

Using dynamic factors to better predict post-release outcome

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Research conducted by the Correctional Service of Canada has resulted in a federal system that uses the Offender Intake Assessment (OIA) process as a standardized method for classifying adult prisoners. OIA is a comprehensive evaluation of the offender at the time of admission. It involves the collection and analysis of information on an offender's criminal and mental health history, social situation, education and other factors relevant to determining criminal risk and identifying offender needs.²

On arrival at an Intake Assessment Unit, each offender undergoes an admission interview and an orientation session. An initial assessment screens an offender for immediate physical health, security (personal and others' safety), mental health and suicide concerns. After this, the offender progresses to the two core components of the OIA process: criminal risk assessment and case needs identification and analysis (CNIA).

The design and development of the CNIA instrument was based on the premise that offender risk and need should drive service delivery, and correctional interventions should focus on successful reintegration.³ The CNIA protocol provides indicators and ratings on each of the seven dynamic risk factors (employment, marital/family, associates, substance abuse, community functioning, personal/emotional and attitude).⁴ This provides a basis for establishing the offender's correctional plan.

Studies have found that offenders with identified needs at admission are at much greater risk of returning to custody than offenders without these needs.⁵ Since the Service began using the OIA process in 1994,⁶ it has completed nearly 12,500 full OIAs and entered them into the Offender Management System. This article illustrates the value of systematically targeting dynamic factors at admission.

CNIA

The scheme for the CNIA component of OIA covers as wide a variety of dynamic factors as possible. These need areas (target domains) build on experience with offender needs instruments and are typical of those included in most needs assessment instruments used in other jurisdictions.

Each of the seven target domains is tied to conventional behaviour:

- **employment** – the value placed on work and the role of work in one's life;
- **marital/family** – the value placed on being with family and the support one derives from family;
- **associates** – the value placed on non-criminal associates and the opportunity for positive social interaction;
- **substance abuse** – the value placed on living without reliance on alcohol and/or drugs;
- **community functioning** – the value placed on having the knowledge and necessary skills for daily living;
- **personal/emotional** – the value placed on being in control of one's life; and
- **attitude** – the value placed on living in law-abiding ways.

In the past, we looked at the target domains and determined the need at that level of detail.

Chart 1

Target domain	Substance abuse
Principal component	Alcohol abuse
Subcomponent	Pattern
Indicators	<ol style="list-style-type: none"> 1. Abuses alcohol? 2. Began drinking at an early age? 3. Drinks on a regular basis? 4. Has a history of drinking binges? 5. Has combined the use of alcohol and drugs?
Subcomponent	Situations
Indicators	<ol style="list-style-type: none"> 6. Drinks to excess during leisure? 7. Drinks to excess during social situations? 8. Drinks to relieve stress?
Subcomponent	Interference
Indicators	<ol style="list-style-type: none"> 9. Drinking interferes with employment? 10. Drinking interferes with marital/family? 11. Drinking interferes with social relations? 12. Drinking has resulted in law violations? 13. Drinking interferes with health?

The CNIA scheme makes a thorough analysis of the need domains by systematically breaking them down (principal components and subcomponents) to the lowest level (indicators). Although this paper cannot describe the mechanics of the entire OIA–CNIA process, an example will serve our purposes; Chart 1 illustrates how the target domain substance abuse is broken down into subcomponents and indicators.

Once the analysis for alcohol abuse is complete, the rater would repeat the same process for drug abuse. The scheme forces the rater to answer “Yes” or “No.” “Yes” responses signal a problem.

Domain ratings

After completing the analysis for a particular need domain, the rater determines the severity of the dynamic factor on a qualitative scale ranging from “factor seen as an asset to community adjustment” to “considerable need for improvement” (see Chart 2). The domain level or impressions ratings are only determined after reviewing, considering and assessing: the file information; supplementary information from the community (such as collaterals, police reports and presentence reports); results of supplementary assessments (such as psychological assessment); colleagues; and the offender.

Offender needs on admission to prison

The CNIA protocol is an objective classification instrument; its seven target domains have been shown to predict suspension of community supervision.⁷

While the OIA–CNIA protocol is administered to all admissions to the Canadian federal system, a post-implementation follow-up of offenders subsequently released yielded 3,380 male offenders (average period in the community 250 days). Interestingly, the base rate for return to federal custody was 9.3%. Moreover, of those returned, nearly three quarters had their

conditional release revoked without having committed a new offence. The reduced variability (low base rate) in the outcome criterion (return to federal custody) may lead to seemingly deflated correlations.

Chi-square and correlation analyses were conducted for each target domain rating, the aggregate of all domain indicators and the rate of post-release return to federal custody. All of the dynamic factor ratings were found to be significantly associated with return to prison (see Table 1).

Table 1

Predictive Validity of Domain Ratings Assessed by the OIA–CNIA (3,380 male offenders)

Domain	Percentage with identified need	Percentage returned to prison	Return to prison <i>r</i>
Employment	66.4	11.9	.17
Marital/family	48.5	12.6	.12
Associates	65.3	12.3	.17
Substance abuse	62.0	12.1	.15
Community functioning	51.2	13.0	.14
Personal/emotional	83.9	10.6	.11
Attitude	50.3	11.7	.09

* Note all *r* values, *p* < .001

Similarly, all of the indicator composites were found to be significantly associated with return to prison (see Table 2).

