (founded in 2008) was the only remaining "grey area" pre-legalization medical dispensary in British Columbia. Before legalization, and the subsequent introduction of a new licecnsing scheme, it had secured a municipal license. Since cannabis legalization, it has been raided once and experienced interruptions in services and supply as a result.

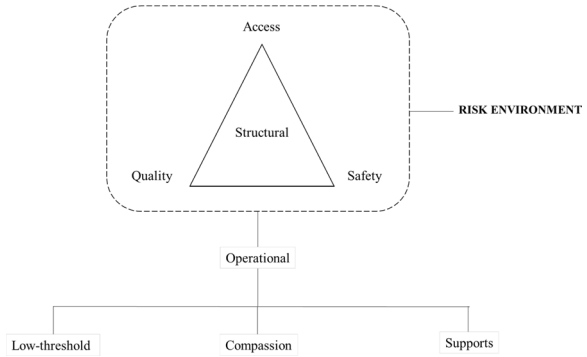

Fig. 2 Overview of the findings

structures created conditions that shaped the experiences of people medicating with cannabis as well as conditions that gave rise to cannabis compassion clubs and medical dispensaries. We also paid attention to the ways in which these structures amplified existing inequalities and inequities.

Results

The majority of participants with lived experience (PWLE) were 50 years or older, had an annual income of less than $30,000, listed disability assistance as their primary source of income, and were renting a room or an apartment (Table 1). Educational level was distributed across the sample and gender representation was close to balanced with 7 cisgender women and 5 cisgender men. All of the participants identified as white (European descent). In terms of cannabis consumption (see Table 2), the majority of participants reported using daily (including multi-daily) and all of the participants indicated using cannabis for therapeutic purposes and for their own (physical/mental) wellness. Some participants listed additional reasons, the most common one being recreational and social use ($n=4$). Their preferred modes of consumption, included ingesting edible products ($n=10$, 83%), smoking a joint without tobacco ($n=5$, 42%), and applying on the skin ($n=3$, 25%) (Table 2). The majority of participants with operational experience (PWOE) (Table 3) had cumulated more than 20 years of experience in the cannabis field. They came to our study with operational experience in various roles, ranging from upper management to service provision and production, with near equal representation from compassion clubs and medical dispensaries.

Aside from a few minor exceptions, participants did not describe their experiences with cannabis compassion clubs and medical dispensaries through a harm reduction lens, even when sharing examples that evoked harm reduction as defined above. This is consistent with our earlier observation that 'medical cannabis' and 'substitution' have been the dominant conceptual lenses through which compassion clubs and medical dispensaries have organized. Applying a harm reduction lens to the data allowed us to identify two main conceptual dimensions: structural and operational (Fig. 2). The first dimension, the structural dimension, focused on the work undertaken by cannabis compassion clubs and medical dispensaries to address a risk environment created by systems, laws, and policies. The second dimension, the operational dimension, focused on the characteristics

Table 1 Characteristics of participants with lived experience ($n=12$)

	***n* (%)**
Age (years)	
31–40	3 (25%)
51–60	5 (42%)
61–70	2 (17%)
> 71	2 (17%)
Gender	
Cisgender man	5 (42%)
Cisgender woman	7 (58%)
Ethnicity	
European descent (White)	12 (100%)
Housing	
Unhoused	1 (8%)
Renting (room or apartment)	8 (67%)
Owning (condo or house)	3 (25%)
Income	
$10,000-$19,999	6 (50%)
$20,000-$29,999	4 (33%)
$30,000-$39,999	1 (8%)
Unknown	1 (8%)
*Sources of income**	
Income assistance	8 (66%)
Full-time employment	1 (8%)
Part-time employment	2 (17%)
Pension/employment insurance	2 (17%)
Highest level of education completed	
Less than high school	4 (33%)
High school	1 (8%)
Registered trade or apprenticeship certificate or diploma	1 (8%)
College	2 (17%)
University (undergraduate–bachelor's degree)	2 (17%)
University (undergraduate–master's degree)	2 (17%)

*Select all that apply. Participants could report multiple sources of income

Table 2 Cannabis consumption reported by participants with lived experience ($n = 12$)

	n **(%)**
Frequency	
Multiple times a week	1 (8%)
Once a day	2 (17%)
Multiple times a day	9 (75%)
*Reasons**	
For therapeutic use for a chronic illness or chronic symptoms	12 (100%)
For your own physical and mental wellness	12 (100%)
For recreational use (fun) or social use	4 (33%)
For spiritual use or traditional medicine purposes	1 (8%)
Other: *for additional benefit of being more creative*	1 (8%)
*Preferred mode of consumption**	
Ingesting edible products	10 (83%)
Smoking joints without tobacco	5 (42%)
Smoking using a pipe	2 (17%)
Vaporizing and vaping	2 (17%)
Applying on the skin	3 (25%)
Using suppositories	1 (8%)

* Select all that apply. Participants could report multiple reasons and modes of consumption

Table 3 Characteristics of participants with operational experience ($n = 15$)

	n **(%)**
*Type of access point(s)**	
Compassion club**	8 (53%)
Medical dispensary	7 (47%)
*Type of role**	
Founder or co-founder	6 (40%)
Management or leadership	10 (67%)
Governance (e.g., board of directors)	2 (13%)
Frontline staff or volunteer	10 (67%)
Grower	5 (33%)
Producer (e.g., edibles, oils, baked goods)	3 (20%)
Other: *advocacy*	1 (7%)
Years of experience in cannabis field	
5–9 years	3 (20%)
10–19 years	3 (20%)
> 20 years	9 (60%)

*Select all that apply questions. Some people with direct experience reported experience with more than one type of access point. Some also reported experience in multiple roles. ** Here, the term compassion club encompasses designated compassion clubs and other access points that had opted for a different designation (e.g., buyers club, compassion society, etc.) but operated like a compassion club as defined in Table 1

of the services provided cannabis compassion clubs and medical dispensaries. Our findings suggest that these two dimensions worked together to generate conditions conducive to 'cannabis harm reduction'.

Structural dimension

Throughout the interviews, there was a shared understanding that cannabis compassion clubs and medical dispensaries emerged in response to a risk environment created by prohibition. In this environment, people wanting to medicate with cannabis faced several intersecting risks while also managing their own symptoms, treatments, complex illnesses, and in many instances, nearing end of life. We identified five categories of risks: (1) physical risks (e.g., consuming contaminated cannabis), (2) psychological risks (e.g., stress of trying to secure access to cannabis), (3) economic risks (e.g., exploitative practices), (4) social risks (e.g., stigma and discrimination in the context of health care, housing, employment, childcare), and (4) legal risks (e.g., facing criminal charges and imprisonment). These risks paved the way for cannabis compassion clubs and medical dispensaries to emerge as an alternative to the illegal recreational market and the medical cannabis program.

> *The laws were still in place against the consumption of marijuana. I had great difficulty in securing a source. It was shady deals in darkened apartments, literally (laughing), with strangers because of my age, my demograph, not connected to the underworld. I found a strange fellow who was selling access, a doctor who was extorting $100 in [name of city] to sign a medical release saying that my condition called for it (…). My struggle to find a source went on for years and years, until I finally found [name of compassion club]. (PWLE #2, lines 26–37)*

Participants explained that compassion clubs and medical dispensaries became necessary to address the structural conditions underpinning the risks faced by people medicating with cannabis while also challenging the broader structural forces (e.g., laws, policies, systems) contributing to access barriers. In developing an alternative grassroots approach to medical cannabis, one that operates above ground but inside a grey legal area, they focused on three interconnected priorities (Fig. 2): (1) increasing access to medical cannabis, (2) providing a safer supply of medical cannabis and a safer environment for people who medicate, and (3) ensuring quality (including therapeutic quality) of the cannabis products made available.

Before exploring each of these priorities, it is important to note that they have remained largely unchanged despite the structural changes that occurred in Canada (i.e., introduction and subsequent revisions of the

medical cannabis program followed by legalization of non-medical cannabis). This can be explained by the fact that these changes did not get to the roots of access, safety and quality issues in the context of medical cannabis. In other words, they did not "shift resources and power" (to quote Tula again) to communities most affected. Instead, they put medical cannabis in the hands of corporations (e.g., licensed producers, retail stores, and looking to the future, possibly pharmacy retailers[4]) and a high-threshold health care system tasked with gatekeeping access. Legalization removed the grey area that characterized grassroots medical cannabis and consequently, removed a structurally significant layer of harm reduction work done by compassion clubs and medical dispensaries to mitigate the risks of the toxic drug supply in British Columbia, for example. This was emphasized by several participants, including a participant whose cannabis medical dispensary ran a subsidy harm reduction program before legalization.

