

The Vermont Cognitive Self-Change Program: The Case for Risk-Adjusted Classification

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Over the past thirty years, the correctional treatment literature has provided evidence and some measure of support for treatment programs designed to reduce offender recidivism. Successful correctional treatment programs are generally rooted in cognitive-behavioral theory (Ross & Fabiano, 1985). A study conducted in Washington State found an average 8.2% reduction in criminal recidivism when programs applied and followed cognitive-behavioral principles of change. As noted by the authors, "... even relatively small reductions in recidivism can be quite cost-beneficial... a [five] percent reduction in the reconviction rates of high risk offenders can generate significant benefits for taxpayers and crime victims" (Washington State Institute for Public Policy, 2006, p. 4). There is additional evidence that the application of certain principles of effective correctional intervention yields favorable results (Andrews, Bonta & Hoge, 1990). Specifically, the risk principle promotes reserving higher levels of service and treatment to higher risk offenders; lower risk offenders should receive fewer, if any, services. The needs principle stresses the importance of targeting criminogenic risk factors that are both changeable and related to criminal risk. Responsivity refers to the provision of treatment consistent with the learning style and abilities of the individual offender. Finally, the use of professional override underscores the importance of discretion in the application of these principles to individual cases (Andrews & Bonta, 2003a).

Regrettably, correctional agencies and departments throughout North America have not, for the most part, incorporated behavioral science research findings into actual practice (Boothby & Clements, 2000; Haney & Zimbardo, 1998). In fact, criminal justice policy has demonstrably followed a course of "knowledge destruction" by its ideologues and dismissal of the notion that corrections is a behavioral science that might benefit by adherence to empirical findings

(Andrews & Wormith, 1989). The mendacious actions of politicians toward corrections and the justice system, evident in sex offender legislation, the abolition of parole, and abandonment of rehabilitative ideals, have led to a sadly cynical conclusion: you'll never lose a vote being mean to inmates.

Against this bleak background, we see efforts by some jurisdictions to incorporate research into practice with some promising results. Once such program, the Vermont Cognitive Self-Change, was initiated twenty years ago as a cognitive-behavioral restructuring intervention for male inmates convicted of crimes of violence. It has since spread throughout Vermont's correctional system⁶, including women's institutions and probation/parole settings, and it occupies a central feature of the case planning for many offenders. Preliminary published findings have provided some degree of optimism about the program's impact on recidivism (Henning & Frueh, 1996) and institutional conduct (Baro, 1999). Longer-term outcome studies have not been conducted, although there is recent evidence of support for a comparable program model. Bourgon and Armstrong (2005) found that recidivism was attenuated when an offender's risk was matched with a low, medium or high level of a cognitive-behavioral treatment program. During a one-year follow-up period, the participants who completed the program were less likely to recidivate than a matched comparison group.

The intent of the present study was to determine if the Cognitive Self-Change program, delivered to inmates charged with violent offenses, would result in lower levels of recidivism. Specifically we were interested in whether the "dosing level" of treatment (low, medium or high) influenced

⁶ It has been adopted by many other states, and a slightly modified version is disseminated by the National Institute of Corrections. Jack Bush, Ph.D. is widely credited with its development and implementation.

offenders' rates of recidivism. Additionally, we sought confirmation of the risk principle: that higher risk inmates would benefit more from higher levels of intervention, whereas lower risk inmates would show little improvement regardless of intervention level. We predicted between 65 and 150 hours⁷ of the Cognitive Self-Change program would be the optimal "treatment dosage" after controlling for risk.

Method

The Vermont Department of Corrections (DOC)'s policy manual requires participation in the institutional phases of programs for most inmates, and completion of referred treatment programs is a contingency upon which release is primarily based. Furlough and parole decisions are heavily influenced by inmates' participation and assumed benefit in treatment. It is seen as a proxy for reduced risk of recidivism, often without reference to the presence or absence of underlying risk factors. Individual differences and professional override principles are commonly overlooked. Program referrals are based almost exclusively on the index offense. The net effect of this policy is that the vast majority of inmates sentenced to more than one year are referred to treatment groups such as Cognitive Self-Change (CSC) or the department's sex offender program, depending on the nature of the inmate's offense history. Control groups are unavailable to draw from this population, since virtually all eligible inmates spend at least some time in the program of interest.