Table 2

Predictive Validity of Domain Indicator Composites Assessed by the OIA–CNIA (3,380 male offenders)

Domain	Mean	SD	Range	Return to prison <i>r</i>
Employment	9.96	5.59	0–27	.14
Marital/family	5.65	3.79	0–24	.11
Associates	3.22	2.17	0–11	.19
Substance abuse	8.78	8.17	0–29	.17
Community functioning	4.73	2.84	0–17	.14
Personal/emotional	10.10	6.47	0–33	.15
Attitude	3.9	3.70	0–20	.19

* Note all *r* values, *p* < .001

Chart 2

Case Need Identification and Analysis: Domain Rating Guidelines

Factor seen as an asset to community adjustment	No immediate need for improvement	Some need for improvement	Considerable need for improvement
Employment:			
Employment has been stable and has played an important role for the offender.	Neither employment, under-employment, sporadic employment or chronic unemployment has interfered with the offender's daily functioning.	Any of the aforementioned has caused minor adjustment problems for the offender in the community.	Employment situation has caused serious adjustment problems for the offender in the community.
Marital/family:			
There is evidence of very positive relationships and considerable support of parents, relatives or spouse.	There is evidence of a satisfying and caring relationship within a marriage and/or family that has resulted in no current difficulties for the offender in the community.	There is evidence of uncaring, hostility, arguments, fighting or indifference in the marital/family relationships resulting in occasional instability.	Any of the aforementioned has been interfering consistently with the offender's performance in the community.
Associates:			
There is evidence of the offender having had positive personal associations and considerable support.	There is evidence that the offender has had mostly non-criminal and/or positive associates.	The offender has had a lack of positive associates and/or some negative companions (e.g., criminal).	The absence of positive associates and/or the presence of negative companions have interfered consistently with the offender's performance in the community.
Substance abuse:			
	The extent, nature and pattern of alcohol and/or drug consumption by the offender while in the community have had no influence on his/her adjustment (e.g., abstinence, social drinking).	Alcohol and/or drug consumption has caused moderate adjustment problems for the offender in the community.	Substance abuse has caused serious adjustment problems for the offender in the community.
Community functioning:			
The offender has been effectively managing his/her situation (i.e., accommodation, deportment, health, finance, communication, leisure, support)	Knowledge of the necessary skills for daily living has not been causing difficulties.	Any of the aforementioned has been causing situational or minor difficulties in the community.	The offender's community functioning has been causing severe difficulties.
Personal/Emotional:			
	None of the offender's characteristics or patterns (i.e., self-concept, cognition, behavioural, sexual behaviour, mental ability, and/or mental health) has been interfering with daily functioning in the community.	Characteristics or patterns of personal/emotional orientation have caused minor interference with the offender's daily functioning in the community.	Any of the aforementioned has seriously interfered with the offender's daily functioning in the community.
Attitude:			
There is evidence of a very positive attitude and considerable involvement in prosocial activities (e.g., work, school, family, treatment and supervision).	The offender's attitudes toward justice, society, property, violence and lifestyle have not been interfering with his/her daily functioning in the community.	The offender's attitudes have caused minor interference with his/her daily functioning in the community.	Any of the aforementioned has seriously interfered with the offender's daily functioning in the community.
Overall needs rating:	Low	Medium	High

Using regression analysis, we sought to determine which need domain was the most powerful predictor of post-release outcome. To do this, the seven domain ratings were entered into a stepwise regression equation. For male offenders, the strongest predictors of post-release outcome (in order of magnitude) were employment, substance abuse, associates, marital/family and personal/emotional.

Indicator composites for each domain were also entered into a stepwise regression equation. Using this approach, the most significant variables were associates, attitude, substance abuse and employment. Because these indicators are linked to return to federal custody, these findings support the notion that the assessment of

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Conclusion

In sum, it appears that offender classification instruments such as the OIA–CNIA, which assess “dynamic” (employment, $r = .16$, $p < .001$) risk factors, are reliable predictors of post-release outcomes. As an intake risk-management tool, the CNIA can apparently be useful for estimating an offender’s level of intervention, and the degree or intensity of need is clearly related to post-release outcome. ■

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² L. L. Motiuk, “Where are we in our ability to assess risk?” *Forum on Corrections Research*, 5, 2 (1993): 14–18.

³ D. A. Andrews and J. Bonta, *The Psychology of Criminal Conduct* (Cincinnati, OH: Anderson Publishing Co., 1994).

⁴ L. L. Motiuk, “Classification for correctional programming: The Offender Intake Assessment process,” *Forum on Corrections Research*, 9, 1 (1997): 18–22.

⁵ L. L. Motiuk, “Antecedents and consequences of prison adjustment: A systematic assessment and reassessment approach,” Ph.D. dissertation (Ottawa, ON: Psychology

Department, Carleton University, 1991). See also J. Bonta and L. L. Motiuk, “Inmate classification,” *Journal of Criminal Justice*, 20 (1992). And see L. L. Motiuk and S. Brown, *The Validity of Case Needs Identification and Analysis in Community Corrections*, Report R-32 (Ottawa, ON: Correctional Service of Canada, 1994).

⁶ G. Taylor, “Implementing risk and needs classification in the Correctional Service of Canada,” *Forum on Corrections Research*, 9, 1 (1997): 32–35.

⁷ Motiuk and Brown, *The Validity of Case Needs Identification and Analysis in Community Corrections*.

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