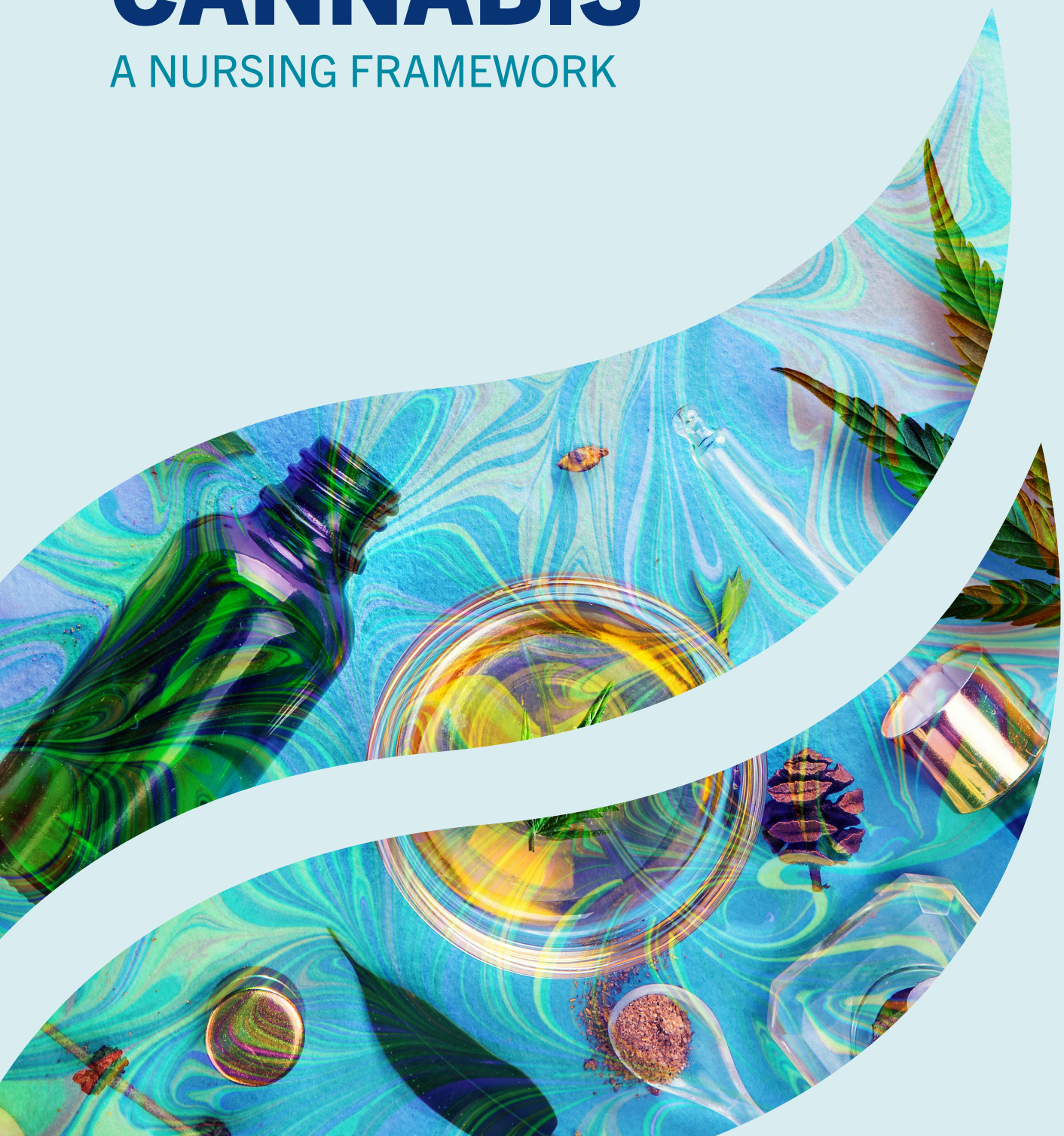
Canadian Nurses Association

NON-MEDICAL CANNABIS

A NURSING FRAMEWORK



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Introduction

The Canadian Nurses Association (CNA) was pleased to accept financial support from Health Canada's Substance Use and Addictions Program (SUAP) for the purpose of examining the cannabis landscape after non-medical cannabis was legalized in October 2018. Our goals were to understand how nursing practice would be affected and to build relevant nurse education resources to meet the profession's needs. Two deliverables were defined: a document with a national scope (i.e., this framework) and e-learning modules (launched in May 2021). A summary of the e-learning modules is provided in Appendix A.

