Research Article

Budtender Perspectives on the Cannabis Retail System's Capacity to Support Customers with Mental Health Concerns: A Qualitative Study

Cannabis
2026

researchmj.org
10.26828/cannabis/2026/000376

Parker Grant[1,2], Sofia Ruggiero[1], Angela Dela Cruz[3], Melissa B. Korman[2,4], Darby J.E. Lowe[1,5] & Tony P. George[1,2]

[1]Institute of Mental Health and Policy Research and Addictions Division, Centre for Addiction and Mental Health
[2]Institutes of Medical Sciences and the Department of Psychiatry, Temerty Faculty of Medicine, University of Toronto
[3]9-8-8: Suicide Crisis Helpline, Centre for Addiction and Mental Health
[4]Department of Psychiatry, Sinai Health System
[5]Department of Psychology, University of California, Berkeley

ABSTRACT

Objective: Frontline staff in legal cannabis dispensaries ("Budtenders") serve as a primary source of cannabis-related information to customers, including those with mental health concerns. However, little is known about how Budtenders perceive the cannabis retail system's role in supporting these consumers. This study examines Budtenders' perceptions of the retail system's effectiveness in meeting the needs of customers with mental health challenges. **Method:** This qualitative study is a secondary analysis of responses collected as part of a larger mixed-methods project. Budtenders (N= 29) from legal dispensaries in Ontario responded to questions about the cannabis retail system in relation to mental health. Responses to two open-ended questions were analyzed using inductive, conventional content analysis. **Results:** Seven themes were identified. Budtenders described their role as providing safe, legal access to cannabis and personalized guidance to customers with mental health concerns. Their capacity to do so, however, is shaped by factors including the extent of their training, public health messaging, the accessibility of scientific research, their ability to collaborate with healthcare professionals and stigma surrounding cannabis. Regulatory restrictions on mental health discussions were described in contrasting ways, with some viewing them as important safeguards and others as barriers to meeting customer needs. **Conclusions:** Budtenders are frequently asked mental health-related questions that they are not legally permitted to answer, which creates tension between consumer needs and regulatory constraints. Findings highlight the need for system-level improvements, including public health education initiatives, enhanced Budtender training, government support, and stronger engagement from healthcare professionals.

Key words: budtender; legal cannabis sales; qualitative analyses; mental health; perceptions

Cannabis use presents a complex public health concern, encompassing regulatory challenges, potential health risks, and shifting patterns of consumption. The global prevalence of cannabis use is rising, with 228 million individuals reporting cannabis use globally in 2022, representing a 26% increase since 2011 (United Nations Office on Drugs and Crime, 2024). These trends may be driven in part by an increasing number of jurisdictions enacting laws to legalize non-medical use (Athanassiou et al., 2023). In Canada, past 12-month cannabis use among the

Corresponding Author: Tony P. George, M.D, Centre for Addiction and Mental Health, 60 White Squirrel Way. Toronto, Ontario, M6J 1H4. Phone: (416) 535-8501 ext. 32662. Email: drtonypgeorge@gmail.com.

general population increased from 22% to 27% following the passage of the Cannabis Act (Bill C-45) in 2018, which legalized non-medical cannabis use (Goodman et al., 2024). The number of individuals reporting frequent cannabis use is also rising, with approximately 1.4 million individuals reporting daily or near daily cannabis use in 2019, relative to only 840 000 individuals in 2015 (Canadian Tobacco Alcohol and Drugs Survey [CTADS], 2015; Canadian Alcohol and Drugs Survey, 2019). Given the association between frequent use, psychological dependence, and heightened risk for cannabis use disorder (CUD), these trends raise important public health concerns (Rotermann, 2023).

Cannabis use and mental health outcomes are intricately linked, with a growing body of evidence suggesting a positive association between cannabis use and adverse psychiatric outcomes, particularly when cannabis use is initiated during adolescence and among individuals with underlying genetic vulnerability to mental illness (Lowe et al., 2019; Sagar & Gruber, 2025; Sorkhou et al., 2024). Legalization may also play a role in this relationship, with a recent review indicating that recreational cannabis legalization in Canada and the United States is associated with increased rates of cannabis-induced psychosis, as well population level mood and anxiety disorder outcomes (Fortier et al., 2024). Additionally, there is evidence that cannabis use is more prevalent among individuals reporting psychological distress or poor mental health (Deng & Li, 2024; Weinberger et al., 2019) as well as among those with diagnosed mental illness (MI) compared to those without (Lev-Ran et al., 2013; Rup et al., 2022). Among individuals with MI who use cannabis, many report doing so to manage their psychiatric symptoms, a phenomenon known as "self-medication." This behavior is highly prevalent; approximately 82% of individuals with at least one mental health condition in Canada and the United States report cannabis use for symptom management (Rup et al., 2022). However, despite these perceived therapeutic effects, cannabis use in this population is associated with significant risks, including the development of CUD and the potential exacerbation of psychiatric symptoms (Sorkhou et al., 2024). Given these potential risks, it is crucial to examine how legalization influences access to cannabis and how individuals seek guidance regarding its use.

Since legalization in Canada, recreational dispensaries have expanded significantly, providing easier access to cannabis. Consequently, "Budtenders" (i.e., retail employees who provide product information to consumers) are positioned as key sources of guidance for individuals purchasing cannabis. Evidence from studies in Ontario suggest that individuals with mental health conditions turn to Budtenders for advice, particularly when dissatisfied with conventional treatment options or when seeking an alternative to prescription medication (Amini Lari et al., 2023; Das et al., 2024). Echoing these findings, research conducted in the United States indicates that nearly 30% of medical and mixed-use cannabis consumers (i.e., those who use cannabis for both medical and recreational purposes) report seeking information from Budtenders, compared to only 16.4% who report consulting healthcare professionals (Boehnke et al., 2024). In the context of cannabis legalization, this pattern has been described as a "void in clinician counseling of cannabis use," wherein Budtenders are increasingly assuming quasi-clinical roles without formal medical training (Calcaterra et al., 2020).