> *When we did get shut down, there was a significant uptick in opioid deaths in [name of city]. And it was attributable to a dangerous [drug] supply that was on the street. But we saw the connections right away, and we actually had like, the evidence in the form of three of the people on the subsidy program died of opioid overdose within a month of us closing down. So we saw, we had that kind of evidence, and we knew that there was a direct connection between us closing down. Like maybe that dangerous supply was already on the street but not nearly as many people were looking for it, but when they can't get their free cannabis or they can't get their $2 capsule every day like they want to—because $2 is pretty easy to scrounge on the street if you want, and if you can get a 100-milligram capsule for $2 than maybe you don't need whatever other thing you can get for $2 or $5 somewhere else. (PWOE #7, lines 581–594)*

Access

Creating a new *access* pathway to medical cannabis was the main priority of cannabis compassion clubs and medical dispensaries. As a core mission, they sought to address an access gap to medical cannabis (i.e., cannabis grown, prepared, dosed, and priced for therapeutic use) and meet the access needs of people medicating with cannabis.

> *I started using those sort of like compassion club-type low-barrier cannabis access sort of things. And my experience with them has been incredible. I have had conversations with medical professionals who agreed personally that it made sense that I continue using cannabis, even that it was helpful for me, but felt that they were not in a position to help me with accessing cannabis. (PWLE #11, lines 78–83)*
>
> *Because there was just no safe access for people who needed [medical cannabis] (…) There were people who were coming in and asking if they sold cannabis at [name of a recreational cannabis retail store] because they were ill. And they just didn't know where to go. (PWOE #1, lines 189–195)*

Importantly, the interviews revealed three additional access considerations that are unique to cannabis compassion clubs and medical dispensaries. These considerations help to further illustrate the type of access they provided, to whom, how, and why.

First, cannabis compassion clubs and medical dispensaries understood who was looking for medical cannabis (and why) and what structural barriers they experienced. For example, participants with lived experience consistently raised the issue of cost and the challenges they faced paying for cannabis with a limited or fixed income. Even participants who were able to secure access to cannabis identified money as a barrier—one that they aimed to overcome or minimize by turning to access points designed for care, not profit.

> *My primary barrier to accessing cannabis was not actually being able to find cannabis, it was money. And that's why I was interested in with the medical thing and a large part of why these low-barrier places have been actually so accessible and helpful, because it's so much more affordable. (PWLE #11, lines 113–116).*

Among participants with operational experience, making cannabis accessible based on need, not the ability to pay, was consistently mentioned across the interviews. This core principle allowed cannabis compassion clubs and medical dispensaries to reach people that would otherwise not be able to medicate effectively or, as noted below, would have to "make really tough choices".

> *So, I mean in the early days all the way through the decades of the [name of access point], a large portion of the clientele were folks living in [name*

[4] In its final report following the legistlative review of the *Cannabis Act*, the expert panel writes: "In our view, an important improvement to the medical access regime would be the establishment of an in-person pharmacy access channel. We recognize that establishing a pharmacy access channel cannot happen overnight. It would require regulatory changes from Health Canada and consultation with interested provinces and territories and regulatory authorities for pharmacists. Pharmacy access would have benefits for patients by addressing concerns about delays with mail delivery and product shortages and would allow patients to consult with a pharmacist and discuss potential drug interactions or side effects".

of neighborhood]. So, stacks of diagnoses and issues, right, so you've got multiple diagnoses, often times mental health issues and substance use, substance use issues and also housing and poverty. And cannabis for the most part was treating, was managing symptoms and managing the side effects of pharmaceutical drugs, helping people to, what's the, there's a proper word for stick to their medications, but basically helping people to adhere to actually taking their prescriptions because cannabis was helping with the side effects. The price of cannabis was always a problem. Patients were often choosing between buying medicine and having groceries. They were often having to make really tough choices so we did our very best to make it really, really affordable." (PWOE #8, lines 59–71, emphasis in original)

Second, cannabis compassion clubs and medical dispensaries understood the importance of offering services that were easy to access but not easy to criminalize. As such, they aimed to find a balance between the need to medicalize, and therefore, legitimize and protect their services (and clients or members) while also keeping the access threshold as low as possible.

But the other thing to, you know because we were trying to not get arrested and not get raided, um, when I first opened my very first store, I said "Ok look, this is what the requirement is, you are allowed to have a choice of the type of medication that you're using'. If you, if you want that Tylenol or Aspirin or any of these things, that's related to your illness or whatever, so what I asked people to come up with was a prescription from a doctor for anything that they were taking, whatever prescription that they were taking, I took a picture of that, I took a picture of their ID and it was confidential obviously, and I then I printed them out a compassion card club with a picture of them on it just like a driver's licence and then I gave that to them, and then I sold them weed. And I felt that that was the safest way for them and myself to sell cannabis. And that's how we started out and then after a couple of years, everybody was copying us. (PWOE #12, lines 386–397, emphasis in original)

Participants with operational experience described a process by which they had arrived at maintaining a medical focus without having to rely on physicians as gatekeepers since this had proven to create a major structural barrier for people medicating with cannabis. This barrier was consistently mentioned by people with lived experience.

If I could have found a doctor that I could have worked with (…) But the one [doctor] I had was willing to work with me but he wasn't willing to sign for [the medical authorization] because he didn't feel my conditions were bad enough like he, he allowed that I used it but he didn't, he considered it, like if I had had cancer or something terminal like that, he didn't really, he allowed for cannabis but he didn't understand it that well so unfortunately he didn't sign me up [for the medical cannabis program], and after that I just sort of didn't try (…)." (PWLE #3, 154–160)

This barrier was also noted by participants with operational experience who had witnessed loved ones struggling to access cannabis medically (via the health care system) and then seeing the benefits of lowering the threshold to medical cannabis (via grey area community access points). Some of them also had lived experience of medicating with cannabis. All of them understood first-hand the need for greater access.

Simultaneous to my work, in my personal life, unfortunately my [family member] was diagnosed with terminal cancer (voice breaking), and so they started using cannabis to support his transition into the great beyond and so when that happened, it became really personal because my [family member] couldn't get a doctor to prescribe even though they were dying (…)//It hit home for me where it was like, well this is a situation where if somebody is at the end of their life, if they have a medical need, there should be a low-barrier to access. If this is a choice that they want to make and there is you know, relief offered right? Like that's where I think, was kind of like an epiphany moment for me." (PWOE #2, lines 35-40//lines 54–58)

Third, cannabis compassion clubs and medical dispensaries understood why access gaps remained despite changes in the social, legal and policy landscape. Our analysis found that the medical cannabis program, in particular, generated access gaps that were deeply problematic for people medicating with cannabis. Both groups of participants noted that at first, the program allowed home growing and personal possession for people with a medical authorization but did not provide access to medical cannabis. As noted by participants with operational experience, this access gap resulted in people not knowing where to go and where to find medical cannabis products.

A friend of mine was diagnosed with cancer and he needed help filling out his paperwork for the federal government, and so I helped him fill out the paperwork so he would be able to grow his

own cannabis legally. And so through that process I realized that there was a need for people with cancer, multiple sclerosis, and all the bad diseases. I saw that there was a need for them to find growers, be able to provide product that would allow them to use it, make oil, make cookies or baked goods or even smoke it, to help with their pain relief. (PWOE #10, lines 18–24)

Being authorized to grow (via the medical cannabis program) did not close that gap nor did it meet the needs of people who medicate, as noted by participants with lived experience. Common issues mentioned included not being able to grow at home, not being able to grow enough, and not being able to transform dried flower into the type of cannabis product(s) needed to medicate. Similarly, when the medical cannabis program introduced mail-order access, via one corporate supplier (i.e., Prairie Plant System) initially and eventually through a network of corporate licensed producers (LPs), this type of access did not work for several reasons.

Well I mean I can tell you very big picture that, I mean my life's work has been around transitioning the medical cannabis market and the cannabis market from the illicit one to a licit one. And the regulatory framework has failed, in many ways. And one of the main ways that it failed as it relates to this study is it did not provide for specialized medical bricks and mortar retail, nor did it provide for medical access through the pharmacies. So when we moved into the regulated market, the medical system is online. And that means that you have to have a credit card, you have to have an address, you have to have a computer, um, and many, many, many medical patients have not transitioned into the medical system for loads of reasons. Of all of the barriers that you're talking about, in terms of why compassion clubs were low-threshold or low-barrier, so that's kind like really big picture. It's just a bummer like, [name of compassion club] is the only one that's left in the whole country [post-legalization]. (PWOE #8, lines 19–31)

According to participants, cannabis compassion clubs and medical dispensaries worked because they provided storefront access to medical cannabis, a place for people to go and find what they needed (e.g., products, information, support, etc.).