Stakeholder consultations

One of the first steps in building this framework and the e-learning modules was to conduct stakeholder consultations. Although the SUAP project was intended to address the legalization of non-medical cannabis and implications for nursing practice, through consultation we learned that, at times, the issues surrounding non-medical and medical cannabis are similar; both are therefore discussed in this document. (Diagnostic and dosage information is not provided in this framework; for such information, readers are directed to Health Canada's *Information for Health Care Professionals: Cannabis (Marihuana, Marijuana) and the Cannabinoids* (Government of Canada, 2018).)

During the stakeholder consultations, it became apparent that nurses had little education in relation to cannabis despite the regulation of medical cannabis since 2001. Our learning needs assessment found knowledge gaps about the following: tetrahydrocannabinol (THC), cannabidiol (CBD) and other components of cannabis; endocannabinoid physiology and the neurobiological effects of cannabis; and evidence-based risks and benefits of medical and non-medical cannabis.

Indeed, the risks and benefits of medical and non-medical cannabis put a spotlight on two areas of complexity in the field. The first is the blurred lines surrounding use: prescribed medical cannabis (i.e., authorized by a nurse practitioner or physician and accessed directly from the producer); non-prescribed medical cannabis

(i.e., the individual self-identifies a need and purchases it from distributors); and non-medical cannabis (i.e., medical uses are irrelevant or not a consideration or intention). The April 2021 National Cannabis Survey found that about 25 to 35 per cent of people who use cannabis use it for both medical and non-medical purposes (Statistics Canada, 2021). This knowledge requires precise nursing assessment and health teaching to tease out risks and benefits comprehensively and to non-judgmentally communicate the same to clients.

The second area of complexity arises from the information available regarding cannabis, which can lead to polarization. Although information is readily available through internet searches or cannabis distributors, it may be factual but not evidence-based. Health-care professionals are not immune from bias. They may prefer some information over other types of sources that they deem less palatable; for example, they may focus on research results from a petri dish and accept speculation about benefits in humans before clinical trials have been conducted. Discussions about the harms and benefits of cannabis can polarize researchers and may impede clinical encounters with clients.

These two areas are further compounded by stigma. Nurses in our consultations identified learning needs around stigma toward people who use cannabis. This need was understood as a byproduct of the years of a moral stance against substances that was propagated and perpetuated by the global temperance movement. In Canada, this movement resulted in the 1908 Opium Act and eventual criminalization of cannabis. See the timeline on page 09 for a visual depiction of the history of cannabis in Canada.

After legalization, research about cannabis became easier, but for nursing practice, it is important to be aware that it is not a neutral topic. Nurses, team members and researchers have different experiences with cannabis and may therefore approach the subject differently:

> [D]ifferent actors may rely on dissimilar epistemological assumptions when they acquire and invoke distinct types of knowledge. Medical professionals, scientists, and policy makers seem to rely on technoscientific (also termed professional, expert, or “evidence-based”) knowledge, whereas laypersons rely on their local or experience-based

> knowledge…. In clinical practice, too, the boundaries between scientific research, clinical judgment, and experience are blurred. (Zarhin, Negev, Vulfsons, & Sznitman, 2019, p. 3)

This was apparent through stakeholder consultations and related data collection.

Other items that came up during the consultations were the issues of equitable access to cannabis for medical or therapeutic purposes and the necessity of expunging cannabis-related criminal records. Such topics were always viewed in light of nurses' interest in client safety and well-being. In all the consultations, nurses consistently expressed interest in learning whether there were risks in using cannabis, how to assess cannabis use and its risks and how to communicate risks to their clients.

The cannabis landscape is complex. At this time, we are making "decisions…on the basis of incomplete or contested data" (Greenhalgh & Papoutsi, 2018). This framework attempts to capture elements of the complexity of the legalization of cannabis.

