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Compassionate, Evidence-Informed Conversations on Cannabis Use During Pregnancy

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CIHR IRSC Canadian Institutes of Health Research / Instituts de recherche en santé du Canada
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McMaster University
School of Nursing

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Objectives

1. Explain what cannabis is, reasons for use, and trends over time
2. Describe up-to-date evidence on cannabis use during pregnancy and chestfeeding
3. Discuss strategies to support compassionate, evidence-informed conversations in practice

Cannabis 101:
What is Cannabis?

"Cannabis" is an overarching term

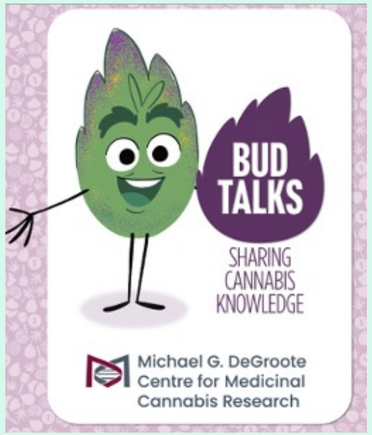
500+ chemicals, 100+ cannabinoids

THC

1995 ~5%
2014 ~14%
Today ~20%

CBD

The High of Cannabis



Where else does cannabis act in the body?

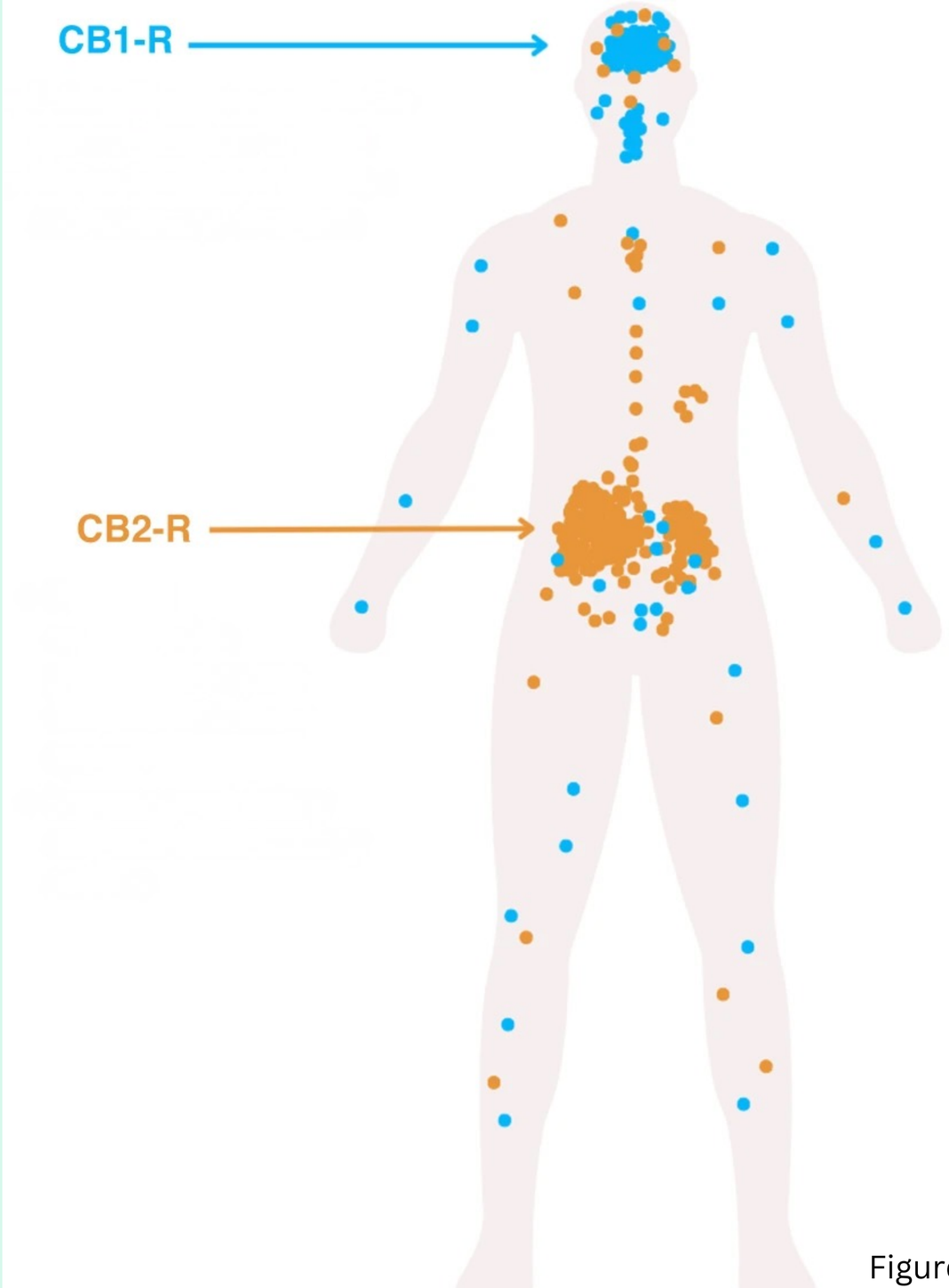


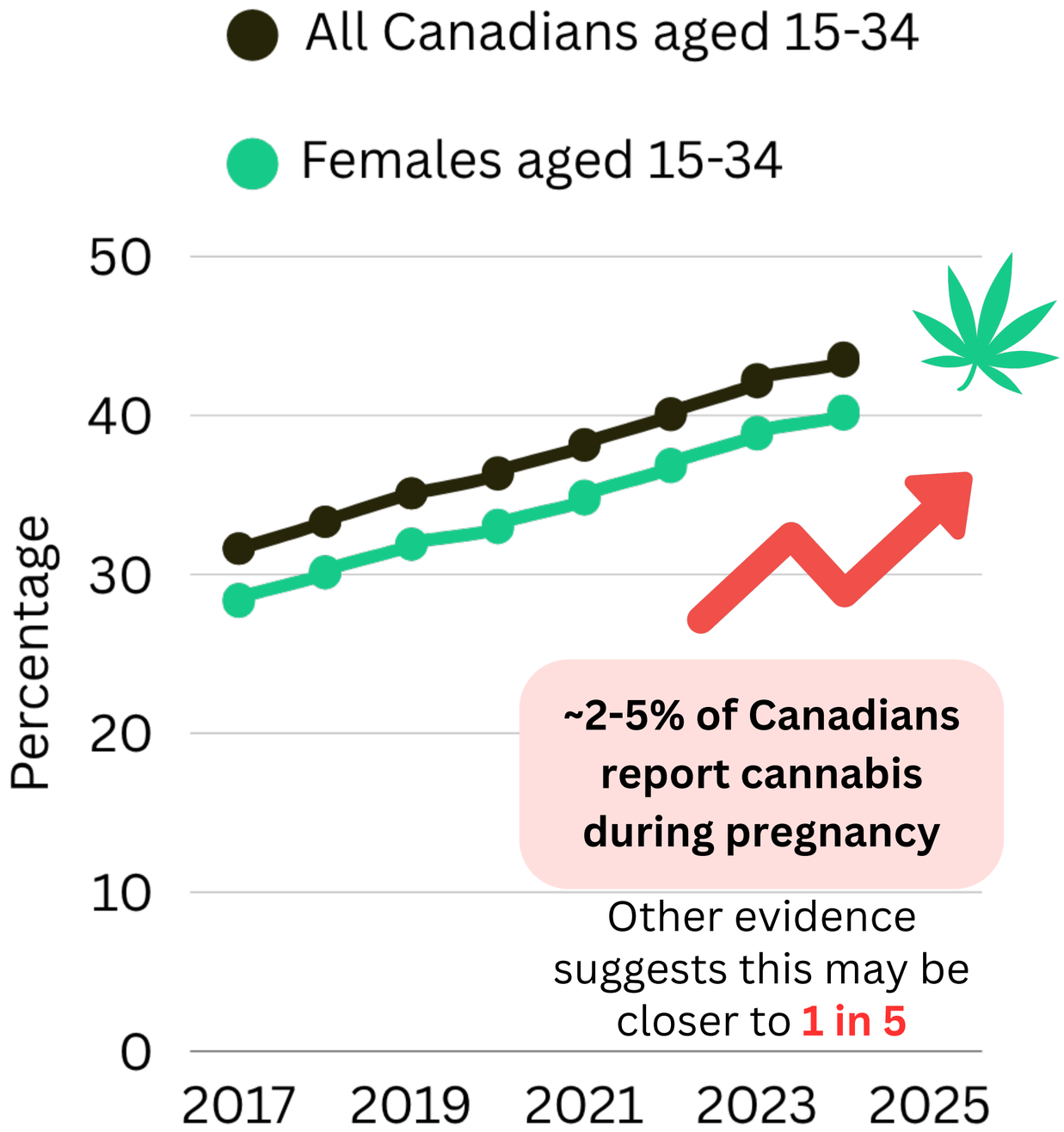
Figure from Wardell et al., 2024 Nature

More Canadians are using cannabis today than previously

Bud talks resource

https://www.ccsa.ca/en/clearing-smoke-cannabis-cannabis-use-during-pregnancy-and-breastfeeding

https://csuch.ca/explore-the-data/data-charts/



Why do people use cannabis?

