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**Research Brief**

# A Comparison of the French and English Versions of the Computerized Lifestyle Assessment Instrument

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**Research Brief**

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# A Comparison of the French and English Versions of the Computerized Lifestyle Assessment Instrument

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## Executive Summary

The Computerized Lifestyle Assessment Instrument or *CLAI* was originally developed in English (see Robinson, Fabiano, Porporino, Millson, & Graves, 1992; Skinner, 1994). When the Correctional Service of Canada adapted the *CLAI* for offenders, the instrument was translated into French for use with francophone offenders. An important research and operational question is the reliability, validity, and the general appropriateness of the translated version of the *CLAI* for administration to French-speaking offenders. This report examined some of these issues by comparing the psychometric structure of the French- and English-language versions of the *CLAI*, by assessing francophone ($N = 1,333$) and anglophone offenders' ($N = 4,453$) feedback on their impressions of the instrument, and by examining the nature and characteristics of substance abuse problems for francophone and anglophone offenders. The *CLAI* was administered to offenders within their first few weeks of incarceration as part of the routine initial assessment process.

The internal consistencies of the two versions were also the same. Our results clearly indicated that the structure of the two versions of the *CLAI* were virtually identical with one another. Specifically, factor analysis of the alcohol and drug screening measures revealed that the French and English versions of the instrument were very similar. Finally, offenders' reactions to completing the instrument were extremely positive and were very similar for francophone and anglophone offenders.

Our analyses of the severity of alcohol problems, drug problems, and a combined alcohol and drug severity index, revealed that the two groups of offenders did not differ dramtically from one another, although we did identify a number of differences between francophone offenders and anglophone offenders in terms of the characteristics of their alcohol and drug use.

In summary, this study adds to previous research on the *CLAI* (e.g., Robinson, Porporino, & Millson, 1991; Vanderburg, Weekes, & Millson, 1994; Weekes, et al., 1993) and supports the use of the French and English versions of the *CLAI* as a means of accurately identifying substance abuse among offenders regardless of their cultural and linguistic backgrounds.

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## Introduction

The accurate assessment of the nature and severity of offenders' alcohol and drug problems is of pivotal importance for the development of effective treatment plans (see Fabiano, 1993). In 1990, the Correctional Service of Canada (*CSC*) began the national implemention of a computerized assessment system, the Computerized Lifestyle Assessment Instrument or *CLAI*, as an initial substance abuse assessment tool in each of its institutions across Canada. The *CLAI* was originally developed by the Addictions Research Foundation (see Skinner, 1994). In turn, the *CSC* modified the original instrument to reflect the offender population by providing a detailed assessment of respondents' criminal behaviour and by examining the relationship between alcohol and drug use and criminality.

The *CLAI* includes standardized alcohol and drug screening measures, the Alcohol Dependence Scale, or *ADS* (see Hodgins & Lightfoot, 1989; Skinner & Horn, 1984) and the Drug Abuse Screening Test or *DAST* (Skinner, 1982). The offender version of the *CLAI* that was developed by *CSC* includes a substantial section consisting of questions relating to offenders' present crime, criminal history, and questions which examine potential relationships between substance use and criminal behaviour. In addition, the *CLAI* is designed to assess previous substance abuse treatment, motivation for treatment, as well as a range of other lifestyle areas including physical and mental health, social functioning, education, work, and finances. Presently, the *CLAI* is in active use in most *CSC* facilities. For additional details the interested reader is referred to a recent report by Robinson, Fabiano, Porporino, Millson and Graves (1993).

A concern arising from the use of standard assessment instruments such as the *CLAI* is the appropriateness of their use with offenders with different cultural backgrounds and linguistic profiles. Strong cultural differences may interfere with the way in which respondents from cultural backgrounds that are different from the group on which the instrument was developed interpret and respond to individual items. Indeed, Van de Vijver and Poortinga (1982) have pointed out that the underlying psychological constructs of tests which have been translated may not be the same as those of the original test due to cultural differences. Accordingly, it is important that basic research be conducted to determine whether or not a particular instrument or

procedure can be administered to individuals from different cultural backgrounds. For instance, a recent study conducted by the Research and Statistics Branch examined the use of the *CLAI* with Native offenders - a group of offenders who differ from Non-native offenders in terms of language and cultural background (Vanderburg, Weekes, & Millson, 1994). This study concluded that the *CLAI* was appropriate for use with Native offenders.

