

COMMONWEALTH OF PENNSYLVANIA  
Department of Corrections  
Office of Planning, Research, Statistics and Grants  
Phone: (717) 731-7149

December 30, 2005

**SUBJECT:** *Research in Review*

**TO:** Executive Staff  
Superintendents  
Other Readers



**FROM:** Gary Zajac, Ph.D.  
Research and Evaluation Manager



Kristofer Bret Bucklen  
Research and Evaluation Analyst

Enclosed please find Volume 8, Number 4 of *Research in Review* (RIR). This issue presents a series of reviews dealing with various topics including cognitive-behavioral treatment and intensive supervision in the community. This issue also contains an index of pieces contained in Volume 8.

This issue brings to a close Volume 8 of RIR. Volume 9 next year will continue to present findings from the DOC's own evaluation projects, including outcome studies of our reentry programs as well as continued focus on the ongoing study of parole violators and parole successes conducted by this office. RIR will also continue with article reviews and briefing papers on topics relevant to corrections.

As always, we welcome your feedback on RIR. We also welcome your suggestions for specific topical areas for future issues. While we cannot promise that we can produce an issue in response to all suggestions offered, we are very much interested in knowing what questions and topics are most interesting to our readers. Future issues of RIR will continue with a review of our own departmental research, as well as article reviews, book reviews, and other relevant pieces.

Thank you for your ongoing interest in *Research in Review* as we enter our ninth year of publication.

# Research in Review

Office of Planning, Research, Statistics and Grants

Editors: Gary Zajac and Kristofer Bret Bucklen (717)731-7149

## *Summary and Major Findings of Articles Reviewed*

David B. Wilson, et al. 2005. "A Quantitative Review of Structured, Group-Oriented, Cognitive-Behavioral Programs for Offenders." *Criminal Justice and Behavior*, 32(2), 172-204. Page 2

This article summarizes evaluations of offender programs using cognitive-behavioral principles, including well known programs such as *Moral Reconation Therapy* and *Reasoning and Rehabilitation*, concluding that these sorts of behavioral interventions have consistently been found to reduce recidivism.

Nana A. Landenberger, et al. 2005. "The Positive Effects of Cognitive-Behavioral Programs for Offenders: A Meta-Analysis of Factors Associated with Effective Treatment." *Journal of Experimental Criminology*, 1(4), 451-476. Page 3

This meta-analysis concludes that the use of cognitive-behavioral therapy (CBT) programs can reduce recidivism rates by an average of 25%. Further, CBT programs that focus on the quality of program implementation, that are geared towards higher risk offenders, and that pay particular attention to certain treatment targets such as anger management and interpersonal problem-solving skills can reduce recidivism rates by as much as 52%.

Mario A. Paparozzi, et al. 2005. "An Intensive Supervision Program That Worked: Service Delivery, Professional Orientation, and Organizational Supportiveness." *The Prison Journal*, 85(4), 445-466. Page 5

This evaluation provides evidence to suggest that an intensive parole supervision program that focuses on a balanced approach to supervision (i.e., law enforcement vs. case worker), targets higher risk parolees, and refers parolees to treatment and various services can produce significant reductions in recidivism rates when compared to traditional parole supervision.

Index to Volume 8 Page 8

David B. Wilson, Leana Allen Bouffard and Doris L. Mackenzie. 2005. "A Quantitative Review of Structured, Group-Oriented, Cognitive-Behavioral Programs for Offenders." *Criminal Justice and Behavior*, 32(2), 172-204.

One of the dominant theories underlying contemporary attempts to change offender behavior is the cognitive-behavioral therapy (CBT) framework. CBT is predicated on the linkage between thinking and behavior – offenders behave like criminals because they think like criminals. Their dysfunctional think and behavior patterns reinforce one another to produce criminal recidivism. Offender thinking errors can include cognitive distortions – attitudes, values, beliefs (*what* they think), cognitive skills deficits – poor decision making and problem solving (*how* they think), as well as combinations of the two. CBT programs attempt to restructure antisocial thinking patterns and pattern new behavioral skills into offenders. CBT approaches are also used on non-offenders in applications such as smoking cessation, weight control, phobia management and PTSD treatment.