Meanwhile, in a survey of 244 physicians in Michigan following the state-wide legalization of cannabis, physicians reported feeling that they have limited influence over patients' cannabis use and often hold negative perceptions of Budtenders, viewing them as more influential yet less credible sources of cannabis-related information (Kruger et al., 2024). However, evidence also suggests that many healthcare providers themselves may lack sufficient cannabis-related knowledge to confidently guide patients (Kruger et al., 2022). In Ontario, concerns about limited evidence on cannabis's potential to exacerbate mental illness, along with inadequate training, further hinder physicians' ability to address patient inquiries (Ng et al., 2021). Given the evolving cannabis retail landscape coupled with this knowledge gap among physicians, dispensaries have become informal venues where consumers seek health-related information from Budtenders.

Budtenders in Canada face regulatory restrictions that prohibit them from offering advice on the medical or therapeutic properties of

cannabis (Health Canada, 2024). Nonetheless, the majority of Canadian Budtenders report being frequently asked about cannabis's impact on mental health, including conditions such as sleep disturbances, anxiety, and depression (Cameron et al., 2023). Existing research indicates that Budtenders in the U.S. frequently base their recommendations on customers' medical conditions and their experience with cannabis products, with less emphasis on scientific literature, employer-provided training, or clinician input (Merlin et al., 2021). Importantly, findings from a multi-state U.S. survey of cannabis dispensary staff indicate variability in how Budtenders identify and respond to problematic cannabis use. Nearly half of Budtenders report never encountering CUD, and less than one fifth report referring individuals with suspected CUD to a healthcare professional (Slawek et al., 2023). This pattern stands in contrast to public health recommendations that emphasize early identification of problematic use and referral to appropriate care. Moreover, in a study of budtenders in Washington State, while Budtenders reported viewing their role primarily as educating customers about cannabis products rather than serving as public health educators responsible for cautioning against potential harms (Carlini et al., 2022); clarification is needed regarding whose responsibility it is to provide accurate, evidence-based education about cannabis harms.

Current Study

The current study is part of a larger mixed-methods project. Our quantitative analyses from this project found that most Budtenders received customer questions about mental health, most often concerning sleep and anxiety, and that many perceive cannabis as beneficial for anxiety, depression and sleep difficulties (Lowe et al., 2025).

Despite the growing understanding of the role Budtenders play in consumer decision-making, informed both by the broader literature and by our quantitative findings, comparatively little attention has been given to their perspectives on the cannabis retail system itself and the way it supports or harms customers with mental health concerns. Given that retail dispensaries are now a primary access point for cannabis across North America, it is critical to assess whether current regulatory systems adequately support both Budtenders and consumers experiencing mental health challenges. Drawing on Budtenders' firsthand perspectives, this study aims to generate preliminary insights that may inform future policy reforms and educational interventions aimed at supporting more informed, evidence-based consumer decision-making.

Study Objectives

To address this gap, the present qualitative analysis aimed to explore how Budtenders working in legal cannabis retail stores in Ontario, Canada, perceive the current state of the cannabis retail system and its capacity to support customers with mental health concerns. This aim was explored using the following two open-ended questions: 1) What is working? What does the cannabis retail system do well when it comes to supporting customers experiencing mental health concerns or mental illness who want to buy and consume cannabis?, and 2) What should change? What are some things that would help the cannabis retail system better support customers experiencing mental health concerns or mental illness who want to buy and consume cannabis?

METHODS

Study Design

This study was part of a mixed methods project that used an online survey administered from September to November 2023. The study was approved by the Research Ethics Board (REB) at the Centre for Addiction and Mental Health (REB#2023-046), as well as the Alcohol and Gambling Commission of Ontario (AGCO), the organization that regulates legal cannabis in Ontario.

The research was conducted from a post-positivist epistemological perspective, which reflects the research team's belief that while an objective reality exists, our understanding of reality is inherently shaped by human interpretation (Ormston et al., 2014). Hence, we used the perspectives of Budtenders to gain insight into and uncover the realities of the current cannabis retail system's ability to support customers with mental health concerns. An

inductive analytical approach was used to allow themes to emerge naturally from the data itself, given that this is a relatively new area of research without any extant theoretical frameworks (Hsieh & Shannon, 2005).

Recruitment

The study employed a gatekeeper-assisted purposive sampling method to recruit participants (Lowe et al., 2025). The AGCO distributed recruitment emails on behalf of the research team to legal cannabis retail store managers and owners from its database, who were invited to forward these to their employees. The AGCO's role was limited to distributing recruitment materials.

Participants were "Budtenders" (i.e., retail cannabis employees who provide product information to customers), aged 19 and older, proficient in English, residing in the Greater Toronto Area (GTA), Ontario, Canada, and with internet access. They completed an informed consent form, which detailed the study's design and objectives, and assured them of their anonymity, and then proceeded to complete the survey, administered via REDCap, which took approximately 15 minutes. After completing the survey, participants accessed a separate REDCap form to receive a $10 eGift card as remuneration.

Measures

The survey included items assessing demographic characteristics, cannabis use, perceptions of cannabis's effects on mental health outcomes, and Budtender knowledge sources. The qualitative component comprised two open-ended questions about the strengths and areas for improvement of the cannabis retail system in supporting customers with mental health concerns.

Analysis

To analyze the data, we employed an inductive, conventional content analysis approach (Hsieh & Shannon, 2005). NVivo software was used to manage and organize the data throughout the analysis. The process was iterative, with the two reviewers (PG and SR) immersing ourselves in the written responses, reading and rereading to gain a comprehensive understanding and making detailed notes of our impressions throughout. First, the two reviewers (PG and SR) independently reviewed 14 responses, generating preliminary codes, allowing the codes to emerge naturally from the data without employing preconceived coding categories. The two reviewers then came together in dialogue with a third researcher to discuss any differences in the initial coding, refine the codes and reach consensus on the most appropriate codes (Elo et al., 2014). These codes were then organized into themes, following a systematic process of grouping codes into higher-order headings (Burnard, 1991). This iterative process led to the development of a codebook, providing a structured framework for consistent application of codes within themes. The two reviewers independently applied the finalized codebook to the remainder of the responses (15), and Cohen's κ was calculated to assess intercoder reliability (Burla et al., 2008). Discrepancies were discussed amongst the three researchers and consensus was reached on any differently coded items. The research team then reviewed the final coded dataset to further validate the categorization process and ensure the final codes and categories sufficiently represent the data as a whole (Thomas & Magilvy, 2011). Table 1 displays sample quotes from the dataset, indicating the categories and themes associated with each excerpt, providing insight into how the analysis reflects participants' responses.