Legalization of cannabis impacts nursing practice

Before it was legalized, cannabis was not a prominent topic in nursing practice or nursing school curricula in Canada. In the lead-up to and after its legalization, all that began to change. Notable examples include the following:

- The endocannabinoid system, which has been studied over the last 25 years, became a "new" discovery for Canadian nurses (Lu & Mackie, 2016).
- Laboratory research that pointed to the possible use of cannabis for some health conditions begins to be confirmed in clinical studies (Mechoulam, 2016).
- With data from small observational studies, along with animal models suggesting that some cannabinoids may be effective in reducing cravings, researchers begin to study how cannabis may reduce crack cocaine use in British Columbia as a potential harm reduction method (Socias et al., 2017).
- "New routes of administration, including vaped and edible products, and a culture of rapidly changing norms and reduced perceptions of risk make it possible that the current, limited knowledge of the effect of cannabis exposure on risk for psychotic illness may no longer be accurate" (Wright, Cather, Gilman, & Evins, 2020, p. 6).
- In a 2018 national needs assessment of Canadian nurse practitioners, 76 per cent said that the need for cannabis education was strong or very strong (Balneaves, Alraja, Ziemanski, McCuaig, & Ware, 2018) — despite the fact that medical cannabis has been regulated since 2001.
- The Canadian Medical Association (CMA) raised concern about the limited evidence to support "many of the therapeutic claims made regarding cannabis for medical purposes" (CMA, 2019, p. 1). CMA said that physicians "should not be put in the untenable position of gatekeepers for a proposed medical intervention that has not undergone established regulatory review processes as required for all prescription medicines" (CMA, 2019, p. 2). CMA points out that Health Canada's cannabis policies have, for the most part, been in response to court decisions rather than

the results of robust regulatory review. These policies included *Marihuana Medical Access Regulations* (2001), *Marihuana for Medical Purposes Regulations* (2013), *Access to Cannabis for Medical Purposes Regulations* (2016) and the *Cannabis Act* (2018).

Purpose and overview of this framework

The purpose of *Non-Medical Cannabis: A Nursing Framework* is to provide a visual and written summary of the complex medical and social issues surrounding cannabis.

The Cannabis Timeline presents a brief history of cannabis, from early documentation of its medicinal roots in 2800 BCE until Canada's legalization in 2018 and the emergence of cannabis edibles in 2019. The Methodology section describes the iterative process that was used to create this framework. The Components of the Cannabis Framework section explains the framework's five fundamental elements. This document concludes with recommendations.

Cannabis Timeline

2700BCE
The first known mention of cannabis as a medicine appears in the world's oldest known medical text, the *Shen-nung Pen-ts'ao Ching (The Classic of Herbal Medicine)*.[1]

1000BCE
Cannabis use spreads to India, where it was commonly ingested in several forms, including a cannabis-infused drink called "bhang." In addition to being used as an anesthetic, cannabis was also thought to be a treatment for pain, convulsions, infection prevention, and inflammation.[2]

700-500BCE
The Scythians, warriors living in what is now Siberia, put cannabis seeds on heated rocks in a small tent to create a thick vapour that was inhaled for its intoxicating effects.[2]

1300s
Cannabis becomes part of several religious practices in Africa and may have been used as a treatment for snake bites, asthma, and dysentery.[2]

1500s
Enslaved African slaves in Brazil and the West Indies use cannabis extensively to pass the time and benefit from its magical and medical purposes.[2]

1841
In Ireland, William Brooke O'Shaughnessy uses the scientific method to conduct experiments on the therapeutic properties of cannabis. He begins prescribing it to patients, the first introduction of cannabis to western medicine.[2]

1860
The temperance movement prohibits substances based on moral grounds, not due to evidence of harms.[2]

Late 1800s
Acetylsalicylic acid (ASA, commonly known as aspirin), chloral hydrate, and barbiturates becomes widely available. Cannabis loses medical favour because it was difficult to administer consistent dosages.[3]

1908
The federal government passes the *Opium Act.*

1911
The federal government passes the *Opium and Narcotic Drug Act.*

1922
Emily Murphy, the first female magistrate in Canada and a strong proponent of temperance, writes *The Black Candle*, which vilifies cannabis use.

