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Understanding Older Adults' Experiences with Cannabis for Medicinal Purposes: A Mixed Methods Study

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Article

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Abstract

The aim of this study was to explore the perspectives of older medicinal cannabis consumers and those advising them on older Canadians' experiences accessing cannabis and information about it, as well as how stigma may influence their experiences. A concurrent triangulation mixed methods design was used. The design was qualitatively driven and involved conducting semi-structured interviews with older adults and advisors and developing a survey for older adults. We used a Qualitative Descriptive approach for the analysis of qualitative data and descriptive statistics for quantitative survey data. Findings demonstrate that many older adults are accessing information about cannabis for medical purposes from retailers, either because they are reticent to talk to their healthcare professionals or were rebuffed when bringing up the subject. We recommend cannabis education be required for healthcare professionals working with older persons and that future research examines their perspectives on medicinal cannabis and older adults.

Résumé

Cette étude visait à explorer les points de vue de consommateurs âgés de cannabis médicinal et de leurs conseillers sur l'accès de ces usagers au cannabis et à l'information à ce sujet, ainsi que sur les préjugés susceptibles d'influencer leurs expériences. La méthodologie de l'étude était basée sur l'utilisation de méthodes mixtes et la triangulation des résultats. Les méthodes qualitatives étaient privilégiées et comprenaient des entretiens semi-structurés avec des personnes âgées et leurs conseillers, ainsi que l'élaboration d'un sondage destiné aux personnes âgées. Nous avons utilisé une méthode qualitative descriptive pour l'analyse des données qualitatives et une méthode statistique descriptive pour les données quantitatives du sondage. Les résultats montrent que de nombreuses personnes âgées s'adressent à des détaillants pour obtenir de l'information au sujet du cannabis à des fins médicales, soit parce qu'elles sont réticentes à en parler à leurs professionnels de la santé, soit parce qu'elles ont été rabrouées quand elles ont abordé le sujet. Nous recommandons de rendre obligatoire la formation sur le cannabis pour les professionnels de la santé qui exercent auprès de personnes âgées, et de mener des études pour examiner les points de vue de ces professionnels sur le cannabis médicinal et les personnes âgées.

Since the legalization of recreational cannabis in 2018, cannabis consumption among older Canadians (those 60+; World Health Organization, 2018) has increased more than any other age group (Cox, 2018; Statistics Canada, 2019). Compared to younger people, older adults are more likely to use cannabis medicinally (Abuhasira et al., 2018; Bobitt et al., 2019; Choi & DiNitto, 2021; Kaskie et al., 2017; Kamnrul et al., 2019; Vacaflor et al., 2020). Since medical cannabis has been legal in Canada since 2001 (Cox, 2018), the surge in older adults' consumption since recreational cannabis legalization is unexpected.

Some scholars suggest that this increased use can be attributed to the widespread normalization and heightened availability of cannabis (Baumbusch & Yip, 2022). Moreover, others suggest that the stigma associated with cannabis consumption may be particularly entrenched among older adults, who have lived most of their lives with cannabis as an illicit and demonized drug (Clary et al., 2022; Krediet et al., 2020). According to Pescosolido & Martin, "stigmatization is a social process by which the [discrediting] mark affects the lives of all those touched by it"

(Pescosolido & Martin, 2015, p.91). People generally avoid stigmatization by evading sources of stigma or by concealing stigmatized behaviours (Jones & King, 2014; Leavitt & Sluss, 2015; Ragins, 2008; Link & Phelan, 2001; Zhang et al., 2021).

Prior research has identified that older adults may be hesitant to talk to their healthcare provider about medicinal cannabis (Bobitt et al., 2019), which could theoretically be managed with cannabis. This is concerning as physical, age-related changes and the use of other medications for chronic conditions can lead to negative side effects (Minerbi et al., 2019; Wu & Blazer, 2011). It is unknown how stigma may influence older Canadians' experiences accessing information about cannabis and/or cannabis. In this paper, we report on a study exploring the perspectives of older medicinal cannabis consumers and those advising them on older Canadians' experiences accessing cannabis and information about it, as well as how stigma may influence their experiences.

Background

Cannabis has been used for millennia recreationally as well as to manage pain, nausea, depression, anxiety, and many other conditions (Abuhasira et al., 2018; Bachhuber et al., 2019; Briscoe & Casarett, 2018; Kamnrul et al., 2019; Stockings et al., 2018; Tumati et al., 2022; Zuardi, 2006). Cannabis can have both benefits and risks for older Canadians, depending on the proportion of cannabidiol (CBD) and tetrahydrocannabinol (THC) present in the products they consume (Atakan, 2012), but older adults are at greater risk of experiencing negative side effects or severe health consequences (e.g., cognitive changes, falls, heart attacks, or psychotic episodes) when consuming cannabis than younger people (Hall, 2018; Minerbi et al., 2019). Thus, older adults must discuss their interest in consuming cannabis for their medical conditions with healthcare providers who understand their history, medical conditions, and medication profile.

