Native Offender Substance Abuse Assessment: The Computerized Lifestyle Assessment Instrument
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Research Report № R-37
Executive Summary

There is a long-standing relationship between substance abuse and criminal behaviour. Therefore, the accurate identification and treatment of offenders with alcohol and drug problems is critically important to the successful reduction of future substance abuse and criminal behaviour. The Computerized Lifestyle Assessment Instrument (CLAI) is a standardized assessment tool that has been adapted and implemented by the Correctional Service of Canada to identify offenders with substance abuse problems, to assess the nature and severity of their problems, and to assist in the development of suitable treatment programming.

However, there is concern about the validity of using computer-based assessment technology, which was developed for a generally non-Native sample, with Native offenders. Accordingly, this report focuses on the appropriateness of the use of the CLAI with Native offenders. Potential differences in CLAI results for Native and non-Native offenders were examined by assessing the CLAI’s primary alcohol and drug screening instruments: the Alcohol Dependence Scale (ADS) and the Drug Abuse Screening Test (DAST). It was found that the internal consistency of the two measures, as examined by the Cronbach’s Alpha (a statistic of reliability), was very high for both Native and non-Native offenders. Further, an analysis of the internal structures of both measures produced factor structures that were indistinguishable for the two groups of offenders. Based upon the results of these analysis, it was concluded that substance abuse assessment information generated by the CLAI accurately represents the nature of substance abuse problems for both Native and non-Native offenders.

Additional analyses were performed on data from 855 Native offenders who had completed the CLAI as part of the routine intake assessment process. Approximately 75% of the Native offender sample were assessed as having alcohol problems of sufficient severity to warrant some level of treatment intervention.

Native offenders’ drinking behaviour was also clearly related to the severity of their alcohol problem. For example, Native offenders who reported a regular pattern of alcohol use over the course of their lifetime reported higher levels of problem severity. Moreover, the offenders with more severe alcohol problems were very aware that they had a serious alcohol problem. Native offenders with “moderate” to “severe” alcohol problems were also more likely to worry about their drinking than offenders with lesser or no alcohol problems.

Over half (53%) of the Native offenders also evidenced a drug problem. Offenders with more serious drug problems were more likely to report being worried about their drug use than offenders with less serious problems.
Therefore, self-acknowledgment of a drug problem was associated with the existence of a drug problem. In addition, Native offenders who reported a drug problem were more likely to express a need for help to stop or control their drug use than those who did not have a drug problem.

Further analyses were conducted on samples of 606 Native offenders and 606 non-Native offenders who were matched on key demographic characteristics. It was found that significantly more Native offenders felt that they had a severe drinking problem. Native offenders also worried and felt guilty about their drinking more than non-Native offenders. Finally, Native offenders were more likely to indicate that they needed help to stop or control their drinking than non-Native offenders.

However, there was no substantive difference in the proportion of each group who reported a drug problem. Indeed, there were no differences in the extent the offenders worried about their drug use, the extent to which they felt they had a drug problem, or the extent to which they believed they needed help to stop or control their drug use.

Native and non-Native offenders were then grouped according to whether they were assessed as having an alcohol problem, a drug problem, or no problem with either alcohol or drugs. In general, more Native than non-Native offenders has a problem with alcohol or a combined problem with alcohol and drugs, whereas more non-Native had a problem with drugs or no problem at all. Similar patterns of substance abuse behaviour were found when Native and non-Native female offenders were compared.

In conclusion, we believe that the internal consistency and structure of the ADS and DAST measures, and the consistent and interpretable relationships between Native offender responses to the screening measures and other CLAI items relating to past and present substance abuse and criminal behaviour indicate that the CLAI can be used reliably with Native offenders to identify the extent and Nature of their substance abuse problems, particularly in the area of alcohol abuse, and the CLAI technology offers an efficient, accurate and inexpensive method of assessing substance abuse problems for Native and non-Native offenders.
# Table of Contents

**NATIVE OFFENDER SUBSTANCE ABUSE ASSESSMENT: THE COMPUTERIZED LIFESTYLE ASSESSMENT INSTRUMENT**

- Executive Summary 2
- Table of Contents 4
- Introduction 6
- The Computerized Lifestyle Assessment Instrument (CLAI) 7

