

Evidence *in* Context

Health research — synthesized and contextualized for use in Newfoundland & Labrador

Synthesis Topic

Youth Residential Treatment Options in Newfoundland & Labrador

Youth with 'complex needs' are children and adolescents who have multiple social, psychological, emotional and/or behavioural challenges. They frequently come from troubled backgrounds that involve abuse and neglect (see table, page 2). They are at significantly greater risk for negative health, social and legal outcomes. Youth residential treatment (YRT) provides one treatment option for those youth with complex needs for whom placement at home, in foster care or in a group home is not feasible.

Since the closing of the Coach House assessment and stabilization centre in 1990, Newfoundland & Labrador has been without a youth residential treatment centre. Those youths in need of residential treatment are either sent to an Out of Province Placement (OPP) or are placed in an Alternative Living Arrangement (ALA) or Independent Living Arrangement (ILA) that consists of a private rental apartment with dedicated staffing. All of these alternatives to in-province YRT have critical limitations, in particular costs and distance from family.



In 2009, the government of Newfoundland & Labrador announced the creation of two YRT centres for youth with complex needs. One treatment centre will be focused on youths with complex emotional, behavioural and psychological needs; the other will be focused on youths with needs related to substance abuse.

YRT is a multi-faceted modality of care that requires programming in the areas of treatment, milieu (i.e., managing group interactions among clients and staff), and the residence itself. The design and implementation of services are informed by a broad and multi-disciplinary research literature. In order for research evidence to be useful to decision makers, it needs to be interpreted in the context of Newfoundland & Labrador: the potential client base, the geography, the organization and resources of the health system, and the other social services related to youth with complex needs. Providing health decision makers with the best available evidence that is attuned to the capacities and characteristics of the province is the goal of the Contextualized Health Research Synthesis Program (CHRSP).

The Research Question

Given the characteristics of the client base and the social, geographic, economic and political contexts of Newfoundland & Labrador, what does the scientific literature tell us about effective ways to implement appropriate and efficient residential treatment programs for all children and youth aged 10 to 21 with complex needs in the Province?

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About Residential Treatment

What is Youth Residential Treatment (YRT)?

Although long-established, youth residential treatment does not have a consistent definition in the research literature or in practice. Nonetheless, all residential treatment programs share three components:

- 1. Residential setting:** YRT provides a 'safe place to live' for youths in need and this is what drives the utilization of the approach. Residential treatment is a limited-term service dependent on health outcomes. This is different from a residential *placement*, which is more open-ended and is not based on health outcomes.
- 2. Milieu:** When two or more youths are placed in the same residential treatment environment, a plan is required to manage their interactions and mediate any potential conflicts.
- 3. Treatment:** The active interventions by mental health professionals that attempt to address the behavioural and emotional needs of children and adolescents who are living in these residences (including psychiatric, psychological, counselling, and other treatments). In addition, educational programming, occupational health and recreation-based initiatives, and cultural or social programming may be offered.

The effectiveness of YRT depends on the programming of these three components, and on how YRT is integrated into the broader spectrum of health and social services directed toward youth with complex needs.

Child Youth and Family Services NL Survey Results, 2008

Youth placed in out-of-province treatment settings or supported in specialized living arrangements, all of whom may be considered to have complex needs (N=102)

Background Histories

family histories of neglect	67%	family violence	63%
emotional abuse	70%	substance abuse	63%
physical abuse	35%	mental health concerns	63%
sexual abuse	22%	family breakdown	53%

Behavioral and Mental Health Issues

FAS/FASD	44%	ADD/ADHD	24%
negative peer involvement	47%	irregular school attendance	52%
substance abuse	36%	developmental delays	33%
extreme defiance-oppositional behavior	32%	violence towards others	35%
verbal abusiveness	28%	attachment issues	26%

About the Research Evidence

Sources of Evidence

The Research Team, under the direction of Dr. John Lyons, Endowed Chair, Child and Youth Mental Health Research at the Children's Hospital of Eastern Ontario and the University of Ottawa, reviewed the relevant literatures published between 1994 and 2009 for research that is directly relevant to YRT in Newfoundland & Labrador. Because of the multi-disciplinary nature of the topic, a wide range of periodical indexes and research databases was searched. Studies were included if they contained a systematic review of the primary research literature. In some cases, high-quality primary research was included if it had been carried out so recently that it would not have been captured in the review literature. References were drawn from published articles, unpublished academic research and grey literature from various institutions and organizations.