Table 1. *Themes and Illustrative Quotes*

Themes and Codes	Definition	Illustrative Quote
A. Budtender Roles		
i) Role restrictions	Budtenders described regulatory restrictions on offering medical advice as limiting their ability to meaningfully support customers — limitation.	Budtenders are very restricted as to what they are able to say, something needs to change about this…

ii) Role clarity as a strength	Budtenders share product knowledge within clearly defined boundaries, distinguishing their role from that of medical or therapeutic advisors — strength.	The retail system provides clear lines of delineation between what can be legally given as advice on cannabis use and what cannot.
iii) Professional role boundaries	Certain topics should not fall within the budtender's professional scope — strength.	Budtenders should not have to carry the weight of helping with these ailments.
iv) Customer guidance and support	Budtenders support, educate, and protect customers within the legal cannabis retail environment — strength.	The retail system in place does not help [support people with mental health concerns], but the Budtender's discretion and experience when dealing with cannabis and mental health is useful.
v) Unmet customer needs	The budtender–customer relationship can lead to confusion, unmet expectations, or frustration — limitation.	[We] aren't allowed to relay …medical advice which leads to… both parties feeling frustrated, and the customer often [feeling] overwhelmed and confused with little to no answers.
vi) Limited Budtender influence	Budtenders feel a limited ability to guide customers with mental health concerns,citing both lack of authority and control — limitation.	The frustration is, just like any other substance, we cannot control or [help] a person with health or mental health challenges.
B. Legal Cannabis Characteristics		
i) Health-related benefits	Cannabis is described as having therapeutic benefits for consumers with mental health concerns — strength.	We make high CBD products available which can be beneficial for those experiencing mental health [challenges].
ii) Safe and regulated access	Participants identified the legal cannabis market as providing safe, regulated, and reliable access to products, contrasting it favourably with the illicit market — strength.	It makes the products more appealing for use… It makes it safer instead of having to buy from the black market.
iii) Limited potency	Participants identified regulatory caps on potency and CBD concentration, particularly in edibles, as driving consumers toward the illicit market — limitation.	Edible dosages need to increase as retail continues to lose sales to the illegal market [due] to the lack of potency and high cost to consume larger dosages.
C. Scientific Evidence		
i) Extent of existing evidence	Participants express mixed views on the extent and quality of scientific research on cannabis — mixed opinion.	Continued scientific research into not only what effects cannabis may have on mental illness, but what specific components of it (cannabinoids, terpenes, strengths, and ratios) as well as if particular intake methods play a role.
ii) Public access to research	Concerns and strengths are identified around the accessibility of cannabis research for both budtenders and the general public — mixed opinion.	Have actual pamphlets available in cannabis stores, at pharmacies or doctors offices, just giving customers more information on a better consumption experience for someone experiencing mental health [challenges].
D. Healthcare System Role		

i) Stigma in healthcare	There is a need to reduce stigma among medical professionals regarding cannabis use — limitation.	There is still a strong stigma against cannabis in the medical community, in spite of a lot of new research.
ii) Physician education	Medical professionals are viewed as needing more education on cannabis — limitation.	More education also needs to be given to medical professionals about cannabis to help decrease the stigma in healthcare settings.
iii) System-level integration	Healthcare systems, providers, and public health institutions are seen as offering insufficient coordinated support for individuals who use cannabis — limitation.	We should have access to resources that allow for people to have an immediate conversation with a medical professional, even if that conversation comes at a small cost to the retailer.
iv) Physician referrals	Budtenders are reported to refer customers to medical professionals for health-related cannabis advice — strength.	There are a number of medical cannabis clinics that are covered by OHIP… We offer this solution any time someone brings up medical or mental health concerns.
E. Budtender Training and Education		
i) More education is needed	Participants identified gaps in Budtender training across retail stores, emphasizing the need for additional education opportunities — limitation.	Better education around the harmful effects of cannabis if it is used excessively.
ii) Some training is provided	The current system is perceived as providing some baseline education for Budtenders — strength.	[The cannabis retail system] gives some education to budtenders.
F. Government Role		
i) Regulatory matters	Views on government regulation vary, with some seeing current regulations as helpful, while others believe changes are needed - mixed opinion.	The government should treat cannabis more like alcohol. With current regulations, it is still seen as taboo, and seems like it should be hidden.
ii) More government support needed	Participants call for greater government involvement in supporting consumers and budtenders through public health efforts — limitation.	More public support systems and ways of contacting them when people come in who are suffering from schizophrenia or other mental psychotic breaks.
G. Stigma Against Industry	Participants describe lingering stigma toward the legal cannabis industry, questioning its legitimacy or professionalism — limitation.	If someone is afraid to enter a legal store due to it being seen as "bad", they may resort to unsafe suppliers.

Trustworthiness

Trustworthiness was addressed using Lincoln and Guba's (1985) four criteria. Credibility was supported through a thorough review of the final coded dataset to confirm that codes and categories accurately reflected the data (Thomas & Magilvy, 2011); dependability through meticulous documentation of the coding and decision-making process (Thomas & Magilvy, 2011); confirmability through independent coding by multiple researchers followed by collaborative consensus discussion (Burla et al., 2008); and transferability through detailed reporting of sampling methods and participant characteristics (Koch, 1994).

RESULTS

Twenty-nine Budtenders responded to at least one of the two open-ended survey questions. Participants (N = 29; M age = 35.4, SD = 2.80) varied in gender identity, with 37.9% identifying

as cisgender men, 41.4% as cisgender women, and 10.3% as genderqueer or gender non-conforming. The sample was predominantly White-North American (51.7%) and White-European (37.9%), with a minority from South Asian, Middle Eastern, and other backgrounds. Most participants held some post-secondary education, with 34.5% reporting a bachelor's degree, 27.6% with some post-secondary education but no degree, 13.8% a master's degree, and 6.9% a professional degree. Regarding cannabis use, the majority (69.0%) reported current use, while 20.7% reported previous cannabis use and 6.9% reported no history of cannabis use. Demographic information from the full sample is documented in full in our previous study (Lowe et al., 2025). The average response length was $M = 36.5$ words ($SD = 44.2$). The unweighted average Cohen's Kappa was 0.79, indicating substantial agreement between the two raters.