1923
The federal government adds cannabis to the *Opium and Narcotic Drug Act.*

1930s
The Rastafari religion and social movement in Jamaica, which uses cannabis as a sacrament and symbol, begins forming.[2]

1950
The temperance movement ends.

1955
A Canadian federal senate report claims that people become addicted to drugs due to personal failings.[3]

1960s
Cannabis use becomes associated with the emerging youth counterculture, artistic expression, and anti-conservative political values.[3]

1969-73
The Le Dain Commission supports the criminalization of cannabis, but claims that laws should not aim to control morality.[3]

1998-2000
The Wakeford and Parker court cases grant the individuals mentioned in the proceedings the legal authority to grow and smoke cannabis to treat their ailments. These cases make history because the courts, rather than clinical trials, approved a substance for medical use. (Trials would come decades later, after the *Cannabis Act*.) Other court cases follow.[4]

2001
The federal government passes the *Marihuana Medical Access Regulations* (MMAR), which authorizes Canadians to access, possess and use cannabis for medical conditions.[5]

2013
The federal government replaces MMAR with the *Marihuana for Medical Purposes Regulations* (MMPR). The federal court later stuck down MMPR as unconstitutional because it did not permit people to grow their own cannabis.

2016
The federal government replaces MMPR with the *Access to Cannabis for Medical Purposes Regulations* (ACMPR). The updated regulations permit people to grow their own cannabis.

2017
A *Toronto Star* analysis reveals that Black people are three times more likely to be arrested by police for possession of small amounts of marijuana than white people.[6]

2018
Bill C-45, the *Cannabis Act*, legalizes and regulates the production and sale of cannabis for non-medical purposes, making Canada the second country in the world to take such a step. The bill further legalizes edibles in 2019.

- Medical/Scientific
- Social Movement
- Canadian Legal/regulatory

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METHODOLOGY

Methodology

Non-Medical Cannabis: A Nursing Framework was created in five steps.

Step 1: element identification

Framework elements were identified and defined by stakeholders in Toronto and Yellowknife through a cooperative discussion strategy known as think-pair-share (Kaddoura, 2013). Each stakeholder identified an element that they thought would be important to include in a cannabis framework and then wrote a description of their selected element on the back of a piece of paper stylized as a leaf.

When ready, they shared their selection and its description with one colleague. Any clarifications or new thoughts that arose through that dialogue were made as revisions on the card.

When all participants had deliberated their selection, all elements were shared with the larger group and discussed at length. At this point, further modifications and distinctions between elements were made and common elements were collapsed when possible.

Thirty-one cards were collected from the Toronto and Yellowknife consultations.

Step 2: analysis of elements

The elements and definitions that were captured from the stakeholder consultations described above in step 1 were analyzed by the project lead and peers. Through the removal of duplications and collation of themes, nine elements that encompassed the intentions of the stakeholders were selected for further discussion.

The nine elements and the descriptions that were moved forward for further discussion were as follows (CNA, 2019):

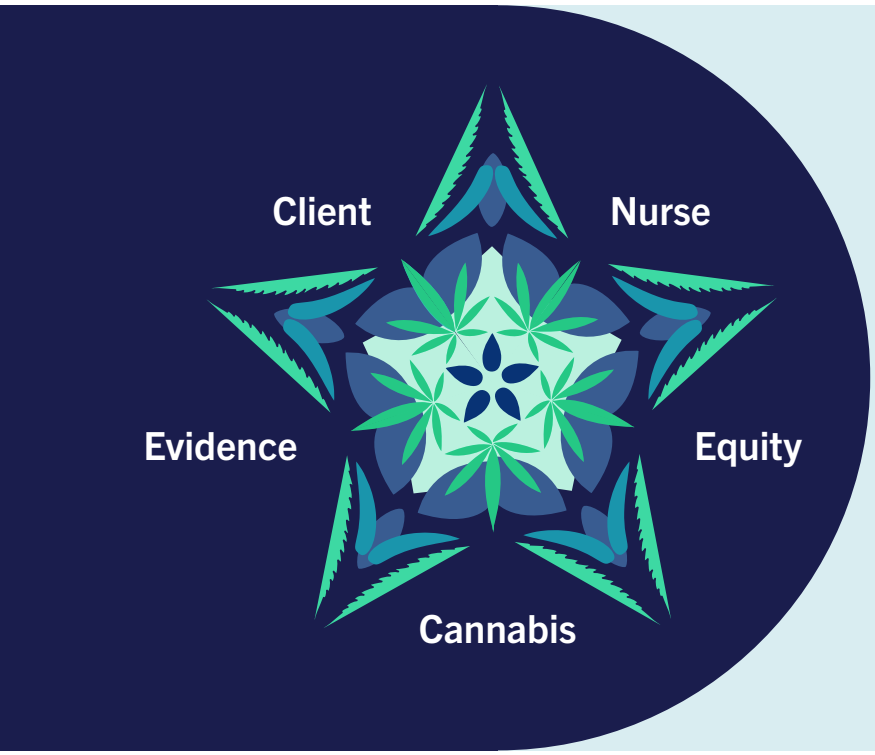
1. Advocacy — championing for social justice, such as access to medical cannabis and/or expungement of criminal records pertaining to prior non-medical cannabis use or possession
2. Context — both the nurse's practice setting and the variables of the client's life
3. Complexity — a term that characterized the multiple cannabis intersections, including health, law, politics, neurobiology and individual behaviours
4. Competencies — a term that focused on cannabis-related knowledge, skills and attitudes related to nurses' practice requirements
5. Education — cannabis-related learning for nurses and the public
6. Evidence — cannabis-related myth versus fact and research
7. Equity — impact of cannabis-related policies on populations
8. Risks — safety of cannabis for some populations, possible adverse effects (benefits were not discussed as an element)
9. Stigma — bias, stereotyping and preconceived beliefs or fears about cannabis

