

COMMUNITY CORRECTIONS FACILITIES FOR JUVENILE OFFENDERS IN OHIO

An Examination of Treatment Integrity and Recidivism

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Although prior research suggests that juvenile correctional programs can be effective at reducing recidivism, research has also found that some programs are more effective than others. This suggests that identifying the characteristics of effective correctional programs is an important issue surrounding interventions with juveniles. The current research not only examines the effectiveness of Ohio's community correctional facilities in reducing recidivism, but it also examines whether measures of treatment integrity are related to recidivism. The findings revealed that programs that scored higher on treatment integrity were more effective at reducing recidivism. Specifically, community corrections facilities that served higher risk youth, targeted dynamic risk factors with cognitive behavioral modalities, and employed trained and qualified staff were found to have stronger effects on recidivism than those that did not.

Keywords: community corrections facilities; treatment integrity; juvenile offenders

Between 1979 and 1992, the number of youth placed in correctional facilities in Ohio increased more than 40%, from 3,770 to 5,280 (Bureau of Justice Statistics, 1989; DeComo et al., 1995). To reduce state commitments of juveniles to the Ohio Department of Youth Services (DYS), policy makers in Ohio created community corrections facilities (CCFs) to serve as an intermediate placement between state confinement and local probation. These locally supervised and operated facilities were designed to provide a structured residential treatment environment that worked to reduce the criminal behavior of juvenile offenders.

Prior research has found that juvenile treatment facilities are effective in reducing criminal behavior when they have certain characteristics. Meta-analytic reviews of juvenile treatment show that programs that are structured, use a cognitive behavioral modality, and

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target dynamic risk factors improve the likelihood of program effectiveness (see, e.g., Andrews et al., 1990; Lipsey, 1999). Furthermore, research also suggests that the measures of treatment integrity, including program implementation and staff characteristics, are also important factors in successful juvenile correctional programs (see Aos, 1997; Lipsey, 1999). Taken together, this suggests that program characteristics and treatment integrity play an important role in the effectiveness of correctional interventions that attempt to reduce the recidivism of juvenile offenders.

Examining the treatment integrity of correctional programming is of particular importance in program evaluation, because it provides insight into why particular programs may have failed or succeeded in reducing the recidivism of their participants (Lowenkamp, Latessa, & Smith, 2006). Furthermore, research that has conducted standardized evaluations of both program integrity and program effectiveness suggests that measures of treatment integrity are associated with reductions in recidivism (Holsinger, 1999; Lowenkamp, Latessa, et al., 2006). The current research seeks to advance this body of knowledge by examining the intersection between treatment integrity and program effectiveness in Ohio's juvenile CCFs. This is done using measures of program effectiveness gathered from a quasiexperimental, matched-pairs outcome evaluation and measures of treatment integrity derived from results of the administration of the Correctional Program Assessment Inventory (CPAI; Gendreau & Andrews, 1996). In doing so, this research provides important information to policy makers and correctional agencies about the characteristics of effective juvenile correctional interventions.

CCFS FOR JUVENILES IN OHIO

In the early 1990s, policy makers in Ohio moved to encourage local counties to place youth in need of residential intervention into locally operated treatment facilities instead of more costly state-operated correctional facilities. These facilities were modeled on Ohio's community-based correctional facilities for adults, which seek to provide secure placements in a treatment-centered environment (Lowenkamp & Latessa, 2002). Similarly, CCFs were designed to provide a structured, intensive treatment environment to lower-level felony offenders as an alternative to placements in state DYS facilities.

Although the state funds and provides budgetary oversight for the CCFs, they are primarily operated by local community correctional boards. All of the facilities offer some form of structured residential treatment, but the local nature of their operation encourages differences in the types of programs and services offered at each facility. Although local control of CCFs allows each facility to tailor services on the basis of local concerns and resources, this variation in service provision is also likely to cause variation in the effectiveness of each program in reducing recidivism.

Considering the local nature of CCFs, perhaps it is not surprising that early evaluations of Ohio's CCFs found that the facilities varied substantively in program integrity (Holsinger, 1999; see also Latessa & Holsinger, 1998). Furthermore, Holsinger (1999) found that youth who attended CCFs with higher scores on treatment integrity were less likely to recidivate than youth who attended programs with lower scores. Although an important first step in the evaluation of the CCFs, this study failed to establish a control group of youth who did not attend a CCF, instead only comparing youth who attended different CCFs to each other.

