

# DESIGNING A TOOL TO MEASURE THE IMPACT OF CLIENT LENGTH OF STAY ON TREATMENT OUTCOME

## OVERVIEW

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In 2003, the Youth Solvent Addiction Committee (YSAC) partnered with the Canadian Centre on Substance Abuse (CCSA) to examine the role of program length and length of client stay in youth residential solvent treatment program design. The foremost conclusion was there is still much to be learned about residential treatment programming for First Nations youth who abuse solvents, and that the issues of program length and client length of stay are far from resolved<sup>1</sup>.

The aim of this project was to identify indicators of client length of stay in youth residential treatment for solvent abuse and to design an exploratory data collection tool and related guide. To do this, client- and program-specific data were collected at the Nimkee NupiGawagan Healing Centre, one of eight YSAC solvent abuse residential treatment centres for First Nations youth in Canada. The tool and guide are intended to undergo continued design, application and testing at the Healing Centre prior to their eventual adoption at the other YSAC centres. It is important to point out that it will be necessary to modify the tool and guide to account for the unique aspects of the individual YSAC programs.

An inductive, community-driven approach to research was undertaken in this project. The indicators of client length of stay were identified through a triangulation of methods: 1. review of literature gathered for the 2003 CCSA/YSAC research report, and an updated review, 2. review of the Nimkee NupiGawagan Healing Centre's assessment tools and treatment protocols, and 3. site observations, and interviews and focus groups held with staff at the Nimkee NupiGawagan Healing Centre.

This project began with an in-depth review of indicators of client length of stay in residential youth solvent abuse treatment in the refereed (i.e., peer reviewed) and grey (e.g., government publications and treatment centre reports) literature. Given the dearth of information available, general areas were also reviewed to gain insight into the topic, including residential treatment for Aboriginal and other youth with substance abuse

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<sup>1</sup> Dell, C., Ogborne, A., Begin, P., Roberts, G., Ayotte, D., Blouin, M. and Dell, D. (2003). *Youth Residential Solvent Treatment Program Design: An Examination of the Role of Program Length and Length of Client Stay*. Ottawa: Canadian Centre on Substance Abuse, p. 44.

problems, residential programs for youth with other types of problems (e.g., mental health), and adult residential treatment programs for substance abuse. The indicators were then classified into the content-specific areas of *client* and *program*, with the latter including *counsellor characteristics*.

It is also important to consider specifically how external factors (e.g., a youth is sick and leaves the program, parents remove a youth from the program) impact on client length of stay. This information is captured in the designed tool under the client indicator of “life event”. The important point here is to recognize that external factors interact with client and program factors, which in turn influence client length of stay and ultimately long-term outcome.

A total of 22 indicators of client length of stay were identified from the literature: 12 client-, seven program-, and three counsellor-specific. Each of the 22 indicators had between one and nine measurements associated with it. For example, the indicator “treatment history” was identified in the literature to be measured by 1. previous admissions to addictions treatment, and 2. prior treatment for mental health problems. The 22 indicators identified through the literature and their measurements served as the starting point for reviewing their applicability to the Nimkee NupiGawagan Healing Centre. This was conducted via (a) a review of the Healing Centre’s assessment tools and treatment protocols, and (b) site observations, and interviews and focus groups held with staff at the Centre. This process also produced one additional client indicator and five measurements of it, one program category and eight measurements, and one counsellor-specific category and 14 measurements. All indicators and associated measurements are presented in the tool and guide sections of this overview.

#### **(a) Review of Nimkee NupiGawagan Healing Centre Materials**

At the outset of the project, general materials from the Healing Centre were reviewed and discussions were held with the Executive Director to gain a general understanding of the program. Next, the Centre’s assessment tools and treatment protocols were systematically reviewed to attain a sense of the data the Centre was currently collecting, as well as to gain a more in-depth understanding of the program itself. These activities were key to designing a measurement tool and guide appropriate to the Healing Centre. The areas in which the Centre’s materials were reviewed include screening and assessment tools administered at intake, completed client treatment plans, treatment delivery protocols, program descriptions, and treatment provider reports and clinical observations at the completion of treatment. All material was referred to throughout the project to help contextualize the identification of suitable indicators of client length of stay.

