



Intensive supervision programs: Does program philosophy and the principles of effective intervention matter? ☆

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A B S T R A C T

Although traditional intensive supervision programs that have aimed at increasing control and surveillance in the community have not been shown to reduce recidivism, prior research indicates that intensive supervision programs that are based on a human service philosophy and provide treatment to offenders offer more promise. The current research examined the effectiveness of fifty-eight intensive supervision programs and sought to determine whether program philosophy and treatment integrity are associated with reductions in recidivism. The results indicated that both program philosophy and treatment integrity vary independently of one another and are related to the ability of programs to produce meaningful effects on recidivism.

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Introduction

Intensive supervision programs (ISPs) surfaced as an intermediate sanction in the 1980s in response to growing correctional populations (Petersilia, 1998). Originally based on a deterrence perspective, these programs sought to provide an alternative to prison while maintaining a high degree of control and surveillance in the community (Fulton, Latessa, Stichman, & Travis, 1997). While the popularity of ISPs has continued to grow, evaluations have shown that many traditional ISPs have failed to be effective at reducing recidivism (Drake, Aos, & Miller, 2009; Fulton, Latessa, Stichman, & Travis, 1997; Petersilia, 1998; Sherman, Gottfredson, MacKenzie, Eck, Reuter, & Bushway, 1997). Still, there is emerging research that indicates that not all ISPs are ineffective. In fact, a recent cost benefit analysis by Drake et al. (2009) indicated that ISPs that focus on providing intensive treatment services are effective at reducing recidivism. These findings suggested that although programs that focus on deterrence may be ineffective, programs that have a human service philosophy or that adhere to the principles of effective intervention are more promising. The current study tested these hypotheses by examining whether program philosophy (deterrence versus human service) and treatment integ-

ity (adherence to the principles of effective intervention) matter in reducing the recidivism of offenders in ISPs.

Background of intensive supervision programs

The U.S. adult correctional population is currently at an all time high with more than seven million offenders under some form of correctional control (Glaze & Bonczar, 2008). More than five million of these are probationers, over half of whom were convicted of a felony and are serving a sentence of community supervision in lieu of incarceration (Glaze & Bonczar, 2008). The current correctional climate is one marked by a prison population that continues to exceed capacity and a community corrections population in its third decade of uninterrupted growth (Harrison & Beck, 2006). One of the by-products is an unyielding demand for correctional alternatives that promise to alleviate both prison crowding and the threat to public safety posed by serious offenders.

The demise of rehabilitation as a viable correctional goal began in the mid-1970s (Cullen & Gilbert, 1982). As a result, the development of intermediate sanctions in the 1980s veered away from treatment and sought to increase control and surveillance in the community while being less costly than prison (Petersilia, 1998). Intermediate sanctions, which consist of house arrest, electronic monitoring, boot camps, day reporting centers, intensive supervision probation or parole, community service, fines, and curfews, offer community based punishments rooted in deterrence, incapacitation, and retribution (Tonry, 1990). Since intermediate sanctions are packaged in the

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rhetoric of several correctional philosophies and pursue multiple correctional goals, they offer broad appeal and garner extensive support (Parent, Dunworth, McDonald, & Rhoades, 1997).

The most common form of intermediate sanctions are ISPs and although there is considerable variation in program composition across jurisdictions, the most common goals of ISPs include reduced prison crowding, cost savings, the provision of intermediate sanctions, and reduced recidivism (Clear & Hardyman, 1990; Parent et al., 1997; Tonry, 1990). The development of ISPs as a correctional strategy dates back more than four decades, initially applying the concept of intensive supervision as an instrument of rehabilitation (Fulton et al., 1997). They were later used as a response to overflowing correctional budgets and dramatically increasing prison populations, and later still as a means of achieving deterrence, incapacitation, and retribution through the use of punishment, surveillance, and control (Fulton et al., 1997).