Yet, older adults may be wary of the perceived stigma surrounding cannabis and be hesitant to discuss it with their healthcare provider or may have had a negative experience when they tried to do so (Skliamis et al., 2022). Consequently, older adults may seek information about or access cannabis for medicinal purposes from non-medical sources such as recreational retail stores and illicit sellers. Previous research has shown that older adults who obtain cannabis from a retail store may misconstrue it as a medical supplier because of the name of the store and misunderstand that retailers are not qualified to provide advice on its use for medical purposes (Baumbusch & Yip, 2021; Lum et al., 2019). This study aimed to understand older adults' experiences accessing medicinal cannabis and information about it and whether stigma influences their experiences from the perspective of older adults as well as those who advise older adults about cannabis.

Research questions

The study addressed the following questions: In Canada, (1) How are older adults accessing information about medicinal cannabis? (2) What are older adults' knowledge needs related to medicinal cannabis? (3) How are older adults accessing cannabis? (4) What role does stigma play in their experiences with cannabis? (5) What types of questions are older adults asking about medicinal cannabis? (6) What are the reasons older adults are seeking medicinal cannabis?

Methods

Design

A concurrent triangulation mixed methods design was used (Creswell, 2013). The design was qualitatively driven and involved conducting semi-structured interviews with older adults and advisors and developing a survey for older adults to answer our questions from the perspective of both older adults and those who advise older adults about medicinal cannabis (Heese-Biber & Johnson, 2015). We used a Qualitative Descriptive (QD) approach for our interviews to capture the key elements of phenomena in terms of the social actors involved - older adults and those who advise older adults about medicinal cannabis (Sandelowski; 2000, 2010). The analytical process of QD brings the researcher close to the data of a poorly understood phenomenon (such as older persons' experiences with cannabis) and describes participants' experiences in their terms (Sandelowski, 2000). We used the interview guide questions to develop similar questions for a concurrent survey to capture the perspectives of older adults who may not have been comfortable sitting for an interview but were willing to respond to a more anonymous survey format.

Sample

We purposefully sampled English-speaking older Canadians aged 60+ who resided in Canada and had used or were considering using cannabis to manage a health problem. In addition, we sampled individuals who self-identified as advising older Canadians about medicinal cannabis in their professional roles (e.g., physicians, nurses, recreational retailers).

Recruitment

The flyer advertisement for the study was circulated widely via email in all provinces to ensure participant representation from across Canada in a wide range of settings where potential participants were likely to see it (e.g., newsletters for organizations for older persons such as the Canadian Association for Retired Persons, cannabis clinics, retailers, medical distributors, etc.). Potential participants self-selected to enrol in the study by contacting the researchers via email or telephone and were then screened for eligibility by a Research Assistant (JL, SS, RD) or the Project Manager (JIB), who followed up with eligible participants with the study information letter, to answer any questions participants had about their involvement, and to schedule an interview, or to offer a link to the survey, depending on the potential participants' preference. Cannabis advisors were only given the opportunity to participate in a 1:1 interview. Participants received a $30 Amazon gift card in appreciation of their time, a strategy that has been found to facilitate recruitment.

Consent

Ethics approval was obtained from the Research Ethics Office at the University of Record, Certificate#: Pro00112287. Verbal informed consent was obtained from all participants who participated in an interview. For those who elected to complete the online survey, completion and submission of the survey constituted consent to participate in the study. All methods were carried out in accordance with the relevant guidelines and regulations of the World Health Organization's Declaration of Helsinki.

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Data collection

Data collection occurred between October 2021 and October 2022 and involved a qualitatively driven mixed-methods approach.

Semi-structured interviews

We interviewed both older adults who were interested in consuming or consuming cannabis for medicinal purposes and those who advised older adults about medicinal cannabis. Older adults who preferred to provide their experiences via our survey did so. Interviews were conducted by the study research assistants (JL was a recent MN graduate, SS and RD were current PhD Nursing students, and all had received training in 1:1 interviewing from the Project Manager and study PI, (SD, who holds a PhD in Nursing and was an Associate Professor of Nursing with extensive qualitative research experience) and Project Manager (JIB, who holds a PhD in Sociology and has over 15 of experience in qualitative research). All the Research Assistants and the PI self-identified as women, and the Project Manager self-identified as a man.

The interviews were guided by a semi-structured interview guide with questions and accompanying probes, were conducted remotely via telephone or Zoom audio, were between 18 and 55 minutes in duration and were audio-recorded and transcribed verbatim by a professional transcription service. None of the participants were known to the researchers. None dropped out and no follow-up interviews occurred. All participants provided verbal consent at the outset of the interview and understood the purpose and implications of their stories from the information letter. None of the participants viewed the transcripts of their interviews. Interviews were conducted until informational saturation (the point at which no new codes or categories were identified in the data) was achieved, as determined conjointly by the research team. Additionally, the survey was closed when informational saturation occurred.

