What kinds of treatment work for Francophone youth with substance use problems?

What you need to know

- Research on the outcomes of specific treatment models for youth with substance use problems is limited, with research on effective treatment for Canadian Francophone youth being virtually nonexistent.

- Though evidence about the value of residential treatment is contradictory, a review of the current literature reveals a number of treatment models and specific features of effective treatment that can be considered best practices in residential treatment for youth substance use problems.

- Family therapy models and motivational enhancement therapy have been found to be particularly promising practices for outpatients and can be integrated into residential treatment settings.

What’s the problem?

There are a number of different approaches to treating youth with substance use problems. However, it can be challenging to isolate which of these approaches are effective, and which are suitable for specific populations or treatment settings. For this reason, a Local Health Integration Network in Ontario reached out to EENet to identify the best treatment models for addressing substance use problems in Ontario’s Francophone youth population. The purpose of collecting the following information is to assist with selecting treatment approaches for local residential treatment facilities.

What did we do?

A search of academic literature was conducted in November 2015, using the following databases: Cumulative Index to Nursing and Allied Health Literature (CINAHL), Medline, In Process Medline, PsycINFO, and the Cochrane Database of Systematic Reviews.
This database search was supplemented by literature recommendations from experts in the field of youth substance use treatment in Ontario. We included relevant literature on Canadian Francophone youth and substance use published in English or French since 2000. An expanded search on substance use treatment for youth in general included only review-level literature (such as systematic reviews and meta-analyses) published since 2009, since the quantity of evidence on this topic was significantly greater. Though the primary focus of the search was on models or approaches to be used in youth residential treatment settings, literature focusing on treatment approaches used for youth in other (outpatient) settings was also reviewed, as publications about youth residential treatment are limited. It was also done in order to provide a broader picture, illustrating approaches that show promise for integration with residential treatment.

This search excluded single studies that focused exclusively on a single treatment model, instead of comparing models, and publications that were not peer-reviewed, such as books and government reports. Other topics we deemed to be outside of scope for this particular review included:

- Approaches to the prevention of substance use problems in youth;
- Internal predictors of treatment outcomes, such as personality traits or personal family history;
- Treatment approaches for mental illness or behavioural problems;
- Treatment approaches applicable only in primary care, school, justice system, or emergency department settings;
- Treatment approaches for a single substance, such as alcohol or cannabis, rather than substance use in general;
- Treatment approaches for adults.

Some literature recommended by experts was included despite being published before 2009 or being classified as grey literature. Following a review of titles and abstracts, a total of 14 articles were selected as relevant for inclusion; two on substance use treatment for Canadian Francophone youth (in Quebec) and 12 on substance use treatment for youth in general.

What did we find?

The following section begins by outlining findings specific to Francophone youth, followed by evidence on effective residential treatments for youth in general. Finally, it presents promising practices for outpatients that can be integrated into residential treatment settings.

Treatment for Francophone youth

The literature search yielded no studies about substance use treatment for Francophone youth in Ontario. Research in Quebec found the following treatment components to be important:\textsuperscript{12,13}:
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- Building a strong therapeutic alliance between therapist and patient early in treatment;
- Family involvement in treatment;
- Focusing on retention and aftercare;
- Use of motivational interviewing;
- Use of group interventions to build consciousness and solidarity, and promote recovery;
- Patient involvement in determining treatment objectives (i.e., not necessarily aiming for abstinence).

Many of these suggestions parallel other findings and are applicable to youth in general. While the lack of research in Ontario could be a gap in the literature, it is also possible that approaches to treatment do not vary significantly. It is possible that successful outcomes with this population are related more to treatment accessibility and the availability of culturally and linguistically appropriate treatment, both of which were beyond the scope of this rapid review.

Effective residential treatment

The evidence about the value of residential treatment for youth substance use is contradictory. Some literature claims that residential treatment is empirically unjustified, citing the high costs and disruptive consequences associated with separating youth from their families and communities, the risks of maltreatment and negative peer culture formation, and the difficulty of maintaining treatment gains once youth return home\textsuperscript{1,2}.