Analysis of the qualitative responses revealed seven overarching themes (see Table 1), each representing a distinct aspect of the current cannabis retail environment and the broader systems in which it exists. Within each theme, participants identified both strengths of the existing system and domains in need of improvement. These are reflected within the categories presented below each main theme.

Theme 1. Budtender Role and Responsibilities

The most salient theme in the data was the roles and responsibilities of Budtenders, particularly in their interactions with customers experiencing mental health concerns. This overarching theme contained six lower order categories that reflect the nuanced and sometimes dichotomized perspectives shared by Budtenders regarding their roles and responsibilities within their position: *role restrictions, role clarity as a strength, professional role boundaries, customer guidance and support, unmet customer needs* and *limited Budtender influence.*

Role restrictions emerged as the most frequently cited subcategory, with participants emphasizing the legal and regulatory barriers that prohibit them from offering medical advice and restrict what they can say. As one participant stated, "as recreational cannabis providers we are prohibited from offering medical advice." While this was experienced as a constraint, *role clarity as a strength* captures a distinct but related perspective: that having clearly defined boundaries is itself a positive feature of the current system, allowing Budtenders to share product-specific knowledge without overstepping into clinical territory. *Professional role boundaries* goes a step further, reflecting the view that mental health-related support should not fall within a Budtender's scope at all, not simply because regulations prohibit it, but because it is inappropriate or beyond their training to take on. As one participant noted, "Budtenders should not have to carry the weight of helping with these ailments." Despite these restrictions, *customer guidance and support* captures how Budtenders nevertheless work to protect and assist customers using their discretion and experience. One participant described the retail environment as "a channel for new or inexperienced [people who use cannabis] to ask questions and find products that suit their needs." However, this support has its limits: *unmet customer needs* reflects the confusion and frustration that can result when Budtenders are unable to answer mental health-related questions, while *limited Budtender influence* captures a broader sense of powerlessness in shaping customer outcomes. As one participant explained, "As a budtender there is only so much we can do and most of the time what we say gets brushed off because we are just people working in pot shops."

Theme 2. Legal Cannabis Characteristics

The second theme reflects participants' views on how the features of legal cannabis products and their availability shape the system's ability to support customers experiencing mental health concerns. This theme captured three lower-order categories: *health-related benefits, safe and regulated access* and *limited potency*.

Health-related benefits were frequently mentioned, with participants describing cannabis, particularly high-CBD products, as having therapeutic value for individuals managing mental health issues. Budtenders emphasized that these benefits were contingent on appropriate use. As one participant noted, "Cannabis helps the majority of people and it has very beneficial health factors when used correctly." One participant described cannabis in harm-reduction terms, suggesting it could serve

as "harm reduction as a substance replacement [for] other drugs (alcohol, opiates)." Second, participants emphasized the *safe and regulated access* associated with the legal cannabis market. Budtenders described legal dispensaries as a safe, legitimate and reliable environment in which consumers with mental health concerns can access cannabis products, particularly in contrast to illicit markets. Third, participants see the *limited potency* of legal cannabis products as a limitation, particularly in relation to edibles. They described legal edibles as having relatively low potency, high costs, and restricted CBD concentrations, which were seen as reducing product effectiveness and driving some consumers back to the illegal market. As one participant put it, "make higher CBD products available — the limit placed on products is arbitrary and not supported by research."

Theme 3. Scientific Evidence

The third theme highlights participants' views on the role of scientific evidence in shaping how effectively the cannabis retail system supports customers experiencing mental health concerns. This theme captured two lower-order categories: the *extent of existing evidence* and *public access to research.*

First, participants expressed hesitancy regarding the *extent of existing evidence*. Several emphasized the need for additional research, with one participant noting that "we need more credible research to identify the risks and benefits of cannabis use." Second, participants discussed *public access to research*, and emphasized the need for clearer and more accessible information about cannabis and its mental health impacts for both consumers and Budtenders. As one participant noted, "there needs to be way more information readily available for customers."

Theme 4. Healthcare System Role

The fourth theme reflects participants' views on the role of the healthcare system in supporting cannabis use for mental health concerns. This theme captured four lower-order categories: *stigma in healthcare, physician education, system-level integration* and *physician referrals.*

Participants emphasized *stigma in healthcare* as a barrier to supporting customers with mental health concerns, describing persistent negative attitudes towards cannabis among medical professionals. Relatedly, the need for more extensive *physician education* on cannabis was identified. Beyond individual providers, *system-level integration* emerged as a limitation, with participants identifying the absence of accessible, real-time pathways to medical professionals as a gap in the current retail system, particularly for customers with complex health needs. Amid these challenges, *physician referrals* emerged as one strategy Budtenders described when customers raised health-related questions. As one participant noted, this involves placing "emphasis on getting advice from your medical practitioner."

Theme 5. Budtender Training and Education

The fifth theme focuses on Budtender training and education in the context of supporting customers with mental health concerns. This theme captured two lower-order categories: *more education is needed* and *some training is provided*.

First, participants felt that *more education is needed*, with many participants identifying gaps in how Budtenders are trained across retail stores. One participant noted the need for "specific training within CannSell or from the AGO that addresses the reality that people do use cannabis to treat mental health issues, and instill best practices into retailers and budtenders alike." Participants also highlighted the need for greater awareness of the potential harmful effects of cannabis when used excessively. In contrast, a smaller number of participants noted as a strength that *some training is provided,* acknowledging that the current system does offer Budtenders some foundational education.