Another important issue is the accuracy of the French language version of the *CLAI* with francophone offenders. About 30% of Canada's incarcerated federal offenders are incarcerated in the Province of Quebec (Solicitor General of Canada, 1994) - the majority of whom are francophone. Although the *CLAI* has been translated into French, it is important to determine the comparability of the French and English versions of the instrument as well as the appropriateness of the French version for use with francophone Canadians. Indeed, recent research has underscored the necessity for tests and measures that have been developed for a particular group or clientele (e.g., English-speaking offenders), but have been translated into another language (e.g., French), to be validated to ensure that the translation is accurate and that the translated version of the instrument measures the same phenomena and constructs as the original instrument (Bourque, Blanchard, & Vézina, 1990; Pelletier & Vallerand, 1990; Vallieres & Vallerand, 1990; Vézina, Landreville, Bourque, & Blanchard, 1991). For instance, the instructions used by some instruments may be too technical or difficult to translate accurately. This limitation may result in respondents interpreting the purpose and nature of the measure incorrectly.

In addition, the underlying meaning or concept which a particular item examines may be functionally altered or lost through the process of translation. As a result, researchers must use on a number statistical techniques to ensure that accurate translations have been made, that there are no substantive differences between the two versions of the test, and that the translated instrument remains intact.

In this report, we examined the reliability and appropriateness of the French version of the *CLAI* with a large sample of francophone offenders. First, we examined the psychometric structure of the primary alcohol and drug measures (i.e., *ADS* and *DAST*) that are used to identify the presence of substance abuse problems. Next, we examined offenders' responses to a number of questions regarding their impressions of the *CLAI*. Finally, we compared data on the nature and severity of substance abuse

and criminal behaviour using a group of francophone offenders who completed the French version of the *CLAI* with a group of anglophone offenders who completed the English version of the instrument.

## Method

### *CLAI* Respondents

The database for this study consisted of 5,786 federal offenders (5,690 male and 96 female) who completed the *CLAI* as part of a routine intake assessment protocol administered to all offenders within the first few weeks of arrival at the institution. A total of 1,333 francophone offenders (23% of the total sample) completed the French version of the *CLAI* and 4,453 anglophones offenders (77% of the sample) responded to the English version. At time of testing, the average age of the francophone offenders was 30 years ($SD$ = 8.40 years) with a range between 18 and 69 years. The average age of the anglophone offenders was also 30 years ($SD$ = 8.98 years) with a range between 18 and 68 years.

### *CLAI* Administration Procedure

Offenders were seated at a micro-computer and completed the *CLAI* instrument by responding to multiple-choice questions presented to them on the computer screen. Offenders were supervised by an institutional staff member who had been trained to administer and supervise testing sessions using the *CLAI* system. The *CLAI* is designed to provide respondents with immediate feedback on their performance using easy-to-read graphs that were presented on the computer screen at key points during the session. At the end of the testing session, offenders were given a hard-copy to keep and review on their own which summarized their test results. A second copy was forwarded to their institutional case management officer for use in treatment planning.

## Results

### Comparison of the Psychometric Structure and Properties of the French and English Versions of the *CLAI*

As mentioned previously, several standardized alcohol and drug screening instruments have been incorporated into the *CLAI*. The *ADS* is a 25-item scale that assesses the severity of alcohol dependence experienced by an individual. The *DAST* is a 20-item measure that assesses the number and severity of problems associated with drug use.

Due to the fact that the *CLAI* is used primarily to assess the severity of offenders' substance abuse problems and to match offenders to appropriate substance abuse treatment, the following analyses paid specific attention to the nature of offenders' responses to the alcohol and drug screening measures.

*Internal Reliability of the Alcohol and Drug Measures.* The reliability of the *CLAI* was assessed by examining the internal consistency of the French and English versions the *ADS* and *DAST* measures. The statistic of reliability (Cronbach's Alpha) was high for both the *ADS* (.94) and the *DAST* (.87) for francophone offenders. Comparably high reliability values were also generated by the anglophone offenders who completed the English version of the *CLAI* (*ADS* = .96; *DAST* = .88). These data suggest that the instruments used to screen drug and alcohol problems for the French and English versions are almost identical with one another and are uniformly reliable.

