

Exploring the Perceptions of Cannabis Use Among Indigenous Youth in Manitoba Through Their Lived Experiences, Photovoice and Indigenous Research Methodologies: A Research Protocol

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Abstract

Introduction: In light of the increasing prevalence of cannabis use among Indigenous youth in Manitoba, Canada, this study seeks to address a critical gap in research by leveraging Indigenous methodologies and perspectives. The legalization of cannabis in Canada, intended to reduce juvenile use, has not fully achieved its goal with youth, particularly Indigenous youth who experience heightened exposure and associated risks. This research aims to illuminate the lived experiences of Indigenous adolescents.

Methods: The study will recruit 20 Indigenous youth in Manitoba with experiences of cannabis use using snowball and purposeful sampling methods. Integrating community-based Indigenous research methodologies and frameworks: community-engaged scholarship (CES), participatory action research (PAR), Indigenous knowledge (IK), community-based participatory research (CBPR), photovoice, open-ended interviews, and storytelling. By centering Indigenous knowledge systems and engaging directly with the youth, the study aims to develop a nuanced understanding of their motivations, cultural and community influences, and the impact of cannabis use on their lives. Indigenous methodologies ensure that the research process is respectful, culturally sensitive, and beneficial to the community. This approach honors traditional knowledge and facilitates meaningful dialogue between researchers and participants.

Anticipated Results: The analysis will employ a modified constructivist grounded theory (MCGT) approach. This methodology will involve an inductive data analysis to identify patterns, categories, and themes that emerge directly from the data. The results will be systematically organized using NVivo software. Researchers will code the transcripts openly to identify recurring themes, patterns, and potential subthemes and then structure them into a coherent framework.

Discussion: By incorporating the unique perspectives of Indigenous youth, the study aims to inform evidence-based strategies more aligned with their specific needs and experiences.

Conclusion: Ultimately, the goal is to enhance policy-making efforts and create supportive frameworks that can better address and mitigate cannabis use among Indigenous youth in Manitoba.

Keywords: cannabis; Indigenous youth; Indigenous epistemologies; storytelling; photovoice; sharing circles; qualitative research; lived experiences

Introduction

In 2018, the Canadian government passed Bill C-45, an Act that legalized cannabis use across ten provinces and three territories [1]. The primary objective of the Act was to reduce juvenile cannabis use. Still, recent evidence indicates that, in contrast to the intended outcome, Canadian youth between the ages of 15 and 24 reported the highest rate of cannabis use in the country [2, 3]. Moreover, Canada has legalized cannabis only for adult use, and federal law still prohibits minors under eighteen from using it. However, some provinces, like Ontario and Quebec, have set the legal age at 19 and 21 [4]. Although there has not been much study done on the effects of cannabis

legalization on Canadian youth, interest in this area has grown recently.

In a mixed-method research design, surveys, interviews, and focus groups were conducted on 160 social workers in Ontario [5]. Results from the survey highlighted that 60% expressed their support for the legalization, and 84% stated that cannabis poses both physical and mental health hazards to youth. Levels of exposure also correlate with other considerable effects. Early, frequent, and sustained exposures to cannabis may have potentially detrimental impacts on academics, social relationships, psychotic symptoms, frequency of suicidal ideation, substance use disorders, anxiety, attention deficit

hyperactivity disorder (ADHD), and respiratory problems [6, 7]. Concerning Indigenous youth, there is a dearth of information in the literature about the possible effects of cannabis on their health and wellness.

The Indigenous youth in Canada are considered the most vulnerable demographic for substance and cannabis use. Previous studies have found that this vulnerability stems from social factors resulting from intergenerational trauma, separation from families, experiences of marginalization, financial problems, and discrimination [5, 8, 9]. Recent studies have identified links between cannabis use and Indigenous youth, focusing on factors such as peer substance use, social support, family dynamics, second-hand smoke exposure, mental health issues, and school-related problems [10]. One study [8] focusing on Indigenous youth using alcohol, tobacco, and marijuana in off-reserve schools revealed that, between 2014 to 2015, Indigenous youth had higher odds of smoking and experiences of past-year drinking compared to non-Indigenous youths. In addition to the difficulties faced by other Canadian adolescents, Sikorski et al. (2019) also showed that Indigenous youth may use cannabis as a coping mechanism in response to difficulties they have been exposed to [8]. A few include sexual assault, mental health conditions, and physical abuse. They resorted to undesirable coping practices to escape these high-stress settings [8, 10, 11].