The participants for this study were a convenience sample of 387 male inmates in Vermont correctional facilities between 2000 and 2003 who participated in the CSC program for violent offenders. Most (91.1%) were charged with a violent offense. The sample was predominantly Caucasian (90.2%) and their ages ranged from 21 to 68 years upon release. The average LSI-R total score was 26.5 ($SD = 6.678$) with a range of 7 to

46, slightly higher than the average for United States inmates (Andrews & Bonta, 2003b).

The program is designed to change criminal thinking patterns (see Yochelson & Samenow, 1977). Offenders attend groups managed by trained clinicians and prison caseworkers three times per week, participate in role-play, and keep daily journals. Through the CSC program, offenders learn how their own thinking leads to criminal behavior and recognize that crime is not the product of external forces, but rather their own thoughts, beliefs, and actions. Furthermore, offenders recognize that their thinking is within their own control and that they can redirect their thoughts toward prosocial endeavors (Powell, Bush & Bilodeau, 2001).

The Vermont DOC's correctional system is a "hybrid," wherein correctional facilities incorporate features of both jails and prisons, and community supervision includes parole, probation, and conditional re-entry inmates. The typical method of measuring recidivism in risk assessment literature (e.g. whether an offender is charged with a new crime or re-incarcerated over a one or two year follow-up period) is complicated by a number of extraneous local variables, such as brief furlough suspension practices. A more manageable and sensitive criterion measure was developed for the study: incarceration days - the number of days an offender was incarcerated, post-release, in a correctional facility. A second variable was the number of new charges an offender incurred after being released from the facility.

Results

A Chi-Square for Independence was performed to analyze the relationship between CSC dosage (low, medium, or high) and the number of charges returned, post-release (categorized into none, one charge, two charges or more charges). A significant relationship was found: $\chi^2 = (4, 384) = 10.80, p = .029$. Fewer offenders had new charges in the medium and high dosage groups (67.7% and 75.4%, respectively) than in the low dosage group (60.3%). Additionally, more offenders had two or more charges against them in the low dosage group (26.7%) than in the medium and high groups (15.4%, 15.1%) (See Table 1)

⁷ While Lipsey (1995) suggested at least 100 hours in his meta-analysis of juvenile rehabilitation, there is little research indicating the "optimal" dosage for correctional treatment programs.

Table 1. CSC Dosing and Number of New Charges, Post Release

	No New Charges	One New Charge	Two or More Charges
Low n = 131	79 (60.3%)	17 (13%)	35 (26.7%)
Medium n = 130	88 (67.7%)	22 (16.9%)	20 (15.4%)
High n = 126	95 (75.4%)	12 (9.5%)	19 (15.1%)

Note. $\chi^2(4, 384) = 10.804, p = .029$

The relationship between CSC dosage and recidivism was examined via a one-way between-subjects factorial MANOVA with CSC dosing level (low, medium or high) as the independent variable and number of days incarcerated during the first year, number of days incarcerated during the second year, and number of new charges as dependent variables. A type IV sum of squares was employed due to unequal cell sizes. Bivariate correlations among dependent variables ranged from .28 to .57, $p < .01$.

A significant main effect was found for CSC level; Wilks' $\Lambda = .941, F(1, 386) = 3.94, p = .001$, partial $\eta^2 = .03$. Univariate follow-ups found an effect for the first year, $F(2, 385) = 5.35, p = .005$, partial $\eta^2 = .027$ with offenders in the high dosage category spending fewer post-release days in jail ($M = 42.38, SD = 72.4$) than the medium dosage category ($M = 77.98, SD = 95.03$) (see Table 2). There was a significant effect for the second year post-release $F(2, 386) = 3.210, p = .041, \eta^2 = .016$, but post-hoc tests did not uncover differences among means.