To feel good

- Enjoyment
- Fun
- Celebration

To feel better

- Relaxation
- Stress
- Anxiety
- Depression
- Sleep
- Physical health

To experiment

- Altered perception
- Availability

Because others are doing it

- Conformity
- Social facilitation

Continuum of Cannabis Use

No Use

Beneficial Use

Non-Problematic

Problematic Use

Potentially Harmful

Cannabis Use Disorder

- Difficulties **controlling** use
- **Compulsive** use
- **Continued** use despite consequences
- **Cravings**

Earlier age of initiation, frequent use, multiple substance use, family history, mental illness, using to cope

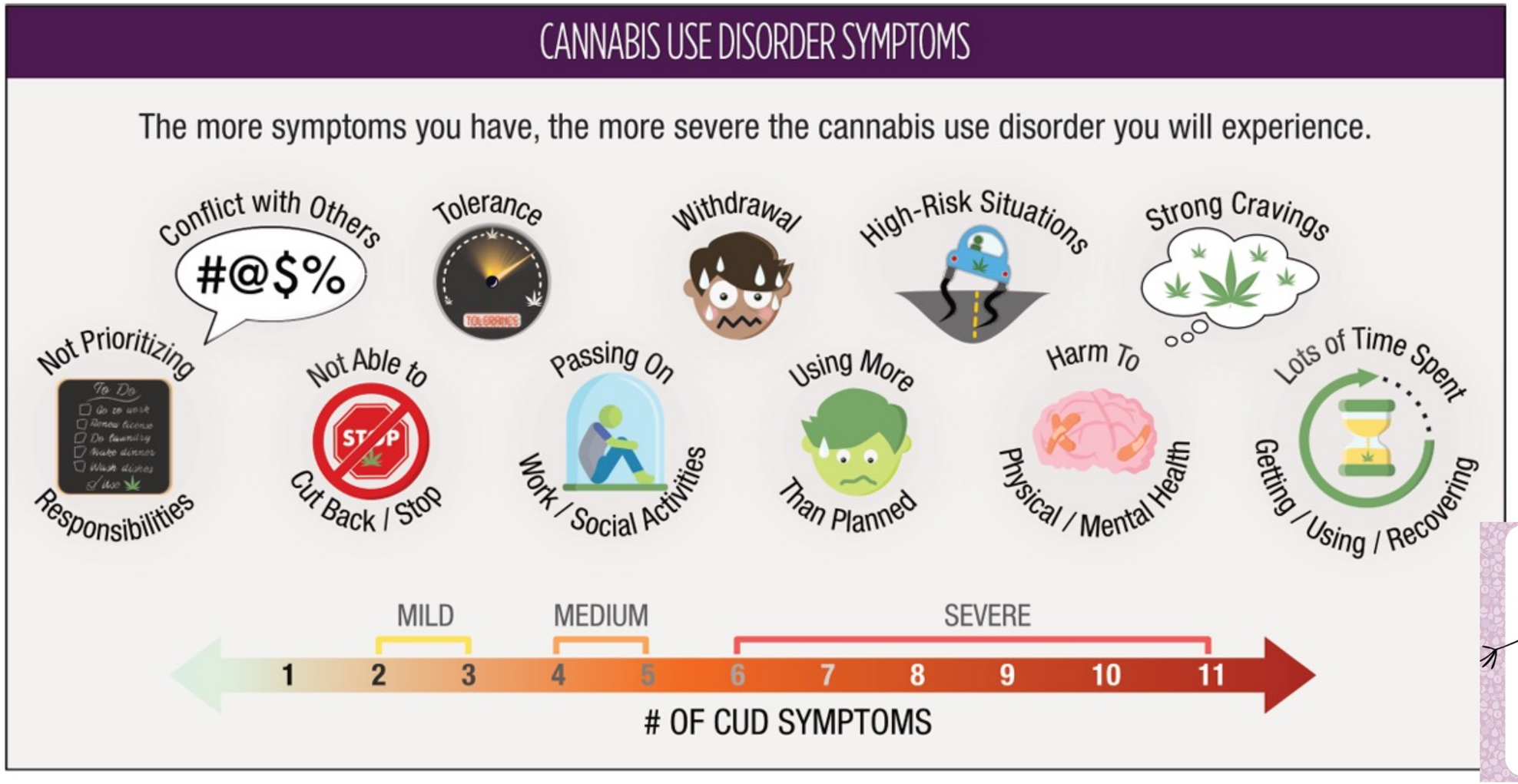
School Mental Health Ontario

Santé mentale en milieu scolaire Ontario

The Ministry of Health and Long-Term Care developed a Substance Use Prevention and Harm Reduction Guideline (2018)

Connor et al. (2021)

Cannabis Use Disorder



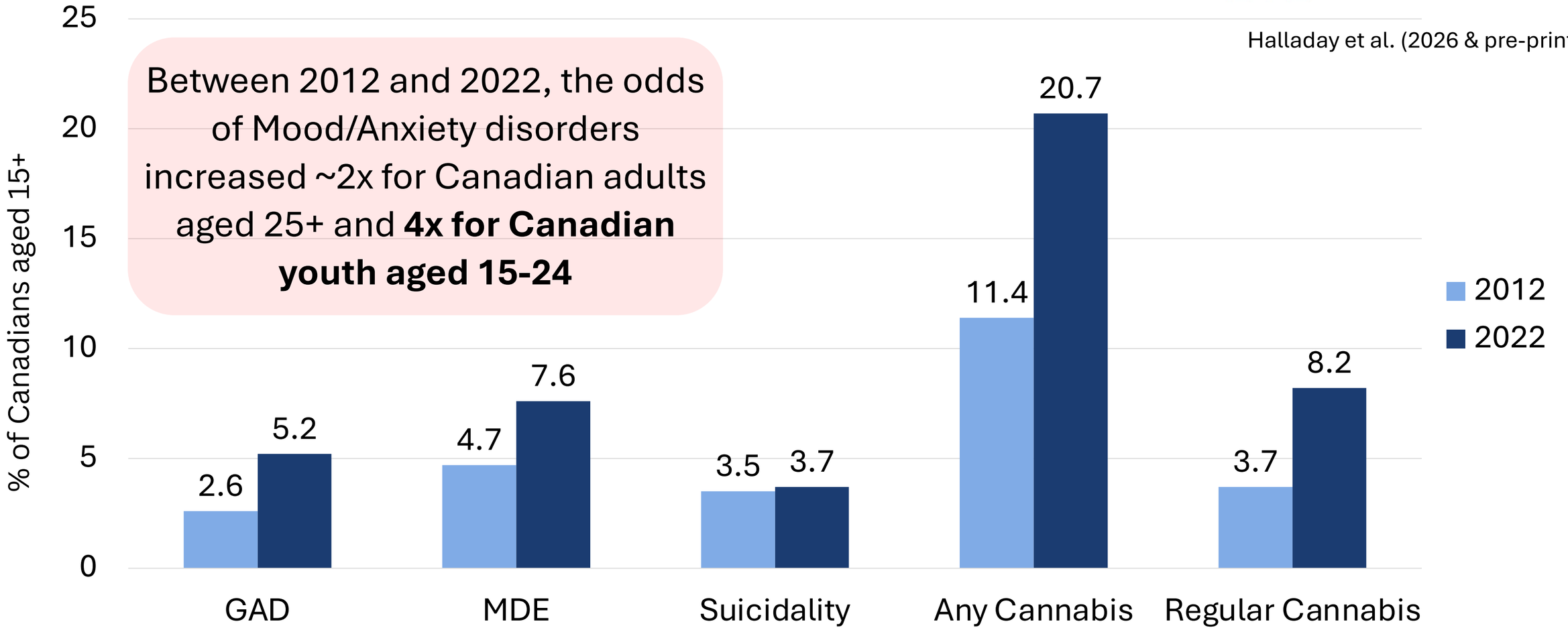
BUD TALKS
SHARING CANNABIS KNOWLEDGE
Michael G. DeGroote Centre for Medicinal Cannabis Research

Increasing cannabis use and emotional distress among Canadians

Statistics Canada Statistique Canada

Halladay et al. (2026 & pre-print)

Between 2012 and 2022, the odds of Mood/Anxiety disorders increased ~2x for Canadian adults aged 25+ and **4x for Canadian youth aged 15-24**