(…) I walk through that door and I'm served immediately. Not forms and mail orders and waiting for it to arrive, you know, it's there, immediately when I need it. Not some federal program that requires fields of interest being properly filled out and the bureaucratic nightmare of waiting and jumping through their hoops and on their agenda, on their time schedule. Daylight and darkness. (PWLE #2, lines 336–340).

In sum, the structural work of cannabis compassion clubs and medical dispensaries consisted of creating a new pathway to make medical cannabis accessible to people in need and lower the threshold for those experiencing the greatest access barriers. This pathway offered an alternative to the illegal recreational market and the medical cannabis program—moving access above ground, through structural gaps, and into communities.

Safety

As shown in Fig. 2, we found that safety was closely connected to both access and quality. For example, participants often referred to the concept of *safe access* when describing the work of cannabis compassion clubs and medical dispensaries. Our analysis revealed that this concept, which also appears in several of the above quotes, was used by participants in two ways. First, to explain how cannabis compassion clubs and medical dispensaries worked to provide a safer supply of medical cannabis.

Ok well as far as venders went, we had generally relationships with these people and no written contracts. Just an expectation that they're growing for medicinal patients, and that they have to use, you know, all means possible to not use pesticides, fertilizers, and other things like that. And so, we have a, like sort of an honour system with them. However, once the product comes in to us, we will bag it up and send it off to [name of a lab] in [name of city], and we will get tests done on them. We're not generally testing for potency, we're testing for molds and contaminants and just making sure that there's no pesticides in there (…). And so we hold all our, all of our growers to the same standard, but what's different with us is that we're still in the old method of the vender brings the product to us, we put it under our own microscope, and make a determination on whether we want to smoke it. If we do smoke it, then we do a little smoke test and we make a decision on whether it's, you know, we can make a deal for that. So, you know, we have a real process, we do not take things in from just random people that show up, because there's, you know, there's just always trouble with that. (PWOE #14, lines 116–132, emphasis added)

Most participants with lived experience had a history of trying to medicate using cannabis purchased via

the illegal recreational market or friends who grew cannabis. Not knowing what they were getting made this challenging.

> *[Buying off the street] was ok too except it was hit-and-miss, you didn't always know that people were, would be there. And, lots of times it was really good pot and just, too strong sometimes. You know and, at [name of compassion club] you get to choose and ask questions about the pot, you know? And the other, buying off the street you just, get what you're given. It was a reasonable deal, most of the time I got really good pot for ten bucks a gram so, no complaints (laughs). But it was just, you didn't know what you were, what strain you were getting, whether it would be an Indica or a Sativa or how strong it would be. You know, you didn't really know what to expect until you consumed it. (PWLE #5, lines 169–177, emphasis in original)*

As such, accessing a safer supply of medical cannabis (i.e., cannabis grown, prepared, dosed, and priced for therapeutic use) via cannabis compassion clubs and medical dispensaries had made medicating safer for participants (e.g., less risks of adverse effects, more effective symptom relief, etc.). It had also allowed them to make more informed decision about the products they used and dosage.

Participants also used the concept of *safe access* to explain that cannabis compassion clubs and medical dispensaries offered a safer environment in comparison to the illegal recreational market and the medical cannabis program. One participant who lived with complex health issues and medicated with cannabis for chronic pain talked about the fear of the law during the interview and the necessity (and potential cost) of doing something illegal for their[5] health.

> *Oh it was just, I mean it's mostly about fear, you know, it's mostly about fear of the law. You're actually doing something illegal, you feel compelled to do something illegal that's for your health, which is absurd. But, at the same time, you know, you'd have life-altering consequences if you get caught. (PWLE #1, lines 117–120)*

This was echoed by another participant who medicated with cannabis for chronic pain. They talked about a fear of incarceration and a fear of contamination.

> *Fear of incarceration, fear of a contaminated product with a pesticide or a fungicide and ingesting that, fear of the criminal element of strangers in strange places. So fear of repercussions of the judicial system and fear of the purity of product. (PWLE #2, lines 141–144)*

Their experiences were similar to other participants with lived experience who shared a common need to medicate for pain; one of having to do something illegal to medicate with cannabis, trying to medicate effectively to function every day (for many, this included being able to work and needing a "clean criminal record" to do so), and functioning every day in a context filled with hurdles including housing insecurity, homelessness, poverty, social isolation, and complex health issues. For these participants, compassion clubs and medical dispensaries offered a safer alternative, an accessible "semi-legal" option when so few options were available.

> *And then you get places like the cannabis compassionate club I guess, and you know, they offer semi-legal options, right, which like sketches a lot of people out about using them. But, at the same time, the choices for people are so reduced, right? And the tendency for doctors and physicians just to push opioid-based painkillers, that a lot of people are taking even though they don't want to, they have no other options. So I, it's a multi-layered problem. (PWLE #1, lines 98–106)*

Across the interviews, it was evident that the health care system did not provide a safer environment for people medicating with cannabis. Participants agreed that prohibition had contributed to making health care unsafe by stigmatizing cannabis and people who consume cannabis, creating barriers to the development of medical knowledge on the therapeutic properties of cannabis, and making clinicians afraid of engaging with medical cannabis.

> *[We tried] to get the message of cannabis medical dispensaries as a location for access to people who had medical need who were not able to access the corporate system because maybe they were adverse to going to doctors to get prescriptions or the doctors would try to get them on other drugs first, or maybe it was just the mail-order system itself was problematic for people, having to wait, not being sure of the quality, it was a much lower quality product back then, that was being available in the medical cannabis system, and then also just cost. You know, we had a lot of people that purchased cannabis from us with change that they scrounged up and we could sell the products for $2, $3, $5, and that was just, like that would be the postage cost if*

[5] When we single out a participant prior to introducing a quote, we use the gender neutral pronoun 'they' to add a layer of confidentiality that we considered necessary for the purpose of this analysis.

they were accessing it through the medical system. And at that time there was also, it wasn't very well-developed in terms of, doctors were literally afraid to prescribe cannabis to people because they were not, they were afraid that they weren't adequately covered by their insurance or licencing bodies, they didn't quite understand it. There had been, I think, a long period of stigma and the stigma led to a lack of research, lack of research lead to claims of non-efficacy, so there was just sort of vicious cycle of, like ok it's legal but nobody's going to get access. (PWOE #7, lines 73–88, emphasis in original)

For people living with chronic pain, in particular, what made health care unsafe was the state of the health care system itself (e.g., lack of access, delays to get care, etc.), the emphasis on prescription medications (primarily opioids), and the lack of support (and coverage) for safer alternatives such as cannabis. One participant who had been waiting 3 years for surgery at the time of the interview and was medicating for severe pain, explained:

You know everything is falling apart in the healthcare system, and so (sighs), this is just another thing on top of that, that makes like more challenging, the fact that I have to spend so much money to get what for me is medicine and there's not sort of a recognition that if not for cannabis, I would probably still have to, you know I'd either be in more pain or I would have to find an opioid or something that would work, and opioids are much worse for you than cannabis, right? Like I've never had any bad symptoms from taking cannabis but I sure have from taking opioids. And so, I think there should be some recognition that people who are clearly taking it for medical reasons like myself, it should be handled differently and it shouldn't be so expensive. (PWLE #12, lines 215–225, emphasis in original)

While cannabis compassion clubs and medical dispensaries improved access to safer alternatives for pain management by keeping cost down, having to pay out of pocket for cannabis put participants in a bind: pay for a safer medicine (i.e., cannabis) or take prescription medications that are medically covered (primarily opioids). This generated calls for challenging assumptions in health care (e.g., what counts as medicine, what is safe health care, what is deserving of medical coverage, etc.) that were echoed by participants with operational experience. As one of them explained:

I think medical cannabis is a solution to a lot of the problems that we're seeing in this universal healthcare system, especially with the opioid crisis, I think it's a good tool. But I think it's a tool that our medical establishment is not prepared to handle (…)//I think it requires us thinking outside of the traditional vehicles of healthcare. Which is like hard for us to do, because like medicine is doctors. You get your medicine from the pharmacy. Obvious. And so I think it involves accepting like, healthcare can look differently. (…) And so it's like ok, let's take seriously weed and compassion clubs as a tool. As like a "yes-and" kind of thing, you know? But I think there's like a tendency to just want to re-invest in doctors in healthcare because it's "safe". They're professionals. (PWOE #5, lines 495–497//536–548, emphasis in original)

In sum, the structural work of cannabis compassion clubs and medical dispensaries consisted of mitigating the long-lasting effects of prohibition of pushing cannabis underground and the risks of placing medical cannabis into the hands of the health care system and corporations. They focused on providing safer products, safer spaces, and safer alternatives—thus offering options to people medicating with cannabis when so little options were available to them.