As a result, this study does not examine whether CCFs were more effective than other types of correctional interventions, such as probation and/or commitment to a DYS facility.

THE EFFECTIVENESS OF JUVENILE CORRECTIONAL INTERVENTIONS

In their seminal article, Andrews and his colleagues (1990) argued that to be effective in reducing recidivism, correctional programs must provide treatment that is clinically relevant and draws from the psychological literature of behavioral modification. They found that juvenile correctional programs that were most effective in reducing recidivism were those that ascribed to three major principles: the delivery of services to high-risk cases, the targeting of criminogenic needs, and the use of cognitive and behavioral modalities. Specifically, they found that juvenile correctional programs that ascribed to these principles had a relatively strong effect (mean $\phi = .29$) when compared both to rehabilitative programs that did not (mean $\phi = -.07$) and to more traditional criminal sanctions, such as probation and restitution (mean $\phi = -.06$).

A follow-up meta-analysis in 1999 conducted by Dowden and Andrews (1999) produced similar results. Their examination of more than 200 effect sizes found that overall, juvenile correctional treatment had a weak, albeit significant, average effect size ($\phi = .08$). Furthermore, their results again suggested that programs that used a cognitive behavioral treatment modality, targeted high-risk youth, and attempted to change criminogenic needs were all more effective ($\phi = .28$) than those programs that did not ($\phi = -.08$).

Lipsey (1999) also used the meta-analysis to examine the effectiveness of juvenile correctional treatment. His analysis examined more than 200 correctional interventions for serious youthful offenders and concluded that correctional interventions with specific characteristics were effective in reducing recidivism. Of interest, Lipsey also examined 83 programs for institutionalized youth, 8 of which were categorized as community residential facilities. Lipsey's results suggest that although on average, there were positive effects for the community-based residential facilities, there was significant variation in the effect sizes within this group. The small number of studies precluded an analysis of characteristics of effective community-based residential facilities. However, in the larger analysis of programs for institutionalized offenders, Lipsey noted that the characteristics of treatment modality, program duration, and treatment implementation were associated with increases in program effect size.

Also of interest, research conducted by the Washington State Institute for Public Policy indicates that staff characteristics are important factors in determining the effectiveness of juvenile correctional interventions (Barnoski, 2004). Barnoski (2004) reviewed a variety of forms of juvenile correctional interventions and found that counselors who were categorized as competent during quality assurance checks consistently produced higher effect sizes than counselors who were not. Furthermore, the findings indicate that counselors who were categorized as incompetent produced clients who were more likely to reoffend. These findings are consistent with prior research that suggests that programs with trained and qualified staff are more likely to have an impact on recidivism (see Gendreau & Ross, 1979; Palmer, 1994).

Research that uses general measures of treatment integrity to predict program effectiveness has found modest to strong correlations with recidivism. When measuring the program integrity of 38 adult halfway houses, Lowenkamp, Latessa, et al. (2006) found that overall

integrity scores had r values ranging from .24 to .33. Gray (1997) examined community-based correctional interventions and found a correlation of .41 between treatment integrity and program outcome. Nesovic (2003) examined more than 250 correctional programs and found that measures of treatment integrity maintained a correlation of .51 with recidivism.

Taken as a whole, research on interventions with juvenile offenders suggests that measures of treatment integrity play an important role in the effective reduction in recidivism. Characteristics such as the risk level of the youth that are served, the treatment modality and targets, and staff characteristics have been found to be important factors that improve the likelihood of reducing recidivism. This body of research provides a compelling argument regarding the importance of examining treatment integrity when evaluating juvenile correctional interventions, because it provides a look into the "black box" of correctional interventions (Holsinger, 1999). That is, although outcome evaluations help in understanding whether programs are effective, understanding treatment integrity provides an explanation as to why programs are effective or not. Furthermore, understanding why their specific program is effective or not provides practitioners with the tools to improve struggling programs and to sustain programs that perform well.