This being said, published literature also reveals a number of positive outcomes for youth who have undergone residential treatment. These include increased regulation, protection from harmful or abusive home environments, and reductions in drug use and associated problems in the year following treatment. Benefits have been seen from both long-term and intensive short-term residential treatment and have been estimated to outweigh costs\textsuperscript{1,2}.

Despite this contradictory evidence, there is consensus that youth treatment for substance use problems should occur in the least restrictive environment possible\textsuperscript{1}. Plant and Panzarella\textsuperscript{1} highlight that residential treatment should be recommended only when previous treatment efforts have been ineffective, when additional structure and supervision are needed, or when there are goals that can’t be achieved elsewhere. However, residential treatment looks different in different institutions and jurisdictions\textsuperscript{1,2}.

The following have been identified as features of effective residential treatment programs for youth: \textsuperscript{1,3,4,5}

- Multimodal, holistic, and ecological approaches that address more than substance use
- Family involvement in treatment
• Motivational approaches focused on harm reduction
• Culturally and linguistically competent delivery of services
• Approaches based on knowledge of youth development, designed to meet the youth’s developmental stage
• Methods for promoting treatment retention and preventing drop-out
• Capacity to treat concurrent disorders, including mood, anxiety, and trauma-related disorders
• Strengths-based approaches focused on the youth’s positive characteristics and existing capabilities
• Comprehensive discharge planning and aftercare
• Responsiveness to the unique needs of the individual youth

Table 1 on page 9 of this Rapid Review lists the most common treatment models being used in youth residential settings, as of 2009. The research evidence supporting the effectiveness of each of these models varies.

Promising practices for adoption in residential treatment
There are a number of practices from home and community (outpatient) settings that have been identified as effective, evidence-based treatment models. Many of these show promise for integration with residential treatment and are gradually being incorporated into residential settings. These are outlined below.

1. Family therapy
A recent analysis of the comparative effectiveness of different outpatient youth treatment approaches found that those using family therapy yielded larger beneficial effects than other treatment approaches.

Family therapy approaches highlight the need to engage family members, including parents, siblings, and sometimes peers, in the treatment process. This is based on the assumption that families have the strongest and longest-lasting impact on adolescent development.

Family therapy generally serves to address issues beyond youth substance use, including:

• family communication, problem-solving and cohesiveness;
• other co-occurring behavioral, mental health, or learning disorders;
• problems with school or work attendance; and
• relationships with peers
Family therapy approaches are categorized into five treatment models, each highlighted by Winters et al.\textsuperscript{5} and outlined in Table 2. There is currently insufficient evidence to determine if the family therapy models differ in effectiveness. They all show statistically significant, albeit modest, effects\textsuperscript{8}.

2. **Motivational enhancement therapy**
Outpatient treatments using motivational enhancement therapy (MET) tend to yield beneficial effects relative to other treatment approaches, especially for youth with marijuana dependence\textsuperscript{8}. MET is based on motivational interviewing techniques to encourage the adolescent to engage in treatment and stop using drugs. It is typically delivered in conjunction with other treatment approaches.

Motivational enhancement therapists use a person-centered, non-confrontational style to help the youth explore different facets of his or her use patterns. Adolescents are encouraged to examine the pros and cons of their use and to create goals to help them achieve a healthier lifestyle.

The therapist provides personalized feedback and respects the youth’s freedom of choice regarding his or her own behavior. While generally remaining neutral, the therapist is directive in helping the youth examine and resolve ambivalence and encouraging the youth to take responsibility for selecting and working on healthy changes in behavior\textsuperscript{5}.

3. **Behavioural approaches**
Behavioural treatment models (see Table 3) focus on teaching and reinforcing new skills, behaviours, thinking patterns, and coping mechanisms to reduce substance use. The goal is to strengthen positive behaviours and eliminate negative or maladaptive ones\textsuperscript{5}.

4. **Pharmacotherapy**
Pharmacotherapy refers to the use of medication to address different aspects of addiction, including reduction of cravings, aversion therapy, substitution therapy, and treatment of underlying psychiatric disorders. Medication is specifically used to treat addiction to opioids, alcohol, and nicotine, as no medications have been approved to treat cannabis, cocaine, or methamphetamine use problems. The research on pharmacotherapy for adolescents is limited and no medications have been approved specifically for adolescents\textsuperscript{5}.