Quality

Across the interviews, we noted that quality and safety were often used together and sometimes interchangeably. Quality was more narrowly discussed compared to safety but it retained the focus on protecting people who medicate (e.g., by providing what participants called "good" products"). Providing access to quality products was part of the mandate of cannabis compassion clubs and medical dispensaries. As one participant with operational experience noted:

Well basically we wanted to make sure that the quality was good, it was safe, it was clean, and it was reasonably priced. And we didn't deal with any organized crime whatsoever, it was just you know, the moms and pops. (PWOE #11, lines 69–71)

Accessing quality products was also described as one of the main reasons why people with lived experience went to cannabis compassion clubs and medical dispensaries. One participant explained that making quality products *available* and *affordable* is what differentiated cannabis compassion clubs and medical dispensaries from the illegal recreational market and the medical cannabis program.

(…) there was a couple of other [places] that are shut down now that sort of made the point of providing like good quality edibles and other products like salves, suppositories, things like that but at affordable prices for people so that people were, you

know, so like a lot of high-dose stuff (…) they made a point of making those products available and at a better price that was affordable. (PWLE # 3, lines 101–112)

Here, it is important to note that quality was not limited to the products sold at cannabis compassion clubs and medical dispensaries. It also referred to agreed upon standards that growers and bakers were expected to follow. For example, there was overlapping of safety and quality when participants discussed expectations placed on growers. The main expectation being that they were committed to growing for "medical patients" and, therefore, following standards known to the cannabis community. When discussing the benefits of cannabis compassion clubs and medical dispensaries, a participant with lived experience stated that quality was the first benefit and explained:

It takes a lot of expertise to grow for a medicine (…) So those places, those compassion clubs and dispensaries that serve for medicine, they are working with people who are growing medicinally (…) that's the thing about those clubs: they are, they will screen and do their very best to find the cleanest, strongest, best cost of medicine. That's been my experience (…) when they are saying they're serving for medical, I can tell because I've worked in that industry, and consumed a lot of products. I can tell and you can say all the fancy words you want to me but as soon as I start consuming and even being able to look at it and smell it, I can know where you're coming from, if you're motivated by the money or if you're there as a medicine. So for me as a consumer, to have those places where I know people are growing for medicine, the very best they can, that is a comfort to me because then I know that it's the cleanest and best quality. But then it's also the [lowest] prices. (PWLE #10, lines 113–137)

We found that cannabis compassion clubs and medical dispensaries engaged in quality control in unique ways. Quality was not centrally managed (e.g., by the growers themselves) and formal (e.g., using contracts). Instead, it was horizontally distributed (e.g., growers, bakers, staff, members/clients) and relational (e.g., based on relationships). As such, quality of the products was dependent on the quality of the relationships with growers and bakers. It was also dependent on the meaningful participation of members/clients who medicated with the products and were able to provide considerable feedback on their therapeutic value, desired/undesired effects, efficacy in relieving/managing specific symptoms/illness, and so forth.

It was essentially the [staff tasked with doing intake for new members] because they were the ones who gave a lot of the information out as well as [staff working in distribution] because we wanted membership to report back to us about the products, you know we wanted to make sure that there was a standard that was being maintained, and all that. All that expertise that just disappeared [post-legalization], absolutely disappeared out of the picture and, so yeah, like I said the people who were already using [the compassion club] are very much at a loss in terms of where they can get products short of going online and trying to find them, which gives them no guarantee in terms of cleanliness never mind pricing or anything else, and um, and all the new people (sighs) I shouldn't say the new people, all the people moving forward who you know, are ill, became ill, don't know what they missed out on. (PWOE #1, lines 824–834)

Quality control was also done in-person by both staff and members/clients. Again, this was unique to cannabis compassion clubs and medical dispensaries as they provided storefront access and allowed for products to be touch, smelled, and sampled. Participants commented on the importance of being able to interact with products in order to determine their quality, something that was not possible with the illegal recreational market and the medical cannabis program. The mail-order feature of the medical cannabis program, in particular, posed a quality challenge.

I did at one point order online from a place in [name of city]. And pot came in the mail (…) // my experience was that it was ok but it was not a great quality, it was too much oil in it, too much resin. And so it wasn't a great quality but there you go, you know at [name of compassion club] you get to see it right first-hand. (PWLE #5, lines 341-342//345-348)

In an earlier quote (see Sect. Safety), one participant with operational experience described this form of quality control as the "old method", describing staff using a microscope and smoking products to make a determination about quality. This method helped screen products and generate first-hand knowledge that could then be passed on to members/clients.

Before we conclude the structural dimension of the findings, we turn to another aspect of quality that was discussed by participants: the therapeutic quality of products. This distinction is important because unlike recreational products, those intended for therapeutic purposes were expected to meet a different standard. In other words, quality was determined based on

therapeutic effects and in the context of specific types of illnesses and symptoms.

> *And we would collect a lot of anecdotal data, so a whole bunch of people have been coming in and telling us that um, Champagne is the strain that works the best for their chemotherapeutic-induced nausea. And over and over and over and over people are telling us that by far, Champagne's the best strain for chemo-induced nausea, so we can recommend that, right? We can recommend that to the next cancer patient. (PWOE #8, lines 437–442)*

Edibles, in particular, were often mentioned as an example of products needed by people who medicate with cannabis. Making quality edibles was, therefore, identified as priority by cannabis compassion clubs and medical dispensaries.

> *I had opened up a bakery to provide and supply edibles and ingestables of high quality so that people who couldn't smoke would be able to ingest the product rather than take it through inhalation, they could take it orally (…) I mean, you know, yeah, it was like running doctor's offices in different locations. (PWOE #13, lines 325–331)*

Making edibles for therapeutic purposes also required a different standard, one that reflected the need of people medicating with cannabis who had dietary restrictions and/or allergies.

> *We needed to have like sugar-free, gluten-free baked goods and we needed to have things that were made in a allergenic safe kitchen and you know like we were really the first to start instituting like people had to be making their baked goods in um, licenced kitchens like commercial kitchens. (PWOE #8, lines185–-203)*

Because therapeutic quality was central to cannabis compassion clubs and medical dispensaries, providing access to other types of products (e.g., Rick Simpson Oil) and having an inventory of high-dosage products (e.g., high-CBD capsules) was particularly important. One example stood out during the analysis, shared by a participant with chronic pain who lived on a limited or fixed income.

> *I got an email from [name of the compassion club] saying "We have a new CBD distributor and we're excited to offer these capsules for like a really low price". And was like, wow like I could actually take CBD all day long and not have to wait until my pain gets to a level where I'm like "ok, now I can use the oil drops that I have", you know? Because my pain is all day every day (…) I'm really excited to buy these CBD capsules because I can actually afford them and now I can take them and help manage my pain and do more of the things (PWLE # 4, lines 325–334, emphasis in original)*

Participants explained that these types of products were challenging to access outside cannabis compassion clubs and medical dispensaries; they had no recreational value and were prohibited in the medical cannabis program until 2015, when the Supreme Court of Canada deemed the policy of limited medical cannabis to dried cannabis flower to be unconstitutional.

In sum, the structural work of cannabis compassion clubs and medical dispensaries consisted of centering the therapeutic needs of people who medicate with cannabis by providing access to quality products, implementing community-based quality control, and prioritizing therapeutic quality over market value. This approach was a radical departure from the cannabis medical program, but it provided a pragmatic solution to mitigate its quality shortcomings.

Operational dimension

When participants described the work of cannabis compassion clubs and medical dispensaries, they focused extensively on their operations. That is what they did and how they did it. We identified two guiding principles that consistently came up in the interviews and help set the stage for the three operational features we discuss in this section, namely: (1) *low-threshold* services that meet the needs of people who medicate, (2) *compassion*-driven practices to make cannabis accessible to those in need, and (3) *supports* for people needing help and community.

The first guiding principle, "meet people where they are at", is familiar to the harm reduction community. Participants with lived experience described an environment in which they felt welcomed, heard, and supported. They also described an environment where staff cared about their needs and outcomes.