Theme 6. Government Role

The sixth theme centers on the role of government in shaping the cannabis retail system's ability to support customers with mental health concerns. This theme captured two lower-order categories: *regulatory matters* and *more government support.*

Participants expressed varied opinions on *regulatory matters*. Some Budtenders identified regulations that are beneficial for supporting customers with mental health concerns, such as

"having warnings on the packaging that clearly states the risks." Others suggested that "stricter governance over the industry" is needed. Additionally, participants emphasized the need for *more government support*, calling for expanded public health initiatives and resources to assist both consumers and Budtenders in addressing serious mental health issues such as psychosis. Others expressed concern that retailers lack sufficient support or guidance from government institutions. As one participant noted, "there are no resources or incentives available to the authorized retailers to responsibly answer questions of the public." At the same time, some participants felt that current government regulations contribute to the taboo surrounding cannabis.

Theme 7. Stigma Against Industry

The next theme addresses *stigma against the cannabis industry*, which was less prominently represented in the data compared to other themes and contained no distinct lower-order categories. Participants described how cannabis retail and the broader industry are sometimes perceived negatively, which may discourage individuals from accessing legal stores. One participant suggested that increasing community engagement and public education could help address these perceptions, noting that "there needs to be more local community events showing the cannabis benefits, hints and tips for [people who use cannabis] and how to avoid and deal with any negative experiences."

DISCUSSION

This study is the first to qualitatively examine how Budtenders in Ontario, Canada perceive and navigate the strengths and weaknesses of the current cannabis retail landscape, particularly in relation to supporting individuals with mental health concerns. Our findings illustrate the complex and often contradictory expectations placed on Budtenders within the current legal and healthcare landscape. While participants emphasized the supportive role they play in guiding and protecting customers, some expressed frustration with the limitations of their professional scope, particularly when they are confronted with mental health-related questions that they are unable to answer due to legal and regulatory constraints. Yet, others also stressed that mental health–related support lies outside their professional scope and did not wish to assume additional clinical responsibilities. Nonetheless, Budtenders acknowledged that, in the absence of accessible or trustworthy healthcare guidance, they often serve as the de facto source of cannabis information — consistent with research showing that Canadian Budtenders are frequently asked about cannabis's impact on mental health (Cameron et al., 2023). Taken together, the results of this study highlight a tension between what customers ask of Budtenders and what Budtenders are authorized or equipped to deliver.

A lack of integration with the healthcare system emerged as key concerns. While some Budtenders described referring customers to physicians or cannabis clinics, others noted that stigma within the medical community and limited clinician knowledge of cannabis create barriers to effective follow-through. This is consistent with existing literature showing that healthcare professionals often lack sufficient knowledge to counsel patients on cannabis use, or are otherwise hesitant to engage in conversations around cannabis use (Matson et al., 2021; Ruheel et al., 2021; Zolotov et al., 2021).

These gaps in healthcare integration were compounded by what participants described as insufficient government support at the retail level. They emphasized the need for stronger public infrastructure to enable direct connections to therapists or medical professionals, especially in cases involving intoxication or symptoms like psychosis. While earlier critiques of Canada's post-legalization public health response have highlighted an underinvestment in education and research (Carlini et al., 2022; Health Canada, 2024), participants in this study pointed to a related concern: the absence of accessible, real-time mental health services that are directly linked to the retail context.

Regulatory frustrations further shaped participants' perspectives. Although many acknowledged the benefits of legalization, such as clearer packaging and safer access to purchase, they also voiced concern over high prices and limited potency. These limitations, participants noted, diminish the legal market's competitiveness and drive continued reliance on

illicit sources. These concerns echo findings from prior research showing that, despite the perception of legal cannabis as a safer option, consumers may continue to rely on illicit markets due to regulatory shortcomings (Resko et al., 2019). A notable point of tension emerged around product potency. While many Budtenders in this sample supported raising THC limits in edibles to reflect consumer demand, this view stands in contrast to public health research, which warns of the risks associated with high-potency cannabis and advocates for stricter dosage controls (Matheson & Le Foll, 2020). Such divergence reveals the complex challenge of balancing market responsiveness with public health goals.

Participants also highlighted a perceived lack of accessible scientific information on cannabis and mental health as a barrier to effective customer support for customers with mental health concerns. Budtenders expressed both a desire for increased research and for information that is made easily accessible to the public. This finding is consistent with evidence that awareness of existing cannabis public health guidance remains low across multiple stakeholder groups, with calls for wider dissemination of harm reduction information (Kourgiantakis et al., 2024). Interestingly, while participants identified the lack of research as a key barrier, Budtenders rarely cite research findings as the primary source of information they consult (Haug et al., 2016; Lowe et al., 2025). This paradox suggests that increasing the volume of research alone may be insufficient; how that information is packaged and made accessible to frontline retail workers is equally important.

Relatedly, inadequate Budtender training emerged as a prominent concern among participants, particularly with respect to preparing them to support customers experiencing mental health concerns. This aligns with prior research demonstrating that, in the absence of standardized, evidence-based training, many Budtenders rely on anecdotal knowledge or personal experience to educate customers (Haug et al., 2016). Participants in our study emphasized that effective training should go beyond basic product knowledge and should provide guidance that reflects the reality that people do use cannabis to cope with poor mental health. One proposed approach to strengthening Budtender training involves equipping practitioners not only with current knowledge but with the capacity to communicate uncertainty responsibly, what Lange and colleagues (2023) describe as a "knowledge-humility" framework.

Notably, no participants in our sample mentioned CUD, nor did any describe formal procedures for identifying or referring individuals with potential substance use concerns. While the open-ended survey questions were not designed to specifically elicit responses about CUD or substance use screening, this absence is nonetheless worth noting. This finding is consistent with research by Slawek and colleagues (2023), who found that while most dispensary staff encourage customers with co-occurring psychiatric conditions to consult medical professionals, few actively address the risk of CUD or offer appropriate referrals. Whether this reflects limited awareness, training gaps, or the boundaries of the retail role warrants further investigation.

Two distinct forms of stigma emerged as perceived barriers to supporting customers with mental health concerns. The first concerns stigma toward the cannabis industry itself: participants described how negative perceptions of legal stores may discourage consumers from accessing them, with some opting for unregulated sources instead. The second type of stigma identified by participants was stigma held toward people who use cannabis among medical professionals. This is consistent with broader research indicating that people who use cannabis therapeutically often experience judgment from family, peers, and medical professionals (Bottorff et al., 2013; Dahlke et al., 2024), contributing to secrecy, psychological distress, and underutilization of healthcare services (Nayak et al., 2023; Yangyuen et al., 2020). Together, these two forms of stigma may compound the challenges faced by consumers with mental health concerns seeking support.