Online survey

The online survey was developed using the questions from the interview guide to provide an opportunity for older adults who may have been uncomfortable with being interviewed about their cannabis consumption to participate. The survey was administered via Survey Monkey and used a cross-sectional design. The survey items captured demographic information and asked about participants' methods of accessing cannabis, comfort in accessing cannabis, sources where they seek information about cannabis and the perceived quality of the information they received. Additionally, some questions were open-ended and addressed how participants dealt with situations where they felt judged, the type of information they sought, barriers to accessing cannabis, and general comments/feedback for the research team.

Data analysis

Data analysis of interview data was conducted concurrently with data collection and involved an abductive approach to reflexive thematic analysis (Braun & Clarke, 2021; Joy, Braun, & Clarke, 2023; Thompson, 2022). This approach emphasizes the subjective nature of interpretation in qualitative research and the consequent need for researchers to interrogate their own positionality and role in the creation of knowledge (Joy et al., 2023). Consequently, it is essential for researchers to continuously engage in thoughtful, reflexive consideration of how their values, assumptions and preconceptions may influence their interpretation of data (Joy et al., 2023). First, an initial, deductive codebook was developed based on our research objectives and interview guide. Next, we used an inductive approach to look for salient codes, with the RAs and Project Manager coding the first three transcripts. This enabled us to develop new, unanticipated codes for the codebook. The full research team, including the PI, Co-investigators, RAs, and Project Manager, reached an agreement about the codebook, and the remaining transcripts were coded, while also accounting for unanticipated codes that emerged as salient. We used NVivo 12 to support systematic coding across team members. Important concepts within codes were grouped together to form hierarchical categories and sub-categories which were then collapsed and further refined to form coherent, unifying themes (Braun & Clarke, 2021; Vaismoradi et al., 2013). A central aspect of our analysis to help contextualize the thematic analysis, conceptually clustered matrices were used to map out participants' demographic characteristics (e.g., age when first consumed cannabis) and the key features of participants' narratives (e.g., the reason for consuming, duration of cannabis use, whether they had previously hidden cannabis consumption, etc.), and described their activities and interactions related to cannabis. We also tabulated the frequency and percentage of responses within each theme. Participants were given pseudonyms and were referred to by the sex they reported.

Data from the survey included both numerical and open-ended responses. The numerical data were analyzed using descriptive statistics. We calculated (relative) frequencies and proportions for categorical variables and median Q_1, and Q_3 for continuous variables. To analyze responses from open-ended questions in the survey, we used the same thematic approach as with the interview data and then tabulated the frequency and percentage of responses within each theme.

Qualitative and quantitative data integration was achieved by comparing results from each analysis, and synthesis during the writing process.

Analytic rigor

Strategies to ensure trustworthiness were implemented throughout the research process (Shenton, 2004; Lincoln & Guba, 1985). Confirmability was ensured by maintaining an audit trail of coding decisions and researcher reflexivity. Credibility was achieved through methodological triangulation, remaining open to all potential themes, careful analysis of negative cases, and independent analysis of data by members of the research team. Reduction of the data and conclusion-drawing were supported by detailed verification. When disagreements arose about coding decisions or key categories to be integrated into themes, the research team debated until an intersubjective consensus (Miles et al., 2019) was reached. Dependability was assured through in-depth methodological description, and transferability through the inclusion of participants' demographic characteristics put the study in context (Lincoln & Guba, 1985).

Results

Participant characteristics

We interviewed 36 older cannabis consumers/prospective consumers, and 107 consumers completed our survey, for a total of 142 older adult participants. We also interviewed 9 cannabis advisors. Our older adult participants lived in different parts of Canada

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Table 1. Older cannabis consumer demographics

Data collected	Interviews	Survey
Numbers	34 consumers 2 prospective consumers	107 consumers
Total numbers	36	107
Gender	22 Female 14 Male	42 Female 59 Male 6 No response
Residential location	27 Urban 6 Rural 3 Town	82 Urban 3 Rural 32 Town
Part of Canada	23 Alberta 4 Manitoba 4 Nova Scotia 2 Ontario 2 British Columbia 1 Quebec	38 Prairie 13 Atlantic 32 Ontario 19 British Columbia 12 Quebec
History of cannabis consumption	16 Consumed as youth-stopped until older person 10 Consumed for the first time as an older adult 8 Life-long consumers 2 Prospective consumers	

Table 2. Cannabis advisor demographics

Professional role	Age	Gender	Province or territory	City, town or rural setting
CP1: Registered nurse	66	Female	Alberta	City
CP2: Physician, retired professional	67	Female	Alberta	City
CP3: Pharmacist	38	Male	Ontario	City
CP4: Cannabis advocate	41	Female	Manitoba	City
CP5: Cannabis retailer, director of sales	52	Female	Alberta	City
CP6: Cannabis retailer	89	Female	British Columbia	Town
CP7: Cannabis retailer, senior manager	29	Female	British Columbia	Town
CP8: Massage therapist	43	Female	Alberta	City
CP9: Cannabis retailer	48	Male	British Columbia	City

and represented both urban and rural communities. Table 1 provides a descriptive overview of our older cannabis consumer participants. Among survey participants, 8.4% reported that they never used cannabis throughout their life, while 67.3 % of participants reported using it sometimes to always. In contrast, of the older adults we interviewed, 16 had consumed cannabis as a youth, stopped and then began as an older adult, 10 were first-time users as an older person, 8 had used it throughout their life and 2 were prospective consumers.