Previous articles have focused on exploring illicit substance abuse in provinces with large Indigenous populations, such as Alberta, British Columbia, and Quebec. However, cannabis use among Indigenous youth in Manitoba, as discussed by [12] has become more prevalent compared to adults in Manitoba. Additionally, a Manitoba report of cannabis use among youth between 2014 and 2017 stated a 47% increase in youth amphetamine use. Furthermore, from 2012 to 2017, hospitalizations due to cannabis-induced disorders rose by 45% [12, 13]. Recent findings from one study [14] showed that Manitoba recorded the highest increase in recreational cannabis sales in Canada between 2022 to 2023 at 23%.

Although Cannabis use is rising among Indigenous youth, very few studies have attempted to approach this research by considering their lived experiences. A deeper understanding of the reasons behind Indigenous youth's adoption of cannabis consumption is crucial for creating evidence-based policies aimed at reducing potential health hazards among this group, especially in provinces with smaller but growing Indigenous populations, such as Manitoba.

Among a sample of Indigenous Canadian youth who report using cannabis, we seek to explore how Indigenous youth in Manitoba perceive and experience cannabis use, including their motivations, cultural influences, and the impact on their lives and communities through the use of Indigenous methodologies and photo-voice.

Theoretical Framework

In developing the study methodology, we emphasized utilizing Indigenous knowledge systems to encourage impactful and transformative interactions with the youth. Integrating their perspectives could significantly enhance the relevance of the findings, broaden the scope, and address knowledge gaps that have historically overlooked the perspectives of Indigenous youth in research [15]. To address the research question effectively, we focused on community-based research methods and frameworks.

This project will involve a youth and researcher collaboration, forming ceremonies of relationship. This approach establishes a collaborative relationship between the research team and the youth, promoting interactive knowledge exchange. As suggested by prior research [15, 16], viewing engagement with Indigenous youth as a ceremony aligns with Indigenous methodologies by integrating spiritual practices into research and recognizing the sacredness of knowledge and stories that emerge. We structure this process around three frameworks: PAR, CES, and CBPR. Additionally, we use Indigenous methodologies such as storytelling, sharing circles, and photovoice to enhance this engagement.

The research methods and frameworks used includes community-engaged scholarship (CES), participatory action research (PAR), community-based participatory research (CBPR), and Indigenous knowledge (IK). Additionally, we decided on a modified constructivist grounded theory for data analysis. Community engaged scholarship (CES) focuses on redirecting scholarships and relationships with Indigenous youth that may have been exploitative, to create a civil space that encourages community working together through knowledge sharing and mutually beneficial outcomes [17, 18]. The Participatory Action Research (PAR) framework heavily emphasizes the need for experience and knowledge to solve issues caused by unfair and damaging social structures and develop solutions [18]. With PAR, community members can voice their opinions and participate in the research process either during or after the project's completion. The findings from this approach, as indicated by [18], are expected to reflect the concerns and experiences of youth, enhancing the likelihood of positive outcomes and nurturing productive relationships among youth, their communities, and academic researchers. Community-based participatory research (CBPR) is a framework that explicitly prioritizes advancing social justice. Within this paradigm, research strategies are designed collaboratively with community members to incorporate initiatives for social change and transformative action. We used this approach to avoid the "break-and-enter" research methods, which involve briefly entering a community, collecting data, and leaving without forming lasting relationships or improving outcomes [19]. Instead, it fosters an Indigenous ontological perspective, promoting a relational view of research that encourages intentionality and accountability in knowledge generation [15, 19, 20].

With Indigenous knowledge, fundamentally, the goal of an Indigenous approach to research is to "re-right" or "rewrite" the borders between Indigenous and Western modes of knowledge, as well as decolonize the regions of collaboration and knowledge production across these methodologies [21]. They recognize "the interconnectedness of physical, mental, emotional, and spiritual aspects of individuals with all living things, the earth, the star world, and the universe" [20].