A one-way between subjects MANCOVA was performed, controlling for LSI-R score, to examine the added contribution of offender risk to incarceration days. The covariate was significant; Wilks' $\Lambda = .952, F(3, 384) = 6.391, p < .0001$, partial $\eta^2 = .05$. LSI-R score was significant in the first year, $F(1, 386) = 18.54, p < .0001$, partial $\eta^2 = .05$, and in the second year, $F(1, 386) = 9.14, p = .003$. No significant differences were found for new charges when controlling for risk. Univariate follow-ups for CSC dosage revealed a significant main effect for the first year $F(2, 385) = 3.819, p$

Table 2. Means and Standard Deviations for Incarceration Days Post Release, during the first year, according to CSC dosage

	Number of incarceration days post-release	
	Mean	SD
Low dosage	59.64	91.69
Medium dosage	77.98 _a	95.03
High dosage	42.38 _a	72.37

Note. Subscripts denote statistically significant differences (Tukey HSD $p = .005$)

$= .023, \eta^2 = .02$. Examinations among the means found that offenders in the high dosage group ($M = 42.38, SD = 72.37$) were significantly less likely to spend time in jail than those in the medium dose group ($M = 77.98, SD = 95.03$).

Discussion

The purpose of this research was to examine relationships between dosing levels in the Cognitive Self-Change program and recidivism rates. It was hypothesized that offenders who received a moderate dosing level of CSC (65-150 hours) would spend the fewest days in jail after being released. This prediction was based on the presumption that inmates who are retained in treatment beyond 150 hours are either recidivists required to "recycle" through the program or individuals unable to proceed at the expected rate through the program for a variety of other reasons. However, findings revealed that offenders with the highest level of CSC exposure (150 hours or more) were the least likely to return to a correctional facility, albeit during the first year only. When risk level was controlled, results were unchanged. This effect was demonstrated in the first year post-release, suggesting that CSC's impact may attenuate over time, at least as the program is currently implemented in Vermont.

Because LSI-R data are not meaningfully applied to classification decisions in the Vermont DOC, there is no relationship between assessed offender risk level and treatment program assignment, including length of treatment. The present findings suggest that if the Vermont DOC is to continue using assessment tools such as the LSI-

R, it is imperative that it employ a set of procedures, including standardization of the instrument using Vermont inmate norms to determine cut-off scores for purposes of program referral, based on observed recidivism risk for the differential risk groups. It appears that present LSI-R utilization is limited to preliminary classification screening, based on an unvalidated dichotomous decision scheme, with an automatic "upward" override for any case presumed to be violent or sexual in nature by virtue of the statute violated.

Several limitations in this study are noted. There was no control or comparison group with which to contrast treatment subjects who received low, medium and high dosages of CSC due to the "universal access to programs" policy of the department. Additionally, it is unknown why some subjects in the low dosage group received a very small number of treatment hours. A variety of reasons could explain this phenomenon, including transfer or suspension from the treatment program. A further question concerns the reliability of data entry of CSC hours. The racial and ethnic demographics of this sample are not representative of most other U.S. offender populations; further research on programs such as CSC is needed with a more racially diverse offender populations (Schlager & Simourd, 2007).

The classification practices of the Vermont Department of Corrections appear to compromise the risk and override principles of effective correctional practice. The placement of lower risk offenders in a high intensity program did not yield lower incarceration days as a function of dosing level. The practice of universally assigning inmates to CSC primarily on the basis of an index offense associated with violence without regard to objective risk factors or override considerations is inconsistent with an evidence-based classification approach. It saturates overcrowded prisons with lower risk inmates who have treatment requirements that may extend their term or subject them to the potentially iatrogenic effects of prison treatment.

The systematic use of available data from objective assessment measures such as the LSI-R provides the foundation for a more individually attuned correctional rehabilitation system

(Andrews & Bonta, 1990). Administrators may benefit from considering the cost benefits, as well as the program and public safety implications, of reserving Cognitive Self-Change program slots for high-risk offenders, who appear to benefit most from this intervention.

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