Cannabis advisors in our sample included one physician, one nurse practitioner, one pharmacist, four retailers, one massage therapist and 1 cannabis website manager. Table 2 summarizes their demographic features.

Older adults' experiences

In general, older adult participants reported their experiences with cannabis as mixed, while survey participants reported their experiences as neutral to positive. Below, we provide an overview of our thematic findings on accessing information, accessing cannabis, and stigma.

Accessing information

Older adults in both the interviews and survey, as well as the interviews with cannabis advisors, provided insight into the sources older adults accessed for information about medicinal cannabis and the types of information they were seeking.

Sources of information

Older adults told cannabis advisors that they relied predominantly on online sources and talked to friends and family members for information about cannabis for their health conditions. For example, Dae explained how she trusted her brother for information about cannabis because "he's one of those people that researches everything to death and he knows – I trust his opinion". Similarly, Haydon:

> Talked with friends…There are different types. There's Sativa and Indica. I started to become familiar with that because of what people were saying to me – what my friends were saying to me…Well, it's two friends that I know are – one for sure is very – he's very up on it. He smokes a fair amount and he's fairly up on it.

Others used the internet to access "the government website, there's good solid information. It explains about Indica and Sativa and it talks about the terpenes and all the stuff that – all that" (Dae). Still others, like Jamie, used "Google. Because I'm not sure my doctor really knows".

Cannabis advisors such as retailer Dylan highlighted sources of information they had heard from older adults: "after the internet… usually it's someone in their circle…like their 18-year-old grandson who smokes weed…'grandma, you don't got to hurt'". Pharmacist Rory recounted that if older adults are "coming to me, either it's a recommendation from their friend, or through their doctor… [or] 'my grandson gave me this'…[or they] read a lot about in online". Arden explained that comments posted on her website demonstrated that "people are often just so overwhelmed by the volume of information around cannabis…they go to Google." Physician Charis similarly expressed that "some people are very comfortable raising this with their physicians, some are completely uncomfortable doing so, some are comfortable, asking, you know, retail stores and employees there and feel that they're getting good information. Others feel that those are unreliable".

In contrast, older adult participants of the survey reported seeking information from healthcare professionals (HCPs) (49.5%) or cannabis retail stores (40.2%). Friends and the internet were reported to be less helpful than other sources in answering older adults' questions. Family members, cannabis growers, and HCPs were most often reported to have answered participants' questions.

Knowledge needs

Cannabis advisors provided more details about the reasons older adults were seeking information about cannabis. Retailer Dylan explained that "seniors are coming in for some aspect of the basic three…pain, sleep, or anxiety". Older adults also asked retailers "which product is best for you. Is it the CBD oil? Is it the gels? Is it ingesting it in food?" (Brady). Similarly, physician Charis explained that older users:

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> Want to know if it works for aches and pains, and arthritis…how safe is it, is it going to interact with the medications they're on, how likely is it to work, and how can they reduce the medications they're on that they really don't like".

Older consumer Artemis explained that his questions revolved around possible "side effects…negative effects…any long-term side effects." and was "deeply afraid of the addiction, if there was any addiction". Of note, although retailers articulated their role was to sell recreational cannabis, not to provide advice about the medicinal use of cannabis, as conversations with them continued it was apparent they were providing medicinal advice. For example, retailer Spenser divulged that "I provide a little bit more knowledge so they understand…I do try to start them out with a low CBD." That retailers were providing information to older adults was evident, as Reggan recounted how "if I need to talk to them [retailers]about the strains, the sativa, the hybrids, whatever it may be, they're fairly knowledgeable, so…So they have my trust". Similarly, Alex highlights that "some of the best information I ever got is I went and talked to a young fellow that worked at a bong shop".

After older adults had begun using cannabis, a common information need was related to dosing. Cannabis is not dispensed like the medication bottles older adults were accustomed to with dosage, frequency of dosing, and possible side effects clearly indicated. As older participant Kerry explained "I still don't know what strength I'm using. Like if they say take 10 milligrams or micrograms or whatever, 'well use this much on the little syringe that you put under your tongue', but you don't know what strength they are. If you're using half a syringe, you don't know exactly how much you're getting". Nurse Practitioner Asa also highlighted the challenge with dosing explaining that "prescribing cannabis with seniors is tough because there's no specific dose, it's kind of trial and error…you have to start them on a really low dose and titrate it up."