The current research seeks to evaluate the effectiveness of Ohio's CCFs. In doing so, it examines how differences in treatment integrity correspond with program recidivism. The measures of treatment integrity used in the current project are drawn from the CPAI designed by Gendreau and Andrews (1996). Program effectiveness is measured using a quasiexperimental design to determine whether program participants were less likely to engage in recidivism than a matched control group.

METHOD

MEASURING TREATMENT INTEGRITY

Between 1998 and 2003, 9 of the 10 CCFs in Ohio were evaluated using the CPAI.¹ The CPAI is an actuarial assessment designed to measure program quality that comprises 65 items in six substantive categories (Gendreau & Andrews, 1996). These categories consist of program implementation, client preservice assessment, program characteristics, staff characteristics, evaluation, and a final category of miscellaneous items. Each category has a varying number of items that are scored by whether the item is present or absent. Evaluators score the CPAI during site visits that involve file reviews, observations of groups, and interviews of clients, staff, and management. The percentage of the total points that the program achieves is considered the program's score in that area. Scoring between 100% and 70% is considered very satisfactory, from 69% to 60% is considered satisfactory, 59% to 50% is scored as satisfactory but needs improvement, and less than 50% is considered unsatisfactory. Although it can be argued that using the percentage point cutoffs to categorize programs into levels of satisfaction is arbitrary, this method was used in the current study because it conforms to the CPAI handbook (Gendreau & Andrews, 1996) and because prior research has found that differences in categories are associated with differences in rates of recidivism (Holsinger, 1999; Lowenkamp, Latessa, & Smith, 2006).

For the purposes of this research, the categories satisfactory and satisfactory but needs improvement were combined into a single category of *satisfactory* performance, giving the

category a final range from 50% to 69%. This was done both for methodological reasons and for the sake of parsimony. Methodologically, the 10-point range of these categories is much smaller than the *very satisfactory* and *unsatisfactory* categories. As a result, fewer programs tend to fall into these categories than into the other two, making estimates describing these two categories unstable. Presenting three categories of similar size also provides a much more parsimonious presentation of the results, with similar numbers of programs falling into each of three categories.

In this research, we examined whether the features of successful programs identified in the literature also applied to successful programs for juveniles in Ohio. Specifically, do they target high-risk youth, attempt to change criminogenic needs with cognitive behavioral therapy, and employ trained and qualified staff? Programs were categorized as serving primarily high-risk youth if at least 75% of youth in the program were classified as high risk. Scores in the CPAI domain of program characteristics were used to measure whether programs targeted criminogenic needs with cognitive behavioral modality. Items in this area of the CPAI examine whether the program targets known dynamic risk factors, such as changing criminogenic attitudes; increasing social skills, such as problem solving and goal setting; and providing relapse prevention strategies. The CPAI score in the domain of staff characteristics was used to measure staff qualifications and characteristics. Programs that score high in this area train their staff on clinical skills relevant to service delivery and employ staff who have at least a bachelor's degree and experience in their substantive field. As a final measure, the overall CPAI score was used as a summary index of therapeutic integrity. This measure totals scores from all six substantive areas into one composite measure and uses the same scoring guide, ranging from very satisfactory to unsatisfactory.

MEASURING PROGRAM RECIDIVISM

To measure the effectiveness of each program in reducing recidivism, a quasiexperimental, matched-pairs design was employed. The treatment group consisted of a sample of youth who had been terminated from CCFs during the 2002 fiscal year ($n = 348$). Because youth were not randomly assigned to CCFs, one issue that arose was finding a proper control group. Two sources were available to use as control groups: a sample of youth released from DYS institutions and youth released from community-based correctional interventions. As a result, two comparisons groups were used for the current research, a DYS control group and a community supervision control group. Youth for each control group were matched with the treatment group on the following variables: race, sex, offense type, risk level, and county.²

Data for the treatment and control groups were gathered from a variety of databases and case files kept for each youth by the local programs and DYS. Because the programs use different methods of measuring risk, a common risk measure was created using criminal history data available in the various databases.³ This measure includes four items that capture the onset of delinquency, the severity of prior delinquent offenses, the severity of the current offense, and frequency of offending.⁴ The scale ranges from 0 to 6, with 0 to 1 indicating low risk, 2 to 3 indicating moderate risk, 4 to 5 indicating high risk, and 6 indicating very high risk. Worth noting is that there are no low-risk youth in the sample. This is attributable to the inability to match low-risk youth from the CCF sample to youth released from DYS, because no youth released from DYS were scored as low risk.