The present findings suggest several concrete directions for future research. First, future work should evaluate whether an augmented CannSell curriculum incorporating mental health literacy, harm recognition, and referral protocols improves Budtender knowledge and confidence. Such a curriculum should be grounded in a knowledge-humility framework that equips Budtenders to communicate uncertainty responsibly and facilitate appropriate referrals rather than overstate what is known (Lange et al., 2023), and

its effectiveness should be evaluated using a randomized controlled design modelled on prior responsible vendor training trials conducted in U.S. jurisdictions (Buller et al., 2020). Second, participants' descriptions of the absence of real-time pathways to medical professionals suggest that formalizing referral connections between retail settings and cannabis-literate clinicians warrants investigation. Promising models have begun to emerge, including pharmacist-led consultation services piloted at retail cannabis stores in Ontario (StratCann, 2025), and future research should examine whether expanding such models or piloting new retail-integrated referral mechanisms improves outcomes for consumers with mental health concerns. Finally, future research should use in-depth interviews or scenario-based methods to more explicitly disentangle mental health-specific challenges from broader features of the retail environment, and should draw on larger, multi-province samples to improve generalizability.

These findings must be considered in light of several limitations. First, the qualitative data were derived from two open-ended questions embedded within a larger quantitative REDCap survey, rather than from in-depth interviews or focus groups. As a result, the research team was unable to probe responses, seek clarification, or elicit additional contextual detail, which may have limited the depth and nuance of some themes. Finally, it is important to acknowledge that although the open-ended questions in this study were designed to elicit perspectives on supporting customers with mental health concerns, many of the issues raised by participants reflect broader features of the legal cannabis retail system. This overlap is not incidental. Rather, it highlights how structural aspects of the retail environment, including regulatory constraints, training gaps, product availability, and access to credible information, shape Budtenders' perceived capacity to support customers across a range of contexts. For individuals experiencing mental health concerns, participants described these system-level limitations as particularly consequential, given the added complexity of mental health–related decision-making and the absence of clear guidance or referral pathways. Viewed in this way, the findings underscore the importance of addressing retail-level structures when considering how legal cannabis systems intersect with mental health support. Another limitation is that the sample was relatively small and limited to Budtenders whose managers forwarded the survey invitation, which may introduce selection bias and limit representation of more restrictive or unsupportive work environments. Participants were also drawn exclusively from Ontario, which limits generalizability to other provinces or jurisdictions with differing regulatory frameworks.

Conclusions

This study offers new insight into the perspectives of Canadian Budtenders navigating the intersection of legal cannabis retail and mental health. Despite their frontline role in consumer support, Budtenders face significant challenges due to limited training, unclear role boundaries, and a lack of accessible scientific information. Our findings suggest a gap between the mental health–related questions customers bring to retail cannabis settings and the authority, training, and resources Budtenders have to respond to them. Addressing this gap will require clearer training standards, improved public education, and stronger connections between retail environments and healthcare systems. As the cannabis landscape continues to evolve, participants' perspectives point to the need for aligned investment from policymakers, healthcare providers, and educators to ensure that both consumers and Budtenders are better equipped to navigate cannabis-related mental health concerns.

REFERENCES

Amini Lari, M., Busse, J. W., Turna, J., & MacKillop, J. (2023). Declared rationale for cannabis use before and after legalization for nonmedical use: A longitudinal study of community adults in Ontario. *Cannabis and Cannabinoid Research, 8*(6), 1133-1139. https://doi.org/10.1089/can.2021.0128

Athanassiou, M., Dumais, A., Zouaoui, I., & Potvin, S. (2023). The clouded debate: A systematic review of comparative longitudinal studies examining the impact of recreational cannabis legalization on key public health outcomes. *Frontiers in Psychiatry*, *13*,

1060656. https://doi.org/10.3389/fpsyt.2022.1060656

Boehnke, K. F., Smith, T., Elliott, M. R., Wilson-Poe, A. R., & Kruger, D. J. (2024). Cannabis-related information sources among US residents: A probability-weighted nationally representative survey. *Journal of Cannabis Research*, *6*(1), Article 38. https://doi.org/10.1186/s42238-024-00249-5

Bottorff, J. L., Bissell, L. J., Balneaves, L. G., Oliffe, J. L., Capler, N. R., & Buxton, J. (2013). Perceptions of cannabis as a stigmatized medicine: A qualitative descriptive study. *Harm Reduction Journal*, *10*(1), 2. https://doi.org/10.1186/1477-7517-10-2

Buller, D. B., Woodall, W. G., Saltz, R., Grayson, A., Svendsen, S., & Cutter, G. R. (2020). Sales to apparently alcohol-intoxicated customers and online responsible vendor training in recreational cannabis stores in a randomized trial. *The International Journal of Drug Policy*, *83*, Article 102860. https://doi.org/10.1016/j.drugpo.2020.102860

Burla, L., Knierim, B., Barth, J., Liewald, K., Duetz, M., & Abel, T. (2008). From text to codings: Intercoder reliability assessment in qualitative content analysis. *Nursing Research*, *57*(2), 113–117. https://doi.org/10.1097/01.NNR.0000313482.33917.7d

Burnard, P. (1991). A method of analysing interview transcripts in qualitative research. *Nurse Education Today*, *11*(6), 461–466. https://doi.org/10.1016/0260-6917(91)90009-Y

Calcaterra, S. L., Cunningham, C. O., & Hopfer, C. J. (2020). The void in clinician counseling of cannabis use. *Journal of General Internal Medicine, 35*(6), 1875–1878. https://doi.org/10.1007/s11606-019-05612-4

Cameron, J., Dhalla, R., Lougheed, T., Blanc, A., & Vaillancourt, R. (2023). An examination of cannabis-related information typically asked by consumers at retail cannabis locations: A Canadian survey of budtenders and managers. *Canadian Pharmacists Journal*, *156*(3), 150–158. https://doi.org/10.1177/17151635231164997