> *I found going to compassion clubs, I felt really welcomed and listened to. I felt like they actually cared about the outcome in talking to me about cannabis and not from the perspective of being concerned about protecting their practice or maybe other concerns that they might have about the idea of cannabis as a treatment, but more from a place of like meeting me, as a client, where I was at, and actually trying to talk to me about some things that I was bringing up. (PWLE #11, lines 84–90)*

Participants with operational experience discussed at length their commitment to "meet people where they

were at". This commitment will certainly come through in our description of the findings included in this section. However, in order to set the stage for these findings, it is important to identify some of the approaches used by staff to enact that commitment in practice. We identified five main approaches: (1) spending time with people to assess their situation, identify their needs, discuss options, provide information, answer questions, listen to concerns, etc., (2) valuing lived experience as a source of knowledge, expertise, and strength, (3) empowering people to make decisions about their health and determine what works for them, (4) prioritizing quality of life and understanding what matters to people, and finally (5) remaining flexible and comfortable with the "grey" because situations changes, needs fluctuate, priorities shift, and cannabis can help the same person in different ways at different times for different products.

The second guiding principle, "help people in time of need", was described by both groups of participants. In addition to describing how cannabis compassion clubs and medical dispensaries had helped them access medical cannabis, participants with lived experience described times when they had been in need and had received help. For example, one participant described receiving help when they became homeless and could no longer vaporize for chronic pain. Staff were able to provide an alternative capsule product. This participant explained:

> *My health suffered greatly, living behind the wheel of a pick-up for 3 months. I needed that help (in reference to vaporizing for pain management) and it was gone. The capsules were a Dutch boy's finger in a leaking dam, it was just enough. (PWLE #2, lines 194–197, emphasis in original)*

Participants with operational experience explained that cannabis compassion clubs and medical dispensaries were often places of last resort for people in need, including people who did not have access to care, people with unmanaged or poorly managed pain, and people who were dying. During the interview, one participant (#9) said "we tried to take care of everybody" and this was echoed through the other interviews with participants describing the importance of providing that help, these places of last resort.

> *Customers a day just lined up. And what we did, we, I would provide some of the cheapest prices around because a lot of people are on fixed income and the saddest thing is when people would come in, there were so many stories. People would come in, parents with their grandparents or grandchildren with their grandparents and they're sick and they're dying of cancer and they have no hope of living and so the doctors have sent them home to basically live out their lives, and so as an option they come to my [dispensary] to see if there's anything we could help them with. And so we'd always suggest oil or something that they're not going to smoke and, and there were so many stories like that. And it was tough to hear all that and deal with that, but on the other hand it was nice to be able to help people in their time of need, near the end of the lives. (PWOE #10, lines 73–84)*
>
> *And all ranges of illnesses and accidents and just everything, so chronically ill, terminally ill, cancer, a lot of people had cancer, all came through there. Just everything really, and in large part people who there weren't necessarily great answers for in medicine. So we see people come to cannabis when there's not necessarily a lot of good pain relief options for them (…) having tried everything and still needing some more help, yeah. People who really needed it. (PWOE #9, lines 86–95)*

As illustrated in the above quotes and the guiding principles they convey, cannabis compassion clubs and medical dispensaries served people whose access to medical cannabis depended on it being low-threshold, compassionate, and paired with additional supports. The operational features we describe next further illustrate this important finding.

Low-threshold

At the operational level, lowering the threshold was a priority to reach people who needed medical cannabis. To achieve this, cannabis compassions clubs and medical dispensaries created an intake process to ensure that they were reaching the "right" people. Participants with operational experience explained that the main goal of intake was to ensure that a proof medical condition could be established and documented. This was important for operational reasons but also for legal reasons.

> *Like the intake process was pretty strict because we knew that we were going to get our butts dragged across the coals in court at some point and we needed to basically like be bulletproof and make sure that we didn't all end up jail. I was really sure I was going to end up in jail. And I was up for it. (PWOE #8, lines 117–121)*

A common theme across those interviews was that intake needed to be strict but not too strict that nobody would get helped. How compassions clubs and medical dispensaries tackled this operational challenge varied and changed over time. Some took a firm stance against requiring some form of medical authorization and opted

for a more flexible proof of medical condition (e.g., a self-declaration form to be completed at intake).

> *If you would bring it up to your doctor, you'd be treated like an addict and not given a fair shake at all, so it seemed irresponsible for us to tell people that they would have to get a doctor's recommendation or we wouldn't be helping anybody if that was the case. (PWOE #3, lines 80–83)*

Others developed their own approach to medical documentation (e.g., a form to be signed by a physician) as a way to keep intake strict but less strict than the medical cannabis program.

> *We would, you know we were very patient-oriented in the beginning, we were very strict with the medical documents that were necessary (…) and so we did for many years, but then I realized that we were just one sort of step below Health Canada and we were creating a barrier for people (…) And so we opened our doors to 19-plus and medical documentation. (PWOE #14, lines 35–43)*

Another important goal of intake was to orient new members/clients to medical cannabis products, practices, and policies by providing education and resources, discussing needs and options, and answering questions. A good description of intake was offered by this participant:

> *When I start my cannabis consults, like introductions with people, I tell them like, "I'm going to give you lots of information. You don't have to remember any of it. Ask me again later, it's ok. And then we can take as much time as we need to, and you can ask me lots of questions, and cannabis use changes all the time". Whereas we exist in a world of prescriptions where it's like if the doctor gives you your prescriptions, it's this many milligrams, this many times, and if you needed something different you have to re-book your appointment, la-la-la. Whereas we, at the club, believe all the medicine is patient-centric. So it's like, what do you want to do? (…). And then, often I'll start the conversation with like, "Tell me about your conditions" and then I'll just shut up, because so many doctors will only let you speak for a few moments before they'll like dictate what you need. And I believe patients have lived with their pain their whole life, and they've tried edibles, they've tried whatever, whatever, whatever and then I can give them what they want. And, we empower patients to have different meds at different day for different conditions. Like maybe you're having a high pain day out of nowhere and then you need really big edibles or, you're going through some kind of operation and now we need to…. So we let people to have the power over what they're consuming, which is both empowering and scary, for some patients, so some need more hand-holding than others. (PWOE #5, lines 571–591, emphasis in original)*

During our analysis, we found that cannabis compassion clubs and medical dispensaries did more than lower the threshold access to medical cannabis. They also lowered the threshold to the experience of medicating with cannabis—an experience available to the most fortunate, resourced, and abled. What we saw in the data resonated with what Tula describes as "meeting people where they are but not leaving them there". We noted that cannabis compassion clubs and medical dispensaries actively worked to make medical cannabis a reality for people who faced several intersecting barriers.

> *Well I think that the public has a misconception that it's easy to get weed. Low-barrier access means access for people that are unhoused, unqualified for a credit card and they don't have post office boxes, sometimes they just don't even have a home. I often think of a man that came into my dispensary one time many years ago and he said, you know, he wanted to get some cannabis and I said "Ok well we're gonna need to fill out this form", well he said "I don't know how to write". I said "Ok well then I can help you with that" and so I asked him the questions and I filled the form out for him (…) and so as we continue and I said "Ok so now I need your address". And he said, well "[name of street]". And I said "Um, well what's the address on [name of street]" and he said "Well, under the overpass" (…). I said "Ok well that's ok, I'll just put [name of street] and I'm just gonna put down our address here, you know, just for you and just so I've got something to put in this box", but it really made me sit back for a minute and just think, ok, so, now we've got this guy that lives under the bridge. (PWOE #14, lines 449–489, emphasis in original)*

We also noted that the work involved in lowering this threshold actively shifted resources and power to people medicating with cannabis. As such, cannabis compassion clubs and medical dispensaries focused on providing access to medical cannabis products *and* access to the knowledge needed to medicate. They were committed to both sharing knowledge and decentralizing knowledge, recognizing lived experience as a valid source of knowledge and the importance of participatory knowledge development. Participants

with lived experience highlighted this during the interviews, describing their own participation in developing a knowledge base to help others.

> *(…) they're keenly interested in what you're specifically, you know what your pain problems are and what your issues are and they, you know, they're interested in your feedback, like what has worked for you so that they can share information with other people. They're careful not to give medical advice obviously, but they do want to hear back about whether what they're doing is working, is helping people. (PWLE #1, lines 179–184)*

This was also echoed by participants with operational experience, including one participant who described how important participatory approaches to knowledge development was for helping people medicate effectively and safely.

> *Yeah, just really served people who needed direct communication, they got a lot of direct feedback from the people who were frontline workers delivering cannabis. (…) they'd have a lot of anecdotal information from all of the members that come and they were really good at delivering that to the members to help guide them through their maybe first cannabis experience or just trying to get it work better for them, or even if it's not working for them, (PWOE #9, lines 103–110)*

Finally, our findings suggest that adopting a low-threshold approach to medical cannabis that combines access to medical cannabis products *and* access to knowledge generated opportunities for harm reduction. This was evident in the way cannabis compassion clubs and medical dispensaries conducted intake and how they ran their storefront services. We identified three examples that illustrate how harm reduction was practiced at the operational level. The first example is what some participants with operational experience described as "patient education".

