Factors influencing the effectiveness of cognitive skills training

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Cognitive skills training was the core component of the living skills programs introduced in 1988 by the Correctional Service of Canada. It combines several state-of-the-art techniques and is designed to teach offenders the thinking skills essential to maintaining a crime-free lifestyle.

This article summarizes recent post-release follow-up research that examined a pool of program participants large enough to permit study of the impact of a variety of factors on the effectiveness of this type of programming.[2] This study contributes further evidence to a growing body of research identifying factors (including offender characteristics and program variables) that influence program effectiveness.

Program basics

Cognitive skills training coaches must undergo an intensive training and certification process. Participants are also carefully assessed and selected, and cognitive behavioural methods are matched to offender learning styles.

The problems targeted by the program include impulsivity, lack of social perspective, poor interpersonal problem-solving skills, insufficiently concrete thinking, inadequate planning skills, and the inability to set goals.[3]

Methodology

The experimental design of this study used a waiting-list control group. This control group was made up of offenders who went through pre-program assessment, but were then randomly assigned to the program waiting list. The overall sample consisted of 2,125 offenders randomly assigned to either the waiting list (379)[4] or to program participation groups (1,746). All offenders in the sample were subject to at least 12 months follow-up after release.

Most demographic (such as age and Aboriginal status) and criminal history (such as previous federal admissions and admission type) variables were comparable for the two groups. However, the waiting-list control group included fewer offenders serving life sentences and a higher proportion of non-violent property offenders and offenders serving shorter sentences. Statistical controls were used to correct for the possible effects of these differences.

Return to custody

Overall, 47.4% of the sample was re-admitted to federal custody within one year of release — 21.9% because of a conviction for a new offence. This high recidivism rate illustrates the relatively high-risk nature of the sample offenders. Cognitive skills training generally targets offenders at high risk of recidivism.

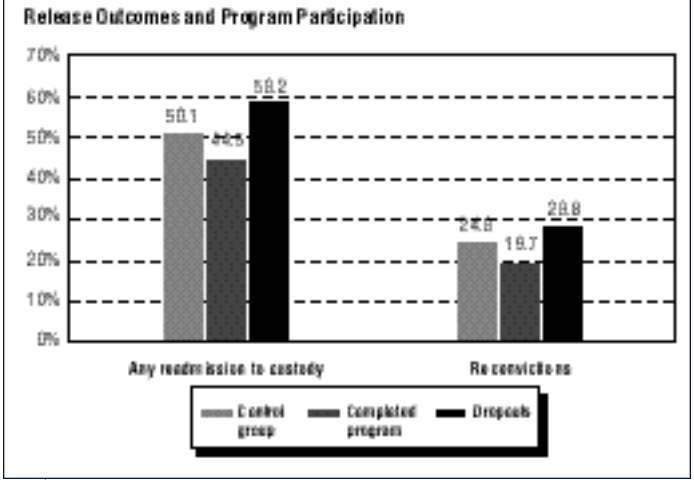
Roughly 44.5% of those who completed the program were re-admitted to custody (see Figure 1), compared with 50.1% of the waiting-list control group and 58.2% of those who dropped out of the program (17.3% of the overall sample). The difference ($p<.05$) between the program group and the control group represents an 11% reduction for those who completed the program.

The reduction in reconvictions was even greater. Program completion reduced recidivism by 20% ($p<.03$), although the program appeared to have no significant impact on re-admissions to custody for technical violations of conditional release.

However, statistical controls indicate that these effects were reduced when differences in the criminal history variables for the two groups were accounted for.

These numbers also suggest that offenders who started but did not complete the program had higher recidivism rates than those who did. Why? The dropouts simply may have been higher-risk offenders.

Figure 1



About two thirds of the dropouts withdrew for reasons such as lack of interest or disruptive behaviour. Further, the dropouts may not have received the full benefits of the program because of their early departure.

Some researchers might argue that program effectiveness should be assessed by directly comparing the outcomes of all program participants (including dropouts) with the waiting-list control group. Dropouts tend to be higher-risk offenders, so their removal from the program group could lower its risk profile and make it less comparable to the control group. Others might argue that program dropouts cannot be included because they were not fully exposed to the program and, therefore, compromise the internal validity of the study. The full report on the study sets out both methods of comparison. The inclusion of the dropouts with those who completed the program did tend to dilute the program's effects. However, the basic trends remained generally intact.

