Youth Wellness Hubs Ontario

Substance Use Practice Brief on Cognitive Behavioural Therapy

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Acknowledgements

This Substance Use Practice Brief on Cognitive Behavioural Therapy with Youth provides practical considerations to help clinicians implement Cognitive Behavioural Therapy into practice. This brief is intended to support therapists, counsellors, social workers, social service workers, nurse practitioners, registered nurses, physicians, and other healthcare professionals providing treatment and counselling to youth aged 12-25 with substance use and addiction concerns.

This document is intended for educational and informational purposes only. It is not a substitute for professional training, institutional policies, or clinical judgment.

Youth Wellness Hubs Ontario (YWHO) in collaboration with provincial partners are supporting substance use capacity building for child mental health and addictions professionals across Ontario. A special thanks to the Provincial Steering Committee for Substance Use Capacity Building for guiding and supporting this work and ensuring system collaboration and alignment across sectors.

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What is CBT for Substance Use Problems?

Cognitive behavioural therapy (CBT) is a psychological approach to treating various mental health concerns that focuses on the connection between thoughts, feelings (both emotional and physical responses), and behaviours. In the case of substance use problems, the target behaviour is often substance use itself – understanding and targeting thoughts and feelings that contribute to youth using and experiencing problems from substances. See Figure 1 for the CBT model.

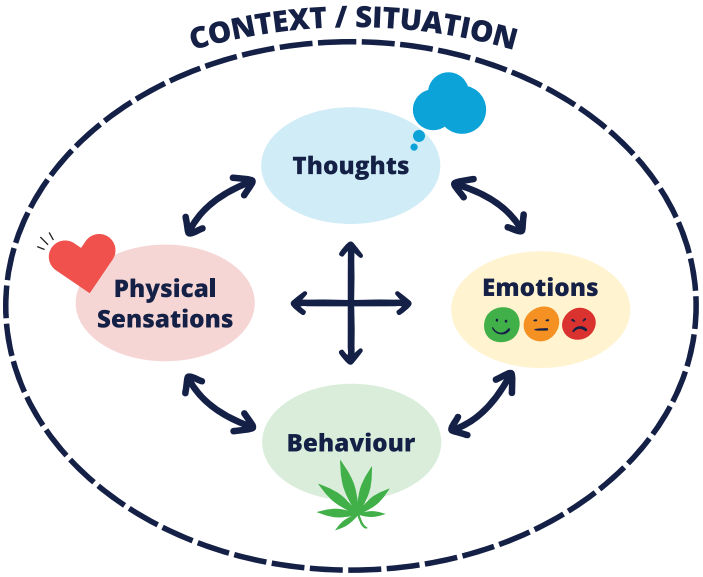

Figure 1. *CBT Model*

For example, a youth may go to a friend's birthday where some peers are drinking. They may think, "*If I don't drink, people will think I am lame*." This thought may trigger feelings of anxiety, along with physical sensations like a racing heat and sweating – ultimately leading to them to make the decision to drink. In another scenario, a youth's friend may cancel plans last minute on a Friday night. They may think, "*they probably don't even want to be friends... maybe they are hanging out with someone else instead*." This may lead to feeling sad and angry, accompanied by a heavy feeling in the chest. They may think "*weed will help me feel better*," and decide to get high alone.

CBT uses a structured, empathetic, flexible, goal-oriented approach focused on current problems. A CBT approach can support youth in identifying and changing problematic thoughts, naming and coping with emotions, recognizing and managing physical sensations, and understanding how specific situations or contexts contribute to their substance use.

The Evidence Supporting CBT for Youth Substance Use

CBT, combined with motivational interviewing (reviewed in another evidence brief) or enhancement therapy, is the **recommended first-line psychotherapeutic approach for treating most substance use problems** in both adolescent and adults.[1-6] CBT is also the leading treatment for other mental health disorders, such as anxiety and depression, that commonly co-occur with substance use problems.[7,8,9]

Given substance use and other mental health concerns commonly co-occur in youth, **integrated treatment is strongly recommended**.[8,10,11] In Ontario, studies have found that nearly all youth entering substance use treatment report moderate-severe symptoms of other mental health concerns[12,13], while those seeking mental health care show significantly higher rates and riskier patterns of substance use than their peers.[14,15] Unfortunately, most youth with co-occurring problems do not receive care for both, with substance use often going undetected and untreated.[10,16] Although most substance use disorders are diagnosed in the mid-20s[17], early signs often emerge in adolescence, especially among youth with other mental health concerns. Therefore, CBT for substance use does not need to be limited to those meeting full diagnostic criteria. **Since CBT is effective across a range of commonly co-occurring disorders, its strategies can be flexibly adapted and integrated to address multiple presenting concerns**.