The effectiveness of intensive supervision programs

Critics of ISPs suggest that in contrast to policy deduced from sound theoretical principles, subjected to empirical evaluation, and inductively refined thereafter, ISPs appear to be the by-product of a justice system that is preoccupied with increasing the scale of punishments meted out to offenders and apathetic to the subsequent allocation of necessary resources (Clear & Hardyman, 1990). The ability of ISPs to achieve one or more of its many stated goals has been the topic of numerous studies that amount to a sizeable body of literature about the viability of ISPs. Petersilia (1998) suggests that ISPs do not reduce prison crowding. Rather than targeting true prison bound offenders, ISPs appear to increase the control and surveillance of those that would have otherwise received traditional probation (Petersilia, 1998). Further, the failure of ISPs to reduce prison crowding is also a product of the emphasis placed on detecting violations and subsequently revoking community supervision (Gendreau, Goggin, & Fulton, 2000; Tonry, 1990; Turner & Petersilia, 1992).

The high revocation rate associated with ISPs has led many to question whether ISPs can achieve their desired goal of cost effectiveness (Tonry, 1990). Although evidence provided in existing cost benefit evaluations provided mixed support (Drake et al., 2009; Erwin & Bennet, 1987; Petersilia & Turner, 1993), the costs associated with net widening, technical violations, and new arrests are often overlooked (Clear & Hardyman, 1990; Tonry, 1990). That said, the general consensus regarding cost effectiveness is that ISPs are more expensive than originally thought (Petersilia & Turner, 1993), and that claims of savings are most likely speaking to symbolic costs avoided rather than actual dollars saved (Clear & Hardyman, 1990).

An additional purpose of ISPs is to achieve the retributive goal of scaling punishment severity to offense seriousness by expanding the continuum of available sanctions beyond that found in the traditional probation-incarceration dichotomy (Tonry & Will, 1988). Increased face to face contacts between officer and offender, likely paired with some additional combination of drug testing, home confinement, electronic monitoring, and/or employment verification, means that ISPs are well suited to provide more intensive, demanding, and severe sanctions than traditional probation. Empirically, support is implied in research finding that ISPs accomplish their intermediate goals of increasing offender monitoring, providing more strict and immediate approaches for dealing with violations, and facilitating greater sentencing flexibility (Petersilia & Turner, 1993; Turner & Petersilia, 1992).

While scholars and corrections professionals generally agree that ISPs expand available sanctioning options and facilitate the scaling of punishment severity to offense seriousness, additional retributive support for ISPs is found in studies investigating offender perceptions regarding the punitiveness of ISPs. In one of the most comprehensive research efforts exploring offenders' perceptions of intermediate

sanctions, survey results indicated that more than 70 percent of offenders rated ISPs as more punitive than a short term of incarceration (Spelman, 1995). Similarly, research conducted by Petersilia and Deschenes (1994) found a one year term of incarceration to be viewed as less severe than a five year term of ISPs by offenders. In sum, the existing evidence supports the ability of ISPs to provide increased sentencing options to judges and to retributively scale punishment severity to offense seriousness.

Crowding relief, cost savings, and sentencing options aside, the principal goal of any correctional practice is public safety and reduced recidivism. Petersilia and Turner's (1993) national study of ISPs is one of the most comprehensive empirical studies that has evaluated the effectiveness of ISPs. It involved the random assignment of more than 2,000 offenders to either ISPs or routine probation across fourteen supervision programs located in nine different states (Petersilia & Turner, 1993). Since the study's experimental design called for the random assignment of offenders to either ISPs or routine probation, any preexisting differences between offenders were distributed evenly across each condition of supervision. As a result the observed differences in arrest were attributable only to variation in the conditions of supervision. The study results revealed no significant differences in arrest rates between ISPs and routine probationers across the 14 study sites (Petersilia & Turner, 1993). Of interest, the examination of technical violations revealed that offenders assigned to the ISPs experienced violations 27 percent more often than offenders on traditional probation (Petersilia & Turner, 1993). Petersilia and Turner (1993) argued that this latter finding should not to be interpreted as evidence of a crime control effect because empirical evidence has found technical violations to be unrelated to subsequent arrest.