TABLE 1: Descriptive Statistics by Control Group

<i>Variable</i>	<i>CCF With Community Supervision (N)</i>	<i>%</i>	<i>CCF With DYS Release (N)</i>	<i>%</i>
Race				
Black	38	13	35	15
White	251	84	193	80
Hispanic	3	1	6	2
Other	6	2	7	2
Gender				
Male	289	97	232	96
Female	9	3	9	4
Offense type				
Violent	31	10	34	14
Sex offense	26	9	12	5
Other	241	81	195	81
Risk category				
Medium (2)	37	12	38	16
High (3)	174	59	146	61
Very high (4)	48	16	57	24
Population category				
0-49,000	93	31	56	23
50,000-99,000	81	27	61	25
100,000-224,000	35	12	31	13
225,000-399,000	52	17	55	23
Total	298		241	

Note. CCF = community corrections facility; DYS = Department of Youth Services. Because there were no low-risk youth in DYS, there was no way to match CCF youth to this category.

Of the total number of terminations from CCFs, matches were found for 241 youth. Descriptive statistics for the matched pairs are presented in Table 1. As illustrated in Table 1, a majority of the matched pairs (58%) were classified as having a high-risk score. Similar to the community corrections comparison cases, matched DYS cases were predominately White (80%) and male (97%). For offense type, 14% were violent, 5% were sex offenses, and 81% of the offenses were other violations.

For the purposes of this study, recidivism included either a new felony adjudication as a juvenile or entry into the Community Corrections Information System (CCISWEB) database as an adult. The felony adjudications were reported by juvenile courts to DYS, and youth were flagged if they were adjudicated after termination from their respective program and before the end of the 2004 fiscal year. The CCISWEB database is a computer program that is used to track community corrections program use for adult offenders in Ohio. In short, an appearance in the CCISWEB database indicates that a youth has been convicted in the adult system and is currently serving a community-based sentence. Although this measure is not a comprehensive indication of criminal behavior, it was used to track older offenders who moved into the adult system. Youth were flagged if they appeared in the CCISWEB database after the termination date from their respective program and before July 18, 2004. If a youth appeared in either the felony adjudication or CCISWEB database, he or she was coded as having recidivated during the follow-up period.

PROGRAM EFFECT SIZE

After follow-up data were obtained, comparisons were made on recidivism for the treatment group and each control group. For the purposes of this research, two effect sizes were

calculated, one for each comparison group (i.e., one effect size that compared the DYS control group to the treatment group and one effect size that compared the community supervision control group to the treatment group). The program effect size for the current research is presented as the correlation coefficient (r) between group membership (treatment vs. control) and recidivism. The r values are used because they are widely known and easy to interpret.

Specifically, r values can be interpreted as the percentage point difference in recidivism rates between the treatment and comparison groups (Rosenthal, 1991). Positive r values indicate that the treatment group has a lower recidivism rate than the control group, whereas negative r values indicate that the control group has lower rates of recidivism than the treatment group (an r of .00 indicates that there are no differences between the treatment and control groups). For example, given an overall base recidivism rate of 50%, an r value of .10 would indicate that the treatment group had a recidivism rate of 45% and the comparison group had a recidivism rate of 55%. Because the number of offenders in each program differed from site to site, all analyses involving r are weighted (by n minus 3) to account for differences in sample size (Rosenthal, 1991).

RESULTS

INDIVIDUAL AND WEIGHTED MEAN EFFECT SIZES

Figure 1 presents the effect sizes for each facility by comparison group. Two major points are worth noting from Figure 1. First, the weighted mean effect sizes show that overall, the programs displayed positive but weak effects. The weighted mean for all nine facilities using the matched comparison of youth released from DYS shows an average effect of .04, and using the community corrections matched sample produces an average of .07. Second, the results in the figure indicate that there is variation in effect size. Using the community corrections matched sample as a comparison showed that four of the CCFs produced strong positive effects of .18 or greater, whereas three facilities had negative effects (ranging from $r = -.10$ to $-.28$). Using the DYS sample produces effect sizes ranging from .23 to $-.26$, with four positive and five negative effect sizes.