When seeking information, survey participants were most often looking for information about the benefits/uses of cannabis for their specific health issues as well as information about products, safety, and dosing. About 10% reported seeking information about side effects or harm related to cannabis use.

Accessing cannabis

Nurse Practitioner Asa described that some of the challenges associated with older adults obtaining cannabis were "well-meaning family members…buying recreational cannabis for their parents and grandparents….[but] recreational cannabis is not as good as what you can get from regulated sources." Pharmacist Rory believed that cannabis' recreational legalization in Canada caused a dilemma - "as a new market…everyone is coming into cannabis now. They are walking into recreational stores, talking to kids that are clerks and are doing part-time jobs." Older adult participant Jude concurred about the differences between cannabis from a retail store and a medical distributor: "I wouldn't go into any of the popup stores or the franchise stores that are out there…I would rather deal with a company and people who deal with the high controlled part of distribution". Other participants, who purchased from recreational retailers in person, did so because it was convenient and "close to home" (Paxton). Jude was forthright that "I'm restricted by his finance …[and received] compassionate pricing through [her] her medical cannabis provider". Jay outlined how: "the cheapest place to get it of course is off the street", from illicit sellers. Casey relied on a friend to supply him who "buys on my behalf…because I really didn't want to be seen getting cannabis."

In terms of the type of cannabis product, older adults told cannabis advisors, as well as our interviewers, that they preferred to use CBD oils rather than combust their cannabis. Asa, the nurse practitioner, reported that older adults want "oils always and [are] highly focused on CBD." Retailer Dylan "would start them off on CBD so it's not intoxicating but it would bring them anti-inflammatory, reduce pain, lower anxiety [and]…very few ask to start smoking or vaporizing." Older adult participant Robin explained that "I don't combust any cannabis…that's used for people that smoke cannabis, they're stoners". In this instance, Robin highlights perceptions of stigma related to cannabis particularly how it is consumed. Harper similarly was concerned about smoking cannabis because "my biggest fear if you will was whether it would – you know, whether it was bad for me. I mean I knew smoking was bad and, you know, I kind of – and so, you know, my first concern was the impact to my lungs". Others such as Shiloh used creams such as "a topical called Balanced Cream that contains 375 grams of THC, 375 grams of CBD. It's in a 75-gram container and it's gamechanger". Still another older consumer Sage explains "I have a recipe book on how to cook with cannabis. I have another little booklet on trying to prepare some bath bombs and other kinds of supposedly beneficial things that you can do with that with CBD". It would thus seem that older adults accessed cannabis in a variety of ways and most commonly avoided smoking it, preferring other modes of delivery.

In contrast, most survey participants used a cannabis retail store (56.1%) and fewer used a cannabis grower (25.2%) or medical dispensary (24.3%). Most older participants (79%) procured cannabis from either a licensed medical producer or recreational supplier, in-person or online. Just over half of our survey participants (53%) indicated that they accessed cannabis from a licensed medical producer with a medical prescription. Nearly one-third of participants who used a medical dispensary felt at least some anxiety about accessing cannabis from that source, while the rest were typically somewhat or very comfortable doing so. About one-third of participants who procured cannabis from a grower, cannabis retail store, friend, or medical dispensary were very comfortable. The other half (47%) shared that they consumed cannabis for medicinal purposes obtained from recreational cannabis stores, friends, family, or growing themselves.

Stigma

In the interview data from both older adults and advisors, we were able to see more clearly the ways in which stigma was shaping older adults' experiences and decisions about accessing and using cannabis. This data allowed us to see fear of stigmatization was prevalent despite legalization, and document the distinct strategies older adults used to respond to the persistent stigma associated with cannabis.

Persistent (perceived) stigma

While legalization has certainly had an impact on the relative stigma of the cannabis industry (Lashley &Pollock, 2020), our analysis reveals that older adults still perceive and fear stigmatization for their use of cannabis. As Harper shared "The stigma was always there that it was a bad thing to do and so there was

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always a bit of shame around it…and I feel like there still is a lot of stigma around it." In this comment, Harper not only noted the stigma of the past but spoke to stigma in the present as well. This was a sentiment confirmed by many participants. It labelled, for some like Alex, the morally deviant: "you know, the old stereotype…. just like tattoos". In this sense many participants acknowledged being afraid, anxious, and worried about how they would be perceived based on their consumption of cannabis: "It's just me feeling like being judged. I wasn't judged, but it was just that fear of being judged" (Finley). Aron described the stigma as a "cloud":

> There's sort of a cloud of stigma around it, so publicly and socially, and so there is a kind of a cloud of stigma and feeling judged. So, even though it may not be real or specific, it is real to me.

Cannabis advisor and physician Charis agreed with older patients' concerns about the stigma because from many "it's a street drug in your head, even though your friends who are using it say it's wonderful for their arthritis". Similarly, cannabis retailer Apporva shared that "seniors are curious but at the same time they still feel the stigma that's associated with cannabis". Moreover, retailer Stave advised older adults to "have all the "Reefer Madness" scary stuff in their head".