Numerous studies over the years have evaluated the impact of CBT programs on long term offender behavior, and have broadly concluded that these types of programs are successful in reducing recidivism, more so than other treatment approaches such as traditional psychotherapy or didactic psychoeducational programs.

Debate remains though on the power of CBT relative to other intensive offender intervention approaches, such as traditional therapeutic communities (one can often find blended or eclectic approaches but there is often the attempt to place a given program into one theoretical camp or the other), and particularly on whether one "brand" of CBT works better than another. The present study attempts to further synthesize existing evaluations of CBT with the goal of better understanding its outcomes.

The authors reviewed twenty studies of offender-based CBT programs in North America, Western Europe and Australia since 1979, focusing specifically on those used in group settings, with a comparison/control group receiving either no treatment or some non-CBT type of intervention (e.g. self-help programs) and meeting some basic standards of methodological adequacy. This included both published and unpublished research. Over half of these studies used methods that the authors characterized as high quality (based upon standards developed by the University of Maryland Crime Prevention Study), with four employing random assignment (typically seen as the "gold standard" of evaluation research). The majority of the programs evaluated in these studies were based upon two prominent CBT models – *Moral Reconciliation Therapy* (MRT) and *Reasoning and Rehabilitation* (R&R). The remaining programs represented a mix of various CBT "brands".

On the whole, CBT programs were found to be effective at reducing recidivism compared to no treatment or other types of treatment, with reductions of up to 25 percentage points (equivalent to a recidivism rate of 62.5% for the control group versus 37.5% for the CBT group). One study found a reduction in recidivism of over 50 percentage points, although this was based upon a small sample of offenders. While not all results reached conventional levels of statistical significance, 18 of the 20 studies were in favor of CBT.

Looking just at MRT type programs, the average reduction in recidivism was nearly 18 percentage points across six studies. One of these studies that used random assignment (a high quality study) found a difference in recidivism of 15 percentage points between MRT and the control group. The seven evaluations of R&R (including three random assignment studies) found an average reduction in recidivism of about eight percentage points, with some findings at nearly 30 percentage points. For the remaining mixed bag of programs, findings ranged from no treatment effect (one study) to a reduction in recidivism of 48 percentage points.

Limitations of this study are found in the inclusion of some lower quality evaluations as well as in the fact that some of the evaluations were conducted by the developers of the programs themselves, which *could* call into question their objectivity. Still, other studies included in this review were conducted by neutral parties, with the same finding of positive treatment effects.

All of the studies assessed as being high quality by the authors found positive effects for CBT. A few of the weaker studies found neutral or negative effects. While the various programs evaluated here have different “brand” names and somewhat differing approaches to CBT, and while there was variation on outcomes between them, the authors point out that the evidence in favor of the general effectiveness of CBT is strong. While it would certainly be important to explore more closely why it is that some CBT program model were more effective than others (the authors speculate that it may have had much to do with how the models were implemented across sites) the authors argue that “brand” may be less important than the proper utilization of general CBT principles. Much as with pharmaceuticals, generics may work just as well as the pricier top shelf compounds.

Nana A. Landendenberger and Mark W. Lipsey. 2005. “The Positive Effects of Cognitive-Behavioral Programs for Offenders: A Meta-Analysis of Factors Associated with Effective Treatment.” *Journal of Experimental Criminology*, 1(4), 451-476.

Several well-conducted reviews (meta-analyses) of offender treatment programming have identified cognitive-behavioral therapy (CBT) as a particularly effective intervention for reducing recidivism rates for juvenile and adult offenders. These reviews have typically demonstrated that the use of a CBT-based program can reduce recidivism somewhere in the range of 20-30% when compared to control groups (a few reviews have even demonstrated larger reductions in recidivism). While reviews have thus consistently indicated that CBT programs, on average, have significant positive effects on recidivism, there is still a fair degree of variation across individual studies in the magnitude of this effect. The review summarized below undertakes an extensive meta-analysis of CBT programs in order to determine which characteristics are associated with the largest reductions in recidivism.