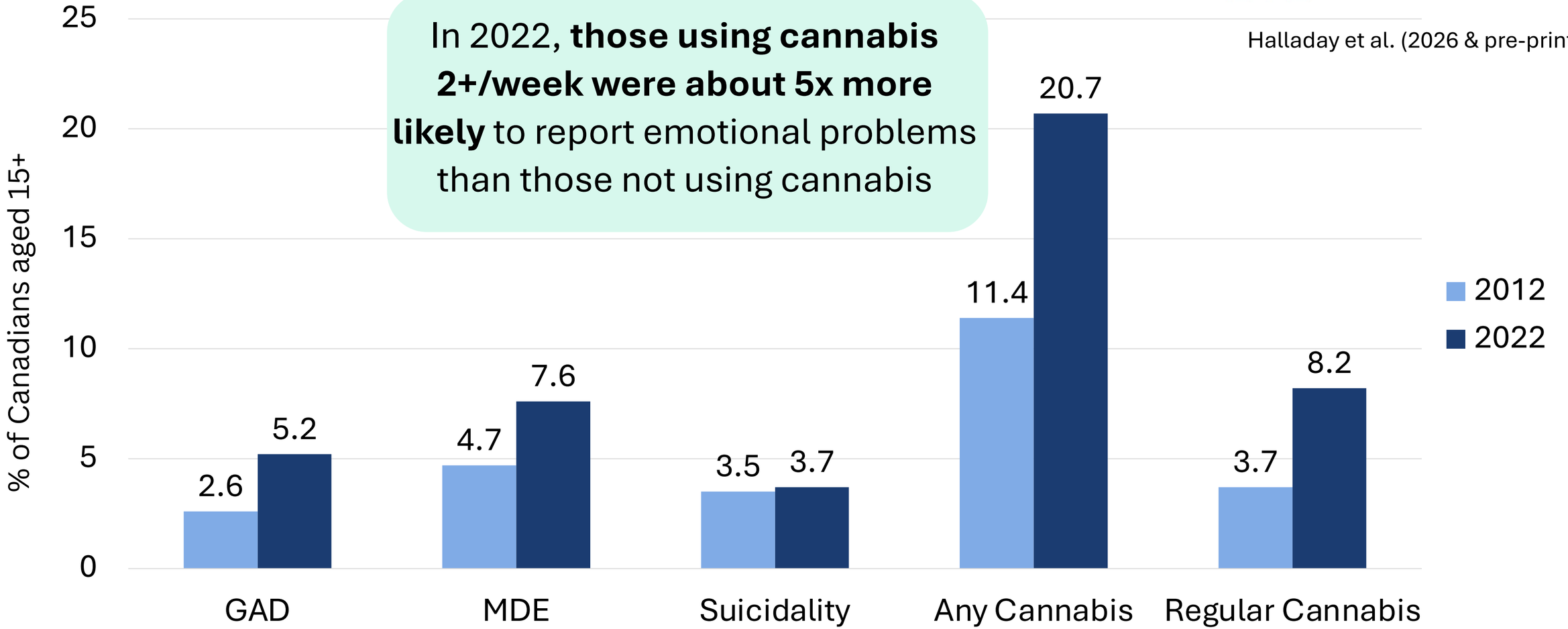


Increasing cannabis use and emotional distress among Canadians

Statistics Canada | Statistique Canada

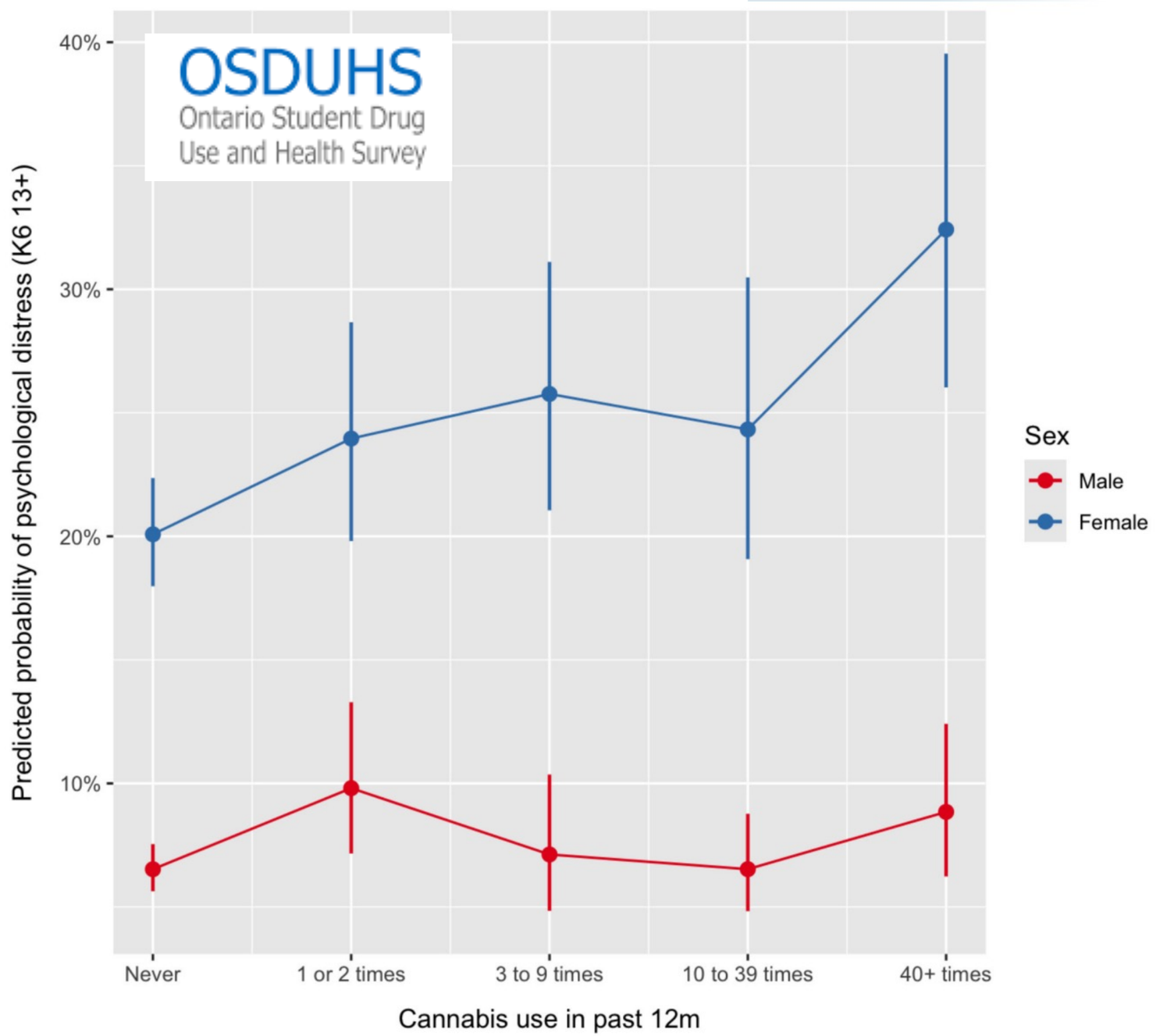
Halladay et al. (2026 & pre-print)

In 2022, **those using cannabis 2+/week were about 5x more likely** to report emotional problems than those not using cannabis



These increases have been particularly pronounced for youth & women

McDonald et al. (2026)



Why do people use cannabis during pregnancy?

Symptom management & coping

- Relaxation
- Stress
- Anxiety
- Depression
- Sleep
- Physical health

⭐**Including for pregnancy-related symptoms like nausea and vomiting or pain**

Sensation seeking

- To feel good (enjoyment, fun, celebration)
- To experiment (altered perceptions)

Barbosa-Leiker et al. (2020); Besse et al. (2023); Vanstone et al. (2021, 2022)

Why do people use cannabis during pregnancy?

Symptom management & coping

Vanstone et al. (2021)

Perceived low risk & therapeutic benefits

Social Acceptability

Perceived Therapeutic Benefits

Perceived Risk

~1 in 5 pregnant people perceive no risk of weekly cannabis use

~1 in 10 Canadians perceive it to be okay to use cannabis when pregnant & lactating

Odom et al. (2020); Vanstone et al. (2022)

Cannabis for medicinal use

often low to very low-quality evidence not exploring inhaled cannabis

Mental Health

limited to no evidence of benefits for most disorders (including depression & anxiety)

Sleep

very low-quality evidence of longer sleep duration for those with insomnia

Pain

low-quality evidence of benefits for non-cancer chronic (not acute) pain

Nausea

mixed quality evidence that prescribed cannabinoids reduce nausea & vomiting

Amini Lari et al. (2022); Hsu et al. (2026); Jeddi et al. (2024); Wilson et al. (2026)

Cannabis Hyperemesis vs. Hyperemesis Gravidarum

Cannabis Hyperemesis:

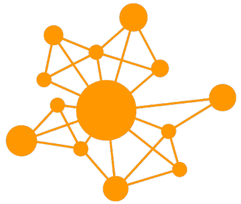
- Recurrent nausea, vomiting, and abdominal pain due to long-term heavy cannabis use.
- Hot baths/showers can help in the moment. Only cure is discontinuing cannabis long term.
- Symptoms usually remit within 2 weeks following complete abstinence (though can last months).
- Increasingly common (>potency and daily use).

Key points for practice

- **Cannabis use during pregnancy is increasing**, with prevalence likely under-estimated. Important to build trust and reduce perceived stigma and fear to promote discussion.