PROGRAM EFFECT SIZE BY RISK OF YOUTH SERVED

The results in Figure 2 provide effect sizes for each program by the risk level of youth that the CCFs serve. Five programs were categorized as serving primarily high-risk youth, and four were not. For programs that served primarily high-risk youth, the weighted group means indicate that CCFs had lower rates of recidivism than both the DYS and community corrections control groups. The mean effect size using the DYS control group was .07, and mean effect size using the community corrections control group was .15. On the other hand, effect sizes for programs that did not serve 75% high-risk youth were .00 and $-.04$, indicating that as a whole, programs that did not target high-risk youth performed poorly. It is worth noting that some programs that were not high risk had positive effects, and some that did target high-risk youth had negative effects. For example, using the community corrections control group showed that two programs that did not primarily target high-risk youth had effect sizes of .10 and .20. Also, using both the DYS and community corrections

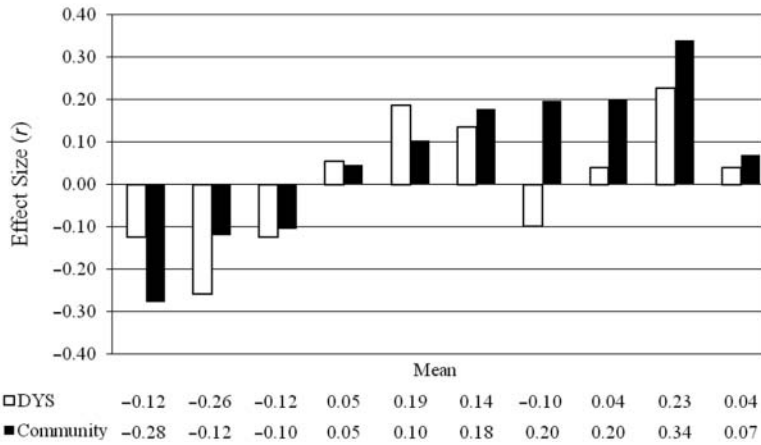


Figure 1: Individual and Weighted Mean Effect Size Estimates for Each Facility by Comparison Group
 Note. Positive effect sizes indicate reductions in recidivism. DYS = Department of Youth Services.

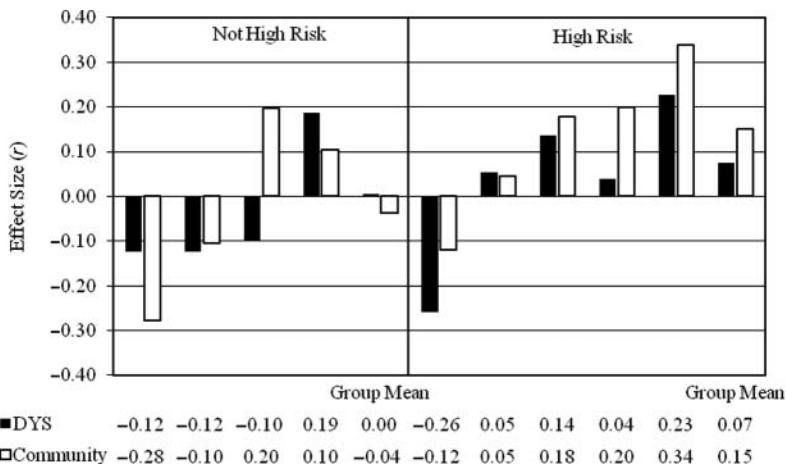


Figure 2: Effect Size Estimates for Each Facility by Risk of Youth Served
 Note. Positive effect sizes indicate reductions in recidivism. DYS = Department of Youth Services.

sample produced substantial and negative effects for one of the programs that targeted primarily high-risk youth ($r = -.10$ and $-.26$, respectively). Still, four of the five programs that targeted high-risk youth had positive effects, and at least two of the four programs that did not had negative effects.