Offender risk

While the program seemed to have a moderate impact on recidivism, it was more successful with certain types of offenders and had no appreciable impact on others. For example, the offenders were divided into lower- and higher-risk groups.[5] The higher-risk offenders appeared to gain little from the program, while the rate of return to custody for the lower-risk offenders declined by 20% ($p<.04$) and their recidivism rate was reduced by 34.2% ($p<.03$).

These data are consistent with other research indicating that programming works best with medium- to high-risk offenders, but not necessarily with those at the highest risk of recidivism.[6]

Program characteristics

The effects of the program also seemed to vary according to whether it was taken in an institution or in the community. The return to custody rate for offenders who took the program in the community declined by 39.1% ($p<.001$), while their recidivism rate dropped 66.3% ($p<.001$). The comparable reductions for offenders who completed the program in an institution were only 8% and 16.2%, respectively (see Figure 2).[7] This disparity is consistent with other research findings.[8]

Although the dropout rate from the community-based programs was high (55 of 186 participants), program impact remained strong even when the dropouts were grouped with those who completed the program ($p<.02$; $p<.001$). Further, the community-based programs appeared to reduce the recidivism of even the higher-risk offenders.

Offence type

Violent offenders, sex offenders and drug offenders who completed the program all had lower recidivism rates than their counterparts in the control group (see Figure 3).

However, program completion produced no statistically significant effects for robbery and non-violent property offenders (these particular offenders tended to have higher risk ratings).

The reduction in the return to custody rate of sex offenders, violent offenders and drug offenders ranged from 18.5% to 39.4% ($p<.02$; $p<.006$), while the drop in their recidivism rates ranged from 35.3% to 57.8% ($p<.03$; $p<.001$). Sex offenders appeared to achieve the greatest gains, but about 30% of this group had received sex offender treatment before participating in cognitive skills training.

Discussion

Previous studies of the effects of programming on recidivism have produced estimates of an approximately 10% average reduction in recidivism.[9] However, there is a lack of research on the effects of programming on high-risk offenders such as those in this study sample.

While the cognitive skills training program did not reduce the recidivism of all members of the sample, the reduction in recidivism for some groups of offenders exceeded the average impact of programming. The current study furnishes optimistic evidence about the effect of the program with generally high-risk offenders.

Figure 2

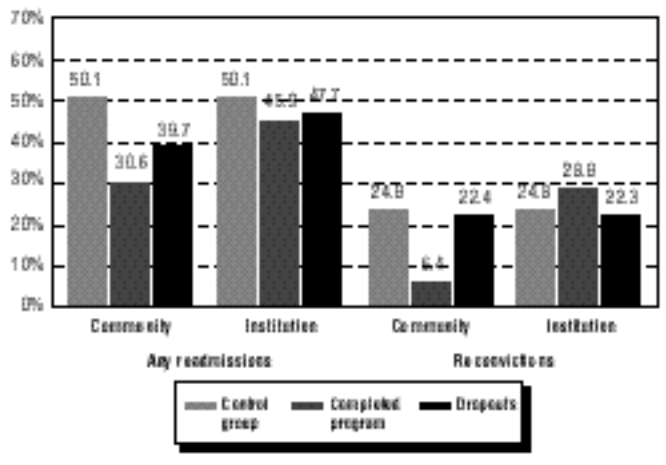
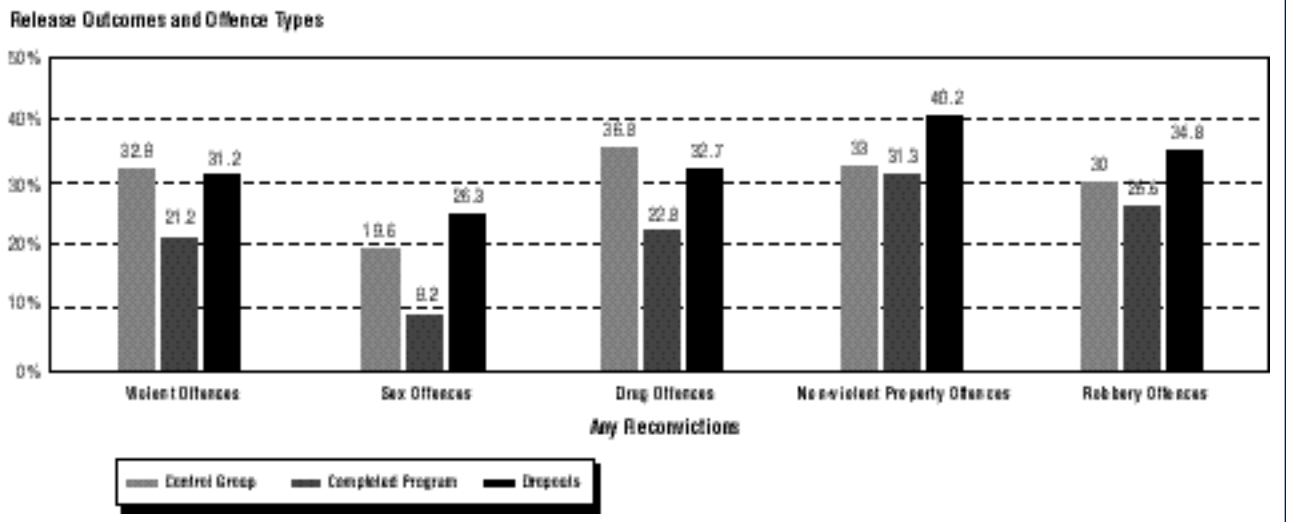