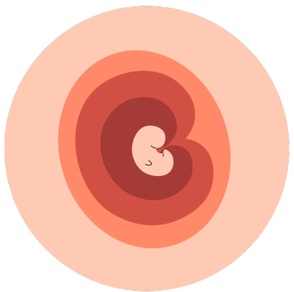
- **Cannabis is seen as helpful for symptom relief during pregnancy**. It is important to explore patient-specific motivations (symptoms, coping, social context) and use a harm reduction approach to support reductions, safer alternatives, or substitutions.

- **Consider the broader context** (mental health, sociocultural factors, access to care, social stressors).



- **Tailor therapeutic discussions to dynamic needs across pregnancy and postpartum**, recognizing resuming pre-pregnancy cannabis use is common postpartum during lactation.

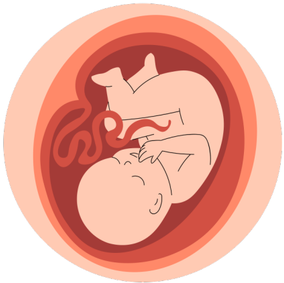
What does the evidence say about the impacts of cannabis use throughout pregnancy?



1ST TRIMESTER

2ND TRIMESTER

3RD TRIMESTER



CHILDBIRTH

POSTPARTUM, LACTATION, & CHILDHOOD

Impacts on the placenta

- Cannabis (THC & CBD) may **disrupt mitochondria** (the energy) in placental cells
- Cannabis may **prevent placental cells from maturing** and fusing together to form the outer layer of the placenta
- Because the placenta cannot properly mature, there may be **lower levels of pregnancy hormones** like hCG
- Cannabis may lead to a **smaller placenta** with an altered structure

Monaco et al. (2026); Poionic et al. (2024 & 2026); Walker et al. (2020)

Impacts on fetal development: in utero

- **THC is lipophilic and crosses the placenta and enters fetal circulation**
  - It can then bind to endocannabinoid receptors in placental tissue and in major fetal organs
- **The endocannabinoid system plays a role in brain development**
  - Cannabinoid receptors begin to be expressed at ~5-6 weeks gestation

Grant et al (2018)

Impacts on fetal development: childbirth

Moderate certainty evidence that cannabis use in pregnancy is associated with increased odds of (Lo et al., 2025):

- **Preterm birth**
- **Small for gestational age**
- **Low birth weight**

+ low certainty evidence that cannabis use in pregnancy is associated with **perinatal mortality.**

Some evidence (not graded) of a greater odds of the **longer hospital stays** (Petrangelo et al., 2019) and of baby being placed in the **NICU** (Gunn et al., 2016; Bailey et al., 2020).

Lactation

- Cannabis may **reduce milk production**, possibly due to lower prolactin
- Cannabis is **found in breast milk (up to 6 days)** and accumulates with higher frequency and concentration of use
- Cannabis use may **reduce milk quality**
  - lowered immune profile
  - reduced ability to synthesize milk proteins and enzymes*
  - fewer healthy fats* **caveat - largely based on mouse models*
- May impact the child through direct exposure to cannabis and altered composition of breastmilk

Bertrand et al. (2018); Josan et al. (2022, 2023);Moss et al. (2021)

Childhood

Some evidence that **cannabis use after knowledge of pregnancy** is associated with later childhood (~age 10) psychopathology including:

- Externalizing symptoms * (most consistent)
- Attention problems
- Internalizing symptoms
- Social problems
- Psychotic-like experiences

El Marroun et al. (2019); Paul et al. (2021)

Childhood

Adolescent Brain Cognitive Development®

Teen Brains. Today's Science. Brighter Future.

Disruptions in mental health, functioning, cognition, sleep, and functional and structural changes to the brain continue to be studied

Postpartum Depression & Anxiety

Limited to no evidence.

A large Australian study found cannabis use in the 15 months prior to pregnancy was associated with an increased risk of postpartum depression (50% to 102% depending on specific cannabis exposure).

More frequent cannabis use and use closer to conception increased risk.

Cao et al. (2021)

Issues with the evidence

- **Older studies may not be relevant** given steep increase in cannabis potency over the past several decades (e.g., 4% in 1990s up to 20-30% (and 90%+) today.

- **Lack of information on mode of delivery, timing, frequency, potency, or duration of prenatal cannabis use.**

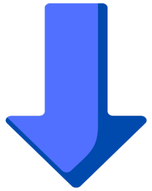
- **Unethical to randomize pregnant people to use cannabis.**
  - Other substances (like alcohol, nicotine, or other drugs)
  - Psychosocial risk factors or chronic stressors
  - Severe nausea and vomiting during pregnancy

Key points for practice

- There are many gaps and **challenges with existing evidence.**
- Cannabis use during pregnancy has been associated with **problems with fetal development** in and out of utero (e.g., impacts on placenta, ECS of baby, lactation)
- **Both THC and CBD may cause harms.**
- The current recommendation is to **avoid cannabis use** leading up to conception and during pregnancy and lactation.
- If choosing to use cannabis, **less exposure is better.**







Clinical considerations for supporting pregnant individuals who use cannabis

Clinical considerations for supporting pregnant individuals who use cannabis

Assessment and monitoring

Supporting harm reduction and wellbeing

Pregnant individuals want clear evidence about the impact of cannabis use during pregnancy & lactation, including strategies for mitigating risks while still achieving the benefits.

Images from Bud Talks 2026; Barbosa-Leiker et al., 2020; Cernat et al., 2024; Popoola et al. 2023; Taneja et al., 2022

Clinicians often feel uncertain, and may avoid conversations about cannabis

“The lack of clear research evidence on safety, adequate substitutions, and strategies to mitigate harm by changing the timing, dose, type, or amount contributed to clinician discomfort in counselling.”

Panday et al., 2021

Having non-judgmental and honest conversations about cannabis use is important

Greene et al (2023, 2026)

How to start the conversations?

- **Setting the tone**
  - Non-judgmental
  - Normalize the conversation
  - Privacy & confidentiality
  - Ask permission
- **Words matter**
- **Use a screening tool**

I ask all individuals I see about substance use. Is it okay with you if I ask you about your substance use? … Are you using any substances these days? What about alcohol, cannabis, etc…

RNAO

Strategies used to mitigate risk during pregnancy

Chang et al. (2019); Popoola et al. (2023); Taneja et al. (2022)

Deliberate and thoughtful decision making

Greene et al. (2026)

Evidence-Informed Resources

McMaster University

Family Medicine

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Cannabis Use in Pregnancy: Encouraging informed decisions

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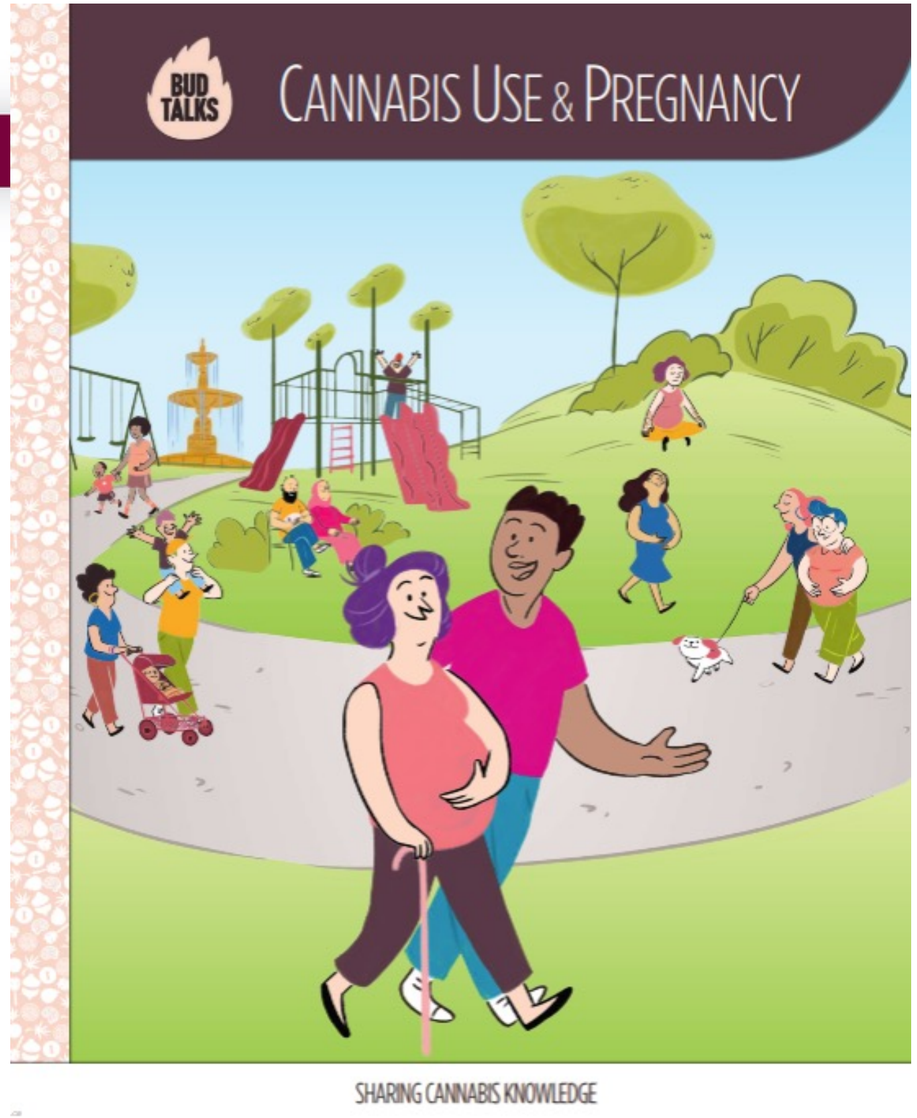
Wading Through the Weeds

Unlisted

Saara Greene Subscribe 1 Share Save



Trauma- and violence-informed

- Emphasize safety, trustworthiness, & transparency
- Offer choice, collaboration, & connection
- Strengths-based approach (empowerment)

Harm Reduction

Clinical Interactions Underpinned by Motivational Interviewing

- Non-judgmental communication (trauma- and violence-informed & harm-reduction lens)
- Enhancing & eliciting motivation to change (focus on intrinsic motivation)

Approaching Conversations Nonjudgmentally

Principles

RULE

Recognize and resist the urge to correct or inform.