## Method
- CLAI respondents 8
- The CLAI administration procedure 8
- Substance abuse screening measures 10

## Results
- Appropriateness of the use of the CLAI with Native offenders 11
- Internal consistency of the alcohol and drug measures 11
- Factor structure of the alcohol and drug screening measures 11
- Client satisfaction measures 12
- Summary 12
- The nature and severity of substance abuse among Native offenders 13
- Alcohol use 13
- Drug Use 17
- Substance Abuse Problems and Treatment Intervention 19
- Substance abuse and criminal behaviour 21
- Previous substance abuse treatment 21
- Motivation for treatment 21
- Comparing Native and Non-Native Offenders 22
- Alcohol use 22
- Drug use 24
- Combined drug and alcohol use 28
- Attitudes toward substance abuse treatment 28
- Differences in criminal behaviour 28
- Client satisfaction 31

**Substance abuse problems of Native and Non-Native female offenders**
- Alcohol Use 31
- Drug Use 31
- Combined drug and alcohol use 32
- Substance abuse and Criminal Behaviour 32
Introduction

Alcohol and drug abuse is a significant problem for Native people in Canada (Adrian, Layne, & Williams, 1990; Maracle, 1993). For more than two decades, research (Binkenmayer & Jolly, 1981; Kim, 1972; LaFromboise, 1988; Lane, Daniels, Blyan, & Royer, 1977) has linked substance abuse and crime among Native peoples. This relationship, coupled with the fact that Native people in Canada are over-represented in the federal and provincial correctional systems (compared with the general population), represents a significant challenge for the correctional agencies required to meet the treatment needs of these offenders. Indeed, Native offenders make up 12% of the Canadian incarcerated offender population (Solicitor General Canada, 1994).

To meet this challenge, the Task force on Aboriginal Peoples in Federal Corrections (Correctional Service of Canada, 1989) underscored the need for appropriate assessment and treatment of the needs of Native offenders incarcerated in federal correctional institutions. The Task Force emphasized that assessment procedures must be examined regarding their validity and appropriateness for use with native offenders.

This report examines the appropriateness of the use of a computerized assessment system that is designed to measure offender substance abuse problems. The instrument is currently being used on an extensive basis by the Correctional Service of Canada. The report examines the extent and nature of native offender substance abuse problems and compares their substance abuse characteristics with a matched sample of non-Native offenders.
The Computerized Lifestyle Assessment Instrument (CLAI)

The CLAI (Robinson, Fabiano, Porporino, Millson, & Graves, 1992; Robinson, Porporino, & Millson, 1991) is a computer-driven procedure for recording information relating to the nature and severity of substance abuse among offenders. The system was originally developed by the Addiction Research Foundation and was adapted for use with offenders by the Correctional Service of Canada. The CLAI is used in most Correctional Service of Canada institutions and has been administered in English and French to almost 9,000 federal offenders.
Method

CLAI respondents
The overall database consisted of a total of 8,998 federal offenders (8,850 men and 148 women) who completed the CLAI as part of the routine intake assessment administered to all Federal offenders within the first few weeks of arrival at an institution. A total of 855 CLAI respondents indicated that they were Native Canadian in origin, representing 11.6% of the sample. Of these, 65.1% were Native (offenders), 31.8% were Metis (272 offenders), and 3.1% were Inuit (26 offenders).

The CLAI was completed by 834 men and 21 women Native offenders. At time of testing their average age was 29 (SD=8.0 years), with offenders ranging from 18 to 68 years old. More specifically, 5.3% of the offenders were younger than 20 years, 55.6% were between 20 and 29, 27.9% were between 30 and 39, and 10.6% were 40 years or older. As well, the relative proportion of Native offenders in each region ranged from a low of 3.3% in Quebec region to 38.6% in the Prairie region (see Figure 1).

Previous research (Robinson, et al., 1991) indicated that fewer than 5% of all offenders admitted into Correctional Service of Canada custody refuse to complete the CLAI. Unfortunately, data were not available to compare the refusal rates for Native and non-Native offenders.

The CLAI administration procedure
Offenders were seated at a micro-computer and completed the CLAI by responding to multiple-choice questions on the computer screen. Offenders were supervised by an institutional staff member who had been trained in the use of the CLAI system. The system is designed to provide offenders with immediate feedback on their performance at various points during the session in the form of easy-to-read graphs. As well, offenders were given a hard-copy summary of the results of the test. A second copy was forwarded to the offender's case management officer for use in treatment planning.
Figure 1
Relative Proportion of Native Offenders in Each Region

REGIONS OF CANADA

- Pacific
- Ontario
- Quebec
- Prairie
- Atlantic

Native Offenders
Total Offenders
**Substance abuse screening measures**

The CLAI incorporates a number of recognized substance abuse assessment measures problems and analyses how substance abuse problems are related to other facets of offenders’ lifestyles. The primary assessment devices are the Alcohol Dependence Scale or ADS (Horn, Skinner, Wanberg, & Foster, 1984), a 25-item scale which assesses the severity of alcohol dependence, and the Drug Abuse Screening Test or DAST (Skinner, 1982), a 20-item measure which assesses the severity of problems associated with drug use. Both measures were originally developed and standardized by researchers at the Addiction Research Foundation and are used extensively as substance abuse screening instruments in a variety of clinical settings.