CBT is not a single intervention but a family of interventions. This brief focuses on the second-wave or "traditional" CBT, as this contributes to the bulk of the existing evidence base. However, evidence is emerging for the use of third-wave CBT models to address youth substance use.[3,5] See Table 1 for alternative CBT approaches and considerations on when to consider them in treatment, noting that these approaches currently have less empirical support than tradition CBT, discussed further in this brief. Of these approaches, ACRA and CM are the most established. These aligns with youth developmental needs, including novelty seeking, impulsivity, social connection, and striving for autonomy.[18] Despite differences across specific intervention types, all CBT approaches share a core focus on the interconnectedness of thoughts, feelings, and behaviours.

Table 1. *Alternative CBT approached for youth substance use*

Approach	Focus of treatment	Consider when
Acceptance and Commitment Therapy (ACT)	Promoting acceptance of feelings, rather than avoidance.[19]	Avoidance of difficult emotions is a key barrier to change.
Adolescent Community Reinforcement Approach (ACRA)	Increasing substance-free positive reinforcement through healthy activities, relationships, and problem solving.[20]	Lack of rewarding, substance-free activities or supportive relationships is hindering change.
Contingency Management (CM)	Offering monetary incentives to promote a target behaviour, such as abstinence or attendance.[21,22]	Motivation to change or engage in treatment is low.
Dialectical Behaviour Therapy (DBT)	Building skills in mindfulness, distress tolerance, emotional regulation, and interpersonal effectiveness.[23]	Emotion dysregulation is a prominent feature of patterns of substance use.
Mindfulness-based approaches	Bringing attention to the present moment without judgement, creating a pause between triggers and use.[24]	Substance use tends to be automatic or impulsive.

Practical tips and considerations when using CBT with youth who use substance

The following section is largely based on various evidence-informed youth substance use treatment manuals and guidance.[25-31]

Core Components

Core components of CBT for youth substance use include:

1. understanding substance use
2. identifying and challenging problematic thoughts
3. learning skills to cope with cravings and refuse substances
4. planning for difficult situations

1. Understanding substance use

A common first step of CBT for substance use problems is completing a functional analysis, that focuses on the "ABCs" (antecedents, behaviours, and consequences). This analysis can be included in your clinical assessment sessions with the youth (See Figure 2).

A functional analysis is a tool used to identify the antecedents—or triggers— that precede a target behaviour. These triggers can be external, such as specific situations or environmental contexts, or internal, such as thoughts and feelings. In CBT for substance use, the target behaviour is typically substance use itself. If a youth's goal is abstinence, meaning they aim to avoid all substance use, then any instances of use may be considered the target behaviour. Alternatively, if the goal is harm reduction, the focus may shift to episodes of heavy use or higher-risk types of substance use. Functional analyses also explore the consequences—or outcomes—of the target behaviour. These outcomes can be short-term outcomes, which are often positive consequences that reinforce the behaviour, and/or longer-term outcomes, which are often negative consequences from use.