5. **Integrated treatments**
Many facilities providing treatment for youth with substance use problems use an approach that integrates multiple evidence-based treatment approaches. Some well-established integrated treatments, according to Hogue et al.\textsuperscript{6} are MET and cognitive behavioural therapy (CBT), or the two combined with family therapy.
6. Continuing care and recovery supports
Continuing care and recovery supports are approaches that are used together with, or after, other treatment approaches. The continuing care and recovery supports in Table 4 are not intended as substitutes for other treatment models.

7. Internet-based interventions
Internet-based interventions offer another approach to treatment that can be combined with other treatment models. Their advantage is that they can be delivered to a far greater proportion of the target population.

A systematic review of Internet-based interventions for youth with substance use problems by Tait and Christensen revealed that those targeting alcohol-related problems are as effective as brief in-person interventions. In their review, Hogue et al. recommend the use of Web-based technology as a cost-effective way to extend the reach of substance use treatment.

8. Interventions for concurrent disorders
Almost all treatment models for youth with substance use and concurrent psychiatric disorders result in modest reductions in symptoms. However, they also share difficulties maintaining treatment gains and high relapse rates.

According to Hulvershorn et al., the National Registry of Evidence-Based Programs and Practices of the U.S. Substance Abuse and Mental Health Services Administration contains 10 evidence-based treatment programs for youth with concurrent disorders. These include the following programs:

- Seven Challenges;
- Adolescent community reinforcement approach (A-CRA);
- Family behavior therapy;
- Multisystemic therapy;
- Multidimensional family therapy;
- Parenting with Love and Limits;
- Phoenix House Academy;
- Family Support Network;
- Seeking Safety;
- Chestnut Health Systems-Bloomington Adolescent Outpatient and Intensive Outpatient Treatment Model.
Through their critical review of treatment models, Hulvershorn et al. found the following components of existing psychosocial treatment models to be effective in addressing concurrent disorders:

- Behavioural therapies, such as CBT and treatment derived from CBT (e.g. Dialectical Behaviour Therapy)
- Goal-directed techniques, such as role-playing, modeling, behavioural exposures, self-monitoring of behaviour outside of therapy, and challenging maladaptive beliefs (combined with CBT)
- Motivational interviewing, combined with skill building and CBT or equivalent
- Family/systems interventions, incorporating parental training and monitoring skills

9. Early interventions
A review of nine studies by Carney and Meyers revealed that early interventions reduce substance use and associated behavioural outcomes, with small but significant effect sizes. Interestingly, early interventions were more effective if they were delivered over multiple sessions and in an individual, rather than group, format.

Teen Intervene was the intervention that was associated with the largest effect sizes. It was the only one of the nine that included a session with the youth patient’s parents.

What are the limitations of this review?
Only 14 studies met our inclusion criteria. The findings are limited by the parameters of our methods, including the research question and the timeframe of the search strategy. As a result, this rapid review may not present a comprehensive view of knowledge on this topic. The findings reveal a number of research gaps on the topic of best practices in treatment for youth with substance use problems.

The body of evidence on what types of treatment work best for which youth, and to what extent, is small. This is especially true in comparison to studies looking at adult treatment. A recent systematic review of evidence-based treatment guidelines for substance use problems among adolescents found that most were of low quality, with sparse evidence to support their recommendations and many recommendations based on adult studies.

Evidence from randomized, controlled trials is particularly limited, and trials done to date have shown relatively modest effect sizes. In addition, there are virtually no well-controlled studies on long-term treatment outcomes for youth.

At this time, it is difficult to determine which components are responsible for the successful treatment outcomes observed by some researchers. This is because most youth treatment programs use a variety of approaches that
incorporate multiple treatment models, and because most researchers are not specific about all the components of the treatment approaches they studied².

Most importantly, perhaps, for the purposes of this rapid review, research on effective treatment for Francophone youth in Ontario with substance use problems has yet to be done. Also, very little research exists on treatment for Francophone youth in Quebec. For this reason, the treatment models outlined above as best or promising practices might not be entirely applicable to Ontario’s Francophone youth population.