Research Domains Reviewed for the Synthesis

Our search for evidence encompassed several topics relevant to YRT, each with their own research-based fields of evidence (i.e., research domains). Our final search strategies were based on the following seven research domains:

1. Evidence for the effectiveness of YRT as an unspecified or 'generic' treatment program
2. Evidence for the effectiveness of treatments for youth with addictions
3. Evidence for the effectiveness of treatments for youth with disruptive behaviours
4. Evidence for the effectiveness of treatments for sexually aggressive youth
5. Evidence for the effectiveness of YRT for Innu and Inuit youths with complex needs
6. Evidence for the impact of site design, staffing and governance on the effectiveness of YRT
7. Evidence regarding the health economics of YRT

Limitations of the Evidence

Youth Residential Treatment does not have a robust and reliable base of primary research evidence. Several methodological issues complicate the carrying out of high-quality research, most notably: a) the high degree of variability in programming and service delivery between and within treatment centres, which makes it difficult to compare interventions and outcomes; b) the relatively small size of individual treatment centres, which makes it difficult to get enough research subjects to meaningfully test different interventions; and c) difficulties in separating out the effects of **treatment** in a residential setting and the effects of **living** in a residential treatment centre.

These deficiencies in the primary research have a direct impact on the reliability and generalizability of systematic reviews. Systematic reviews based on low quality primary research lack important information to support their conclusions, e.g., details on the intervention or client base, or information on health outcomes to compare individual studies. Moreover, as is the case in much of the multi-disciplinary behavioural, social and health sciences fields, the quality of the systematic review literature on YRT is itself problematic. Our evaluation of this literature relied on an evidence-based and tested measurement tool for assessing the methodological quality of systematic reviews. Our results indicated that only 7% of the systematic reviews were high-quality and over half were rated as low-quality.

Summary of Findings

What We Learned

Quality of the Evidence

This project synthesized research evidence in multiple areas of interest related to youth residential treatment. Most of the synthesis was focused on treatment aspects of YRT. Overall, the evidence indicates that the measured relationship between treatment and improvement, termed the 'effect size', is either inconclusive or very modest in strength. In research where YRT is taken as a generic treatment, the evidence is greatly limited by the rigour of the research, and the results are inconclusive with respect to benefits or harms. That being said, recent state-wide longitudinal studies in New Jersey and Illinois indicate that residential treatment is most effective for those youth with the highest levels of need.

Treatment Options

Youth with addictions have been shown to benefit from group-based cognitive behavioural interventions, but the effect sizes are small. Several treatments for youth with disruptive behaviours show statistically significant but clinically small effects. One systematic review established that there was no worsening of disruptive behaviours among treated youths resulting from the presence of other youths with complex needs.

Both for youths with addictions and for youths with disruptive behaviours, the literature we reviewed did not specifically address the issue of what interventions would work best in residential settings. Insofar as the literature addressed the issue of location of treatment, it indicated that there was no reason to think that residentially-located treatments would be more effective than those delivered in the community. In the case of youth who are sexually aggressive, and who are more often mandated to spend time

A Profile of Children in Care (May 2009)				
Region	Eastern	Central	Western	Labrador (Innu Zone)
# children in care	268	48	107	190/112
# children in specialized living arrangements	47	4	0	6/0
# children in care in an Out of Province Placement	16	2	3	25/21
# children in care in a hotel	1	0	0	0/0

in residential treatment centres, there is clear evidence that treatment is more effective than no treatment. In particular, cognitive behaviour-based interventions have the best outcomes; however, these findings are mixed and there is no direct evidence to indicate that residential treatment enhanced the outcomes.