PROGRAM EFFECT SIZE BY TREATMENT SCORE

Figure 3 presents results that display differences in effect size by the CPAI domain of treatment. As Figure 3 indicates, two programs were categorized as unsatisfactory, four as

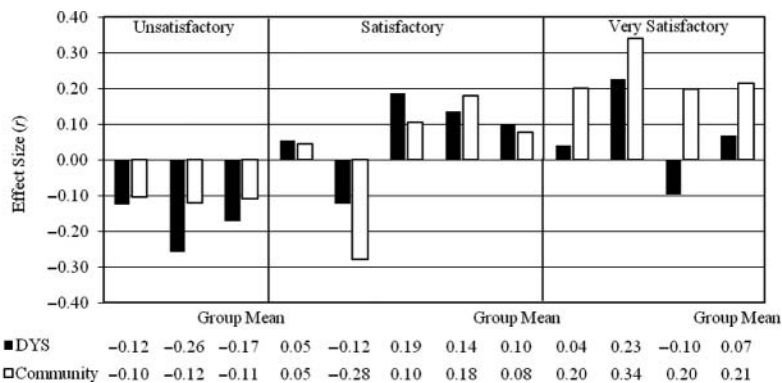


Figure 3: Effect Size Estimates for Each Facility by Treatment Score

Note. Positive effect sizes indicate reductions in recidivism. DYS = Department of Youth Services.

satisfactory, and three as very satisfactory. The weighted mean effect sizes indicate that CCFs that were categorized as unsatisfactory produced negative effect sizes, whereas more favorable effect sizes were found for programs that scored in the satisfactory and very satisfactory ranges. The effect sizes for unsatisfactory facilities were negative and ranged from $-.10$ to $-.26$. Three of the four programs that scored in the satisfactory range produced positive effects (ranging from $.05$ to $.18$), although one program produced substantial negative effect sizes (DYS, $r = -.12$; community corrections, $r = -.28$). The effect sizes of programs that scored very satisfactory were overall positive and particularly strong when using the community corrections sample as a control group (effect sizes range from $.20$ to $.34$), although effect sizes using the DYS sample are less consistent (effects range from $-.10$ to $.23$).

PROGRAM EFFECT SIZE BY STAFF SCORE

Figure 4 presents program effect sizes by CPAI score in the domain that measures the experience, qualifications, and training of staff. Three of the CCFs scored in the unsatisfactory range, four scored in the satisfactory range, and two scored in the very satisfactory range. Examining the weighted mean effect sizes indicates that the mean effects increase with improvements in categorization. That is, programs that had unsatisfactory scores had the lowest average effects, programs that scored satisfactory had higher mean effects, and programs that scored very high had the highest average effects (DYS weighted effect sizes equal $-.12$, $.07$, and $.11$, respectively, and the community corrections weighted mean effect sizes equal $-.09$, $.10$, and $.18$, respectively). Individual effect sizes do indicate some heterogeneity within each category. Although two of the three facilities that scored unsatisfactory had consistently negative effect sizes, using the community corrections sample as a comparison produced a relatively moderate positive effect of $.20$ in one of the programs. Similar findings for individual programs were shown for the satisfactory category. Although three of the four programs produced consistently positive effects, one program in the satisfactory range of the staff domain produced negative effects (DYS, $r = -.12$; community corrections, $r = -.26$). On the other hand, CCFs that scored in the very satisfactory range were consistently positive, with all effect sizes but one ranging from $.14$ to $.20$.

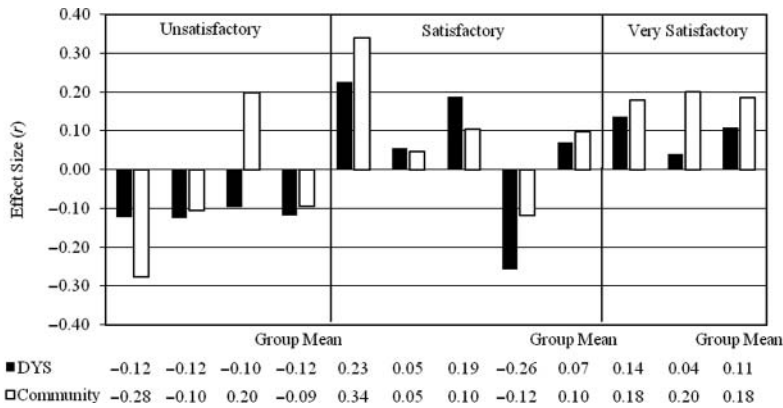


Figure 4: Effect Size Estimates for Each Facility by Staff Score
 Note. Positive effect sizes indicate reductions in recidivism; DYS = Department of Youth Services.