#### **(b) Site Observations, Interviews and Focus Groups**

Observations were conducted at the Nimkee NupiGawagan Healing Centre, along with interviews and focus groups with staff. Both full-time and part-time casual staff were interviewed. Two researchers from CCSA attended the Healing Centre from January 9–12, 2005. The aim of the interviews and focus groups was to gather the staff’s

perceptions on 1. the suitability of indicators of client length of stay identified in the literature, and 2. additional indicators that appear important and appropriate based on staff front-line experiences.

A total of six hours of program observations and client interaction at the Healing Centre took place during the researchers' visit. The client composition was nine girls between the ages of 13 and 17. The researchers observed and took part in various program components, including opening ceremonies, recreational activities, scheduled programming and lunch activities. They also took part in a tour of the facility with a senior staff member upon their arrival.

The majority of interviews were held in a focus-group format, averaging four individuals in each meeting, and ranging from two to three hours in length. Five focus groups were held with 18 individuals for a total of 11.5 hours. The total staff complement of the Healing Centre was approximately 30 individuals. One of the five focus groups was specific to administration and management staff. Two individual interviews were conducted with senior staff members to follow up on questions that arose from the focus groups.

Based on the collected data, as described in sections (a) and (b) above, an exploratory tool and guide were designed to identify and discuss the indicators of client length of stay that the Nimkee NupiGawagan Healing Centre currently collects as well as those indicators it may want to consider collecting in the future. The following information is identified for each indicator in the tool:

- whether the indicator is a client characteristic or program factor;
- the level of applicability of the indicators identified in the literature to the Nimkee NupiGawagan Healing Centre (i.e., low, moderate, high, essential); and
- a cursory discussion of the meaning of each indicator identified in the literature in relation to the Healing Centre.

The aim of the associated guide is to identify and provide a cursory discussion of the indicators identified by the staff at the Healing Centre. Their level of applicability (i.e., low, moderate, high, essential) is also outlined.

Appendix A of the full report is an expansion of the tool, and outlines

- whether the indicator contributes to an increased or decreased length of stay;
- if the indicator is collected by the Healing Centre, preliminary notes on the assessment tool it is collected with and the format of data collection, the stage of treatment it is collected at (i.e., intake, during the course of treatment, upon completion, and/or following treatment), and by whom the information is collected (i.e., counsellor, client); and
- whether the indicator is static (i.e., characteristics that remain the same over the course of treatment, such as number of times an individual has previously been in treatment) or dynamic (i.e., characteristics that change as a client progresses through treatment, such as increased self-esteem).

Appendix A brings together the literature and staff-identified indicators of client length of stay.

### **Other Information Collected**

Before discussing the tool and guide, overarching themes are briefly presented that were identified in the research, but were not central to its focus at the outset. These themes relate particularly to the merits of the Healing Centre, which in turn may relate to possible reasons youth complete their full treatment episode. The themes were identified during two specific data collection encounters. They were (a) a research question asked of all the staff interviewed, and (b) analysis of informal client feedback. Of significance here is that the major themes identified in the responses to the question asked of the staff and in the client comments substantiate the indicators of client length of stay identified in the literature and in the staff interviews. Overall, culture had a very pervasive and influential role at the Healing Centre, and this became ever more apparent as the research process progressed.

#### **(a) A Research Question Asked of the Staff**

Seven key themes emerged among staff responses to a question asked of each at the completion of their focus group; that is, *“If you had to choose one thing that contributed to youth staying in treatment here, what would it be?”* Noting that all staff did not restrict their response to one indicator, the prominent themes that emerged were strikingly similar to the indicators of client length of stay identified in analysis of the full interviews and focus groups. The most prominent theme in review of the questions asked of staff was that **culture** is of prime importance to the Healing Centre’s program. This was followed by the related concept of **spirituality**, defined as growth of the spirit through the learning and practice of cultural traditions. Intimately related to both culture and spirituality was the concept of **resiliency**. The treatment centre was described as being guided by a holistic concept of resiliency that focuses on individual spirit. Next, the **safety of youth**, defined as physical, social, emotional and spiritual well-being, emerged as a theme. Another prominent theme identified in relation to client length of stay was that the **voices of youth were heard** at the Healing Centre. The view was that the treatment centre was designed for youth, so their feedback on their experiences in the program was of utmost importance. This feedback was then structured into various components of the program. Next, both **fun** and **recreational activities** to enhance the learning experiences of youth were identified as key components of their retention in treatment. The grounded yet flexible structure and organization of the Healing Centre were seen as contributing to its **continued growth**, which in turn was viewed as influencing client length of stay. The last major theme to emerge from the staff responses was that the staff act as positive **role models** for the youth in treatment, both in their capacity as employees of the Healing Centre and in their displayed commitment to the Centre and their own life journeys.