The CLAI also assesses previous substance abuse treatment, offender motivation for treatment, and a range of other lifestyle areas including physical and mental health, social functioning, criminal behaviour, education, work, and finances.
Results

**Appropriateness of the use of the CLAI with Native offenders**

In order to determine the suitability of the CLAI for Native offenders, we combined offenders who identified themselves as being Native, Metis, or Inuit to form the single aggregate group “Native offenders.

The initial analyses paid specific attention to offenders’ responses to the alcohol and drug screening measures (ADS and DAST). This was done because the CLAI is used primarily as an assessment tool for matching incarcerated offenders with appropriate substance abuse treatment.

**Internal consistency of the alcohol and drug measures**

The reliability of the CLAI was assessed by examining the reliability of both the ADS and DAST measures. The fundamental method for determining reliability base upon internal consistency is Cronbach’s Alpha (Nunnally, 1978). Cronbach’s Alpha was high for both the ADS (.95) and the DAST (.88) for Native offenders. Identical statistics of reliability were generated by the non-Native offenders in the sample (ADS= .95; DAST= .88). These data, therefore, suggest that the internal consistency of the instruments used to screen drug and alcohol problems were uniformly high for both the Native and non-Native offender samples. Moreover, there did not appear to be any anomalous response patterns to items contained in these instrument for either Native or non-Native offenders.

**Factor structure of the alcohol and drug screening measures**

Factor analysis is a sophisticated statistical technique used to examine the underlying structure of questionnaires and other psychological measures (Tabachnick & Fidell, 1989). In short, the procedure attempts to group questionnaire items that tap the same construct into common factors.

Factor analyses of the ADS and DAST were conducted separately for Native and non-Native offender groups. The results suggest that the factor structures of the primary factors (those factors that accounted for the greatest proportion of variance) were very similar for the Native and non-Native groups. Indeed, a subsequent test of the factor congruence (Everett & Entrekin, 1980) confirmed that the factor structures of the main factors were indistinguishable for the two groups of offenders.
Client satisfaction measures
The CLAI was also examined from the perspective of Native offenders who participated in the assessment. The results were very encouraging. Approximately 88% of the Native offenders liked doing the survey and almost 84% would encourage friends to do it. Further, although reading ability was not formally assessed, 91% of the Native offenders indicated that they understood the CLAI instructions and the individual items either “quite well” or “very well” and more than 94% reported that they found the survey “easy” or “only a little difficult” to complete using the computer format. In other words, fewer than 6% of the Native offenders had problems responding to the CLAI items.

Summary
The tests of internal consistency and the analyses of the factor structures of the ADS and DAST generated valid information for both Native and non-Native offenders. The findings support the conclusion that the CLAI accurately assesses the nature of the alcohol and drug problems of both Native and non-Native offenders. In addition, Native offenders appear to have had a positive experience in completing the CLAI.

Taken together, the results of the analyses conducted in this section suggest that the CLAI can be used reliably with Native offenders to produce results as accurate as those obtained for non-Native offenders. Accordingly, our tentative conclusion is that the CLAI is appropriate for use with Native offenders and that the results of the CLAI assessments provide meaningful and accurate information regarding the severity of Native offenders’ substance abuse problems.

In the next section of this report, we examine the specific characteristics of substance abuse among Native offenders in more detail.
The nature and severity of substance abuse among Native offenders

Alcohol use
Approximately 26% of Native offenders in the sample (225 offenders) were assessed (using the ADA) as having no alcohol problem. More than 37% (320 offenders) evidenced low level problems with alcohol. About 19% (163 offenders) had moderate alcohol problems. Finally, about 17% (147 offenders) had severe alcohol problems (see figure 2).

Virtually every Native offender who completed the CLAI reported using alcohol at least once during their lifetime (almost 99%). While almost 60% of the offenders admitted that they used alcohol on a regular basis before the age of 18, regular use increased to 77% over the course of their lives. In the six months before arrest, slightly more than 40% of the Native offenders acknowledged drinking alcohol at least a few times each week and binge drinking occurred at least two or three times a month for almost half the Native offenders.