Understand their perspective.

Listen reflectively to their experience of use.

Empower them to explore change.

PHN-PREP
Public Health Nursing Practice, Research & Education Program

Professional Resource

Foundational Communication Skills: Active Listening

(Miller & Rollnick, 2013)

Approaching Conversations Nonjudgmentally

How to do it

OARS

Open ended questions

Affirmations

Reflections

Summaries

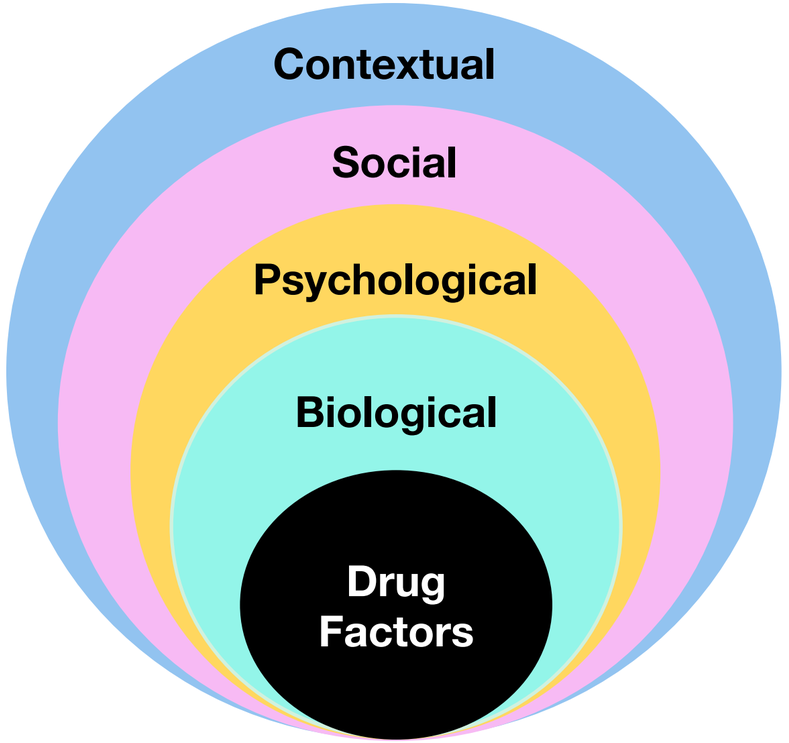
PHN-PREP
Public Health Nursing Practice, Research & Education Program

Foundational Communication Skills: The OARS Model

(Miller & Rollnick, 2013)

5 P's Case Formulation

1. **Presenting Problem:** Current behaviours (e.g., quantity, frequency, method of use, potency), symptoms, and medical and psychosocial issues related to use (e.g., changes in functioning related to work, mood, social relationships)
2. **Predisposing Factors:** Historical factors associated with vulnerability (trauma, genetics, personality)
3. **Precipitating Factors:** Specific recent events associated with increased use or crisis (pregnancy, job loss, break ups)
4. **Perpetuating Factors:** Factors that maintain the problem (avoidance, poor symptom control, difficult living environments)
5. **Protective Factors:** Focus on strengths, resilience, supportive relationships

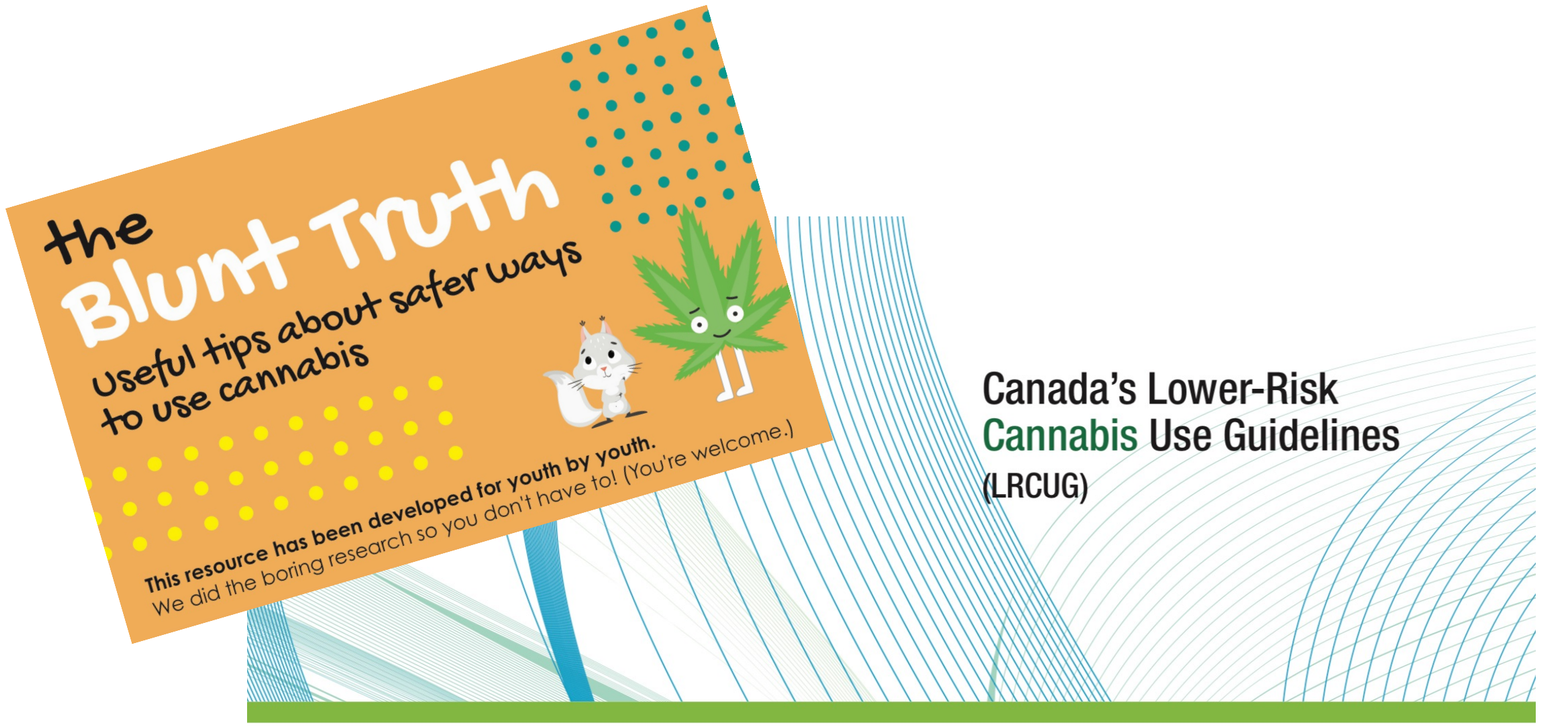


Set a Cannabis Use Goal

Right now,
where are you with
your cannabis use?
Do you think you want
to make any changes,
or are you okay with
where you are right
now?

1. How **often** will you be using?
2. How **much** will you have on using days? In a week/month?
3. How many **cannabis free days** will you have per week/month?
4. What are your **high risk situations** where you'll avoid using?
5. How will you **reduce the risk of harm**?