This perception of persistent stigma for the use of cannabis was not merely a cognitive imagination our participants held onto but was also reinforced through interactions with medical professionals and others who reacted negatively or ambiguously to their requests or information about use. As Brady reflected to us in their interview: "I live in a senior's building, so there are a lot of…a lot of negativity because people do not understand that this is something that is a natural product, it's a healing product. And people just think that it's a horrible, banned substance, it's a gateway drug…I received a lot of negativity at first because of doing that". These negative interactions were not limited to other older adults, but also medical professionals they interacted with. For example, Brady's primary care physician would not discuss cannabis with him, nor would the medical clinic prescribe cannabis, thus he stopped communicating with them about his use. Artemis spoke of the "aura of evil" that surrounds cannabis use, and while she felt it was slowly reducing, she also had doctors who refused to prescribe and made her feel deviant for using or asking about it. Cannabis advisor Amal and Nurse Practitioner Manu agreed that older adults had told them that "stigma is held by their family physicians". Physician Charis agreed that "some family doctors or specialists or whoever won't refer to cannabis".

In this sense, older adults often had fears of being stigmatized, and perceived cannabis consumption as stigmatized. Importantly, however, they often had lived experiences of stigmatization. In this way, our findings suggest that while legalization has removed the illegality of cannabis use, it has not yet eliminated the lingering moral stigma, "the cloud", associated with it.

Survey participants identified barriers as high cost and judgement/disapproval from others. Limited access or health care professionals' refusal to inform participants about cannabis was reported less commonly. Fifty percent of survey participants (52.3%) reported feeling that they had to hide it sometimes to most of the time Less than half of survey participants (40%) reported feeling that they did not have to hide their cannabis use with 7.6% of participants reporting feeling that they had to hide it always. Over half (61.7%) of survey participants reported previously feeling judged for their desire to use or use of cannabis (answers of "Yes" or "Sometimes") and less than 15% of participants reported that feelings of being judged influenced their decision to use or seek information about cannabis "quite a bit" or "all the time".

Stigma responses strategies

In response to their perceptions of stigma, older adults engaged in several distinct strategies as they navigated their use: information management, reconstruction through materiality, and evangelizing.

Information management

The predominant strategy used by older participants was information management, which was actively managing who had access to information about their use. Most frequently participants reflected on hiding their use to avoid being stigmatized and perceived poorly in the eyes of others. This can be seen in the following quote from Harper:

> Just don't reveal. And for a time there were a couple of times when I needed to take a urinalysis test to confirm either drug use or the lack thereof and, yeah, I'd use the internet to just dilute my urine and it was not detected, and I also adjusted my use so I didn't have as much in my system.

Similarly, Taylor described his ongoing efforts to keep his cannabis consumption covert.

> Well, I still hide it. I mean even though I don't have to anymore, I still do. I live in Manitoba Housing, I have a permit to smoke, I have a prescription to smoke, the housing manager knows that I can, and I'm allowed to do it. But even so, during the house inspection on Tuesday, I was very careful not to and hadn't for hours and hours and hours before.

Often older adults had a select handful of people who they told, people they felt would not stigmatize them for their use. As Quinn explained:

> I think I'm so careful about who I tell, that only people who are not judgemental know about it…And unless there's a real reason for me to share the fact that I use cannabis, I wouldn't. I wouldn't bother telling anybody for fear of their reaction, for fear of their judgement.

Similarly, Taylor noted that:

> I was the guy assigned …. to be the liaison with the police and they liked the service. I got stuck on it, I was terrified the first time I was assigned to do it. I was, "they're going to find out, they're going to arrest me, what's going to happen?" So that was probably the scariest moment in my career.

Managing information about use could enable people to avoid stigmatization, but it came at a cost of its own.

Reconstruction through materiality

Not all participants hid their use, and often when people did share it with select others, they deployed a distinct strategy in sharing the information. Specifically, these people actively reconstructed the meaning of cannabis use by pointing to alternative material constructions of the product such as focusing on the use of CBD vs THC and the use of oils, edibles and products that were not smoked. In doing so, they sought to make distinctions about the difference this materiality implied about them as a user.

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> I don't talk about it, but if it does come up I'll say, well, I use the oil. And I'm really clear I don't want – I said I don't want to smoke it (Shaun).

Aiden similarly explained:

> I don't combust any cannabis…that's used for people who smoke cannabis, they're stoners. But I don't consider myself a stoner. I consider myself someone who's using this plant for medicinal purposes.

Participants described numerous alternative modes of delivery that they saw as more benign, such as topical gels or creams, capsules, or mouth spray. Paxton noted that "some of the creams are really good for aches and pains".