## (b) Informal Client Feedback

A selection of approximately 30 thank-you notes and letters received since 1996 by the Executive Director of the Nimkee NupiGawagan Healing Centre was similarly reviewed for overarching themes. Some feedback was specific to thanking the Executive Director while some was geared more generally toward the program. Although the feedback did not speak directly to why the youth did or did not stay in treatment, it did address the aspects of treatment that were important to them. Note that it was not known whether the youth completed their full treatment episode.

The most prominent theme among the young people's comments was that their **healing journey was difficult at first**. This is important because the youth remained in the program even though difficult times were a part of their experience. They overwhelmingly identified their related personal strength as being based in their learning about their **culture and tradition**, as well as through the feeding of their **spirit** in the program. The youth spoke about the "brick walls faced" when back in their home communities, experiencing both good times and bad, and in response drawing on their inner strength. In addition to missing the traditional practices at the Nimkee NupiGawagan Healing Centre, the youth also spoke of **missing the staff and friendships with their peers**. They also acknowledged the **fun** aspects of the program, in particular the outings. The youth were very clearly willing to share their accomplishments as well as difficult situations they faced since leaving the treatment program, including sobriety, pregnancy, standing up for their culture, attending Alcoholics Anonymous, getting their driver's licence, making sobriety a priority before thinking about a potential partner or a baby, continued love and appreciation for the program, problems facing them at home, peer pressure, wanting to return to treatment, being in treatment again, compliments they have received since returning home, registering in school, and pride in themselves.

Detailed below are the tool and guide designed in this research. The aim of the tool is to outline the level of support uncovered in this research (through interviews and focus groups, site observations, and review of the Healing Centre assessment tools and treatment protocols) for indicators of client length of stay that were located in the literature. The aim of the associated guide is to identify and provide a cursory discussion of additional indicators identified by the staff at the Healing Centre that were not revealed in the existing literature. As stated above, Appendix A brings together in one place the literature and staff-identified indicators of client length of stay.

### Tool

Overall, the analysis of the interviews and focus groups, site observations, and Nimkee NupiGawagan Healing Centre assessment tools and treatment protocols revealed great continuity with the indicators of client length of stay identified in the literature. Based on the collected data specific to the Healing Centre, the degree of support conveyed for each indicator was rated as essential, high, medium or low. It is important to point out that the high level of staff support for the literature-identified indicators may be partially

explained by two contributing factors: 1. the small number of base indicators due to the limited amount of literature (i.e., there were not a lot of indicators to choose from so there would be little disagreement), and 2. the context of the project and its focus on First Nations youth residential solvent abuse treatment was at the forefront of the identification and melding of the indicators compiled from the literature (i.e., those indicators identified from the literature were specific to the focus of this project and so again there would possibly be little disagreement). Additional indicators not located in the literature were also identified by the staff of the Healing Centre and are indicated in the related guide. The full report offers a cursory discussion of the meaning of each indicator in relation to the Healing Centre.