**What are the conclusions?**

Based on the limited number of studies meeting the inclusion criteria for this rapid review, there appear to be several promising evidence-based treatment approaches that can lead to positive outcomes in youth with substance use problems. However, it remains unclear to what extent these interventions would be effective within a residential treatment program for Ontario’s Francophone youth. It is important to note that several publications have identified features of effective treatment for youth that are not specific to any treatment model and that also may be incorporated into various treatment settings. These include family involvement in treatment, motivational approaches focused on harm reduction, and developmentally-appropriate services that attend to the comprehensive needs of each individual.
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<tr>
<th>Treatment model</th>
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<tr>
<td>Minnesota Model</td>
<td>The Minnesota Model is based on the 12-steps of Alcoholics Anonymous and focuses on treatment goals related to recognizing addiction, admitting the need for help, identification of what needs to change, making changes, and adjusting one’s lifestyle to sustain changes. 12-step programs such as this one have been adapted from adult models and have shown some effectiveness. The Minnesota Model has demonstrated reductions in youth substance use post-treatment.</td>
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<tr>
<td>Multidisciplinary Professional Model</td>
<td>This treatment model employs a team of professionals, often led by a physician. The team provides a range of treatment modalities across several primary domains: substance use/abuse, education/vocation, social/leisure, medical, family, and legal. There is little research supporting the effectiveness of this treatment model.</td>
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<tr>
<td>Seven Challenges</td>
<td>Seven Challenges is a relationship-based approach that incorporates aspects of motivational enhancement therapy, cognitive behavioral approaches, and health decision making focusing on the adolescent’s particular need for autonomy, self-determination, and choice (adolescent development). This model has been found to be effective in outpatient and residential treatment settings. It is considered to be one of a new generation of treatments involving greater application of developmental science.</td>
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<tr>
<td>Therapeutic Community (TC)</td>
<td>The TC treatment model is a well-established model of residential treatment for adults that has been adapted for youth. TC views addiction holistically, as the external behavioral expression of a complex combination of personal and developmental problems. For adolescent populations there is increased emphasis on recreation, a less confrontational stance than is found in adult programs, more supervision and evaluation by staff members, assessment of psychological disorders, a greater role for family members in treatment, and more frequent use of psychotropic medication for emotional disorders.</td>
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Table 2: Family Therapy Approaches

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<td>Family behavior therapy (FBT)</td>
<td>This treatment model involves the adolescent and at least one parent, combining contingency management with behavioural contracting and other evidence-based approaches selected by the patient and their family. FBT teaches family members skills to use in their everyday lives. At each session, goals are reviewed and rewards are provided.</td>
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<tr>
<td>Functional family therapy (FFT)</td>
<td>FFT uses behavioural approaches to improve negative family interactions believed to underlie problem behaviours. A therapist works with the family to increase their engagement in treatment and their motivation for change, as well as to improve skills in communication, parenting, problem-solving, and conflict resolution.</td>
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<tr>
<td>Brief strategic family therapy (BSFT)</td>
<td>According to BSFT, youth problem behaviours are seen to stem from unhealthy family interactions. BSFT is implemented over 12-16 sessions in various treatment settings. Over the course of this time, a counsellor meets with each family member, observes how the members behave with one another, and assists the family in changing negative interaction patterns. BSFT may be used as a primary outpatient intervention, in combination with residential or day treatment, or as an aftercare/continuing-care service following residential treatment.</td>
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<tr>
<td>Multidimensional family therapy (MDFT)</td>
<td>In addition to involving the adolescent patient’s family, MDFT incorporates community systems into treatment, such as school or the justice system. The aim of this treatment model is to foster family competency and collaboration between systems. It includes therapy sessions once or twice per week conducted over 12-16 weeks in various locations (home, clinic, school, court, etc.)</td>
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<tr>
<td>Multisystemic therapy (MST)</td>
<td>MST views substance use as a problem originating from characteristics of the individual, family and community, including peer group, neighbourhood, and school characteristics. It uses multiple evidence-based approaches including cognitive behavioural therapy and contingency management over a period of 4-6 months. The therapist providing MST may work with the family as a whole but will also conduct individual sessions, with the adolescent alone or with individual caregivers.</td>
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### Table 3: Behavioural Treatment Models