The focus on materiality allowed them to reconstruct the meaning of use. Participants made clear their consumption was not to get "high". Kerry described CBD oil "as a therapeutic drug… I don't think CBD oil is a recreational drug, I really don't." She explained how this logic guided her product choices:

> I wasn't worried about using CBD oil. I just wanted to stay away from THC….I didn't want any mild altering things going on…I walked into the store, "I don't want any THC."

Thus, stigma was associated with recreational use and was more obviously linked to smoking cannabis. While oils and other formulations of cannabis were associated with medicinal use and could easily be hidden.

Similarly, cannabis advisors and retailers explained that "there's obviously a big stigma regarding THC. So they tend to be doing cannabis in Canada, even if they have a very minuscule amount of THC in them, they have a really big stop sign red THC symbol on them [products]. And it seems to really [laughs] freak out the older generation. Even though it's just a small amount, they see that and they get concerned".

Older adult participants managed their use by reinforcing the stigma associated with smoking and THC as people who were "stoners" but reconstructing the meaning of their own use via altering the material elements of cannabis, and voicing these rearticulations when they shared their use.

Evangelizing

A small number of participants did not manage information nor reconstruct via material but instead promoted their own use. In this sense, they leaned into the stigma and were advocates for cannabis. This was reflected in this statement by Tandy: "Everybody – I tell everybody about it. In fact, I was telling them when it was still beneficial when it stopped migraines. I told all my senior aquacise people, my club – senior club people. No, no, they all know that I'm taking it. I. And I'm still taking it, so I must think there's something good about it".

For some older participants, their response to perceptions of stigma was not to hide or reconstruct their use but to teach and preach about what cannabis can do. They rejected the stigma and wanted to share the benefits with others. As Quinn stated: "I'm telling other people that it's helped me and it could help them".

We show that despite being legal cannabis is still perceived as stigmatized by most older adults. In response to this lingering stigma, information management, reconstruction, and evangelizing strategies shape the ways in which older adults engage in information seeking and access.

Discussion

The most alarming finding of this study is that older adults are often not accessing information about cannabis for their health conditions from healthcare professionals and cannabis clinics. Key knowledge that older adults are looking for is whether cannabis will work for their specific medical condition, possible side effects, and if they can use it instead of/in combination with their prescription medications. Once they start accessing cannabis, issues related to dosage and product type often requires a 'trial and error' approach. Over half of our older adult participants were accessing cannabis from retail stores. Moreover, many older adult participants either did not feel comfortable disclosing their desire to consume cannabis/or consumption to their healthcare provider and many who did ask questions frequently were either rebuffed or the provider was unable to answer their questions. Key challenges reported were the cost of medical-grade cannabis, messaging related to dosing and, healthcare providers who may lack knowledge and possess stigmatized views about cannabis. Significantly, we discovered that older adults are experiencing stigmatization from healthcare providers, their friends and family, and even themselves.

Other studies have also reported older adults having negative experiences when discussing the possibilities of medicinal cannabis with their healthcare providers (Bobitt et al., 2019; Skliamis et al., 2022). We provide a more in-depth discussion of their experiences of stigmatization. Furthermore, our study extends other research about older adults seeking advice regarding medicinal cannabis from sources such as their family, the internet, and retailers, who are not qualified to provide medical advice (Baumbusch & Yip, 2021, 2022; Clary et al., 2022; Lum et al., 2019). Older adults may be seeking the information they have been unable to obtain from their healthcare professional from retailers, who are then put in the position of advising them about medicinal cannabis. We believe older adults' experiences of being rebuffed by their healthcare providers contribute to entrenching their feelings of stigmatization (Clary et al., 2022; Krediet et al., 2020; Skliamis et al., 2022).

It is important to note that cannabis use was first stigmatized in the 1930s, when moral deviance was attached to marijuana, such as "killer weed" and "gateway drug" (Lashley & Pollock, 2020). While the medical cannabis industry has sought to distance itself from such labels, we found that they persisted in our older participants' descriptions of the drug. This lingering stigma and the resultant fear of stigmatization led older participants to manage who they shared their consumption of cannabis with or to reconstruct their material use of cannabis to be different from "stoners" who smoke high-THC products recreationally. In doing so, we show how a lingering stigma shapes their experiences and decisions in using cannabis. We also discovered that there were a few participants who wanted to dispel the stigma associated with cannabis by evangelizing the benefits they received from consuming cannabis. These strategies closely map onto those outlined by Zhang et al. (2021), but go further by revealing how some actors used the materiality of cannabis to reframe the stigma associated with it. As past research has suggested, hiding use can be emotionally crippling and lead to fear and social isolation. Therefore, for many participants, the fact they consumed cannabis created situations in their lives where they were terrified, and/or avoided people and social interaction to mitigate such fears, which is concerning. We thus point to the importance of redressing stigma if we are to ensure older adults can feel free of shame and fear to utilize cannabis medicinally when it is deemed a medically appropriate treatment.