The use of rubbing alcohol and other alcohol-based liquids such as shaving lotion and cleaning fluid is another important area of concern (Egbert, Liese, Pwell & Reed, 1986). Approximately 6% of Native offenders in the sample reported using these alcohol substitutes at least once a week before age 18. This number increased to about 9% in the six month period prior to arrest.

As for awareness of the problem, just over 50% of the Native offenders acknowledged having a moderate or serious drinking problem and approximately 2 out of 3 felt they should cut down on their drinking. More than 65% of Native offenders worried about their drinking problem and almost 60% acknowledged needing help to stop or control their drinking.

Native offenders also disclosed personal problems that had resulted from drinking. For example, 45% of the offenders reported that their alcohol use was the cause of marital or family separation. Almost 55% reported squandering money on alcohol that was needed for basic necessities. In addition, alcohol use led to trouble at work or school for 40% of Native offenders.
Figure 2
Severity of Native Offender Alcohol Use

<table>
<thead>
<tr>
<th>ADS Levels</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>26.3%</td>
</tr>
<tr>
<td>Low</td>
<td>37.4%</td>
</tr>
<tr>
<td>Moderate</td>
<td>19.1%</td>
</tr>
<tr>
<td>Severe</td>
<td>17.2%</td>
</tr>
</tbody>
</table>
Native offenders’ drinking behaviour was clearly related to the severity of their drinking problem. For example, regular drinking over the course of a Native offender’s life was associated with greater alcohol problems. In addition, an offender’s level of intoxication while drinking during the six months before arrest was strongly associated with having an alcohol problem. The presence of an alcohol problem was also associated with getting drunk first thing in the morning during the six months before arrest.

Native offender perceptions of their drinking problems were also related to the severity of their problems. The presence of an alcohol problem was associated with the offender feeling bad of guilty about drinking, as well as feeling that they should cut down. Interestingly, offenders who exhibited problems with alcohol accurately recognized the severity of their problem when asked directly (see Figure 3): Native offenders identified as having increasingly more severe problems with alcohol (as categorized by the ADS) actually indicated having increasingly more serious alcohol problems. Native offenders with “moderate” to “severe” alcohol problems were also more likely to worry about their drinking than offenders with lesser or no alcohol problems. In addition, Native offenders with more severe problems with alcohol described themselves as people who need help to stop or control their drinking behaviour.

The ADS score measure was significantly correlated with other aspects of offenders’ behaviour. For instance, increasing ADS scores were associated with the likelihood of engaging in interpersonal violence, familial discord, loss of friends, absenteeism from work or school, involvement with the legal system, accidents, hospitalization for alcohol related illnesses, squandering money, and seeking professional help for drinking. The ADS score was also elated to the number of past crimes committed by offenders while under the influence of alcohol at the time they committed crimes for which they were convicted.
**Drug Use**

Native offenders were categorized into one of four drug problem severity levels using the DAST. Over 47% of the Native offenders (406 offenders) were assessed as having no drug problem. About 21% (177 offenders) had low level drug problems. More than 13% (166 offenders) had moderate drug problems. Finally, about 18% of the Native offenders (156 offenders) evidenced severe problems (see Figure 4).

Almost 89% of the Native offenders reported having used drugs at least once in their lives. About 65% of the Native offenders admitted regular use under the age of 18 as well as over the course of their life and more than half acknowledged using drugs at least once a month during the six months prior to their arrest.

The majority (79%) of Native offenders indicated that marijuana was the first drug they tried. Approximately 18% of the Native offenders admitted to sniffing glue or gas before the age of 18. About 57% of Native offenders reported engaging in drug binges at least two or three times a month.

Slightly over 35% of the Native offenders admitted to having a moderate or serious drug problem, while almost 65% said that they had a low-level drug problem or no problem at all. Almost half of the Native offenders indicated that they worry somewhat or a great deal about their drug problem, but less than 40% reported that they need to stop or control their drug use.

Using drugs regularly over the course of their life was associated with Native offenders being categorized in a high DAST level. Not surprisingly, offenders with “moderate” to “severe” drug problems were more likely to have used drugs on the day of their offence than offenders with less severe drug problems. The extent to which an offender was under the influence of drugs on the day of the offence was also significantly associated with a severe drug problem.
Figure 4
Severity of Native Offender Drug Use

DAST LEVELS

None  Low  Moderate  Severe

47.5%  20.7%  13.6%  18.3%
In regard to attitudes towards drug use, offenders with more serious drug problems were more likely to report being worried about their drug use than offenders with less serious problems. Self-acknowledgment of a drug problem was also associated with actually having a drug problem. In addition, Native offenders with a drug problem were more likely to express a need for help to stop or control drug use than those without a drug problem.