INDICATOR	MEASUREMENT	RELEVANCE TO THE HEALING CENTRE
<i>Client</i>		
1. Drug use	<ul style="list-style-type: none"> <li>- Use immediately prior to entry</li> <li>- Do not cut down on use prior to entry</li> <li>- Poly drug use</li> <li>- Length of use/abuse</li> <li>- Severity of use/abuse</li> </ul>	Low
2. Motivation	<ul style="list-style-type: none"> <li>- Perceive need for own treatment</li> <li>- Level of participation</li> <li>- Cooperative with peers and staff</li> <li>- Client expectations</li> <li>- Client readiness to change</li> <li>- Client commitment to enter treatment</li> <li>- Forced participation</li> </ul>	Moderate
3. Life event	<ul style="list-style-type: none"> <li>- Hospitalized during treatment</li> <li>- Parent withdraw youth from program</li> <li>- Police take youth into custody</li> </ul>	Moderate
4. Maturity	<ul style="list-style-type: none"> <li>- Physical</li> <li>- Social</li> <li>- Psychological (developmental)</li> <li>- Spiritual</li> </ul>	Low
5. Treatment history	<ul style="list-style-type: none"> <li>- Previous admissions to addictions treatment</li> <li>- Prior treatment for mental health problems</li> </ul>	High
6. Education	<ul style="list-style-type: none"> <li>- Fewer failing grades</li> <li>- Enrolled in school at time of admission to treatment</li> </ul>	High
7. Psychopathology (diagnosable abnormal behaviours)	<ul style="list-style-type: none"> <li>- Has there been a DSM IV diagnosis?</li> </ul>	Moderate
8. Coping	<ul style="list-style-type: none"> <li>- Problem solving</li> <li>- Assertiveness</li> <li>- Anger management</li> <li>- Resiliency</li> </ul>	High
9. Peers	<ul style="list-style-type: none"> <li>- Peer support (community, program)</li> <li>- Solvent abuse among peers</li> <li>- Lower group status (community, program)</li> </ul>	High

10. Culture		Essential
11. Crime	- Criminal history - Total arrest/convictions	Low
12. Family history	- Violence/abuse by a family member - Alcohol/drug abuse in family - Family stability	High
<b><i>Program</i></b>		
1. Individualized treatment	- Client directed/flexible approach - Support client growth - Practical and personal problem-solving orientation	High
2. Involvement in treatment	- Family - Friends - Community	High
3. Program structures and processes	- Provide detailed program information at assessment and intake - Organization/structure (hours for scheduled activity, free time) - Clarity - Flexibility - Safe environment - Evening coverage - Youth-staff ratios - Client safety - Small amount of time between pre-assessment and first therapy session	High
4. Program approach	- Harm reduction approach - Broad psycho-social approach to program content - Incentives as recognition of client efforts - Address needs of specialized groups - Encourage expression of feelings	High
5. Culture	- For Aboriginal youth, incorporate traditional beliefs and practices and address spiritual needs, practices, beliefs - Implement culturally sensitive approaches to incorporate and reinforce native lifestyle	Essential
6. Program services	- Client needs met - Identify and address barriers to clients completing treatment	Moderate
7. Official licensing	- Accredited - Ontario licensing	High
<b><i>Counsellor</i></b>		
1. Staff characteristics	- Respectful/non-judgmental - Supportive/committed - Emphatic - Leadership - Warm	High
2. Youth view	- Positive view of counsellor skills - Youth bond with case manager/staff	High
3. Certification/training		High

## Guide

The aim of the guide is to identify the indicators not already collected by the Healing Centre, as well as to identify their degree of relevance based on the collected information.

INDICATOR	MEASUREMENT	RELEVANCE TO THE HEALING CENTRE
<b><i>Client</i></b>		
1. Drug use	Use while in treatment	Low
2. Motivation	Environment encourages internal motivation	Moderate
3. Education	Do well in school while in treatment	High
4. Coping	Social skills	High
5. Family history	Trauma (related to not trusting)	High
6. Geographic location	If the clients are from an isolated community, or not in the general area of the Healing Centre, they cannot simply get on a bus and go home.	Essential
<b><i>Program</i></b>		
1. Program structures and processes	Same-sex intake rather than co-ed Block intake rather than continuous Staff voices are heard	High High High
2. Program approach	Voices of the youth are heard Positive treatment environment Focus on resiliency/youth strengths Community involvement (activities/recreation) (link to culture/tradition) Family approach	High High High High High
3. Culture	7 grandfather teachings Part of identity (re)formation In all aspects of the program (structured classroom to unstructured activities) Staff serve as role models in their cultural practices and learning Blend traditional and Western medicines	Essential Essential Essential Essential Essential
4. Program growth	Growth and development as an organization, including the program and the staff. Moved from a program of dependence to one of empowerment.	High High High
<b><i>Counsellor</i></b>		
1. Staff characteristics	Healing Humour Family Reliable Continued learning Job satisfaction Role models Honesty Reflection Individual styles	High High High High High High High High High High
2. Certification/training	Post-secondary education Accreditation Staff training	High High High