Make recommendations *with permission



Canada's Lower-Risk Cannabis Use Guidelines (LRCUG)

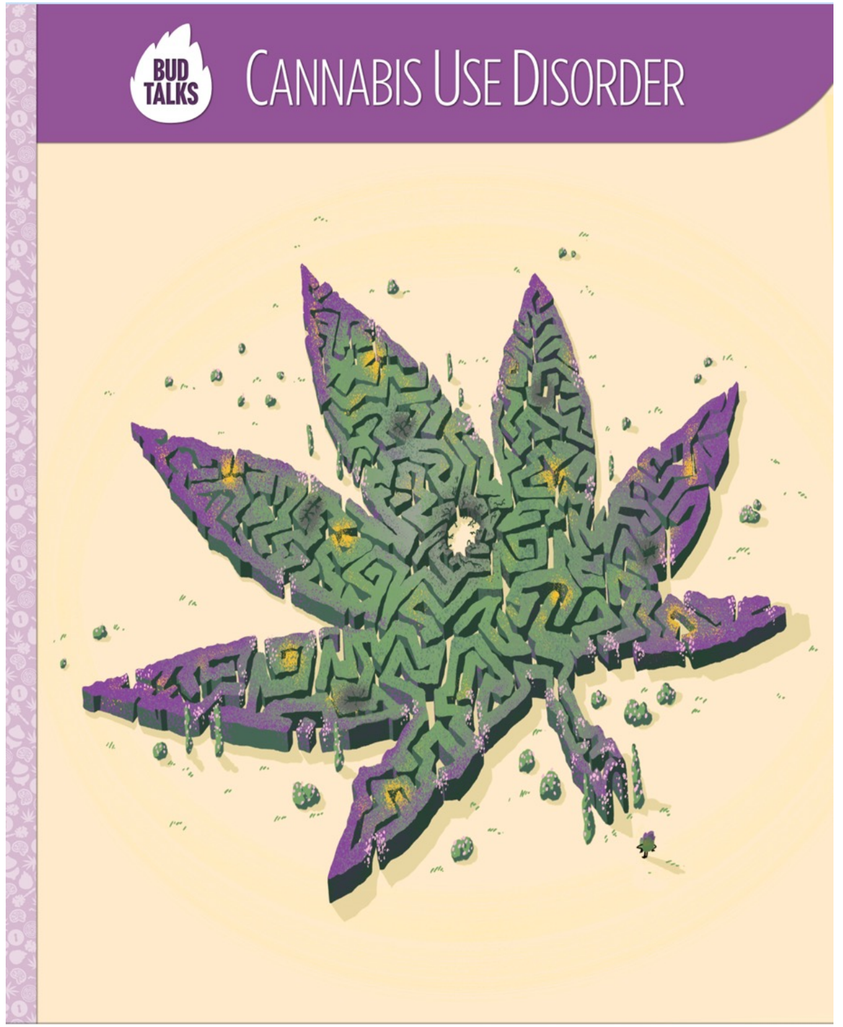
Revised 2018

Reference

Fischer, B., Russell, C., Sabioni, P., van den Brink, W., Le Foll, B., Hall, W., Rehm, J. & Room, R. (2017). Lower-Risk Cannabis Use Guidelines (LRCUG): An evidence-based update. *American Journal of Public Health, 107*(8). DOI: 10.2105/AJPH.2017.303818.

camh

CANADIAN RESEARCH INITIATIVE IN SUBSTANCE MISUSE | INITIATIVE CANADIENNE DE RECHERCHE EN ABUS DE SUBSTANCE

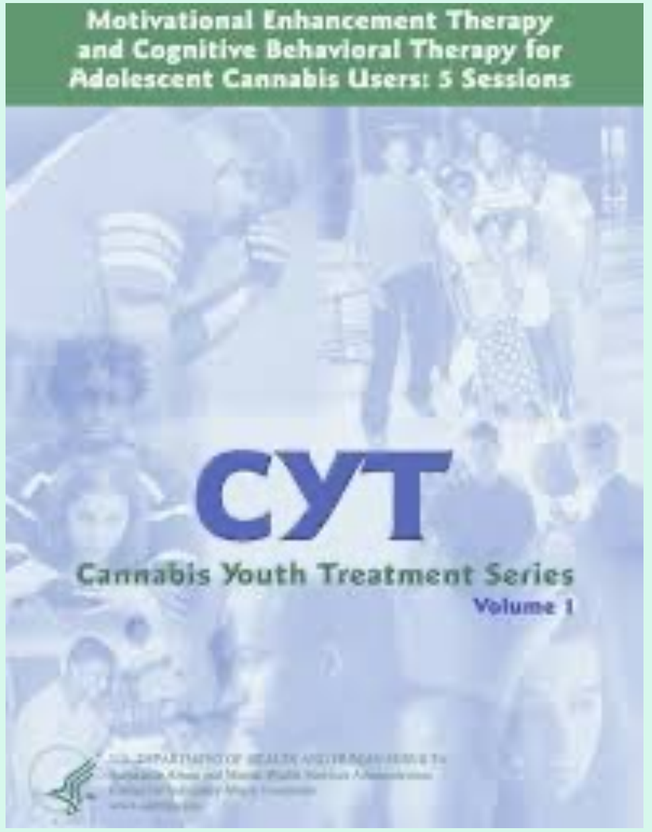


Cannabis withdrawal

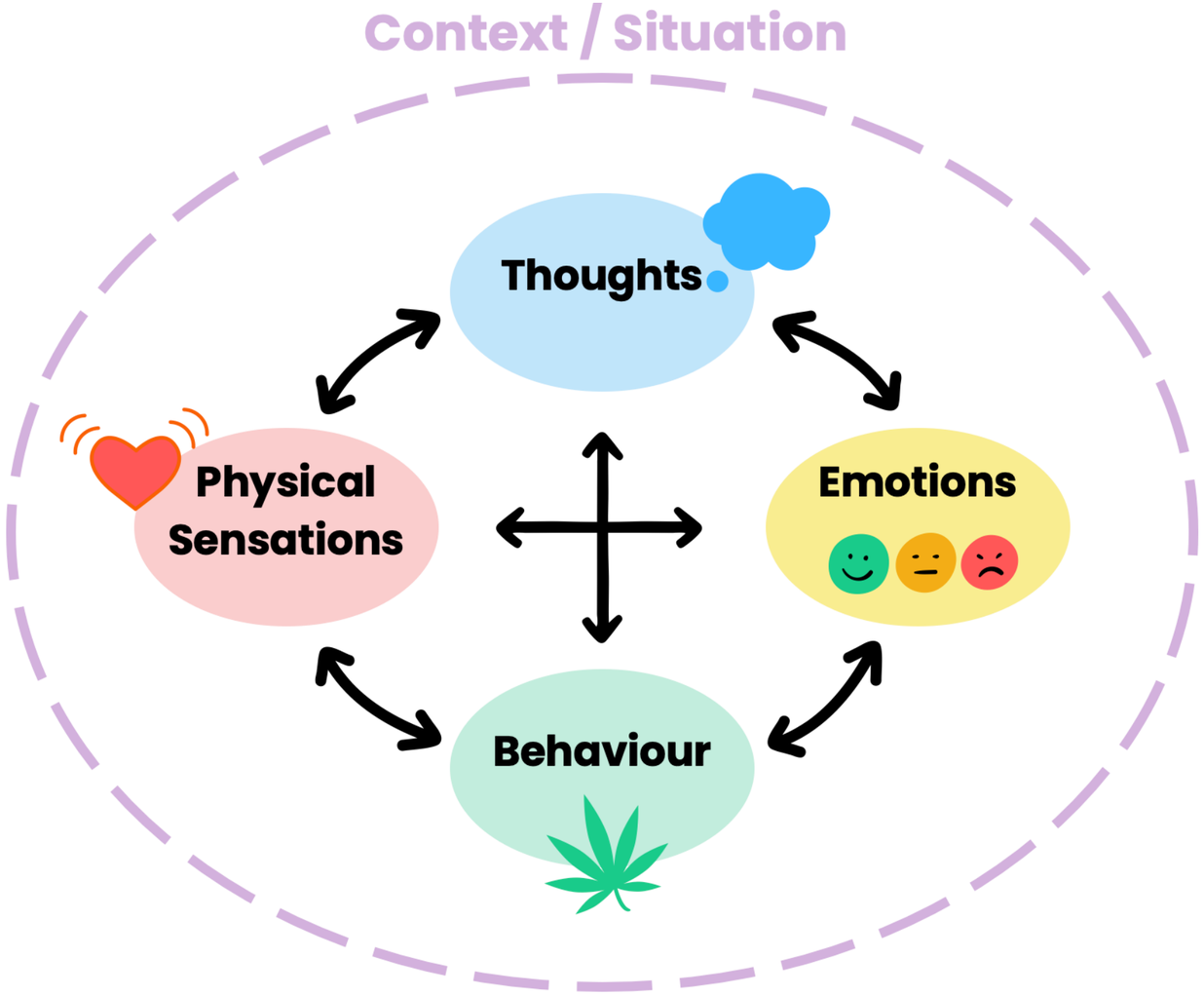
>=3 of the following within 1 week of abrupt reduction or cessation:

- Irritability, anger, aggression
- Nervousness, anxiety
- Sleep difficulty
- Decreased appetite, weight loss
- Restlessness
- Depressed mood
- At least 1 physical symptom: abdominal pain, shakiness/tremors, sweating, fever, chills, headache

Cognitive Behavioural Therapy (CBT)



CBT Model



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Understanding the Function of Substance Use

A

External Antecedents

Who were you with, what were you doing, what time of day/week, where were you?

Internal Antecedents

What were you feeling - physically and emotionally? What were you thinking?

B

Behaviour

What was used, how much, and how long?

C

Consequences

Positive (often short term): What keeps this behaviour alive? What do you get from the behaviours?

Negative (often longer-term): What kind of difficulties come up because of the behaviour?