The DAST score was significantly correlated with the frequency of a Native offender’s use of certain kinds of drugs (i.e. cocaine, stimulants, opiates, sedatives, and tranquilizers). DAST score was also associated with the frequency of offender drug binges. In addition, this score was related to using drugs on the day of the crime for which the offender was sentenced, as well as being associated with the number of past crimes committed while under the influence of drugs.

Taken together, the correspondence between the severity of Native offender alcohol and drug problems and other CLAI items tapping into substance abuse behaviour lend additional support for the CLAI in terms of generating an accurate picture of Native offender substance abuse problems.

**Substance Abuse Problems and Treatment Intervention**

Offender substance abuse problems were categorized according to their highest score on either the ADS or DAST. Figure 5 indicates that about 82% of the Native offenders reported low level substance abuse problems or higher. Stated differently, about 4 out of 5 Native offenders evidenced substance abuse problems of sufficient severity to warrant formal intervention during incarceration. These findings suggest that more than 30% of Native offenders require low intensity programming, about 23% need moderate intensity treatment and almost 29% need intensive programming for substance abuse.
Figure 5
Severity of Native Offender Combined Alcohol and Drug Problems

COMBINED ADS AND DAST LEVELS

- None: 17.5%
- Low: 30.5%
- Moderate: 23.3%
- Severe: 28.6%
**Substance abuse and criminal behaviour**

On average, Native offenders were just slightly older than 15 at the time of their first conviction. When asked about their previous criminal activity, half of them admitted being under the influence of alcohol “most” or “all of the times” they had engaged in criminal activities. Similarly, over 45% indicated that they were under the influence of drugs “most” or “all of the time” while committing crime; almost 66% acknowledged that they need help to stop committing crime.

More than 75% of the Native offenders in the sample indicated that they used substances on the day of the offence form which they were sentenced. Of these offenders, 12% used drugs, 53% used alcohol, and 34% used both drugs and alcohol. It is noteworthy to point out that Native offenders were more likely to use alcohol or a combination of alcohol and drugs than simply drugs alone. This finding is similar to those presented in a study by Robinson, et al (1991) which pooled data generated by Native and non-Native offenders. In addition, they reported that the majority of offenders said they would not have committed the offence had they not been under the influence of drugs (77%), alcohol (86%), or both (88%).

**Previous substance abuse treatment**

Almost 70% of Native offenders reported that they had previously participated in a substance abuse program. Of these offenders, more than 85% reported that their previous treatment had been either “somewhat helpful” or “very helpful”. Almost 98% of the Native offenders who thought that they needed help for substance abuse problems said they would volunteer for a substance abuse program again if treatment was made available to them.

**Motivation for treatment**

More than 75% of the Native offenders agreed that an institutional treatment program would help them quit substance abuse, and almost 80% expressed an interest in participating in such a program. Over 85% of Native offenders reported that they would like to quit drugs completely, while just under 15% said that they wanted to learn to control their drug use. On the other hand, approximately three out of four indicated that they would like to quit drinking, while about one in four reported that their aim was to control their drinking.
Comparing Native and Non-Native Offenders

In this section, we explain potential differences between Native and non-native offenders on selected variables relating to substance abuse. In order to do so, we paired the native offenders in the sample with a matched group of non-Native offenders on a number of key characteristics. The purpose of matching offenders is to control for possible differences between the two groups that may be accounted for by other factors (e.g., age, education level, etc.).

Native offenders who completed the CLAI were matched with non-Native offenders on the following characteristics: 1) gender; 2) age; 3) marital status; 4) region of Canada in which they were incarcerated (Atlantic, Quebec, Ontario, Prairies, or Pacific); 5) education level; 6) whether or not they had been previously been found guilty of a crime; and 7) whether or not they had been employed during the six months prior to arrest. It is important to point out that the matched group labeled “non-Native” included Caucasian (85.8%), Afro-Canadian (5.4%), and Asian (2.3%) offenders, as well as offenders from other ethnic and racial backgrounds (6.4%). The resulting matched group consisted of 606 Native and 606 non-Native offenders.