Carlini, B. H., Garrett, S. B., Firth, C., & Harwick, R. (2022). Cannabis retail staff ("budtenders") attitudes towards cannabis effects on health and experiences interacting with consumers—Washington State, USA. *Journal of Psychoactive Drugs, 54*(1), 34–42. https://doi.org/10.1080/02791072.2021.1900628

Dahlke, S., Butler, J. I., Hunter, K. F., Toubiana, M., Kalogirou, M. R., Shrestha, S., Devkota, R., Law, J., & Scheuerman, M. (2024). The effects of stigma: Older persons and medicinal cannabis. *Qualitative Health Research*, *34*(8–9), 717–731. https://doi.org/10.1177/10497323241227419

Das, A., Hendershot, C. S., Husain, M. I., Knyahnytska, Y., Elsaid, S., Le Foll, B., & Kloiber, S. (2024). Perceptions, experiences, and patterns of cannabis use in individuals with mood and anxiety disorders in the context of cannabis legalization and medical cannabis program in Canada: A qualitative study. *Pharmacopsychiatry, 57*(3), 141–151. https://doi.org/10.1055/a-2264-1047

Deng, Q., & Li, L. (2024). The effect size and nonlinearity of the relationship between cannabis consumption and consumer self-perceived mental health: A study based on eight national surveys in Canada. *The Journal of Consumer Affairs, 58*(4), 1072–1101. https://doi.org/10.1111/joca.12602

Elo, S., Kääriäinen, M., Kanste, O., Pölkki, T., Utriainen, K., & Kyngäs, H. (2014). Qualitative content analysis: A focus on trustworthiness. *SAGE Open, 4*(1). https://doi.org/10.1177/2158244014522633

Fortier, A., Zouaoui, I., Dumais, A., & Potvin, S. (2024). Effects of recreational cannabis legalization on mental health: Scoping review. *Psychiatric Services, 75*(9), 872–887. https://doi.org/10.1176/appi.ps.20230434

Goodman, S., Dann, M. J., Fataar, F., & Abramovici, H. (2024). How have cannabis use and related indicators changed since legalization of cannabis for non-medical purposes? Results of the Canadian Cannabis Survey 2018–2022. *The International Journal of Drug Policy, 127,* Article 104385. https://doi.org/10.1016/j.drugpo.2024.104385

Haug, N. A., Kieschnick, D., Sottile, J. E., Babson, K. A., Vandrey, R., & Bonn-Miller, M. O. (2016). Training and practices of cannabis dispensary staff. *Cannabis and Cannabinoid Research, 1*(1), 244–251. https://doi.org/10.1089/can.2016.0024

Health Canada. (2015). *Canadian Tobacco, Alcohol and Drugs Survey (CTADS):*

Summary of results for 2015. Government of Canada. https://www.canada.ca/en/health-canada/services/canadian-alcohol-drugs-survey/2015-summary.html

Health Canada. (2019). *Canadian Alcohol and Drugs Survey (CADS): Summary of results for 2019.* Government of Canada. https://www.canada.ca/en/health-canada/services/canadian-alcohol-drugs-survey/2019-summary.html

Health Canada. (2024). *Legislative review of the Cannabis Act: Final report of the expert panel.* Government of Canada. https://www.canada.ca/en/health-canada/services/publications/drugs-medication/legislative-review-cannabis-act-final-report-expert-panel.html

Hsieh, H. F., & Shannon, S. E. (2005). Three approaches to qualitative content analysis. *Qualitative Health Research, 15*(9), 1277-1288. https://doi.org/10.1177/1049732305276687

Koch, T. (1994). Establishing rigor in qualitative research: The decision trail. *Journal of Advanced Nursing, 19*(5), 976-986. https://doi.org/10.1111/j.1365-2648.1994.tb01177.x

Kourgiantakis, T., Hamilton, A., Tait, C., Tekirdag Kosar, A. K., Lau, C. K. Y., McNeil, S., Lee, E., Craig, S., & Goldstein, A. L. (2024). Reducing the harms of cannabis use in youth post-legalization: Insights from Ontario youth, parents, and service providers. *Harm Reduction Journal*, *21*(1), Article 193. https://doi.org/10.1186/s12954-024-01112-9

Kruger, D. J., Mokbel, M. A., Clauw, D. J., & Boehnke, K. F. (2022). Assessing health care providers' knowledge of medical cannabis. *Cannabis and Cannabinoid Research, 7*(4), 501–507. https://doi.org/10.1089/can.2021.0032

Kruger, D. J., Gerlach, J., Kruger, J. S., Mokbel, M. A., Clauw, D. J., & Boehnke, K. F. (2024). Physicians' attitudes and practices regarding cannabis and recommending medical cannabis use. *Cannabis and Cannabinoid Research, 9*(4), e1048–e1055. https://doi.org/10.1089/can.2022.0324

Lange, J. E., Moyers, S. A., & Croff, J. M. (2023). Responsible cannabis sales: A narrative review considering interventions for dispensary staff to address cannabis harms. *Public Administration Quarterly, 47*(3), 374-391. https://doi.org/10.37808/paq.47.3.7

Lev-Ran, S., Le Foll, B., McKenzie, K., George, T. P., & Rehm, J. (2013). Cannabis use and cannabis use disorders among individuals with mental illness. *Comprehensive Psychiatry, 54*(6), 589–598. https://doi.org/10.1016/j.comppsych.2012.12.021

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry.* Sage Publications.