PROGRAM EFFECT SIZE BY TOTAL CPAI SCORE

Figure 5 presents effect sizes by overall CPAI score. Four CCFs were categorized as satisfactory and five as very satisfactory. Generally speaking, programs that were categorized as satisfactory did not perform as well as those that were categorized as very satisfactory. The average weighted effect size for satisfactory facilities was $-.08$ using the DYS matched sample and $-.06$ using the community corrections sample. Conversely, the average effects for very satisfactory programs were $.10$ and $.14$, respectively. Although one satisfactory program did have large positive effects (DYS, $r = .23$; community corrections, $r = .34$), the other three programs produced negative effect sizes ranging from $-.12$ to $-.28$. All but one of effect sizes from programs that scored in the very satisfactory range were positive, ranging from $.05$ to $.20$.

CONCLUSION

Considering the growing rates of juvenile commitments to state correctional institutions, the potential for CCFs to provide local residential placements as an effective diversion from state confinement facilities is appealing. However, this appeal is contingent on the ability of CCFs to modify the antisocial behavior of youth effectively. Furthermore, although prior research has found that local placements in residential treatment can be effective in reducing the recidivism of at-risk youth, the heterogeneity in effects indicates that only certain types of programs are able to achieve this goal (Lipsey, 1999).

The current study supports this notion and adds to the literature on effective juvenile treatment by identifying specific characteristics of effective CCFs in Ohio. The weighted mean effect size for all programs evaluated was modest at best, although the variation in program effect size indicated that there were both effective and ineffective programs. Furthermore, differences in program effect size were found to coincide with the treatment integrity of the correctional programs.

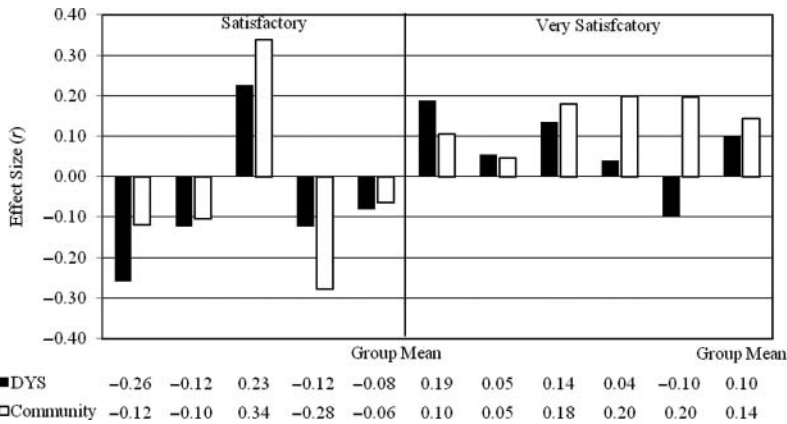


Figure 5: Effect Size Estimates for Each Facility by Overall CPAI Score

Note. CPAI = Correctional Program Assessment Inventory; DYS = Department of Youth Services. Positive effect sizes indicate reductions in recidivism.

Although this study advances the current body of research regarding community-based residential treatment facilities for juveniles, it is not without its limitations. First, although the treatment and control groups were matched on a variety of variables, there are other possible factors that could confound the results presented here. The use of random assignment to either the treatment or control group would provide a more rigorous examination of program effectiveness. Unfortunately, the use of random assignment was not practical, because stakeholders for the current research desired a retrospective outcome evaluation of youth who had already attended the programs. Still, youth were matched on a variety of measures, including a measure of risk, to ensure similarity between the treatment and control groups.

It is also worth noting that the risk instrument that was used was limited to criminal history variables and did not include dynamic risk factors. Although it would be preferable to include dynamic risk factors in the creation of the risk scale, information for dynamic risk factors was not consistently available in the case files of the youth included in this study. Although the risk scale has acceptable *r* values with recidivism, the inability to use dynamic risk factors when matching treatment and control youth should also be taken into account when interpreting the results.

Another limitation to this study involves the introduction of measurement error with the administration of the CPAI. During the administration of the CPAI, different teams of individuals conducted each of the assessments. Still, efforts were made to ensure the reliability of the CPAI assessments. Assessments were conducted by evaluation teams and scored on the basis of observations from multiple evaluators. Furthermore, all individuals who were on evaluation teams were certified in the administration of the CPAI. Still, this limitation should be kept in mind when interpreting the results of this study.