Photovoice allows individuals to use a particular photographic approach to identify, represent, and transform their society. By entrusting cameras to people, the technique enables individuals to act as both record keepers and catalysts for community change, enhancing accessibility and promoting the exchange of ideas through nonverbal means, thereby transferring control and authority from the researcher to the participants [22, 23].

Storytelling, an Indigenous methodology, is rooted in Indigenous epistemologies and pedagogy, where oral traditions have transmitted Indigenous knowledge for centuries [24]. Storytelling taps into spirit and heart to raise awareness and foster deep self-connection. It transcends simple instruction or event recounting, allowing individuals to freely express their emotions and personal meanings without answering questions or conforming to expectations [24, 25]. Sharing circles are of sacred significance to Indigenous cultures. They use a therapeutic approach, treating all participants, including the facilitator, as equals and fostering the exchange of information, spirituality, emotions, and all aspects of the individual (heart, mind, body, and spirit) [20, 25]. The circle, characterized by its non-judgmental and supportive atmosphere, emphasizes respect as individuals speak while seated in a clockwise or counterclockwise direction, holding symbolic objects like a talking stick or eagle feather, which typically begins with a smudging ceremony [20, 24]. Burning sweetgrass, sage, or cedar wood is a sacred practice known as "smudging," which is intended to cleanse everyone who enters the ceremonial sharing circle of their body, mind, heart, and soul [15, 20].

Methods

Participants

The research methodologies are deeply informed by Indigenous Knowledge, incorporating both epistemological and ontological perspectives. This approach is grounded in a profound respect for Indigenous traditions and the communities involved. Given the study's focus on adolescents' perspectives and community-based nature, we will actively recruit peers who meet the eligibility requirements and share similar experiences using snowball and purposeful sampling methods. The sampling method prioritizes adequacy over generalizability and sample size to gather comprehensive information [26]. Using the CES framework which focuses on fostering relationships with Indigenous youth and communities. This study will actively

engage community members in all stages of the research process for shared and mutual knowledge building. We will recruit participants by partnering with local youth organizations and collaborating with a Community Advisory Committee (CARC). This approach aligns with the CBPR framework, where social justice and equitable partnership is significant. This approach will help build a team where initiatives and strategies are designed collaboratively to align with the community's needs. The research team will comprise community health agencies working with youth and adolescents, Indigenous elders and chiefs, and Indigenous and non-Indigenous researchers, coordinators, and assistants. Participants will be recruited through a survey administered by local community organizations, working collaboratively with the research team. Also, infographic posters will be displayed on poster boards at these organizations, included in newsletters, uploaded onto websites, and shared on their social media platforms. Additionally, we will incorporate the PAR framework by conducting workshops where the community members can share their experiences and contribute to the research questions and research participant questions during the data collection phase. With this approach we hope to ensure the findings reflect the concerns of youth.

The study's inclusion criteria include adolescents in Manitoba (aged 15-18 years) who identify as Indigenous and have a history of cannabis use. Those who have been placed in detention without permission due to a cannabis addiction may take part, provided they consent to do so. We will also exclude pregnant participants and participants with severe physical, mental, developmental, and intellectual disabilities. The study is limited to 20 Indigenous youths. The inclusion and exclusion criteria were established based on recent qualitative studies on cannabis use among youth, ethical considerations and potential impacts on participants [19, 22].

Data Collection

Before beginning data collection, staff would be appropriately trained in sharing circles and conducting storytelling-type, semi-structured interviews. We will hold meetings with community members, including parents, elders, and representatives from youth organizations, to seek their advice on incorporating Indigenous practices into the process. We will focus on building relationships and letting the youths' perspectives guide the interviews rather than relying solely on predetermined questions. We aim to foster an interconnected dialogue where storytelling and shared views enrich the conversation [15, 19]. After participants sign up, we will meet to explain the research process timeline, obtain written consent forms, and secure approval from parents or guardians. During this meeting, we will discuss precautions for taking pictures, including avoiding images of people, identifiable features (such as tattoos and birthmarks), private property, and any criminalized activities.