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<td>Cognitive behavioural therapy (CBT)</td>
<td>CBT encourages adolescents to develop self-regulation and coping skills by teaching individuals to identify stimulus cues that precede drug use, to use various strategies to avoid situations that may trigger the desire to use, and to develop skills for communication and problem-solving. Trauma-focused CBT was developed to treat adolescents who have experienced a severe trauma, such as sexual abuse or domestic violence, and who have other emotional and behavioural problems. In this approach, parents attend parallel sessions and eventually joint sessions with the youth. CBT can be provided in a group setting or on an individual basis.</td>
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<tr>
<td>Contingency management (CM)</td>
<td>This treatment model encourages healthy changes in behaviour by providing adolescents with immediate rewards for positive changes in behavior, such as negative urine tests or meeting treatment goals. This approach regards substance use and related behaviours as operant behaviors that are reinforced by the effects of the drugs involved. Following the operant conditioning model, the adolescent’s drug use will subside when tangible incentives are offered for abstinence. These incentives include low-cost prizes or cash vouchers that are redeemable for gift cards to retail stores, food items, or other goods the youth finds rewarding. Contingency management can be delivered by parents at home, but is usually combined with other treatment approaches.</td>
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<tr>
<td>Adolescent community reinforcement approach (A-CRA)</td>
<td>This treatment model targets areas of the adolescent’s life that reinforce substance use and helps the adolescent to replace these negative influences with healthier prosocial behaviors. The adolescent’s needs are assessed and the therapist then chooses the appropriate topics for sessions. A-CRA can address problem-solving, communication skills, and relapse prevention, and can encourage participation in positive social and community activities. Role-playing is an integral part of the intervention and the adolescent is often given homework in which they must practice the skills they have learned in sessions in real-world situations. The adolescent’s caregiver is involved in treatment and will attend individual and joint sessions. Settles and Smith identify A-CRA as incorporating the most comprehensive focus on youth development in comparison to other commonly used treatment models due to its attention to social, emotional, achievement, and identity domains.</td>
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<td>12-step facilitation therapy</td>
<td>The goal of twelve-step facilitation therapy is to encourage adolescents to become involved in a 12-step program, such as Alcoholics Anonymous or AA (<em>see description of 12-step and mutual support groups below</em>). These programs are a commonly applied strategy in inpatient and outpatient treatment programs, as well as a standalone approach. Approximately 2.3% of AA members in the USA and Canada are under the age of 21.</td>
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### Table 4: Continuing Care and Recovery Supports

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<tr>
<td>Assertive continuing care (ACC)</td>
<td>ACC is a home-based program requiring a multidisciplinary team of professionals. It involves assertive case management services and uses negative and positive reinforcement to change behaviours and prevent relapse. ACC also helps adolescents build problem-solving and communication skills and helps them engage in healthy social activities. This treatment model is usually used following the Adolescent Community Reinforcement Approach (A-CRA).</td>
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<tr>
<td>Peer recovery support services</td>
<td>Peer recovery support services link individuals to peers in their community who have experiences with addiction and recovery. Services may include connection with groups or with a single mentor, as well as links to new social networks or activities.</td>
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<tr>
<td>12-step &amp; mutual help groups</td>
<td>12-step groups such as Alcoholics Anonymous and Narcotics Anonymous are free groups that meet in the community to provide support to individuals with substance use issues. Participation generally involves meeting once or more per week to share experiences and offer mutual encouragement, with the aim of achieving sobriety and spiritual renewal. Groups are typically guided by a set of principles that participants are encouraged to adopt; for example, the ideas that willpower alone cannot achieve sustained sobriety and that surrender to the group conscience must replace self-centeredness.</td>
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<tr>
<td>Recovery high schools</td>
<td>Recovery high schools are schools with specialized staff for adolescents in recovery from substance use issues. These schools are usually placed within the public school system, but provide separation from other students by schedule or physical location. Students may or may not be concurrently enrolled in treatment services.</td>
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<tr>
<td>Collegiate recovery communities</td>
<td>Similar to recovery high schools, collegiate recovery communities provide a positive peer environment for youth in recovery. They vary in the services offered, but can include sober housing and other on-campus supports to promote academic performance.</td>
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References


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Resources for Further Reading


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