The final limitation of this study is that it evaluated only juvenile CCFs in Ohio. Although the evidence presented shows that juvenile programs with high treatment integrity were effective in Ohio, caution should be taken when attempting to generalize these findings to juvenile correctional programs outside of Ohio. Furthermore, although this evaluation of

nine community correctional facilities greatly increases the total number of juvenile CCFs evaluated, it still leaves the number of published evaluations of these programs at only a handful. As a result, future research should seek to increase the number of juvenile CCFs that have been evaluated, especially those in areas outside of the state of Ohio.

Taking these limitations into account, the current research is consistent with recent research on adult community correctional interventions (Lowenkamp, Latessa, et al., 2006) and suggests that the treatment integrity of juvenile correctional programming is a potentially important factor in the effective reduction of antisocial behavior. Specifically, this research finds that CCFs were more effective when they (a) targeted high-risk youth, (b) used cognitive or behavioral programming to change dynamic risk factors, and (c) employed trained and qualified staff, as defined in the CPAI.

These findings are consistent with prior research and have important implications for understanding the effectiveness of juvenile correctional programs. Finding that programs that target high-risk youth are more effective than those that do not adds to a growing body of research supporting the risk principle (Andrews et al., 1990; Lowenkamp & Latessa, 2004; Lowenkamp, Pealer, Smith, & Latessa, 2006). Taken together, this body of research indicates that treatment resources should be allocated to those youth who pose the greatest threat to the community and that programs that do not target high-risk youth may actually make things worse. This is likely because correctional interventions that target low-risk youth can serve to disrupt prosocial networks and expose the youth to antisocial peers (for a discussion, see Lowenkamp & Latessa, 2004). As a result, this research not only indicates that treatment programs *can* work at reducing serious antisocial behavior, but it also suggests that they work best when serious antisocial youth are targeted.

This research also suggests that staff characteristics are an important factor in the effectiveness of juvenile programs. Although both Aos (1997) and Barnoski (2004) found that programs with competent therapists were more effective than were those without competent therapists this research goes farther, suggesting that key staff-related characteristics are having qualified, experienced staff as well as providing ongoing training and review of treatment personnel. This finding suggests that if correctional programs desire high-quality treatment that is effective, then they should invest in high-quality staff.

Finally, this research underscores the importance of measuring program characteristics and treatment integrity when conducting evaluations of correctional interventions. Although outcome evaluations may speak to the ability of correctional programs to reduce recidivism, they fail to inform policy makers as to why the program was or was not effective. In contrast, process evaluations that examine program characteristics provide valuable insight because they offer policy makers specific ways to either maintain or improve program effectiveness. Thus, measuring the treatment integrity of correctional programming provides an avenue that can lead to more effective, evidenced-based correctional services.

NOTES

1. It is worth noting that different teams of individuals conducted each of the assessments. Nevertheless, efforts were made to ensure reliability in the administration of the Correctional Program Assessment Inventory (CPAI). Assessments were conducted by evaluation teams and were scored on the basis of observations from multiple evaluators. Furthermore, all individuals who were on evaluation teams were certified in the administration of the CPAI.

2. Although an attempt was made to match all youth on county of supervision, this was not possible. To increase the number of youth in the treatment group with a matched case in the comparison group, after first attempting to match on

county of supervision, we then matched on county population size. This ensured that youth released to and supervised in larger urban counties were compared to youth in similar counties, whereas those youth in small, rural counties were compared to youth from a county similar in size. The county population categories used for matching were (a) 0 to 49,000, (b) 50,000 to 99,000, (c) 100,000 to 224,000, and (d) 225,000 to 399,000.

3. For a more detailed description of the creation of the risk scale, see Lowenkamp and Latessa (2005). In the larger project, the risk scale was validated on a larger sample of Ohio youthful offenders (which included the samples used in the current research) and was found to have correlations with recidivism ranging from .22 to .34.

4. It is worth noting that the risk scale is limited to criminal history variables and does not include dynamic risk factors. Although it would be preferable to include dynamic risk factors in the creation of the risk scale, information dynamic risk factors were not consistently available in the case files of the cases included in this study.

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