> *And then, providing the services that physicians don't have the knowledge and the time to provide, and licenced producers stopped providing that, those services as well. And that's the patient education part, right? So, what strain should I choose, what cannabinoid profile do I need, where do I start safe dosing, how do I increase my dose day over day to make sure that I don't cumulatively dose my edibles and end up with like a super negative side effect, how do I make sure that I'm avoiding contraindications with my medicines, right? (PWOE #8, lines 402–408)*

What "patient education" captured was a focus on screening for contraindications, preventing harms, and helping people make informed decisions when medicating. The second example is what both groups of participants discussed in the context of "pain management". Cannabis compassion clubs and medical dispensaries offered harm reduction guidance to assist people with a wide range of unmet pain needs: people working in the trades "with injuries and sore backs" (PWOE #11, line 222), people wanting to "transition out of opiate use from an injury, into cannabis as a relief" (PWOE #13, lines 54–55), people with serious and complex health issues for whom there were not "necessarily a lot of good pain relief options" (PWOE #9, line 93), and people with "aches and pains" affecting their level of functioning and quality of life (PWOE #7, line 1235).

> *Under a doctor's supervision I was on really strong opiates [for pain] and the side effects were really harsh and I was smoking cannabis to deal with it and the odd time I'd run into an edible from someone, like a cookie and I would feel good, like really good for about a day or two (…) [Edibles] were around but they weren't something you could just buy so that's why I decided to go to the clubs at that point. (…) I started taking edibles on a regular basis and using them initially just for side effects and then, you know, for substituting for pharmaceuticals as well. (PWLE #3, lines 32–45, emphasis in original).*

Finally, the third example is the "substitution effect" that participants with operational experience described based on their experience of helping people who were "using cannabis as an exit drug" (PWOE #11, lines 322–323). As such, they explained that cannabis compassion clubs and medical dispensaries ran substitution services to support people using drugs who wanted alternatives.

> *Like we used to have very strong concentrates and people were, like I don't see people dabbing that much anymore but back then, there was a sort of category of street drug user who would want shatter, and they would want a really powerful shatter and the more powerful the better. And that's a bit of a different sensation than high-dose edibles. As I expect you're aware, when you take cannabis through edibles, it's essentially a different drug. So they want the thing that goes directly to their bloodstream and through the lungs, not through the liver and digestive system. So that's another group of street users who's looking for cannabis as a substitute for meth or crack or opioids (…). (PWOE #7, lines 1267–1277)*

In sum, cannabis compassion clubs and medical dispensaries used a low-threshold approach designed to reach people in need, create greater access (i.e., products and knowledge), and increase equity (i.e., who can medicate). This made harm reduction interventions possible, especially for people with complex medical needs, people with unmeet pain needs, and people who use drugs.

Compassion

Compassion was a central theme throughout the interviews. In addition to being an important value that underpinned cannabis compassion clubs and medical dispensaries, it was enacted in practice through compassionate pricing and compassionate programs. Compassionate pricing was described as a practice of pricing based on the financial means of people who medicate and their need for medical cannabis. As one participant with lived experience noted:

> *Cannabis is a fun time, but also for a lot of people it's like a necessary way to get through our day (PWLE #4, lines 293–294)*

Highlighting the difference in "pricing mentality" between medical and recreational cannabis was common across both groups of participants. It served to emphasis the need for medicine in contrast to the need for pleasure and leisure. As one participant with operational experience said during the interview, "you're either *in it for the money* or you're *in it for the medicine*" (PWOE #4, lines 179–180, *emphasis added*). Cannabis compassion clubs and medical dispensaries were considered to be "in it for the medicine" and providing low-cost options provided evidence of a commitment to leaving no one behind.

> *You know the whole goal of providing low-cost options was you know, we didn't want to leave anybody behind. (PWOE #9, lines 99–102)*

Compassionate pricing in the form of low-cost options was unique to cannabis compassion clubs and medical dispensaries. However, what set them further apart is the ability to reach and support those in need through a range of compassionate programs.

We identified four categories of programs: discount programs, flexible programs, donation programs, and subsidy programs. Discount programs based on need were offered in the form of percentage off medical cannabis products.

> *Then they all receive discounts at bare minimum. You'll get at least 10% off everything but if you can show us a hardship level or a certain thing that's going on in your life and you need a little bit of a break, then we can work with people for, you know, whatever their needs are. (PWOE #14, 176–179)*

Flexible programs emphasized the need to provide options based on financial means. For example, some cannabis compassion clubs and medical dispensaries provided a rolling credit option. This prevented situations where people have to stop medicating because of their inability to pay.

> *I've benefitted quite a lot from some of the more compassionate business practices and approaches that some of these places have taken, like a rolling credit that each member is entitled to on a month-to-month basis if they're out of money and in a situation where they really feel that cannabis would help them. (PWLE #11, lines 134–138)*

Donation programs were designed to serve those experiencing the greatest need. These programs were intended for people who could not pay and those who could use an occasional free top-up.

> *And if they didn't have any money we had a donation program that we would donate cannabis to the people who were the lowest of incomes. (PWOE #1, lines 105–106)*

Donations were collected from growers, but there were limits to this approach. As one participant with operational experience explained, quality of the cannabis donated was not "the best". However, this was weighed against the risk of not having anything to offer to someone who could not pay. It was also understood that donations were there in case of need only.

> *We always had donations. So it wasn't the best quality, but I worked really hard to get growers to donate weed to us. Or hash, or whatever. And I think we would have like two and a half or three gram limit or whatever on donations. And there was always something you could get for free. (PWOE #8, 171–174)*

Donations were also generated through purchases made at cannabis compassion clubs and medical dispensaries. These donations were intended to supply people experiencing medical hardship and provide sustained compassionate access for people who were particularly vulnerable, including children and people at the end-of-life.

> *Their purchases are really going to go towards helping other who don't have an ability to be able to get better prices on their things, and or, free services because we do, we do offer a range of medical*

hardship, let's call them grants. And in some cases we provide 100% of the person's needs, generally that's in a palliative care situation, or if it's a child. (PWOE #14, lines 46–51).

Subsidy programs were similar to donation programs but they originated from cannabis compassion clubs and medical dispensaries with the goal of funding staff-supported interventions.

We had a subsidy program, where we would provide up to $200 a month for people, it was a list of 30, 40, it became 60, it was like 80 by the end of it, of people who needed cannabis for medical purposes. We had specialized officer whose job it was to do intake and to keep in contact with these people, a lot of people, and to make, and to get their documentation to show that they made less than $30,000 a year and that they did have, like it wasn't just a, this was beyond self-declaration this is like we need to know that you've got a serious condition and there was a lot of people who had, terminal cancers, like terminal issues, some of them severe drug addiction, and that would be seeking out opioids if they weren't getting $200 a month of high-dose edibles. (PWOE #7, lines 559–569)

In addition to compassionate pricing and programs, cannabis compassion clubs and medical dispensaries allowed purchases to be made based on a dollar amount. Again, this approach was intended to support people with very limited financial means who could not access cannabis at a set price or quantity.

And there were very low income folks who would go and do things like collect recycling for a day and come in at the end of the day with their $12.47 to come and buy medicine. And we would give them exactly $12.47 worth, you know like? We worked really hard to make sure that the poorest, most low income folks were able to get medicine. (PWOE #8, lines 174–178, emphasis in original)

Cannabis compassion clubs, in particular, offered additional services on a compassionate basis. These included counseling, complementary and alternative medicine, and nutrition. In the example we share below, these services were funded by the club and available for free or on a sliding scale based on financial means.

[Name of staff member] came along and she basically said to me why don't we take all of the profits[6] *and spend it on providing free alternative healthcare. And we did. And the [name of compassion club] had an amazing clinic. So, clinical herbalist, certified nutritionist, clinical counsellor, acupuncturists. It had, in the end, the largest most comprehensive herbal apothecary in the country, actually. And we provided all of those services to our members for free or on a sliding scale. (PWOE #8, lines 85–90)*

Cannabis compassion clubs also arranged for special orders on a compassionate basis, working to find products outside the menu to meet special needs (e.g., not being able to take anything orally) even if this process involved creating a product specifically for someone.