Step 3: mock framework-building exercises

In November 2019, CNA hosted a cannabis think tank. Participants were invited to craft their own mock framework using the nine elements identified in step 2, above. Drawing on their own knowledge of structures and theories, participants suggested different approaches, such as Patricia Benner's novice-to-expert educational framework, a policy framework and various Venn diagrams depicting the patient, cannabis and the nurse. The discussion further clarified the core components for the framework within the complex cannabis field.

Step 4: reflection and core element selection

Following the mock framework exercise (see step 3), the project lead and advisory committee members further debated the nine elements and reduced them to five fundamental framework components: cannabis, equity, evidence, client and nurse. See Figure 1, which is presented graphically as a kaleidoscope to help reflect the complex yet complementary ways in which the components of cannabis interact with each other.



Client
- Intersectionality, context, health beliefs

Nurse
- Designation, role
- Setting, health benefits

Equity
- Stigma
- Advocacy

Cannabis
- Endocannabinoid system
- THC, CBD and other components

Evidence
- Self-reflection, science

Figure 1. The fundamental components of the framework and their elements.

Step 5: consultation

A draft version of the framework was sent for consultation and approval to key informants and stakeholders.

CANNABIS FRAMEWORK

Cannabis Framework

This section of *Non-Medical Cannabis: A Nursing Framework* goes into further detail about each of the five fundamental components.

1: Client

In Canada, clients may use cannabis as a medically authorized product for a specific indication; other people may use it non-medically for enjoyment or for therapeutic purposes (i.e., to self-treat or alleviate a health condition without formal medical authorization). Client circumstances form the context for each client's cannabis use and should be carefully considered in nursing practice. All of these factors are vital for an informed assessment and related interventions within the bounds of the therapeutic relationship.

2: Nurse

Nursing education about substances has historically been limited, and education about cannabis is particularly rare (Balneaves et al., 2018). Furthermore, what nurses observe in their clinical practice regarding cannabis varies across care settings.

During one stakeholder meeting in which trust was high, nurses shared their different experiences of caring for people who use cannabis. This session showed the importance of cross-specialty dialogue and education about cannabis. For example, nurses in in-patient psychiatry settings see cannabis-induced psychosis when people use cannabis problematically; nurses working in harm reduction see cannabis as an alternative to opioids. Similarly, nurses in pain management care see cannabis as an adjunct in a multimodal pain management strategy, whereas nurses in hospital emergency departments see cannabis-induced hyperemesis. Without cross-specialty dialogue, the experiential understanding of cannabis could be setting specific and, therefore, limited.

Just like any other adult in Canada, nurses may legally consume cannabis for medical or non-medical purposes for the same reasons any other Canadian would. Like those who consume alcohol, those who consume cannabis can do so responsibly and acceptably, without fear of any form of sanction. However, also like consumers of alcohol, some may experience problematic substance use (Mumba & Kraemer, 2019; Ross, Jakubec, Berry, & Smye, 2018).

3: Equity

Equity — more precisely, health equity — "means social justice in health. . .[and] is the principle underlying a commitment to reduce. . .disparities in health (Braveman, 2014). "Pursuing health equity means striving for the highest possible standard of health for all people and giving special attention to the needs of those at greatest risk of poor health, based on social conditions" (World Health Organization, n.d.).