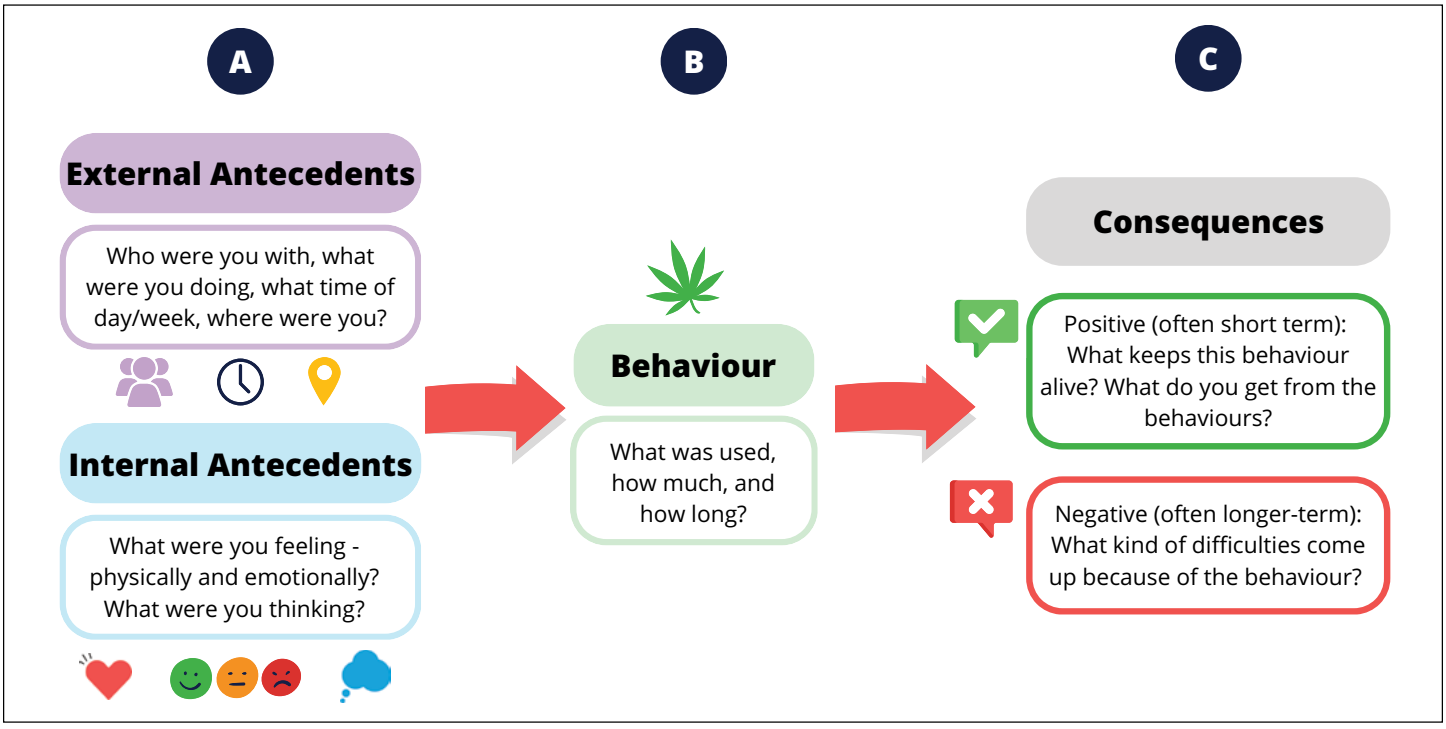

Figure 2. *Functional Analysis*

Functional analyses can be completed based on a specific use event (i.e., most recent occasion of substance use) or substance use behaviours more generally (i.e., general patterns of substance use). They are used to better understand why youth use substances, identify key triggers to guide treatment, foster a sense of control over use, and strengthen motivation to change use to avoid negative consequences.

2. Identifying and challenging problematic thoughts

Negative thinking patterns are often key triggers for substance use and an important target in treatment. Youth may experience a range of substance-related thoughts that reinforce or justify use. They may be beliefs about the nature of substances (e.g., "*Weed is safe because it's natural. They wouldn't make it legal if it was harmful*"), perceived benefits of substances (e.g., "*I'm way more fun and social when I drink*" or "*The only way to calm my mind is to get high*"), urges and cravings related to substances (e.g., "*I can't think or do anything else when I am craving*"), and permission-giving or testing limits (e.g., "*Everyone else gets to do it*" or "*I used to use so much more, one drink will be fine.*").

CBT helps youth identify and challenge problematic thoughts by focusing on "thinking traps," also known as cognitive distortions. Common thinking traps include:

Black-and-white or all-or-nothing thinking. Seeing things in extremes, with no middle ground. E.g., "*I had a drink tonight, so I've totally failed. I might as well go all out and try again tomorrow*."

Overgeneralization. Making broad conclusions based on limited experiences. E.g., "*Nobody likes me sober*" or "*I suck at everything*."

Catastrophizing. Expecting the worst possible outcomes. E.g., "*If I don't smoke, I'll completely lose control and have a panic attack at school*."

Jumping to conclusions. Making assumptions without evidence, like mind-reading "*They think I'm lame for not drinking*" or fortune telling "*I won't make friends if I don't drink at the party*."