Alcohol use
Significant differences emerged when the two offender groups were classified as either having or not having a problem with alcohol. For instance, 56.9% of offenders in the non-Native group reported an alcohol problem as opposed to 74.7% of the offenders in the Native group. Further, when offenders were classified according to the severity of their alcohol problem, 19.3% of Native offenders had a moderate alcohol problem and 18.3% of Native offenders had a severe problem, as compared to the non-Native group totals of 8.8% and 7.4% (see figure 6).
Figure 6
Severity of Alcohol Use for the Matched Group of Offenders

<table>
<thead>
<tr>
<th>ADS Levels</th>
<th>Native Offenders</th>
<th>Non-Native Offenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>25.3%</td>
<td>43.1%</td>
</tr>
<tr>
<td>Low</td>
<td>37.1%</td>
<td>40.8%</td>
</tr>
<tr>
<td>Moderate</td>
<td>19.3%</td>
<td>8.8%</td>
</tr>
<tr>
<td>Severe</td>
<td>18.3%</td>
<td>7.4%</td>
</tr>
</tbody>
</table>
Differences also emerged between the two groups as to their drinking behaviour. For example, Native offenders engaged in binge drinking more often than non-Native offenders during the six months before arrest. Further, Native offenders not only become involved in more physical violence while drinking, but also become involved with the law more frequently while under the influence of alcohol. As compared with non-Native offenders, Native offenders were more likely to report spending too much money while drinking.

When asked to indicate how often blackouts occurred as the result of drinking, Native offenders reported more occurrences of blackouts of longer duration than non-Native offenders. Native offenders also reported drinking to unconsciousness more than twice as often as non-Native offenders. Six months before arrest more Native than non-Native offenders acknowledged being unsuccessful at reducing their alcohol intake.

However, there were no differences in the number of Native and non-Native offenders using alcohol substitutes. For example, the consumption of rubbing alcohol or shaving lotion was no more frequent for Native than non-Native offenders.

The matched sample did uncover differences in offender attitudes towards alcohol use. For example, a greater number of Native offenders than non-Native offenders felt they had a severe drinking problem (see Figure 7). Native offenders also felt more guilty and worried more about their drinking than non-Native offenders. More Native than non-Native offenders felt that they should cut down on their drinking. In addition, Native offenders were more likely to indicate that they needed help to stop or control their drinking. We also found that more Native than non-Native offenders who exhibited moderate alcohol use indicated that they had returned to heavy drinking after a period of abstinence.

As detailed earlier, Native offenders evidenced more problems with alcohol than non-Native offenders and the differences in the severity of alcohol problems between native and non-Native offenders suggests the existence of different patterns of alcohol use between the two groups. However, these differences do not indicate that the CLAI is problematic for measuring alcohol problems in Native offenders. Rather, these results reflect genuine differences in drinking behaviour between the two offender groups.

**Drug use**

When offenders were categorized as having either a drug problem or no problem with drugs, there were no significant differences between the proportion of Native and non-Native offenders. Further, when we examined the severity of offender drug problems we found virtually identical proportions of offenders from the Native and non-Native groups in each severity level (see Figure 8).
The same proportion of Native and non-Native offenders used drugs on a regular basis. Both groups were also equally likely to consume drugs in bouts or binges, to experience employment problems due to drugs, and to engage in illegal activities in order to obtain drugs. Finally, there were no differences in the extent to which offenders worried about their drug use, the extent to which they believed they needed help to stop or control their drug use.
Figure 7
Native and Non-Native Offender Self-Reports of Alcohol Problems

PERCEIVED LEVEL OF ALCOHOL PROBLEM

- None: 31.5% Native, 68.5% Non-Native
- Small: 41.2% Native, 58.6% Non-Native
- Moderate: 32.2% Native, 67.8% Non-Native
- Serious: 30.1% Native, 69.9% Non-Native
Figure 8
Severity of Drug Use for the Matched Group of Offenders

DAST LEVELS

<table>
<thead>
<tr>
<th>Level</th>
<th>Native Offenders</th>
<th>Non-Native Offenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>48.5%</td>
<td>47.7%</td>
</tr>
<tr>
<td>Low</td>
<td>20.5%</td>
<td>20.8%</td>
</tr>
<tr>
<td>Moderate</td>
<td>14%</td>
<td>12.5%</td>
</tr>
<tr>
<td>Severe</td>
<td>19%</td>
<td>19%</td>
</tr>
</tbody>
</table>
**Combined drug and alcohol use**
There were no substantive differences between the Native and non-Native offender groups when they were classified according to their highest score on either the ADS or DAST (see Figure 9).