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Our older participants differentiated their medicinal consumption of cannabis from recreational consumption, thereby reinforcing the stigmatization of cannabis, which they had hoped would diminish with recreational legalization in Canada. Consequently, we need to work at a societal level to diminish the stigmatization of medical cannabis, similar to the destigmatizing that has been occurring in Canada related to mental health with the 'Let's talk' advertisement campaign. Public messaging about cannabis that diminishes the fear of moral deviance or that using cannabis will result in criminal activity could be one step towards encouraging older adults to feel more comfortable in approaching their healthcare professionals about the possibilities of cannabis for their health problems. We agree with Costiniuk and colleagues (2023) on the importance of strengthening the medical stream of cannabis to ensure sufficient guidance from healthcare professionals, enhanced reporting on adverse reactions, adequate supplies of medical cannabis, decreased costs, and reduction of stigma.

Our findings on participants' experiences with cannabis stigma mirror those of research on mental health and chronic diseases (Armentor, 2017; Corrigan & Rao, 2012; Quinn et al., 2017). For example, those with mental health illnesses are also vulnerable to stigmatization that can lead to reticence in discussing their concerns with healthcare professionals (Corrigan & Rao, 2012). Thornicroft et al. (2023) discuss the stigmatization experienced by those with mental health conditions and the importance the media can play in decreasing stigma through responsible reporting and messaging. Similarly, we contend that the stigma around older adults who consume or seek information about consuming cannabis for their medical conditions ought to be addressed in light of current research. We believe there is a role the media can play in distinguishing between medical and recreational consumption and in directing consumers to credible sources of information. Public messaging related to how to have a conversation with your healthcare provider about the possibilities that cannabis may have in managing health conditions is needed.

Given that it has been five years since recreational cannabis legalization and this legislation is currently being reviewed, we have some suggestions to propose related to healthcare professionals, retailers, cost, public messaging about cannabis, and future research. We acknowledge that healthcare professionals may be cautious about recommending cannabis to their older patients, due to limited research with this population (Hall, 2018; Minerbi et al., 2019). Healthcare professionals may also have a perception of cannabis consumption based on stigma around its use. However, if they are unable or unwilling to provide recommendations to older adults about medicinal cannabis, we suggest that they have a list of resources and or cannabis clinics to provide to older adults, instead of engaging in conversations that potentially may be interpreted by the older person as shaming. It is important that healthcare professionals examine their personal biases about cannabis consumption and adopt an openness to older adults' inquiries about the possibilities of cannabis for their health concerns, which also means they must take advantage of education about cannabis and older adults. Moreover, it is important that health professionals are actively inquiring about their cannabis consumption, as we have learned that older adults may be reticent to disclose their cannabis use. The importance of healthcare professionals remaining open to hearing older adults' disclosure and questions about cannabis, regardless of their personal views, is similar to what they must do with persons from the queer community (Ramsey et al., 2022). Professional codes of ethics require that healthcare professionals separate their personal values from their obligations to people who may be suffering from stigmatized illnesses, are from stigmatized communities, or wish to explore a stigmatized treatment such as cannabis for their health concerns.

We recommend that healthcare professionals providing care for older persons be required to take cannabis education as part of their annual licensing. The Canadian Coalition of Seniors Mental Health Services (n.d.) has developed learning modules for healthcare professionals as well as infographics that highlight strategies for supporting the medicinal consumption of cannabis (https://ccsmh.ca). We suggest that legislation related to cannabis retailers also be enhanced so that when older adults approach healthcare professionals for questions related to medicinal use, older adults are directed to cannabis clinics or healthcare professionals who can provide the necessary medical oversight. Moreover, many of our participants cited cost as a reason for sometimes seeking illicit cannabis. We agree with Costiniuk and colleagues (2023) that enhanced cost reductions, reimbursements, or tax removal for medical cannabis products could support older adults' consumption of medical cannabis. We also suggest that more research related to stigma, cannabis and healthcare professionals, as well as healthcare systems be considered to better understand and support healthcare professionals.

Limitations

Our mixed-method approach to data collection allowed us to recruit participants to complete the survey who might otherwise have been unwilling to participate if required to sit for an interview. However, differences in where participants accessed cannabis and sought information about it in the findings suggest that there may have been some patterned differences between consumers who elected to complete the survey and those who sat for an interview. Moreover, our advisor sample size was quite small and more advisor interviews would have provided deeper insight into the views of those providing interviews and provided more in-depth comparisons by professional designation (i.e., the sample was too small to compare nurses vs. physicians etc.). Furthermore, because representation from different provinces was uneven in our sample, we were unable to examine inter-provincial similarities and differences.

Conclusions

In this study, we explored the perspectives of older medicinal cannabis consumers and those advising them on older Canadians' experiences accessing cannabis and information about it, as well as how stigma may influence their experiences. Findings demonstrate that many older adults are accessing information about cannabis for medical purposes from retailers often because they are either reticent to talk to their healthcare professionals, or have been rebuffed when they brought the subject up. We recommend cannabis education be required for healthcare professionals as well as research about their perspectives related to medical cannabis and older adults.

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