I would do special orders for people so if someone said, I can't take medicine orally, I can't smoke medicine, maybe we can try suppositories, I need a really high dose, I need a really low dose, so I would interact with them and it was usually over the phone to find out maybe where the best starting point was and then create something that's proprietary to them. So that was usually capsules and suppositories. Yeah, so if they need something really special that just wasn't on the menu I would try to take care of them. (PWOE #9, 24–30)

In sum, it was evident across the interviews that compassion was a driving force behind the operations of cannabis compassion clubs and medical dispensaries. Working in tandem with low-threshold, compassion in its various forms (e.g., pricing, programs, payment options, services, special orders) helped create conditions of care. These conditions ensured that no one was left behind, especially when faced with medical and financial hardship.

Supports

Cannabis compassion clubs and medical dispensaries varied in how much additional supports they provided onsite. Compassion clubs provided the most supports by virtue of their commitment to delivering community care and serving people with complex health issues. However, we found a shared a common focus on community, gathering, and mutual aid in our data. When describing the importance of cannabis compassion clubs and medical dispensaries, participants with lived experience mentioned community and described it as equally important as quality and prices.

It's the quality, it's the prices, but right on par, right beside those two important things is the fact of the

[6] In this quote, it is important to clarify that the word "profit" is used in the context of a registered non-profit organization. It does not refer to "profit" in a for-profit corporate sense or refer to substantial gains in money. In this study, it was common for compassion clubs and medical dispensaries to adopt compassion pricing while ensuring that they had sufficient financial means to maintain their operations (e.g., pay rent, staff, etc.).

community. (PWLE #10, lines 232–233)

The same participant explained that community was made up of relationships and knowledge.

I missed a major point, honey, and that is the community. The community. So many times, I have said to [name of operator], there is not a better university I could have gone to on the planet. Ok, I'm not saying I know everything about everything; I don't. I have learned so much though, because of the people that I have met through, since 1999 I've been a member there. And not only have learned about cannabis as a medicine and the politics surrounding it and why it get turned illegal in the first place and so many things! But I have met so many beautiful humans and each one of us is a gold mine of knowledge. (PWLE #10, lines 210–218)

By comparing community to a "university" and "gold mine", this participant conveyed something that was also described by other participants with lived experience; that the amount, quality and breadth of knowledge found at cannabis compassion clubs and medical dispensaries was reflective of the people involved and the relationships formed. Participants with operational experience also emphasized the importance of relationships and the "support network" they created.

(…) the cannabis dispensary apparatus became a very important support network for people who were sick, right like you could go into your dispensary and you could talk about this product with somebody behind the counter who was the same person, you know, week after week, they could talk to you about dosage, they could talk to you about your personal experience and their personal experience, they could talk to you about anecdotal stuff that had gone on, it's like having a relationship with a hairdresser (…) // (…) you know you end up with a situation where you have a network of people who are patients and you have a network of people who are providing access to patients and that becomes a very powerful community (PWOE #2, lines 286–292//295–298)

Cannabis compassion clubs and medical dispensaries also functioned as "community places". A place to go when having a difficult day and needing support. This was particularly important because they served people who experienced social isolation, income and housing insecurity, complex health issues, and access barriers to mental health supports.

So yeah that point of contact where people could really have deep discussions and then often there was a bit of a, you know, we said it was a bit of a community place where people can just come and like tell about their terrible day or whatever's happening and they can just walk away feeling a bit unloaded so, there was always just that like, it's a place to come as well. Where they could just sit down one-on-one and feel like they could trust someone with their conversations. (PWOE #9, lines 110–116)

They also served an important gathering function. Examples of gathering activities included social events (e.g., potlucks, festivities, etc.), special celebrations (e.g., 420), and live music. Gathering spaces were also provided for the purpose of consumption and socialization. As one participants with lived experience explained:

(…) when you're on disability you kind of have to cobble a network of friends together for yourself, out of other disability people (laughs). But like that's where [name of the consumption space] was indispensable in helping me do that and helping me, you know, develop my social skills. With a whole bunch of people, like the place was really busy there, many many times and you went in there it was just a cacophony of sound. You somehow fitted yourself in and have a conversation with somebody because somebody forced you to talk to them, you know? (laughs). It really, it was a community (…) it's people's living room. (PWLE #5, lines 104–123)

Consumption spaces were needed for different reasons. First, being able to consume somewhere inside and somewhere safe was important in the context of medical cannabis. Smoking, in particular, was challenging for people experiencing homelessness, renters at risk of eviction, and people living with disabilities. Second, being able to access and stay in a space where people consume was essential to create conditions that encouraged slower and safer consumption (as a form of harm reduction). Third, being able to share knowledge and experiences was central to building community and solidarity.

They would come there to the lounge and stay there and consume cannabis inside, in a safe, accessible area, and communicate with other people about the ailments that they had. (PWOE #13, lines 103–105)

We found that in contrast to other operational features of cannabis compassion clubs and medical dispensaries, which centered on staff helping people, consumption spaces were centered on people helping people. This expanded our understanding of supports to include peer-based support.

Finally, we end this section with examples of mutual aid, a form of support that extended beyond medical

cannabis to include food banks, advocacy and legal representation, and assistance with completing forms for people experience language and literacy barriers. Some cannabis compassion clubs and medical dispensaries operated their own food bank as a complementary support but also as a compassionate practice to help people in need. As we described in Sect. Access, having to "make really tough choices" between eating and medicating was a common issue that compassion clubs and medical dispensaries understood well. Providing access to a food bank in addition to compassion pricing and programs was one way to address this issue.

> *There was a volunteer process, people could volunteer and help out. There was a, you know, distribution of food bank, and there was a lot of free cannabis, right? And that's what we were doing. That's what we were doing. (PWOE #13, lines 110–112)*

In situations that required advocacy and legal support, cannabis compassion clubs and medical dispensaries helped if they could. It is very likely that this was also provided by other compassion clubs and medical dispensaries, especially when considering how networked they were (as described above). However, only one participant with operational experience provided example of situations where they had been able to provide this type of support.

> *And, if they ever need any help with their doctor or their dentist or their teachers or their kids or something like that, then people on that medical program have an opportunity to talk to us about what their problem is and we can either advocate for them or we can talk to our lawyer. The lawyer stepped in a couple of times to help some parents with some different things, and um, and so it's very, you know everybody has to be medically documented to be a medical member. (PWOE #14, lines 170–176)*

Echoing the example described in Sect. Low-threshold, where a person with operational experience was describing helping someone who could not complete an intake form, cannabis compassion clubs and medical dispensaries provided support for people with language and literacy barriers. A good example of support was having someone available to help filling out the Health Canada paperwork or to organize the paperwork for hospice care.

> *We had someone who would assist [with sending applications to Health Canada] if you had a language barrier or if you had literacy issues. We also provided, at that point, information around hospice. We had a lot people coming who were in palliative care that were, you know, end-of-life. (PWOE #13, lines 86–103)*

In sum, cannabis compassion clubs and medical dispensaries tried to the best of their ability to be a "one-stop shop" for people who medicate with cannabis. To provide additional types of supports, they leveraged the power of community and created opportunities for staff, peers, and volunteers to contribute their time, knowledge, and expertise. This reflected an appreciation for the social dimensions of medical cannabis.

Discussion

The main objective of this study was to generate insights that have the potential to advance and broaden the conceptualization of 'cannabis harm reduction'. As our findings revealed, there was a wealth of knowledge, experience, and wisdom on harm reduction in the cannabis community but the post-legalization context in Canada has created conditions ripe for epistemic erasure. In this context, we sought to document how cannabis compassion clubs and medical dispensaries practiced harm reduction prior to legalization. Our work revealed that 'cannabis harm reduction' included two main dimensions: a structural dimension and an operational dimension. Across these two dimensions, we saw the core characteristics of harm reduction reflected in a way that is consistent with the literature. We also identified a mix of "capital H-R" work to address structural determinants of risks and harms among people who medicate with cannabis who experience access barriers and health inequities as well as "small h-r" work to maximize the benefits of medicating with cannabis and minimize any potential adverse effects or health risks. This work echoed the political and strategic orientations of drug user movements, with i) a focus on lived experience, autonomy and self-determination, community knowledge and power, ii) developing innovative and impactful grey area (extra-legal) alternatives to medicalization and prohibition, and iii) fighting unjust laws and policies. Finally, we found that cannabis compassion clubs and medical dispensaries were actively participating in harm reduction efforts for people living with chronic pain and people using drugs for decades prior to the toxic drug supply crisis that has taken the lives of close to 16,000 British Columbians since 2016. The impact of closing compassion clubs and medical dispensaries on this crisis has yet to be documented and may never will, but our findings help to shed light on the 'cannabis harm reduction' that existed prior to legalization and what has been lost since.