A total of 58 experimental or quasi-experimental evaluations of CBT programs were included in this review. Consistent with previous reviews, the CBT programs reviewed here indicated an average reduction in recidivism of approximately 25% when taken as a whole, yet also indicated a

significantly large variation in recidivism rates between individual studies. Variations associated with study methods (e.g., experimental vs. quasi-experimental design, attrition rate, type of recidivism measure) were first examined. Overall, no significant relationship between study design and treatment impact was observed. As a precaution, however, several of the study design variables were controlled for when examining the relationship between the more substantive attributes and treatment impact.

Among the substantive attributes, participant characteristics (e.g., socio-demographic characteristics, etc.) were first examined. The only such characteristic found to be significantly related to the effect size of a CBT program was criminal risk level. On average, higher risk offenders benefited more from CBT programs. No significant variation in treatment effect was observed by age, race, or gender.

Upon examining program intensity attributes, the number of sessions and hours per week were found to be more strongly related to effect size than the duration of the program. Increases in the number of sessions and hours per week of treatment were significantly associated with larger reductions in recidivism.

A closer examination of the quality of program implementation revealed two individual factors significantly related to increased benefits from CBT programming. Programs that demonstrated a smaller proportion of treatment dropouts and a higher level of researcher involvement in implementation reported larger reductions in recidivism. While implementation monitoring, CBT training for providers, and the professional background of providers were not factors that were individually found to be related to treatment impact, a composite measure of all of the program implementation factors was found to be significantly and positively correlated with treatment effects. A higher score on this composite measure was significantly correlated with larger reductions in recidivism.

An examination of the specific nature of CBT treatment revealed that no brand of CBT treatment produced effects that stood out from the average of the other brands. In other words, all brand names of CBT treatment (including Reasoning & Rehabilitation, Moral Reconciliation Therapy, Aggression Replacement Therapy, and Thinking For A Change, and other generic CBT programs) performed equally as well. However, differences in program effectiveness were noted for various treatment targets. Programs with a focus on supplemental individualized counseling, anger control, and cognitive restructuring were found to produce larger reductions in recidivism than programs focusing more on behavioral skills, substance abuse, victim impact, or relapse prevention.

Two final variables were examined for differences in treatment effect: 1) the setting of treatment (i.e., in prison versus in the community) and 2) the extent to which CBT treatment was supplemented by other services or treatment elements such as mental health counseling, vocational training, and educational programs. Treatment setting was not found to be significantly related to differential recidivism rates. However, the effectiveness of a CBT program was found to be significantly larger for those programs that combined CBT training with other services.

The last step in this meta-analysis involved constructing a single model for comparing the relative impact of each of the attributes examined while holding all of the other attributes constant. By doing so, conclusions could be drawn about the relative influence or importance of each attribute. This step was essential since some of the attributes that were individually found to be correlated with larger reductions in recidivism might cease to produce such effect sizes and therefore become relatively inconsequential when accounting for other attributes. Indeed, when running this final analysis, only four factors remained significantly related to larger reductions in recidivism for CBT programming: 1) the participant's criminal risk level, 2) the composite measure of quality of program implementation, 3) a programmatic focus on interpersonal problem-solving, and 4) a programmatic focus on anger control. Programs that focused on victim impact and behavior modification such as behavioral contracts and/or reward and penalty schemes designed to reinforce appropriate behavior were actually found to be negatively correlated (i.e., significantly associated with worse recidivism outcomes). In this final model, treatment impact was again found to be irrespective of particular program brand name.