Lowe, D. J. E., Sasiadek, J. D., Coles, A. S., & George, T. P. (2019). Cannabis and mental illness: A review. *European Archives of Psychiatry and Clinical Neuroscience, 269*(1), 107–120. https://doi.org/10.1007/s00406-018-0970-7

Lowe, D. J. E., Wang, C., Rueda, S., & George, T. P. (2025). Budtender perceptions and knowledge of cannabis and mental health: A preliminary study. *Cannabis, 8*(2), 164-172. https://doi.org/10.26828/cannabis/2025/000292

Matheson, J., & Le Foll, B. (2020). Cannabis legalization and acute harm from high potency cannabis products: A narrative review and recommendations for public health. *Frontiers in Psychiatry, 11,* 591979. https://doi.org/10.3389/fpsyt.2020.591979

Matson, T. E., Bradley, K. A., & Lapham, G. T. (2021). Self-reported practices of frontline cannabis dispensary workers and the implications for clinicians. *JAMA Network Open, 4*(9), e2125262. https://doi.org/10.1001/jamanetworkopen.2021.25262

Merlin, J. S., Althouse, A., Feldman, R., Arnsten, J. H., Bulls, H. W., Liebschutz, J. M., Nugent, S. M., Orris, S. R., Rohac, R., Starrels, J. L., Morasco, B. J., & Kansagara, D. (2021). Analysis of state cannabis laws and dispensary staff recommendations to adults purchasing medical cannabis. *JAMA Network Open, 4*(9), e2124511. https://doi.org/10.1001/jamanetworkopen.2021.24511

Nayak, M. M., Revette, A., Chai, P. R., Lansang, K., Sannes, T., Tung, S., & Braun, I. M. (2023). Medical cannabis-related stigma: Cancer survivors' perspectives. *Journal of Cancer Survivorship*, *17*(4), 951–956. https://doi.org/10.1007/s11764-022-01297-7

Ng, J. Y., Gilotra, K., Usman, S., Chang, Y., & Busse, J. W. (2021). Attitudes toward medical cannabis among family physicians practising in Ontario, Canada: A qualitative research study. *CMAJ Open, 9*(2), E342–E348. https://doi.org/10.9778/cmajo.20200187

Ormston, R., Spencer, L., Barnard, M., & Snape, D. (2014). The foundations of qualitative research. In J. Ritchie, J. Lewis, C. Nicholls, & R. Ormston (Eds.), *Qualitative research practice: A guide for social science students and researchers* (pp. 1-25). Sage.

Resko, S., Ellis, J., Early, T. J., Szechy, K. A., Rodriguez, B., & Agius, E. (2019). Understanding public attitudes toward cannabis legalization: Qualitative findings from a statewide survey. *Substance Use & Misuse, 54*(8), 1247–1259. https://doi.org/10.1080/10826084.2018.1543327

Rotermann, M. (2023). Using the Severity of Dependence Scale to examine cannabis consumers with impaired control in Canada. *Health Reports, 34*(6), 3-16. https://.doi.org/10.25318/82-003-x202300600001-eng

Ruheel, M. A., Gomes, Z., Usman, S., Homayouni, P., & Ng, J. Y. (2021). Facilitators and barriers to the regulation of medical cannabis: A scoping review of the peer-reviewed literature. *Harm Reduction Journal, 18*(1), Article 106. https://doi.org/10.1186/s12954-021-00547-8

Rup, J., Freeman, T. P., Perlman, C., & Hammond, D. (2022). Cannabis and mental health: Adverse outcomes and self-reported impact of cannabis use by mental health status. *Substance Use & Misuse*, *57*(5), 719–729. https://doi.org/10.1080/10826084.2022.2034872

Sagar, K. A., & Gruber, S. A. (2025). The complex relationship between cannabis use and mental health: Considering the influence of cannabis use patterns and individual factors. *CNS Drugs, 39*, 113–125. https://doi.org/10.1007/s40263-024-01148-2

Slawek, D. E., Althouse, A. D., Feldman, R., Arnsten, J. H., Bulls, H. W., Liebschutz, J. M., Nugent, S. M., Orris, S. R., Rohac, R., Starrels, J. L., Morasco, B. J., Kansagara, D., & Merlin, J. S. (2023). Cannabis dispensary staff approaches to counseling on potential contraindications to cannabis use: Insights from a national self-report survey. *BMC Primary Care*, *24*(1), Article 145. https://doi.org/10.1186/s12875-023-02095-5

Sorkhou, M., Dent, E. L., & George, T. P. (2024). Cannabis and mood disorders: A systematic review. *Frontiers in Public Health, 12*, 1346207. https://doi.org/10.3389/fpubh.2024.1346207

StratCann. (2025). *Ontario retailer to offer pharmacist-led cannabis consultations*. https://stratcann.com/news/ontario-retailer-pharmacist-led-cannabis-consultations/

Thomas, E., & Magilvy, J. K. (2011). Qualitative rigor or research validity in qualitative research. *Journal for Specialists in Pediatric Nursing, 16*(2), 151–155. https://doi.org/10.1111/j.1744-6155.2011.00283.x

United Nations Office on Drugs and Crime. (2024). *World drug report 2024.* United Nations. https://www.unodc.org/unodc/en/data-and-analysis/world-drug-report-2024.html

Weinberger, A. H., Pacek, L. R., Sheffer, C. E., Budney, A. J., Lee, J., & Goodwin, R. D. (2019). Serious psychological distress and daily cannabis use, 2008 to 2016: Potential implications for mental health? *Drug and Alcohol Dependence*, *197*, 134–140. https://doi.org/10.1016/j.drugalcdep.2019.01.010

Yangyuen, S., Kanato, M., Mahaweerawat, C., & Mahaweerawat, U. (2020). The perceived stigma of addiction and treatment utilization among cannabis addicts in Thailand. *Indian Journal of Community Medicine*, *45*(4), 492-496. https://doi.org/10.4103/ijcm.IJCM_532_19

Zolotov, Y., Metri, S., Calabria, E., & Kogan, M. (2021). Medical cannabis education among healthcare trainees: A scoping review. *Complementary Therapies in Medicine, 58,* Article 102675. https://doi.org/10.1016/j.ctim.2021.102675

Funding and Acknowledgements: Supported in part by CIHR Operating Grant PJT-190053 to Dr. George, a CIHR Pre-Doctoral Award to Ms. Lowe, a CIHR Canada Graduate Scholarship – Doctoral (CGS-D) award to Ms. Korman and a CIHR Canada Graduate Scholarship – Masters

(CGS-M) award to Ms. Grant. The authors wish to thank the Budtenders who generously gave their time to participate in this study and shared their perspectives and experiences. We also thank the Alcohol and Gambling Commission of Ontario (AGCO) for their assistance in distributing recruitment materials to cannabis retail stores across the province. The authors report no relevant financial or non-financial conflicts of interest. Data and study materials are available from the corresponding author upon reasonable request.

Early View Date: September 14, 2026