Figure 3



The results also point to selection and program assignment issues that deserve further attention. Clearly, the program delivery system must be adapted to the needs of highest-risk offenders. For example, we could capitalize on the potentially greater impact of community programming. The highest-risk offenders may need to be incarcerated while they receive programming to produce the necessary motivation, but this initial programming could be followed by additional training after release.

A cognitive skills "booster" was developed by the Service's Pacific Region to respond to offender need for contact with the program after release. Higher-risk offenders could be induced to stay with the program through incentives such as parole conditions. However, the fact that offenders are more likely to complete programs while incarcerated (because of their desire to obtain parole) suggests that correctional institutions should remain the setting for initial program exposure.

Future research will undoubtedly identify more factors that enhance program effectiveness. Along these lines, a series of projects aimed at assessing other Service living-skills programming components are currently under way. These projects include research on programs (such as parenting skills training and anger/emotions management) that are based on the cognitive model of offender rehabilitation.* ■

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[2] D. Robinson, *The Impact of Cognitive Skills Training on Post-Release Recidivism among Canadian Federal Offenders* (Ottawa: Correctional Service Canada, 1995).

[3] F. J. Porporino, E. Fabiano and D. Robinson, *Focusing on Successful Reintegration: Cognitive Skills Training for Offenders* (Ottawa: Correctional Service Canada, 1991).

[4] To avoid denying eligible offenders access to the program, all offenders randomly assigned to the waiting-list control group were given the option of participating in the program at a later time. These offenders were given priority admission if they were still available to participate the next time the program was offered. As a result, the waiting-list control group was reduced by approximately 25% over time. However, none of these 379 offenders was exposed to the program before release.

[5] The lower-risk group might be more appropriately labeled as medium-risk, given the high-risk nature of federal offenders with serious cognitive problems. A risk scale similar to the Statistical Information on Recidivism Scale was used to define risk. See J. Nuffield, *Parole Decision-Making in Canada: Research Towards Decision Guidelines* (Ottawa: Solicitor General Canada, 1982).

[6] D. A. Andrews, J. Bonta and R. D. Hoge, "Classification for effective rehabilitation: Rediscovering psychology," *Criminal Justice and Behaviour*, 17 (1990): 19-52.

[7] A sufficiently large waiting-list control group could not be established for community-based sites. The overall waiting-list control group from the previous examinations was, therefore, used in this comparison. Although community and institutional program participants were similar in most characteristics, statistical controls were used to equate the community group with the waiting-list control group. Statistically significant effects nevertheless persevered.

[8] D. A. Andrews, I. Zinger, R. D. Hoge, J. Bonta, P. Gendreau and F. T. Cullen, "Does correctional treatment work? A clinically relevant and psychologically informed meta-analysis," *Criminology*, 28 (1990): 369-404. See also R. L. Izzo and R. R. Ross, "Meta-analysis of rehabilitation programs for juvenile delinquents: A brief report," *Criminal Justice and Behavior*, 17 (1990): 134-142. And see F. Lösel, "The efficacy of correctional treatment: A review and synthesis of meta-evaluations," *What Works: Reducing Reoffending*, J. McGuire, Ed. (Chichester: John Wiley & Sons, 1995): 79-111.

[9] M. W. Lipsey, "What do we learn from 400 research studies on the effectiveness of treatment with juvenile delinquent?" *What Works: Reducing Reoffending*, J. McGuire, Ed. (Chichester: John Wiley & Sons, 1995): 63-78.