*Factor Structure of the Alcohol and Drug Screening Measures.* We conducted separate factor analyses of the *ADS* and *DAST* administered in the French and English versions of the *CLAI*. Factor analysis is a sophisticated statistical technique used to examine the underlying structure of questionnaires and other psychological measures (Tabachnick & Fidell, 1989). Factor analysis groups together questionnaire items that tap the same construct into common factors which may be used as scales.

The results of these analyses indicated that the factor structures of the primary factors were very similar for the French-speaking and English-speaking offender groups (i.e., those factors that accounted for the greatest proportion of variance). Indeed, a subsequent test of the factor congruence (Everett & Entrekin, 1980) confirmed that the factor structures of the main factors were virtually indistinguishable for the two groups of offenders. In other words, the *ADS* and *DAST* measures generated similar information regarding alcohol and drug problems for francophone and anglophone offenders, alike. These findings further support the conclusion that, in general, the *CLAI* provides accurate representations of the alcohol and drug problems of both francophone and anglophone offenders, and, that these two groups of offenders interpreted the items contained in these screening measures in a similar manner.

**Offender Feedback**

We also examined offenders' responses to a series of questions administered at the end of the *CLAI* session which asked them about what they thought of doing the survey. There was little, if any, difference in the patterns of responses provided by offenders who completed the French version of the *CLAI* and those who completed the English version. Moreover, the results were overwhelmingly positive and were consistent with the results obtained from other research on the *CLAI* (e.g., Robinson, Porporino, & Millson, 1991; Vanderburg, Weekes, & Millson, 1994).

Specifically, we found that about 94% of anglophone offenders and 97% of francophone offenders indicated that understood the instructions and questions. The same percentages of anglophone and francophone offenders reported that they understood the feedback they received on their lifestyle habits. 80% of francophones and 79% of anglophones felt that they *CLAI* session was about the right length and 79% of francophones and 80% of anglophones did not experience any difficulty completing the *CLAI* on the computer. 92% of francophone offenders reported that the *CLAI* provided an clear picture of their lifestyle habits whereas 76% of anglophone offenders felt that the *CLAI* was accurate. About 4 out of 5 offenders in each group reported that they learned something about themselves by completing the *CLAI*. Finally, 94% of francophone offenders and 90% of anglophone offenders indicated

that they liked doing the *CLAI*; 94% of francophones and about 87% of anglophones indicated that they would encourage a friend to do the *CLAI*.

## Nature and Severity of Substance Abuse Among Francophone and Anglophone Offenders

*Alcohol Use*. Approximately the same proportions of francophone (50.3%) and anglophone offenders (53.5%) reported alcohol problems. The severity of francophone and anglophone offenders' alcohol problems were then categorized into one of the following four levels: "no alcohol problem," "low level problem," "intermediate problem", and "severe problem." The proportions of offenders falling in each of the four categories is displayed in Figure 1. As is evident in this first figure, although there were minor variations in the proportion of francophone and anglophone offenders in each of the severity levels (e.g., 8.9% of anglophone offenders with severe alcohol problems compared with 3.2% of franchophones), there were no substantive differences in the severity of alcohol problems between the two groups of sufficient magnitude to question the ADS or to have an impact on treatment resources.

Francophone and anglophone offenders responded similarly on a number of alcohol-related variables. For example, the two offender groups did not differ when we examined the relationship between the severity of offenders' alcohol problem and the age at which they first consumed alcohol, the age at which they began consuming alcohol on a regular basis (i.e., at least once a week), the most recent age at which they voluntarily abstained from consuming alcohol, and the number of times an offender had voluntarily quit using alcohol.

We then correlated individual items relating to alcohol use with various measures of social functioning, education, work, finances, and other aspects of criminal behaviour in order to examine potential differences among the two offender groups. Compared with their francophone counterparts, anglophone offenders with lengthy criminal histories were more likely to squander money on alcohol. Anglophone offenders were also somewhat more likely to drink to unconsciousness than francophones. In addition, visible intoxication or drunkenness (e.g., stumbling, staggering, or weaving) among anglophone offenders was more strongly associated with their ability to recognize problems associated with substance abuse, recognize their need for help,

express their desire for treatment, the likelihood that they used alcohol on the day of the offense, and the number of crimes committed under the influence of alcohol than for francophone offenders.

*Drug use*. Overall, 52.5% of francophone offenders and 46.4% of anglophone offenders reported drug problems. Figure 2 displays the distribution of drug severity scores for the two groups when offenders were classified into one of the four drug severity categories (i.e., "no drug problem", "low level drug problem", "intermediate drug problem", or "severe drug problem"). No meaningful differences were evident between severity of drug problem for francophone and anglophone offenders.