Aboriginal Youth

Innu and Inuit youth with complex needs who are likely candidates for residential treatment are proportionately over-represented both in the province and nationally. However, the research literature provides very little independent and high-quality research and there is a consequent lack of compelling evidence to indicate what treatments or treatment modalities are best suited to Innu and Inuit youth with complex needs. Nonetheless, among experts in the field, a consensus has emerged that Aboriginal youth with complex needs should receive treatment that is culturally and linguistically appropriate, based on outreach models and rooted in their home communities.

Non-Treatment Aspects of YRT

The limited research on site design suggests that treatment centres should be within visiting distance of residents' families. Research and historical evidence also strongly suggest that any YRT centres should have a centralized and autonomous intake process based on clear measures of risk and need.

The health economic literature on YRT is consistently limited in terms of systematic reviews and conclusive findings. However, the available evidence shows that, over a youth's lifetime, the societal, long-term costs of not treating youths with complex needs greatly exceed those of virtually any form of treatment. The evidence also indicates that the additional costs of residential treatment are not matched by increased health outcomes when compared to community-based services.

CHRSP Research Team: Youth Residential Treatment

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A complete list of project consultants and contributors is available in the full CHRSP report.

Implications for Decision Makers

In our report, we did not find compelling evidence for the effectiveness, or possible harms, of youth residential treatment. The evidence from the systematic review literature does not conclusively demonstrate that residential treatment is, or is not, an effective component of a high-quality system of care for children and youth. Although some recent primary research shows that youth residential treatment can be effective for youth with very elevated levels of risk, these findings will require contextualized replication before they can be deemed applicable to Newfoundland & Labrador. The strongest reasons for establishing YRT centres in the province are to keep youth with complex needs closer to their families and communities, to centralize and coordinate services for clients, and to simultaneously reduce expenditures.

Given the lack of high-quality evidence for YRT programming and administration, in particular for Aboriginal youth, any treatment facility will require an integrated evaluation component that can monitor both the effectiveness of the treatment interventions and the organization and administration of the centres. In the absence of reliable research-based evidence, the results of these evaluations will inform the design and delivery of services.

In addition, the evidence that does exist rarely addresses the broad range of contextual factors that are expected to influence the effectiveness of YRT programming, organization and service delivery. Our report endeavors to identify and categorize these factors, from the level of the potential client to the level of the health and child welfare systems.

Based on the limited available evidence and current best practices, findings on the milieu and treatment design aspects of residential treatment centers suggest that:

- Residential treatment centres are most effective for very high-risk youths with complex needs
- A central point of access with a structured assessment strategy should be used to support decisions about residential treatment centre placements
- The milieu models adopted should be transferrable to community environments and sustainable by parents
- Treatments should have a cognitive-behavioral component that is trauma-informed and also actively involves families.

The existing base of health economic evidence strongly indicates that there are limited gains in health outcomes from residential treatment when compared to community-based treatment. However, in the specific context of Newfoundland & Labrador, geography may affect the feasibility of providing high quality community-based interventions in multiple, widely dispersed locations.

About CHRSP

NLCAHR's Contextualized Health Research Synthesis Program

The Newfoundland & Labrador Centre for Applied Health Research is working with decision makers in the provincial health system to identify and address issues of pressing interest to Newfoundland and Labrador on which guidance from the research evidence is important. These issues are being addressed through the Contextualized Health Research Synthesis Program (CHRSP).

CHRSP analyzes the findings of high-level research (systematic reviews, meta-analyses and health technology assessments) that has already been done on the issue in question. The findings of these studies are synthesized and are subjected to a systematic process of 'contextualization': they are analyzed in terms of their applicability to the conditions and capacities of the unique context of Newfoundland & Labrador. CHRSP uses a combination of external experts and local networks to synthesize and contextualize the research and to facilitate the uptake of the results by local research users.

For the complete CHRSP report and a companion report on this project, including details on the evidence reviewed by the project team, and for more information on the CHRSP Process, see the NLCAHR website: www.nlcahr.mun.ca/research/chrsp

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