Two features of health equity that arose during the stakeholder consultations that warrant further exploration are the barriers associated with stigma in the delivery of health care and the advocacy that nurses can take to counteract it.

Stigma

"Stigma is a well-documented barrier to health-seeking behavior, engagement in care, and adherence to treatment across a range of health conditions" (Stangl et al., 2019). Ko, Bober, Mindra, and Moreau (2016) described the stigma that surrounds the use of medical cannabis:

> Many chronic pain patients considering medical cannabis anticipate disapproval from their friends and family. It is not uncommon for patients to avoid disclosing their medical cannabis use to their loved ones altogether, despite experiencing significant improvements in their pain management and quality of life. (p. 738)

There are many communication tools and strategies available that can help nurses and nurse leaders overcome their stigma and support their patients. Examples include the following:

- The stigma module in our e-learning course (see Appendix A).
- *Overcoming Stigma Through Language: A Primer*, a support document that suggests that health-care practitioners adopt a "person-first" language approach. Such an approach "acknowledges someone as a person before describing their personal attributes or health conditions" (Canadian Centre on Substance Use and Addiction & Community Addictions Peer Support Association, n.d., p. 8).
- Intersectionality (Collins, Boyd, Cooper, & McNeil, 2019; Crenshaw, 1989), which is an analytical framework that considers how multiple factors combine to affect a person's social and political context, is also a helpful tool to understand the impact of stigma. Intersectionality helps us recognize, for example, that a person who is Indigenous, female and gender-queer, and using cannabis, does not experience each of these factors separately. Instead, they are interconnected.

Using such tools and resources helps us take a broader view of stigma, one that looks beyond the direct stigma experienced by a person who may be using medical or non-medical cannabis. Expanding our view like this helps make it clear that to work effectively with people who use any substance, we must understand the complicated web of stigma that forms around them.

Research has barely begun to explore how factors such as race, sex, gender, sexuality, ability and income level contribute to substance use and addiction. However, we know that stigma from any source tends to result in discrimination, exclusion, injustice, lack of opportunity and choices, lower income, lack of access to services and poorer health outcomes.

Advocacy

"Advocacy involves engaging others, exercising your voice and mobilizing evidence to influence policy and practice. It means speaking out against inequity and inequality. It entails participating directly and/or indirectly in political processes and acknowledging the importance of evidence, power and politics in advancing policy options" (CNA, n.d.).

The following areas were identified by nurses as potential policy advocacy points related to cannabis:

- Expungement for criminal offences related to cannabis, which have disproportionately affected people of colour and marginalized populations
- Barriers (e.g., financial, geographical) to accessing regulated cannabis across regions (Nurses and Nurse Practitioners of British Columbia, n.d.)
- Protection of vulnerable populations from the health risks of cannabis (e.g., psychosis, problematic cannabis use)
- Quality assurance related to cannabis products

4: Cannabis

Since legalization, cannabis research has increased, with investigations examining new medical uses based on laboratory findings or harm reduction possibilities in the face of the opioid crisis. The Canadian Consortium for the Investigation of Cannabinoids is an excellent resource for up-to-date information on the state of cannabis research in Canada.

5: Evidence

Evidence is the basis for the scientific knowledge that informs nursing practice. Nurses use scientific knowledge to assess, plan, implement and evaluate nursing interventions and to collaborate with other disciplines. Nursing knowledge draws from nursing science as well as other sciences, including pharmacology, sociology, medicine, biology and more.

Evidence is acquired through research and the scientific evaluation of practice. A broad range of rigorous methodologies are used to evaluate practice, including quantitative studies (such as randomized controlled trials, observational studies), qualitative studies (such as case studies, ethnography, phenomenology) and meta-analysis. Evidence also includes expert opinion in the form of consensus documents, commission reports, regulations and historical or experiential information (McMaster University, n.d.).