Gendreau, Goggin, Cullen, and Andrews (2000) pooled findings from forty-seven unique program evaluations in order to conduct a meta-analytic review of the effects of ISPs on recidivism. The pooled sample size of over 20,000 offenders produced results that were consistent with those of Petersilia and Turner (1993). That is, their results suggested that at best, ISPs had no effect on recidivism and, at worst, ISPs actually resulted in a 6 percent increase in recidivism when compared to routine probation.

More recently, Drake et al. (2009) at the Washington State Institute for Public Policy conducted a cost benefit analysis that examined the effectiveness of twenty-three adult ISP programs that were surveillance oriented. They noted that on average, evaluations of traditional ISPs have found that they had no appreciable effect on recidivism. Further, juvenile ISPs failed to have an appreciable effect on recidivism, a finding consistent with Lipsey's (2009) examination of young offender programs that embrace the philosophies of discipline, deterrence, and surveillance.

Combined, the available research provides evidence that ISPs that are premised on control, surveillance, and the threat of punishment fail to address the factors associated with recidivism. Further, evaluations suggested that traditional ISPs have at best, a limited effect on prison crowding (Petersilia, 1998), are unlikely to realize meaningful cost savings (Drake et al., 2009), and fail to reduce recidivism (Drake et al., 2009; Gendreau, Goggin, Cullen, et al., 2000; Lipsey, 2009; Petersilia & Turner, 1993). Moreover, these results are also consistent with conclusions reached in additional literature reviews of ISPs (Cullen, Wright, & Applegate, 1996; MacKenzie, 2000; Sherman et al., 1997) and with literature rebuking deterrence based correctional sanctions in general (Latessa, Cullen, & Gendreau, 2002; Lynch, 1999).

Improving the effectiveness in intensive supervision programs

Although most research found that traditional ISPs are not effective at reducing recidivism, it would be premature to dismiss ISPs as an ineffective correctional policy. Ironically, the very same body

of literature that found traditional ISPs are not effective has also identified some specific types of ISPs that do work. For example, Gendreau, Goggin, Cullen, et al. (2000) found that a comparison between ISPs that included a treatment component to ISPs that were based exclusively on surveillance showed that treatment programs on average reduced recidivism 10 percent. Similarly, Petersilia and Turner's (1993) evaluation of ISPs also found a 10 to 20 percent reduction in recidivism for ISP offenders in a small number of programs that provided a higher level of treatment services.

Most recently, Drake et al.'s (2009) analyses of the effectiveness of correctional programs found that although twenty-three of the traditional surveillance oriented ISPs were not effective in reducing recidivism, ISPs that were not surveillance oriented were more effective. Specifically, eleven other ISPs that were categorized as being treatment oriented produced an average reduction in recidivism of 17 percent. Further, this reduction in recidivism equated to a cost reduction of almost \$20,000 per offender.

In a separate review of the literature, Fulton et al. (1997) concluded "it may be that *what* is done with ISPs offenders is more important than *how much* is done with them (p. 68)." Fortunately, a well established body of research existed that indicated precisely what distinguishes effective programs from ineffective programs. Referred to as the Canadians' theory of rehabilitation (see Cullen, 2002; Lowenkamp, Latessa, & Smith, 2006; Petersilia, 2004), the principles of effective intervention identify appropriate correctional programs as those that: (1) provide human service rather than sanctions, (2) adhere to the risk principle by treating only moderate and high risk offenders, (3) adhere to the need principle by focusing treatment efforts on dynamic risk factors related to criminality, and (4) adhere to general responsivity by utilizing social learning and cognitive behavioral based interventions (Andrews, 2001; Andrews et al., 1990; Gendreau, 1996). The conclusions from Fulton et al. (1997) paired with the principles of effective intervention suggest that community supervision programs may be more effective if policy makers call for "abandoning ISPs that seek only to control and punish offenders in favor of programs that give equal primacy to changing offenders (Gendreau, Cullen, & Bonta, 1994:3)." Indeed, the inclusion of appropriate treatment into ISPs appears as though it would result in a correctional strategy well supported in public, political, and professional contexts as well as in empirical research.