Given the above model, the authors of this study were able to estimate a "best practice" scenario based on the relative importance of each attribute. For a CBT program with moderately high risk participants, a high level of program implementation quality, and a focus on anger control and interpersonal problem-solving skills, a decrease in recidivism of 52% can be expected. This impressive effect is over twice as large as the 25% average overall reduction in recidivism found for all CBT programs. While more remains to be learned about the interaction between treatment attributes and the level of effectiveness of CBT programs, this review certainly advances our understanding of the particulars of CBT program effectiveness. Most notably, the implication is that CBT programming should pay less attention to program brand name or length and more attention to the quality of program implementation, the risk level of participants, and the particular targets emphasized in treatment.

Mario A. Paparozzi and Paul Gendreau. 2005. "An Intensive Supervision Program That Worked: Service Delivery, Professional Orientation, and Organizational Supportiveness." *The Prison Journal*, 85(4), 445-466.

With few exceptions, evaluations of intensive probation/parole supervision programs have produced disappointing results. However, virtually no research has examined the relationship between the supervisory style of probation/parole officers and recidivism outcomes. The following review summarizes an evaluation of New Jersey's Intensive Surveillance and Supervision Program (ISSP) for parolees. In this evaluation, recidivism rates (including technical violations and new crime convictions) were compared between a group of ISSP parolees and a matched comparison group of parolees under standard parole supervision. Three particular factors were examined for their contribution to differences in recidivism rates: 1) the level of services referred to and received by participants, 2) the level of organizational supportiveness of the corresponding parole office (e.g., clearly outlined program objectives, staff buy-in to the objectives, quality managerial leadership, low staff turn-over, etc.), and 3) parole officer orientation (i.e., law enforcement, balanced, or social caseworker).

The sample utilized for this evaluation consisted of a total of 480 parolees, representing 12 parole offices in New Jersey. Since random assignment to either ISSP or standard parole was not attainable, parolees in each group were carefully matched on a number of demographic variables. Notwithstanding the careful matching procedure, the two groups slightly differed on a few variables. Most notably, ISSP parolees were slightly higher risk, had less education, indicated a greater reliance on psychotropic medication, and indicated a more extensive history of substance abuse problems. On the whole, however, ISSP parolees were quite similar to standard parolees.

A follow-up period of 12 months from the time of release onto parole was established for this evaluation. The three outcome variables examined during this follow-up period were 1) technical violations, 2) new convictions, and 3) revocations. While ISSP parolees demonstrated a lower new conviction rate (19.2% vs. 47.5%) and total revocation rate (37.5% vs. 58.8%), their technical violation rate was slightly higher (18.3% vs. 11.3%). This is to be expected given that intensive supervision involves the imposition of significantly more release contingencies, involves increased “watching” of those being supervised, and usually involves a smaller staff workload. These factors inevitably work together to increase the likelihood of detecting technical rule violations. Contrary to the contention that new conviction rates were lower for ISSP participants because their higher technical violation rates represented an early detection and prevention of potential criminal activity, no evidence was found to support such a premise (in fact, no evidence to support such a premise has ever been established in the broader criminological literature).

Given that ISSP participants clearly seemed to benefit from an intensive supervision program (as indicated by lower new conviction and revocation rates), the next step in the evaluation involved an examination of factors that could potentially explain this positive impact. While nearly double the number of referrals to services was made for standard parolees compared to ISSP parolees, more services were actually obtained by the ISSP group. The largest differences in the type of services received between the two groups were for substance abuse, mental health counseling, educational and vocational training, and public assistance, with ISSP parolees significantly more likely to receive all of these services. While recidivism rates were not specifically calculated by the degree of services received, the fact that more services were received by ISSP participants certainly may have contributed to lower recidivism rates for ISSP participants.

Recidivism rates were calculated by the level of organizational supportiveness (as measured by the Lederman Interview Schedule of Organizational Supportiveness for Offices) of each parole office. “Supportive” parole offices consistently reported lower recidivism rates than “non-supportive” parole offices across all three measures of recidivism. Unfortunately, it was not determined as to whether a higher percentage of ISSP parolees than standard parolees were supervised by “supportive” parole offices. A supportive organizational environment was conjectured to contribute to the positive observed results for ISSP participants, however.