Evidence is the foundation upon which health interventions are based. However, it does not take into account contextual factors at the moment of practice. For this reason, nurses practise evidence-informed clinical decision-making. A CNA position statement on this subject claims that

> [t]he distinction between the terms 'evidence-based' and 'evidence-informed' is important. The concept of evidence-informed decision-making builds on evidence-based health care. It acknowledges that many factors beyond evidence — for example, available resources or cultural and religious norms — influence decision-making. (Canadian Nurses Association [CNA], 2010, p. 3)

Evidence-informed decision-making is a continuous interactive process involving the explicit, conscientious and judicious consideration of the best available evidence to provide care (CNA, 2010). Evidence-informed nursing is the ongoing process that incorporates evidence from research, clinical expertise, client preferences (such as cultural or religious norms) and other available resources to make nursing decisions about, and with, clients (CNA, 2010). This blend — that is, the application of scientific evidence within the context of the client's life and the nurse's practice setting — requires clinical judgment and critical thinking.

The Canadian Federation of Mental Health Nurses' (2014) psychiatric practice standards are an exceptional example of how to integrate evidence within the context of the client. The standards state that the nurse "utilizes and evaluates evidence-based interventions to provide ethical, culturally competent, safe, effective, and efficient nursing care consistent with the mental, physical, spiritual, emotional, social, and cultural needs of the individual" (p. 9). One of the most common ways evidence-informed decision-making is seen in clinical practice is the modification of a treatment plan because the client has an allergy; penicillin, for instance, might be the gold star treatment for many illnesses, but it is not appropriate for some clients.

There are several challenges to the use of evidence in regard to cannabis:

- Aside from medical use, cannabis was an illegal substance in Canada from 1923 until 2018. Researchers were, therefore, severely restricted in their

ability to study it. This has resulted in a lack of research, although this has begun to change since legalization.

- The conventional way for a new medication to enter into nursing practice is after clinical trials, yet cannabis entered though legalization. Prohibition therefore resulted in decades of lost knowledge, and we are only now trying to catch up to inform public use.
- Therapeutics, uses and politics have been blurred in the field of cannabis (Bostwick, 2012).

Conclusions and Recommendations

Cannabis is a complex plant and its use is often stigmatized. Although components researched to date show current and promising therapeutic purposes, much of what we focus on is the possibility of harm for a subsection of the population. Nursing practice will continue to require judicious, skillful, bias-free assessment. It is time to leave behind the stigma generated by prohibition.

The legalization of cannabis in Canada has revealed the lack of sufficient nursing education on cannabis (Balneaves et al., 2018) and other substances and substance use more generally. Legalization has also allowed nurses in practice and policy settings to start speaking about substance use as research continues to emerge and inform discussion (Mumba & Kraemer, 2019; Ross et al., 2018).

The following are recommendations for nurse leaders, researchers, educators, employers and regulators in Canada:

1. Formalize education about cannabis and its use in all nursing school curricula in Canada, and develop continuing education on cannabis for nurses in practice.
2. Review the current interventions for nurses with problematic cannabis use (see Ross, 2019).
3. Identify stigmatizing language in the workplace related to cannabis use by clients and the nursing workforce and actively replace terminology with unbiased, supportive, non-stigmatizing, person-first language.
4. Support, participate and conduct research on medical and non-medical cannabis and advocate for funding and access to cannabis for research purposes.
5. Advocate for equitable access to medical and non-medical cannabis.
6. Advocate for expungements for those who have been charged with cannabis-related offences before legalization.

Appendix: Understanding Cannabis in Clinical Practice E-Learning Modules

In 2017, CNA consulted the public and learned that 9 out of 10 people in Canada supported and expected nurses to be key sources of information about the risks and harms of non-medical cannabis use (CNA, 2019). A parallel survey assessing nurses' confidence in their ability to provide that information, however, found a gap in nursing knowledge about non-medical cannabis. CNA hosted an invitational cannabis think tank in March 2018 to explore the issue.

Participants at the think tank recognized the need for nurses to expand their capacity to provide care; they identified strategies to close this gap, including the submission of a proposal to the Substance Use and Addictions Program (SUAP). In March 2019, CNA confirmed the receipt of a $1.3-million grant from Health Canada's SUAP to create a national nursing framework and e-learning modules on legalized cannabis and nursing practice over three years.

CNA's nursing e-learning course, Understanding Cannabis in Clinical Practice, provides knowledge that nurses can put into their daily clinical practice. The titles of the modules are as follows:

- Module 1: Cannabis: The Plant and How We Use It
- Module 2: The Sociocultural History of Cannabis and Stigma
- Module 3: Cannabis in the Workplace
- Module 4: Cannabis in Clinical Practice

The modules can be accessed here: https://cna.rapidlms.com/

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