In light of our findings, we see a number of research areas that should be prioritized. First, we need to understand who has been left behind following cannabis legalization and what are the effects of this legal reform on people experiencing the greatest access barriers and health inequities. Second, we need research exploring new regulatory pathways for community-oriented models of cannabis cultivation, distribution, and consumption. Drawing on research conducted on the regulation of cannabis social clubs in Spain, Belgium, and Uruguay would be an important starting point [94–97]. Third, we need to broaden cannabis substitution research to develop a knowledge base that informs how cannabis can be integrated into harm reduction programs. Our findings illustrate some of the complexity involved in supporting people who want to substitute with cannabis, including finding the right cannabis products for the desired substitution, ensuring safe and consistent access, and providing ongoing support (including consumption spaces). This constrasts the simplicity with which cannabis has been integrated to harm reduction services and programs in North America to date, by mostly relying on an unpredictable supply of donated cannabis [41, 42]. Finally, with a renewed interest in the compassion club model as an alternative safer supply access pathway to the toxic drug supply and medical prescribing (which, like cannabis, creates barriers to access) [69–71], we need better integration between the cannabis and harm reduction. We argue that the siloing of these two fields of research can result in missed opportunities and shared learning. For example, we consider that cannabis compassion clubs that pioneered grassroots medical cannabis as "safer supply" offer an important blueprint that could benefit the safer supply movement.

From a policy perspective, our findings support three priorities. First, we see a need for a rigorous analysis and reform of the *Cannabis Act* through a harm reduction lens. This would reveal the ways in which the *Act* has created and continues to create harms as well as missed opportunities to provide a regulatory framework that can be used to enhance harm reduction in the era of legalization. As Klein [74] notes,

> *"The Cannabis Act as it stands can hardly be understood as an example of harm reduction in Canadian drug policy. Canadian federalism—though the presumptive location of the Cannabis Act in the criminal law power, and through the growing punitive regulatory capacity—has played a role in maintaining the primacy of prohibition, punishment, and stigma even under legalization (p.144).*

Second, we have identified in this study that storefront access, safer and consistent supply, therapeutic dosage, and compassionate pricing are paramount for people medicating with cannabis and, in turn, for harm reduction. Other jurisdictions (e.g., United States, Uruguay, Malta) that have legalized cannabis were able to tackle (albeit not perfectly) these issues and recognize that people medicating with cannabis have different needs that cannot be met through a recreational market [98, 99]. Furthermore, Uruguay and Malta have authorized the cannabis club model upon legalizing cannabis [98]. This model could be adopted by Canada to address long-standing access barriers for people who medicate with cannabis. Finally, as suggested by Belackova and colleagues [100], home cultivation policies could pave the way for supply models that are community-based and non-profit. These supply models would help address the issues with donation-based approach to 'cannabis harm reduction' while also improving access for people medicating with cannabis who face important structural barriers.

To conclude our discussion, we want to highlight a few advocacy considerations. We echo the recent commentary by Belackova and colleagues [101] in recognizing that the way cannabis legalization has unfolded in Canada raises numerous social justice issues, including but not limited to, the near complete eradication of pre-existing peer-based, participatory, non-profit cannabis supply models and exclusion of these models from the *Cannabis Act*, the dismantlement of a highly organized network of socially-oriented organizations and people with lived experience, and the profound access loss experienced by people who medicate with cannabis. It is our hope that the findings presented in this paper helps to show that these issues are not limited to the cannabis community; that they impact (and will continue to impact) harm reduction more broadly by creating barriers to the full realization of 'cannabis harm reduction'. For example, British Columbia had an exceptional foundation on which to build comprehensive substitution programs in partnership with people with lived experience and people with decades of operational experience. With this foundation dismantled post-legalization, small-scale cannabis substitution programs created ad hoc in response to the toxic drug supply crisis have done important "bridging" work to compensate for the loss of low-thresdhold access [42]. However, we also see the urgency and importance of investing in structurally-oriented advocacy that builds on the numerous constitutional battles won by the cannabis community to achieve community-oriented models of cannabis

cultivation, distribution, and consumption. This form of advocacy could also contribute to advancing harm reduction more broadly, by helping to expand these models to other substances and creating opportunities for a shared regulatory scheme.

Study strengths and limitations

Study limitations included a case study design that was not developed specifically to study 'cannabis harm reduction', limited access to potential participants given the closure of cannabis compassion clubs and medical dispensaries, and gaps in the conceptual literature on harm reduction, which was used to inform the data analysis. To balance these limitations, we conducted a rigorous analysis informed by clearly articulated conceptual underpinnings. We also supported our findings with detailed quotes from as many different participants as possible, including participants with lived experience and participants with operational experience. To situate our analysis and demonstrate rigor, we provided an overview of the case, explained why this case was instrumental, and how we studied the case by drawing on multiple sources of data (including field work). Our year long process for building relationships, collecting rich data, organizing the data, and analyzing the data also serve to demonstrate rigor.

One additional limitation that could not be addressed in this study is the overrepresentation of participants who identified as white (Caucasian) and our own positionality as white settlers. Our sample of participants with lived experienced was composed entirely of people who identified as white (Caucasian) and while we did not collect socio-demographic information from participants with operational experience, we recognize that BIPOC perspectives are missing and are needed. This is consistent with long-standing issues reported by Canadian scholars and a deeply problematic racial divide between who gets to medicate and who gets criminalized [102]. We also recognized, early on in the project, that the near-total dismantlement of cannabis compassion clubs and medical dispensaries would prevent us from connecting with a wider community and actively seeking diverse perspectives. The resulting effect of this is that racism is not at the centre of this work. In contrast, classism and ableism are. This is one strength of our work but we recognize that more has to be done. In centering the voices of people with lived experience, we hope that we shed light on intersections of privilege and oppression, vulnerability and strength, and shared struggles across substances that can pave the way for more critical inquiry.

Conclusion

We conducted this case study at a critical juncture in British Columbia, piecing together documents, testimonials, and content from pre-legalization "grey area" compassion clubs and medical dispensaries. This posed some methodological challenges, but it was important to pursue this research nonetheless to understand what has been lost, and also, to imagine what can be. Documenting how 'cannabis harm reduction' was practiced by cannabis compassion clubs and medical dispensaries is one major contribution of this study. We believe this contribution to be timely in light of recent developments in 'cannabis harm reduction' and the emergence of cannabis substitution programs. We also believe that it is a meaningful contribution to the growing body of literature on the cannabis social club model, reinforcing the importance of turning to this model as a potential avenue for bringing about changes to the *Cannabis Act*.

As noted above, we believe that there is a real risk of epistemic erasure with the loss of cannabis compassion clubs and medical dispensaries in British Columbia. And while the Victoria Cannabis Buyers Club (VCBC) and The Medicinal Cannabis Dispensary (TMCD) continue to operate at this time and resist enforcement measures (including by taken legal actions), it is important to document what made cannabis compassion clubs and medical dispensaries so effective, impactful and innovative before legalization. Conceptually, their work aligned with a 'harm reduction' lens, as evidenced in our study findings. However, it was most often framed through the lens of 'medical cannabis' and 'substitution' for reasons that have to do with legal advocacy but also legitimacy of cannabis as a medicine (i.e., the need to position cannabis as a medicine and not a drug). We believe that these conceptual decisions matter and we hope that in attempting to dive more deeply into 'cannabis harm reduction', we were able to contribute meaningfuly to current and emerging work in this hybrid field of research and practice. Our analysis is certainly open to critique. We consider 'cannabis harm reduction' to be worthy of rigorous and meaningful dialogue.

Abbreviations

BC	British Columbia
CSU	Community safety unit
LPs	Licenced producers
PWLE	Participants with lived experience
PWOE	Participants with operational experience

Acknowledgements

We want to thank the key informants and the participants for their generosity and contribution to the study. We also want to extend our gratitude to Ted, Jacq, Clea and Owen of the Victoria Cannabis Buyers Club for their support and guidance.

Author contributions
MG obtained the funding and developed the study. MG and HH collected the data. MG was the lead on the data analysis and HH contributed input, data extraction, and data categorization. MG conceptualized and finalized the findings. MG drafted the manuscript and HH provided input on drafts. Both MG and HH approved the final manuscript.

Funding
Canadian Institutes of Health Research, Operating Grant #399302.

Availability of data and materials
No datasets were generated or analysed during the current study.

Declarations

Ethics approval and consent to participate
This study was approved by the harmonized research ethics board at the University of Victoria and the University of British Columbia.

Consent for publication
Not applicable.

Competing interests
The authors declare no competing interests.

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Received: 17 January 2025 Accepted: 29 March 2025
Published online: 30 April 2025

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