The relationship between drug severity score (i.e., *DAST*) and a number of other drug-related factors varied according to whether respondents were francophone or anglophone. For example, the frequency with which an offender used heroin during the six month period prior to arrest was more related to the severity of drug problem for anglophone offenders than for francophone offenders. In other words, anglophone offenders with more severe drug problems were more likely to have used heroin during that time period than their francophone counterparts.

Interestingly, the relationships between how old an offender was when he or she first used drugs, how old an offender was the most recent time he or she voluntarily quit drug use, and how many times an offender voluntarily quit using drugs and the severity of drug problem did not differ for the two offender groups.

*Combined Alcohol and Drug Use*. As shown in Figure 3, when francophone and anglophone offenders were categorized according to their highest score on either the *ADS* or *DAST* we found that the two groups did not differ from one another. These results indicate that identical proportions (69%) of francophone offenders and anglophone offenders reported substance abuse problems (i.e., alcohol problems, drug problems, or alcohol and drug problems) of sufficient severity to warrant formal treatment intervention.

## Conclusion

In this study, we elected to focus attention specifically on those components of the *CLAI* that are most important for use by institutional staff (e.g., case managers) in the development of individualized offender treatment plans. Although our study was not designed to directly assess the convergent validity of the *CLAI* in relation to other measures of substance abuse, the results presented suggest that the French-language version of the *CLAI* can be used with francophone offenders to produce interpretable information regarding the nature and severity of alcohol and drug problems that is very similar to information obtained for anglophone offenders who completed the English-language version of the *CLAI*.

We arrived at this conclusion for three main reasons. First, we found that the basic psychometric properties of the French and English versions of the *CLAI* were virtually indistinguishable. Second, there was a high degree of internal consistency in the alcohol and drug screening instruments. Third, the factor structure of the two instruments used to identify alcohol and drug problems in offenders were very similar to one another. Importantly, the findings regarding the *ADS* are consistent with recent research which supports the validity and structure of the *ADS* when it is administered to offenders (Hodgins & Lightfoot, 1989). To our knowledge, the *DAST* has never been fully evaluated regarding its validity for use with offender clinical populations.

In addition, francophone and anglophone offenders alike offered very positive comments regarding their participation in the *CLAI*. Their responses serve to further underscore the conclusion that the *CLAI*'s utility lies not only in providing vital information for institutional staff regarding the nature of offenders' substance abuse problems but that the *CLAI* also serves a useful role as a self-administered learning tool that provides offenders with important feedback regarding their lifestyle habits and behaviour. As well, the offenders appear to enjoy participating in the procedure perhaps relative to more traditional interview and paper-and-pencil measures.

It may be that, in some instances, the *CLAI* brings additional value to the assessment process by providing offenders with important feedback regarding their alcohol and drug use may alert them to the existence of substance abuse problems that they previously had not recognized.

We found consistent patterns in anglophone and francophone offenders' responses to the screening measures and other *CLAI* items that related to their present drug and alcohol-taking behaviour, their past substance abuse behaviour, and their criminal behaviour.

Although the distribution of alcohol severity, drug severity, and combined alcohol and drug severity scores were ostensibly the same for the two offender groups, we did unearth some differences between those offenders who completed the *CLAI* in French and those who completed the *CLAI* in English. In general, our results indicated that we found that alcohol and drug use was more problematic for anglophone offenders than for their francophone counterparts. Although we believe that it is somewhat premature to draw any firm conclusions regarding the implications of these findings, the pattern of results may be reflective of cultural differences in the use of alcohol and drugs.

Taken together, we failed to unearth any patterns in either the psychometric structure of the substance abuse screening measures or anomalies in other key variables relating to substance abuse and criminal behaviour which would cause us to question the use of the French version of the *CLAI* with francophone offenders. In conclusion, the *CLAI* continues to offer an efficient, accurate, and inexpensive method of assessing substance abuse problems for either francophone or anglophone offenders. Moreover, the findings presented in this report coupled with recent research supporting the appropriateness of the use of the *CLAI* with Aboriginal offenders (see Vanderburg, Weekes, & Millson, 1994), suggest that the French and English versions of the *CLAI* can be administered to offenders from a variety of cultural and linguistic backgrounds.

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