Figure 1 outlines the timeline and stages of the data collection. The data collection procedure begins with a sharing circle, then four photovoice sessions; each followed a week after with an open-ended storytelling interview. The data collection process would begin with a sharing circle. The research team and elders in the community would conduct the circle which would begin with smudging. The circle would begin with smudging. We will share the purpose of the study, discuss cannabis use in Manitoba, explain photovoice, open-ended storytelling interviews, and present the disposable cameras. After the circle, participants would practice using the cameras. The four stages of data collection would begin a week later.

Wave 1

For this stage, the participants would take pictures related to cannabis use and the environment. They will receive potential questions and be encouraged to take photos illustrating their responses. For example, "How does my immediate surroundings and built environment affect my cannabis use?". The participants would return a week later. Upon arrival, we will ask them to select their five most preferred pictures for printing and encourage them to date and title their work. Then, each participant with a researcher would discuss these pictures using a semi-structured storytelling format. Some questions asked are: How do the design and layout of public spaces (e.g., parks) influence your use? How does the proximity to schools' community centers affect your use? Using the questions and pictures as a guide, participants will share their stories

and reflections. We will incorporate prompts during the interviews. Additionally, the adolescents can pick out of the five pictures which they are comfortable with to have published.

Wave 2

The students are given back the camera and introduced the theme for the week. The theme will be "How do families and friends affect your cannabis use?". We will use a similar picture selection process. The interviews will follow the same process with questions such as "How does your family's behavior towards cannabis use (positive, negative, neutral) affect you?", "how do relationships and dynamics (e.g., parental support, sibling influence) influence your use?", and "how do your relationships with friends affect your cannabis use?"

Wave 3

The theme will be "How does the community influence your cannabis use?". Possible interview questions could be: How do community prevention and intervention programs affect cannabis use? How do cannabis-related marketing and advertising affect usage?

Wave 4

This stage focuses on the Indigenous youths themselves. They can take pictures of what they feel helps or worsens their cannabis use. It could be activities, relationships, or what they engage in that may deter or influence the use of cannabis, followed by an interview.



Figure 1. Framework for Indigenous Youth Lived Experiences of Cannabis Use in Manitoba. This figure was created using Canva.

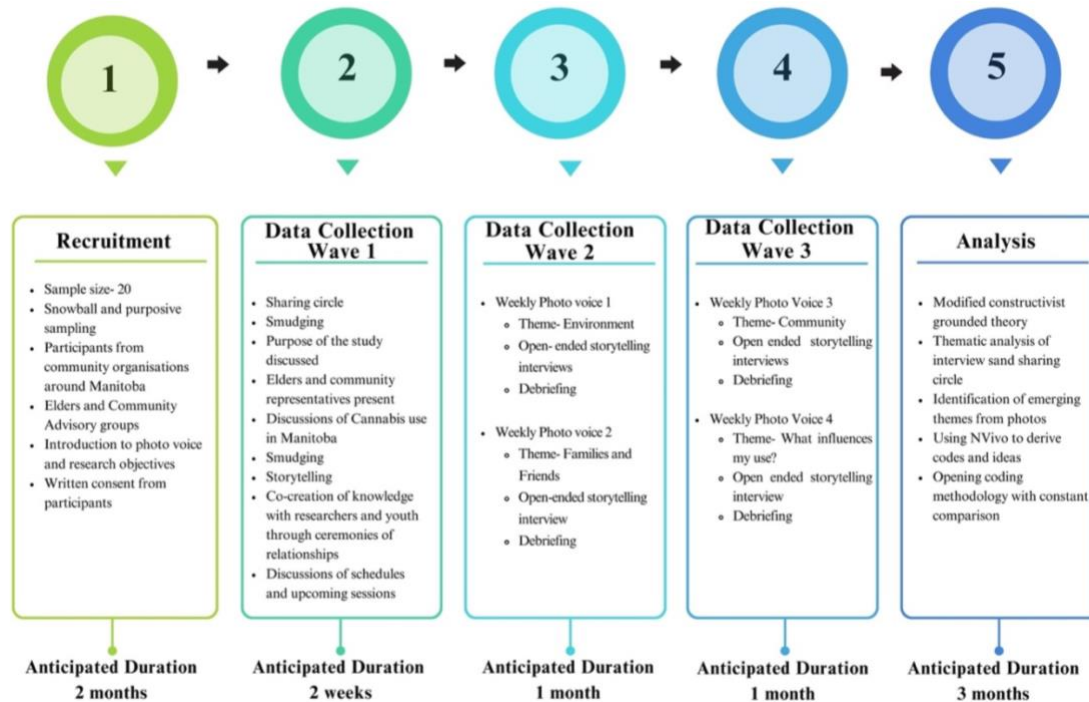


Figure 2. The Expected Study Timeline. This figure was designed using Canva software.