One final explanation offered for the positive findings for this intensive supervision program was the professional orientation of the parole officer (as measured by the Parole Officer Punishment and Reintegrative Orientation Questionnaire). Due to study limitations, only ISSP parole officers were

examined for professional orientation. Nonetheless, it was found that recidivism rates (particularly revocations for new convictions) were the lowest for parole officers whose orientation was assessed as being balanced between law enforcement and social work. This balance and avoidance of extreme orientations may have further contributed to the success of the ISSP program.

Unfortunately, the findings from this evaluation are more thought-provoking than revealing. A less than desirable methodology leaves room for many questions as to why this intensive parole supervision program was able to demonstrate reduced recidivism rates. First, even given the few differences between ISSP and standard parolees, an experimental design with random assignment would have been preferable. Since the positive impact observed in this evaluation represents a departure from the bulk of research findings on intensive parole supervision thus far, a truly experimental design with random assignment would have built a more convincing case. Second, an examination of differences in recidivism rates between ISSP parolees and standard parolees by the types of services participated in, the organizational supportiveness of the corresponding parole office, and the professional orientation of each corresponding parole officer would have built a stronger case for a link between these three variables and program effectiveness. Third, even if a relationship between the level of services provided and recidivism rates could be demonstrated, it would be important to distinguish which services and treatment are most effective. Fourth, while somewhat less important, a longer follow-up period may have provided a better picture of the long-term impact of the ISSP program. Notwithstanding these limitations, this evaluation provides some evidence to suggest that an intensive parole supervision program can work, especially when focused on a balanced approach to supervision where treatment and/or various services are provided to higher risk parolees.

## **Index to *Research in Review* – Volume 8 – 2005**

### **PADOC Program Evaluation and Other Research Summaries**

The Pennsylvania Department Of Correction's Parole Violator Study (Phase 1). (Number 1).

Outcomes Evaluation Of The Long Distance Dads (LDD) Program. (Number 2).

### **Journal Article Reviews**

Guy Bourgon and Barbara Armstrong. 2005. "Transferring the Principles of Effective Treatment Into a 'Real World' Setting." *Criminal Justice and Behavior*, 32(1), 3-25. (Number 3).

David P. Farrington and Brandon C. Welsh. 2005. "Randomized Experiments in Criminology: What Have We Learned in the Last Two Decades?" *Journal of Experimental Criminology*, 1(1), 9-38. (Number 3).

Nana A. Landenberger and Mark W. Lipsey. 2005. "The Positive Effects of Cognitive-Behavioral Programs for Offenders: A Meta-Analysis of Factors Associated with Effective Treatment." *Journal of Experimental Criminology*, 1(4), 451-476. (Number 4).

Friedrich Losel and Martin Schmucker. 2005. "The Effectiveness of Treatment for Sexual Offenders: A Comprehensive Meta-Analysis." *Journal of Experimental Criminology*, 1(1), 117-146. (Number 3).

Mario A. Pappozzi and Paul Gendreau. 2005. "An Intensive Supervision Program That Worked: Service Delivery, Professional Orientation, and Organizational Supportiveness." *The Prison Journal*, 85(4), 445-466. (Number 4).

Marc Renzema and Evan Mayo-Wilson. 2005. "Can Electronic Monitoring Reduce Crime for Moderate to High Risk Offenders?" *Journal of Experimental Criminology*, 1(2), 215-237. (Number 3).

Christy Visher, Laura Winterfield, and Mark Coggeshall. 2005. "Ex-Offender Employment Programs and Recidivism: A Meta-Analysis." *Journal of Experimental Criminology*, 1(3), 295-315. (Number 3).

David B. Wilson, Leana Allen Bouffard and Doris L. Mackenzie. 2005. "A Quantitative Review of Structured, Group-Oriented, Cognitive-Behavioral Programs for Offenders." *Criminal Justice and Behavior*, 32(2), 172-204. (Number 4).