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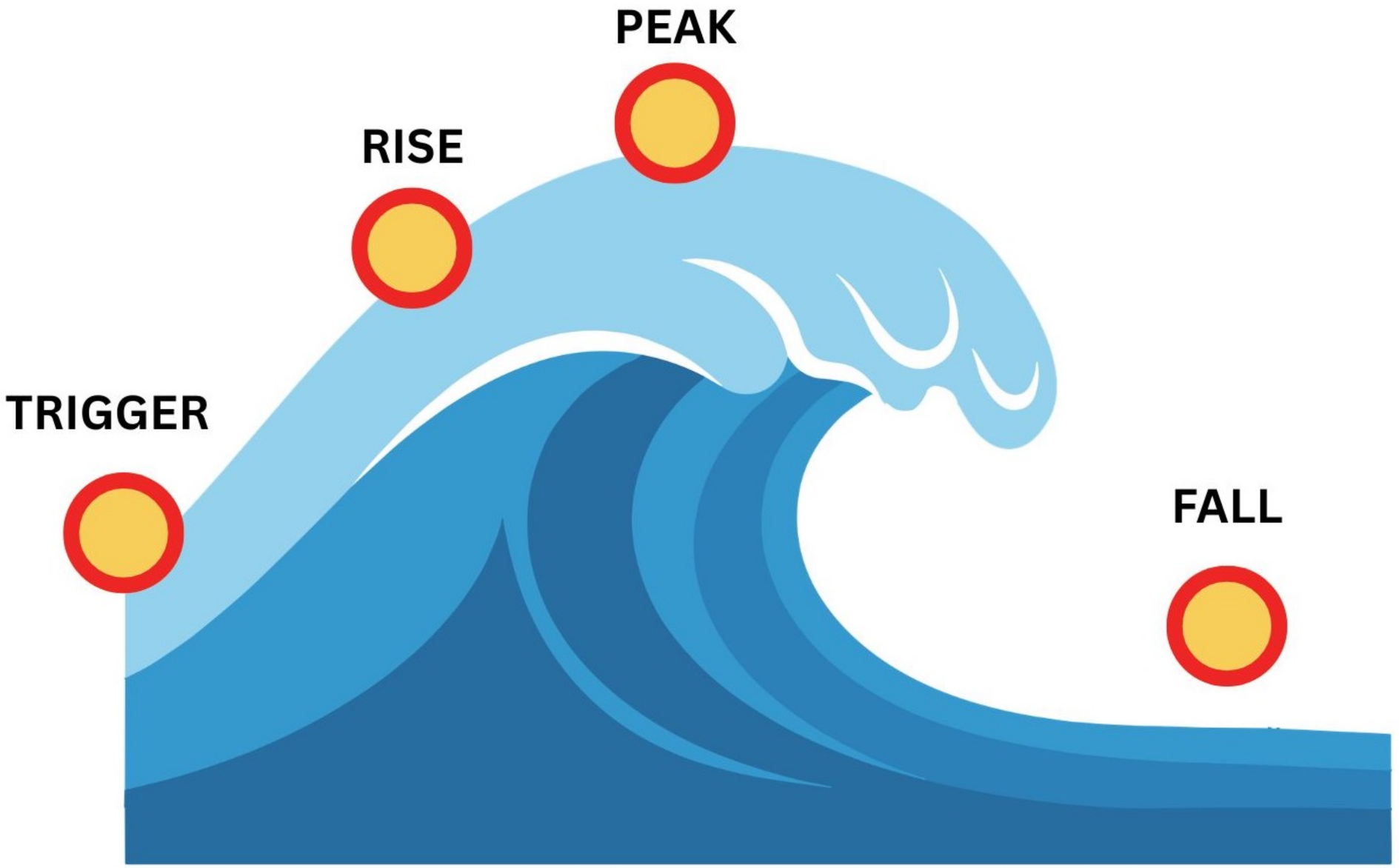
Learning Skills to Cope with Cravings