[Figure 2](#) illustrates the expected study timeline. Recruitment would begin with an anticipated sample size of 20 participants recruited from youth community organizations youth around Manitoba, spanning two months. Wave 1 of data collection would involve the sharing circle. Data collection at wave two would span a month, involving weekly themed photovoice sessions followed by an open-ended semi-structured interview and a debriefing session. Wave 3 of data collection is like Wave 2, with a themed photovoice session and open-ended interviews to follow. For three months, we will use a constructivist grounded theory approach involving thematic analysis of the sharing circles, photos, and interview sessions.

Ethical Considerations

Due to the sensitivity of such a project, critical attention to ethical procedures is necessary. Thus, the principles of ownership, control, access, and possession (OCAP) must be considered. They outline procedures to ensure the research benefits Indigenous communities [15]. OCAP asserts that the researcher should know the territory of the treaty where the research is engaged. The treaties in Manitoba include Treaties 1-6, Treaty 5 adhesion, and Treaty 10 [27]. Therefore, we shall contact the regional organizations' Assembly of Manitoba Chiefs (AMC), the Manitoba Metis Federation (MMF), and the Manitoba Inuit Association (MIA) to establish necessary agreements [28].

Additionally, we will contact Elders and advisory groups to guide the project, methodologies, and framework from the onset and throughout the process. We will

consider guidelines and obtain approval from the University of Manitoba Health Research Ethics Board (HREB) and the Canadian Institute of Health Research guidelines for health research involving Aboriginal People. Other ethical considerations involve maintaining the confidentiality, anonymity of participants, voluntary participation, and obtaining written consent. We will inform participants of their right to withdraw from the study at any point and choose to answer or not answer any questions during the open-ended interviews.

As a result of the delicate nature of such topics, well-trained researchers would use non-judgmental language and indirect questioning that would be less instructive [22]. We will follow all four stages with debriefing sessions. Also, monitoring of participants' well-being will be enacted and resources will be available for additional help during and after sessions.

Anticipated Results

A modified constructivist ground theory (MCGT) approach will be used for the data analysis. Data would be analyzed inductively to derive patterns, categories, and themes directly from the data rather than imposing pre-existing theories or frameworks [19]. This methodology was chosen because it is an interactive, culturally sensitive, and emphasizes reflexivity and the collaborative creation of knowledge between the researcher and participants [29]. MCGT helps researchers develop theories that are grounded in empirical data while recognizing the interpretive nature of qualitative inquiry, and the modified

nature helps to incorporate the Indigenous approaches methodologies [19].

Using MCGT, the transcript will be analyzed from the sharing circles, photographs, and open-ended interviews. The findings from the sharing circle are field notes and observations. From photographs, five chosen pictures that the participants feel most accurately identify and contextualize the themes discussed. Only the pictures the participants consent to will be published, although unpublished pictures discussed during the interviews will be analyzed. For the interviews, at least two research assistants will individually code the transcripts from the four interviews and then discuss the emerging codes with the research team.

Researchers will organize these results in NVivo software, and will code transcripts openly, which is expected to show recurring themes and patterns that emerge, as well as possible subthemes, and then organized into a framework. Reporting the results of the findings will be a narrative description published with the consented pictures and reflexivity of the researchers' biases. Furthermore, to improve credibility and rigor, there shall be engagement in peer debriefing within the research team, where significant themes will be reviewed and discussed thoroughly with elders and other advisory committees.