	Reputation in the community	High
3. Consistency in counsellors	Allow for the program to develop, stabilize, grow more than typical, commitment	High

As stated earlier, the data collection tool and related guide developed in this research project are exploratory in nature and require ongoing design, application and testing at the Nimkee NupiGawagan Healing Centre prior to their adoption at the other YSAC centres. Further, the degree to which the indicators are predictive of outcome (e.g., improved psycho-social health and lifestyle adjustment) requires a quantitative designed study involving a representative sample of youth participants, applied in an experimental or comparison group research design. This is necessary given that the completion rates of youth enrolled at the Nimkee NupiGawagan Healing Centre in recent years (2003-2005) range from 80-90%. As such, there is a low variance in drop-out levels for the purpose of statistical testing against the design of a validated tool measuring outcome (i.e., a 10%-20% drop-out rate). A quantitative designed study can be viewed as a long-term research goal.

Pending implementation of a long-term outcome research design, the following steps are recommended to fine-tune the design and application of the suggested tool and guide at the Healing Centre. This interim step is positioned to offer valuable clinical information to the Director and counselling staff at the Healing Centre through a systematic examination of how specific indicators impact on client length of stay.

Following are suggestions for a follow-up project that focuses on further explanation and application of the tool and related guide at the Healing Centre, and suggestions for future research:

### **Follow-up Project to Apply the Tool and Guide**

- **Review Report and Indicators:** Nimkee NupiGawagan Healing Centre management and staff should review this report, and in particular the suggested indicators and their meanings to determine a final list, as well as to refine the suggested descriptions. This should also include a review of the level of relevance of the indicators, whether they contributed to an increased or decreased length of stay, the tool and format they are currently collected in, etc. Also, for those indicators identified by the staff, it needs to be determined how they will be measured if the information is not already collected by the Healing Centre. As well, for the indicators identified in the literature, a full review of the literature needs to be conducted to determine how they can be best measured.
- **Review Tool and Guide:** In the context of the operation of the Nimkee NupiGawagan Healing Centre, the management and staff should systematically review the tool and related guide for general ease of collection of the indicators identified (e.g., collection of data on staff-identified indicators in existing instruments, compiling data from the various tools).

- **Design Assessment Tool:** Design easy-to-administer assessment tools examining client, program, and counsellor factors influencing client length of stay. The final design may include the creation of new brief assessment tools (e.g., client and counsellor rating tools) that are administered and scored in a seamless manner as part of the existing treatment cycle.
- **Administer Assessment Tool:** After agreement and orientation on how to administer the assessment tool, the counselling staff can begin to administer the tool on new program participants.
- **Data Collection:** Determine a method to collect and record information via the assessment tools that can be integrated into existing information protocols (e.g., systematic entry into an existing database).
- **Refine the Tool:** Upon application of the tool, make revisions to content and application procedures based on front-line experiences.
- **Review Tool:** Nimkee NupiGawagan Healing Centre management and staff should review the findings of the assessment tools at the end of each treatment cycle in order to make informed clinical decisions about the impact of client, program, and counsellor indicators as they relate to client length of stay.

### Further Research

- **Adapt Assessment Tool:** After a pilot implementation at the Nimkee NupiGawagan Healing Centre, the assessment tool can be adapted for implementation at other YSAC treatment sites to explore the differences in four-month and six-month delivery formats.
- **Design New Indicators:** The exploratory nature of this project did not allow for addressing the gender, age and cultural specificity of the indicators. Follow through on this.
- **Design Cultural Indicators:** Design a project specifically focused on measuring culture as an indicator.
- **Analysis of Data Results:** Once a representative sample of youth data is collected using the assessment tools, conduct an analysis of the research findings and assessment of the utility of designing a quantitative research project to measure outcome in a valid and reliable manner and/or the ongoing application of the tool to assist with clinical decision making.