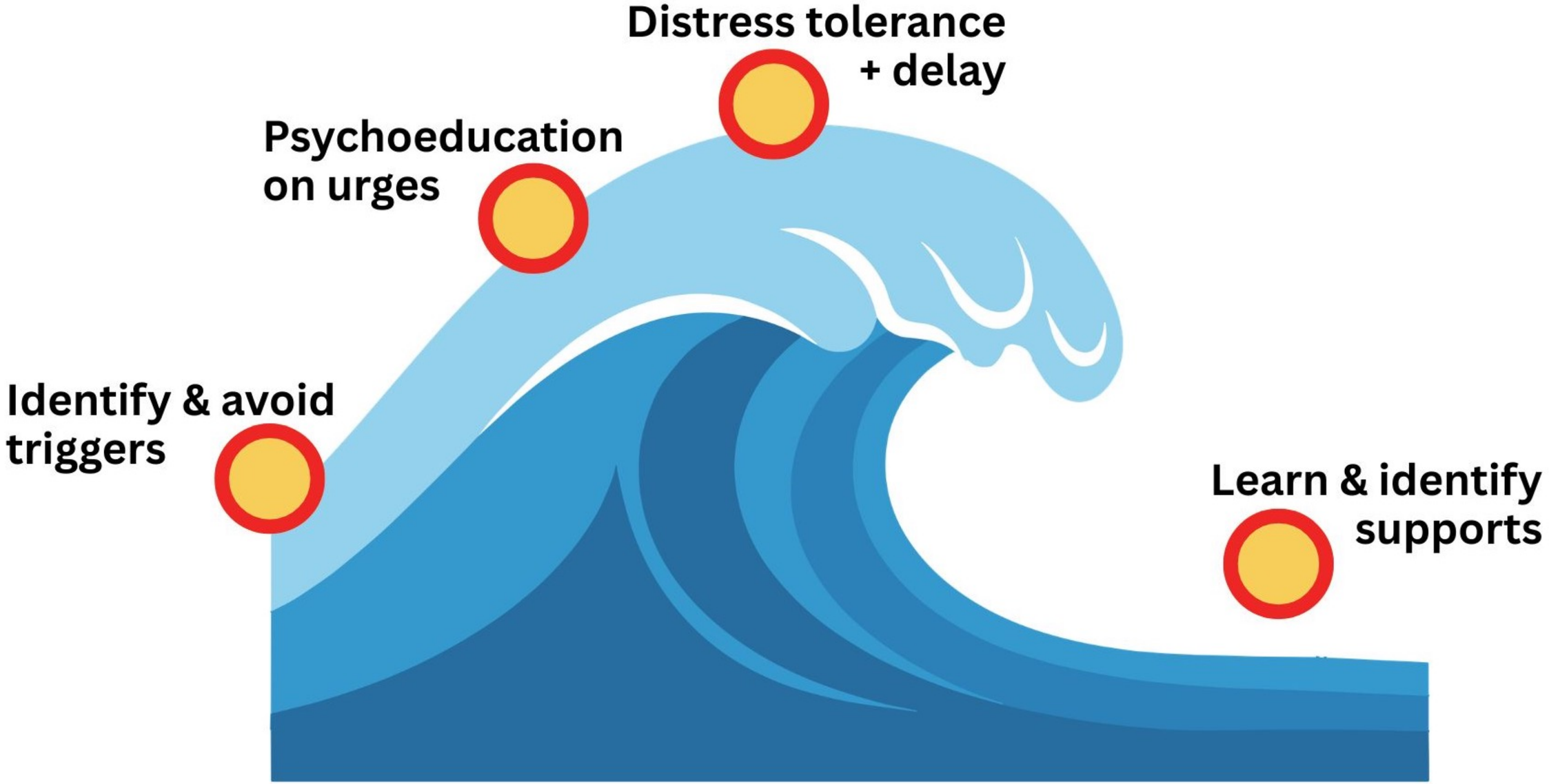
Physical

Psychological

Riding the wave / Urge surfing

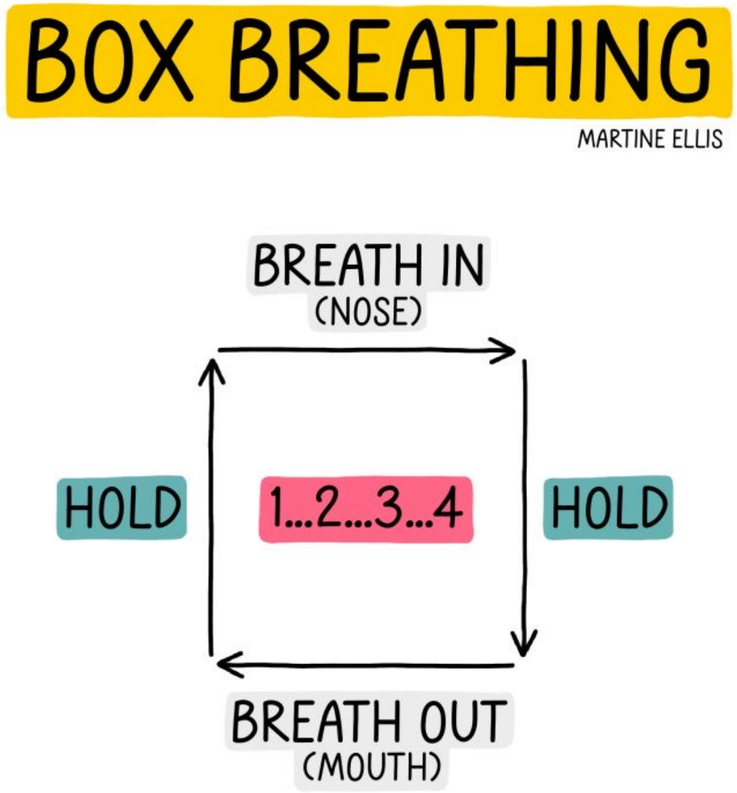


Riding the wave / Urge surfing



Avoid attaching meaning to the craving

Learning Skills to Cope with Cravings



Key points for practice

- **Ask and discuss cannabis** with all patients

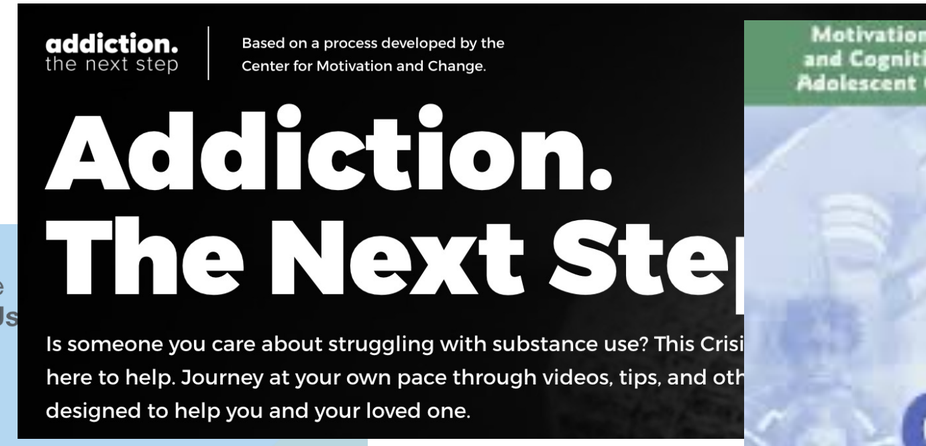
- **Approach conversations nonjudgmentally**, honestly, and with a trauma- and violence-informed and harm-reduction lens

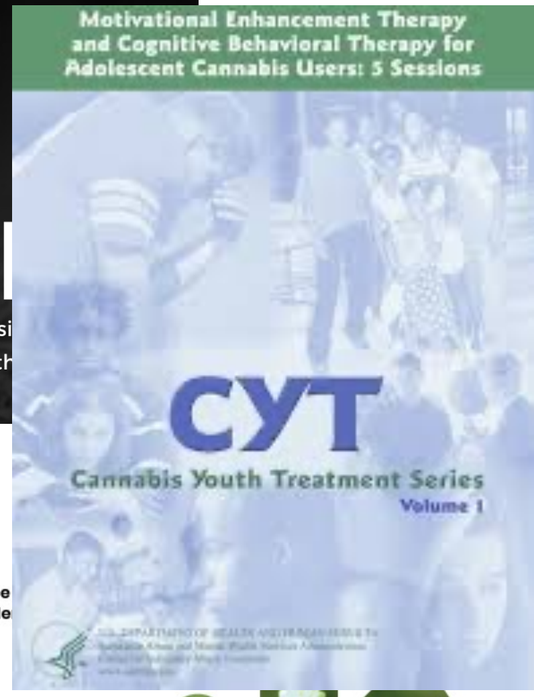
- **Motivational interviewing and cognitive behavioural therapy** and best practice approaches for cannabis use problems

- Support patients in building knowledge and skills to **urge surf** / ride the wave

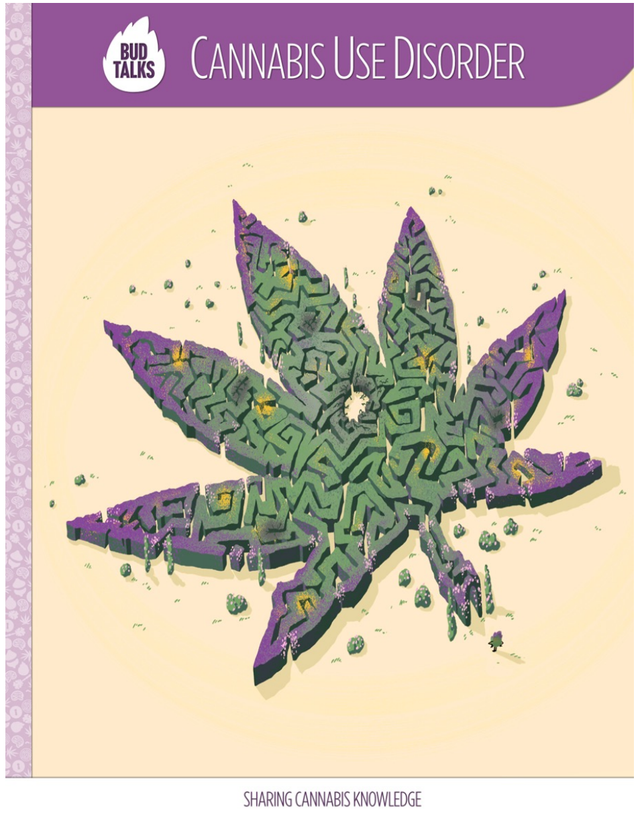

COMORBIDITY
GUIDELINES


Canadian Centre
on Substance Us
and Addiction


addiction.
the next step
Based on a process developed by the
Center for Motivation and Change.
Addiction.
The Next Step
Is someone you care about struggling with substance use? This Crisi
here to help. Journey at your own pace through videos, tips, and oth
designed to help you and your loved one.


Motivational Enhancement Therapy
and Cognitive Behavioral Therapy for
Adolescent Cannabis Users: 5 Sessions
CYT
Cannabis Youth Treatment Series
Volume 1


STIGMA ENDS WITH ME
Changing the Conversation About Substance Use


BUD TALKS
CANNABIS USE DISORDER
SHARING CANNABIS KNOWLEDGE

Talking pot
with youth
A Cannabis Communication Guide for
Youth Allies
Co-designed with input from youth and youth allies
Canadian Centre
on Substance Use
and Addiction
Evidence. Engagement. Impact.


CANNABIS TALK KIT
KNOW HOW TO TALK WITH YOUR TEEN
SECOND EDITION
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A Practice
School Me
School-Based
Interventions
Related to Student
Cannabis Use
School
Mental Health
Ontario
Santé mentale
en milieu scolaire
Ontario

Key Take-Aways

- Cannabis use during pregnancy and lactation is common, and increasing
- Many individuals use cannabis to cope with symptoms and stressors of pregnancy and parenting
- Evidence is limited and has challenges, though existing research points to harms for both the pregnant person and baby
- Discussing cannabis non-judgmentally and with honesty during pregnancy is important

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Resource links

Cannabis use in pregnancy: encouraging informed decisions: https://fammed.mcmaster.ca/research/research-programs-projects/projects/encouraging-informed-decisions-about-cannabis-use-in-pregnancy-educational-needs-of-women-and-prenatal-care-providers/

Wading Through the Weeds: https://youtu.be/Q3lPaalV-d0?si=PYvU5NFv1GuvJ4N9

Bud Talks Resources: https://cannabisresearch.mcmaster.ca/bud-talks/

Youth Wellness Hubs Substance Use Resources https://youthhubs.ca/taxonomy/term/52

Lower Risk Cannabis Use Guidelines: General https://www.canada.ca/en/health-canada/services/drugs-medication/cannabis/resources/lower-risk-cannabis-use-guidelines.html

Lower Risk Cannabis Use Guidelines: Youth Version https://www.camh.ca/en/health-info/guides-and-publications/lrcug-for-youth

CCSA: Talking pot with youth https://www.ccsa.ca/en/talking-pot-youth-cannabis-communication-guide-youth-allies

CCSA: Stigma Ends with Me https://www.ccsa.ca/module/stigma-learning-module-3-en/#/

CCSA: Clearing the Smoke on Cannabis: Cannabis Use During Pregnancy and Breastfeeding https://www.ccsa.ca/en/clearing-smoke-cannabis-cannabis-use-during-pregnancy-and-breastfeeding

Comorbidity Guidelines: https://comorbidityguidelines.org.au/

Drug-Free Kids: Cannabis Talk Kit https://www.canada.ca/en/health-canada/corporate/transparency/working-for-canadians/health-canada-drug-free-kids-canada-partner-create-cannabis-talk-kit.html

School Mental Health Ontario – School based interventions for cannabis use: https://smho-smso.ca/online-resources/practice-guide-for-school-mental-health-professionals-school-based-interventions-related-to-cannabis-use/

Cannabis Youth Treatment Series: https://www.drugsandalcohol.ie/17832/1/MET_CBT_Supplement_7_sessions_adolescent_cannabis_users.pdf

Canadian Substance Use Costs & Harms: https://csuch.ca/explore-the-data/data-charts/

RNAO: Engaging Clients Who Use Substances https://rnao.ca/bpg/guidelines/engaging-clients-who-use-substances

Thank you. Questions, Comments, Reflections?

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