Discussion

Through this research we anticipate that the rich narrative and visual documentation from Indigenous adolescents will contribute significantly to understanding the multifaceted influences on cannabis use. In a literature review by [30], of Indigenous People's perspectives on cannabis use across Canada, the main emerging themes identified were (1) impacts of cannabis use on health and wellness in Indigenous communities; (2) the cannabis industry as an economic driver; (3) reconciliation and self-determination; and (4) the legalization, social justice, and social equity of cannabis use. To Indigenous youth many subthemes were also identified such as the history through intergenerational trauma, familial dynamics, peer influence, second hand exposure, access and cultural identity [30, 31]. These findings align with our research methodologies and questions, leading us to anticipate the emergence of similar themes. Additionally, we expect the impact of built environment, emotional, mental and psychological aspects. By utilizing the photovoice approach, we aim to delve deep into the participants' perspectives, revealing the intricate layers of their lives and experiences. This method will not only illuminate their struggles but also celebrate their resilience, inviting a transformative understanding of their realities.

Other research highlighted that empowerment, advocacy, and cultural identity, along with community-based policies and interventions, helped Indigenous youth form a significantly stronger negative perception of substance use, which in turn reduced the likelihood of future

use [31-33]. Thus, helping Indigenous youth build a strong sense of cultural identity may better equip them to conquer harmful and addictive practices. Additional factors include the protective benefits of associating with peers who do not use cannabis and the lack of parental influence, both of which contribute to a reduction in use [32, 33]. Ultimately, although these previous papers establish results that may be predictive of the results of this paper, however the unique approach utilising the PAR, CBPR, CES, Indigenous methodologies, photovoice and storytelling would provide a comprehensive understanding of these dynamics, paving the way for informed strategies that empower Indigenous youth and foster healthier communities.

Conclusions

Limitations

The sample size may limit the generalizability of the results, as the findings might not fully represent the broader population. Additionally, the research could be resource-intensive, and the topics' sensitivity may introduce ethical dilemmas and complicate the approval process. There may also be challenges with participant retention.

Future Directions

In conclusion, the enactment of Bill C-45 in 2018, while intended to curb juvenile cannabis use, has not achieved its primary objective. This is evidenced by the rising rates of cannabis consumption among Canadian youth, particularly within Indigenous communities, which underscores a pressing need for a nuanced understanding of the impacts on youth. This research illuminates the critical gap in knowledge concerning Indigenous youth in Manitoba, a demographic significantly affected by higher rates of cannabis use. The integration of Indigenous methodologies, storytelling, and photovoice, and the collaborative nature of the research design ensures that the study is culturally sensitive, bridges the disconnect between Western research frameworks and Indigenous epistemologies, and reflects the lived experiences of Indigenous youth.

The anticipated findings are expected to reveal the subjective experiences behind cannabis use. Indicating that cannabis use is not merely an isolated behavior but intertwined with broader socio-cultural, environmental, and personal factors. Thus, guiding the creation of early culturally specific interventions, strategies, and evidence-based policies to address and prevent increasing addiction, ultimately promoting Indigenous youth wellness in Canada and similar contexts. Future research should expand beyond Manitoba to explore the experiences of Indigenous youth in other provinces and territories, thereby broadening the understanding of cannabis use across different Indigenous communities. Additionally, there is a need for longitudinal studies to assess the long-term impacts of cannabis legalization on Indigenous youth health and wellness.

List of Abbreviations

ADHD: attention-deficit/hyperactivity disorder
PAR: participatory action research
IK: Indigenous knowledge
CBPR: community-based participatory research
CES: community-engaged scholarship
CARC: community advisory committee
OCAP: ownership, control, access, and possession
AMC: assembly of Manitoba chiefs
MMF: Manitoba Metis federation
MIA: Manitoba Inuit association
REB: University of Manitoba research ethics board
MCGT: modified constructivist grounded theory

Conflicts of Interest

The author declares that they have no conflict of interests.

Ethics Approval and/or Participant Consent

This study, being a preliminary proposal, was not submitted for ethics approval. However, should this study design be utilized in a future research project involving human participants, it will be imperative to obtain ethics approval from the Research Ethics Board (REB) and relevant Indigenous councils and organizations.

Authors' Contributions

OA: made significant contributions to the design of the study, drafted the manuscript, conducted revision to the manuscript and gave final approval of the version to be submitted.

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