Emotional reasoning. Believing that feelings reflect facts. E.g., "*I feel awkward, so I must be an awkward person*"

Should statements. Setting unrealistic expectations and self-criticism. E.g., "*I should be able to handle just one drink*."

Mental filter. Focusing only on the negatives and/or ignoring the positives. E.g., "*I don't feel the same rush as when I use, so being sober is pointless*" ignoring other benefits of lowered use, like improved relationships, better attention and memory, improved physical health, etc.

One strategy to evaluate or challenge unhelpful thoughts is putting thoughts "on trial". Figure 3. Putting thoughts on trial

3. Learning skills to cope with cravings and refuse substances

While functional analysis and cognitive restructuring are broadly used transdiagnostic CBT strategies, coping with **cravings** and skills for refusing substances are specific to CBT for substance use problems.

Youth who use substances often experience cravings, which can be physical (like muscle tension or restlessness) and/or psychological (such as strong urges for or positive memories of substance use). Cravings are common but temporary, usually peaking after a couple of minutes. CBT helps youth recognize and manage cravings by identifying triggers, creating space between the craving and use (e.g., distract and delay), challenging unhelpful thoughts, and using self-talk or reaching out for social support.

Teaching youth **substance refusal skills** involves discussing peer influence (explicit and implicit) and a youth's social circle (i.e., identifying supportive friends or higher risk

What is the thought?	
The Defense **Evidence for the thought** Thoughts are not facts, but usually all thoughts are grounded in some truth. Stick to the facts.	**The Prosecution** **Evidence against the thought** Thoughts are not facts, and often the facts may be overexaggerated. Is something being over- or under-estimated? Is a thought being confused with a feeling?
Judges Verdict How can you reframe the thought acknowledging both sides?	

Figure 3. *Putting thoughts on trial*

social groups), and learning and practicing substance use refusal skills. General guidelines include explicitly saying no while avoiding excuses, suggesting an alternative, changing the subject, and asking them not to offer substances. For example, "*No thanks, I am not drinking. Can you grab me a soda instead? How's soccer been going by the way?*" It is important to note that youth have cautioned against discussing peer influence solely through peer pressure, emphasizing that substance use often also serves other social purposes like easing social anxiety or enhancing connection.[32]

4. Planning for difficult situations

Planning for difficult situations is a key part of substance use treatment, often referred to as relapse prevention. Substance use is highly predictable, with certain triggers (which can be elucidated through a functional analysis) being higher risk than others. Planning for difficult situations involves supporting youth to proactively learn strategies and develop a plan for high-risk triggers.

- External triggers can be **avoided, altered, or substituted** – such as getting rid of substances and paraphernalia, altering work or activity hours to avoid being alone during high-risk use times, or using lower potency or substance-free products/replacements (e.g., soda or zero beer, lower potency cannabis).
- Internal triggers can be managed through **delay, distraction, thought challenging, self-talk, or social support** as discussed above.

When youth don't meet their goals or experience a setback, this can prompt black-and-white or all-or-nothing thinking. This kind of thinking can lead to feelings of failure and giving up. Clinicians can support youth in reframing a slip as a single event, not a total failure, and helping youth learn from their experience to build insight and strengthen difficult situation planning.

Additional CBT modules

Additional CBT modules, tailored to individual needs and treatment goals, often focus on:

- **Problem solving and decision making**: Youth learn to define problems, brainstorm solutions, choose one to try, and evaluate its effectiveness.
- **Interpersonal and social functioning**: Skills including managing anger, assertiveness, positive communication, and strengthening social support.
  This may involve a functional analysis of anger – identifying triggers and consequences of anger responses.
  Youth may practice giving and receiving constructive feedback, active listening, and expressing needs clearly.
  A social circle diagram can help map out current social supports, identify gaps, and build a stronger network.
- **Maximizing substance-free reinforcement**: Activities like a values card sort or creating a personalized list of enjoyable, substance-free activities can help youth connect with meaningful and fun alternatives to substance use.

Key Take-Aways

1. CBT, alongside motivational enhancement therapy, is the first-line treatment for most youth substance use concerns.
2. CBT is effective across a range of mental health disorders, and thus strategies can be integrated to address multiple presenting concerns.
3. CBT for substance use problems is largely comprised of: (1) functional analyses, and (2) targeted skills training.

Resources (open-access evidence-based manuals):

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