Native and non-Native offenders were grouped according to whether they had solely an alcohol problem, solely a drug problem, a combined alcohol/drug problem, or no problem with either alcohol or drugs. In general, more Native than non-Native offenders had a problem with alcohol or a combined problem with drugs and alcohol, whereas more non-Native offenders had a problem with drugs or no problem at all (see Figure 10).

**Attitudes toward substance abuse treatment**
Native and non-Native offenders were equally willing to participate in substance abuse programming. The vast majority of both Native and non-Native offenders reported that they would volunteer to participate in a substance abuse treatment program. Native and non-Native offenders were also equivalent in their belief that treatment would help them quit abusing alcohol and drugs. Both groups expressed the same desire to quit abusing alcohol and drugs after release and acknowledged that they will need help with their substance abuse problems after release.

**Differences in criminal behaviour**
Native offenders were slightly younger (average age = 15.2) than non-Native offenders (average age 16.9) at the time they first became involved in illegal activities. Similarly, Native offenders received their first conviction at a younger age (average age = 15.4 years) than non-Native offenders (average age 16.7 years). Finally, Native offenders were significantly more likely than non-Native offenders to engage in criminal activities while under the influence of alcohol.
Figure 9
Severity of Combined Alcohol and Drug Problems for the Matched Offender Sample

LEVELS OF ADS AND DAST

Native Offenders  Non-Native Offenders
Figure 10
Presence of Alcohol and Drug Problems in Native and Non-Native Offenders

<table>
<thead>
<tr>
<th>Type of Problem</th>
<th>Native Offenders</th>
<th>Non-Native Offenders</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Problem</td>
<td>16.7%</td>
<td>26.7%</td>
</tr>
<tr>
<td>Alcohol</td>
<td>29.9%</td>
<td>21%</td>
</tr>
<tr>
<td>Drug</td>
<td>8.6%</td>
<td>16.3%</td>
</tr>
<tr>
<td>Alcohol &amp; Drug</td>
<td>44.9%</td>
<td>36%</td>
</tr>
</tbody>
</table>
**Client satisfaction**
Native and non-Native offenders responded similarly to each of the client satisfaction measures. Indeed, both groups indicated that they understood the CLAI instructions and feedback and that they enjoyed doing the survey.

**Substance abuse problems of Native and Non-Native female offenders**

The final section examines potential differences between the 21 Native and 127 non-Native female offenders on selected variables relating to substance abuse.

**Alcohol Use**
There were significant differences between the two female offender groups when they were classified as either having or not having a problem with alcohol. For example, 48% of the non-Native group evidenced an alcohol problem compared to 71% in the Native group. Further, when the offenders were classified according to the severity of their alcohol problem, 38% of the female Native offenders had a moderate alcohol problem and 24% of Native offenders had a severe alcohol problem, compared to just 11% and 6% of the non-Native offenders respectively.

Finally, when the female offenders were asked whether or not they felt they had a drinking problem, a greater number of Native (94%) than non-Native offenders (35%) indicated that they had a problem. Approximately 82% of Native offenders worried about their drinking compared to just 31% of non-Native offenders (25%) indicated that they needed help to stop or control their drinking.

**Drug Use**
When female offenders were categorized as having either a drug problem or no problem with drugs, there were no significant differences between Native and non-Native offenders. Moreover, when the severity of offender drug problems were examined we found very similar proportions of offenders from the Native and non-Native female offender groups in each severity level.

The same proportion of Native and non-Native female offenders worried about their drug use. However, a greater number of Native (63%) than non-Native offenders (52%) indicated that they felt they had a drug problem. In addition, a higher proportion of Native (63%) than non-Native offenders (35%) indicated that they needed help to stop or control their drug use.
Combined drug and alcohol use
There were no substantive differences between the Native and non-Native female offender groups when they were classified according to their highest score on either the ADS or DAST.

Substance abuse and Criminal Behaviour
About 85% of Native female offenders indicated that they used substances on the day of the offence for which they are now incarcerated, compared to only 46% of non-Native female offenders. Approximately 59% of the Native offenders used alcohol, 44% used drugs, and 27% used both drugs and alcohol. These patterns of alcohol and drug use for Native and non-Native female offenders parallels this report’s earlier findings using the full sample.

Attitudes toward substance abuse treatment
More than twice as many Native (85%) as non-Native female offenders (41%) indicated that they thought they needed help for substance abuse problems. More Native than non-Native female offenders (55%) believed that participating in substance abuse programming would help them. Along the same lines, more Native (84%) than non-Native female offenders (55%) reported that they would volunteer to participate in a substance abuse treatment program.

Summary
The results of the analyses performed on the Native and non-Native female offenders are very comparable to the results of the analyses conducted on the full sample and the matched group. Once again, alcohol emerged as a serious concern for Native female offenders (i.e. in a manner similar to Native male offenders) and drug abuse and combined patterns of alcohol and drug abuse were very similar. In short, when examined in isolation, the nature and severity of the substance abuse behaviours of Native and non-Native offenders did not differ substantively from the patterns generated by the full sample of combined male and female offenders. It is important to point out, however, that these patterns of substance abuse do not mean that the same treatment program is appropriate for male and female offenders. On the contrary, the key treatment issues for male and female offenders are likely to differ dramatically, and, as a result, unique approaches to drug and alcohol treatment are required to maximize treatment efficacy and its successful outcome.
Conclusion

Taken together, the results of this study’s analyses support the conclusion that the CLAI is an appropriate assessment system for administration to Native offenders in order to identify the extent and nature of their substance abuse problems for at least two important reasons. First, there was a high degree of consistency in the psychometric structure of the CLAI’s individual drug and alcohol screening measures when samples of Native and non-Native offenders were compared. Second, there were consistent patterns and relationships in Native offender responses to the screening measures and other CLAI items that related to offenders’ present drug and alcohol-taking behaviour, their past substance abuse behaviour, and their criminal behaviour. For instance, there was considerable correspondence between the severity of substance abuse problems (as measured by standardized screening instruments) and other self-report items relating to substance abuse behaviour, criminal behaviour, attitudes, problem recognition, and motivation for treatment. In short, we failed to unearth any patterns in either the structure of the substance abuse screening measures or anomalies in other key variables relating to substance abuse and criminal behaviour which would prompt questioning the use of the CLAI with Native offenders.

More generally, these results support the ability of an automated self-report system to generate reliable and interpretable information about offender substance abuse problems, regardless of whether the offenders are Native or non-Native. Importantly, earlier research (Robinson, et al., 1992) has also confirmed that the self-report nature of the CLAI system is better able to identify offenders with substance abuse problems as compared to approaches reliant upon information from offenders’ institutional files. The CLAI goes further by providing a clear indication of the severity of offenders problems.

The sheer magnitude and severity of offender substance abuse problems suggests that, in general, offenders are open and willing to acknowledge serious alcohol and drug problems. For instance, when the data regarding offender alcohol and drug problems were combined, 83% of Native and 73% of non-Native offenders reported substance abuse problems of sufficient severity to warrant formal treatment intervention. When we readily acknowledge that offenders and non-offenders, alike, are both capable of minimizing or exaggerating the severity of their problems, the present data indicates that the overwhelming majority of offenders reported significant substance abuse problems. These findings serve to diminish potential criticisms as to the validity of information generated by offender self-reports. Although one should attempt to amass as much information as possible when assessing offenders (particularly collateral information), this data provides strong empirical evidence to support the conclusion that self-report inventories can be administered effectively to offenders. It is, therefore, not necessary to rely solely on elaborate,
The accurate assessment of offender substance abuse problems is critical for the development of an effective treatment action plan. Research on matching offenders with appropriate treatment programming based on individual difference or "responsivity" characteristics (see Andrews, Bonta, & Hoge, 1990) emphasizes the importance of a variety of substance abuse severity, social, demographic, personality, and cognitive factors (Andrews, et al., 1990; Annis & Chan, 1983; Hodgins & Lightfoot, 1993; Weekes, Milson, Porporino, & Robinson, 1994). In other words, substance abuse assessment in an offender population requires a more comprehensive approach than simply identifying whether or not an offender has a alcohol or drug problem.

In conclusion, Native offenders represent a distinct cultural group in the Canadian federal correctional system with significant substance abuse problems, particularly in the area of alcohol abuse. The CLAI technology offers an efficient, accurate, and inexpensive method of assessing substance abuse problems for Native and non-Native offenders for use by case management and program staff.

Importantly, Native offenders reported that they enjoyed completing the CLAI instrument and that they felt that they had learned about themselves and their behaviour by participating in the assessment process. Moreover, the resulting data proved to be as highly reliable and interpretable as the data generated by the non-Native offenders in our sample.

Native offenders were well aware of their substance abuse problems and appeared to be quite willing to request help to either quit or control their behaviour. This conscious attempt by Native offenders to indicate that they need help for serious substance abuse problems exemplifies the need for the continued use of the CLAI with Native offenders. In this way, Native offenders who need treatment will be accurately identified and will receive treatment of the appropriate intensity for their level of substance abuse.
References