Currently, published evaluations of programs that combine intensive supervision and rehabilitative treatment are few. Preliminary support for the effectiveness of ISPs combined with rehabilitative treatment is found in Petersilia and Turner's (1993) results that revealed recidivism reductions for those receiving higher levels of treatment, and in the initial evaluation of New Jersey's ISPs program, wherein reductions in recidivism were found for higher risk parolees (Pearson, 1988). More recent evidence is provided in Bonta, Wallace-Capretta, and Rooney's (2000) evaluation of an intensive electronic monitoring program that also required participation in cognitive behavioral treatment. Their research employed a quasi-experimental design comparing three groups of offenders: (a) those under intensive electronic monitoring receiving treatment, (b) those under routine probation receiving treatment, and (c) those released from prison receiving no treatment. While initial results revealed no significant difference in recidivism rates across levels of offender supervision, additional analyses discovered an interaction between offender risk level and program effectiveness. Specifically, intensive treatment provision resulted in lower recidivism rates for high risk offenders and increased recidivism rates for low risk offenders. The findings from these studies support the efficacy of rehabilitative treatment delivered in the context of intensive supervision, as well as support the risk principle of effective intervention.

The results suggest that effectiveness of ISPs may depend on the capacity of correctional programs to provide programming that adheres to the principles of human service, risk, need, and general

responsivity. Although a considerable body of research supports the effectiveness of appropriate correctional treatment (see Dowden & Andrews, 2000; Lipsey, 1992; Lowenkamp et al., 2006), evidence examining the generalizability of these principles to ISPs contexts is noticeably absent. Additionally, recent empirical works have found a number of previously unidentified programmatic issues to be potentially relevant for the provision of effective services, particularly that of program philosophy (Fulton et al., 1997) and program integrity (Andrews & Dowden, 2005).

Program Philosophy

The importance of program philosophy in achieving successful outcomes has been demonstrated in Pappozzi and Gendreau's (2005) research that compared the recidivism of offenders on intensive supervision parole to that of offenders on traditional parole across twelve district offices. One of the study's key findings was that variation in organizational supportiveness (which measured parole officers' commitment to the program) resulted in a 17 percent lower arrest rate for offices most supportive of ISPs functions. Additionally, Clear and Latessa (1993) studied the relationship between probation officer role attitude and role performance. Their results suggest that organizational philosophy was an important determinant of both officer attitudes and behaviors. Taken together, these studies demonstrate the impact that an agency's program philosophy may have on treatment effects. Although empirical evidence capable of specifying the relationship between program philosophy and effectiveness does not yet exist, it can be inductively reasoned that program philosophy may impact program effectiveness through its relationship with officer attitudes and behavior.

Program Integrity

Program integrity reflects the extent to which services that are provided in practice compare to the originally specified theory and design (Holsinger, 1999). Although the importance of program integrity seems intuitive, empirical evaluations in this regard are notably absent. Andrews and Dowden (2005) conducted research that sought to examine the impact of program integrity on the ability of programs to reduce recidivism. This was done by coding the presence of ten individual indicators of program integrity from the results of 273 evaluations of program effectiveness. Their results suggest that their measure of program integrity was able to significantly and independently explain variation in treatment effectiveness.

Lowenkamp, Latessa, & Smith (2006) compared the recidivism 3,237 offenders placed on post-release supervision in community based residential programs to a matched sample of 3,237 offenders who were also on post release supervision but were not placed in a residential program. Data on program integrity was collected for each of the thirty-eight residential programs in the study in order to examine the relationship between program integrity and treatment effectiveness. Their results indicate that offenders that attended residential programs that scored higher on measures of program integrity were less likely to recidivate. The relevance of these findings to correctional practice suggests that correctional programs that ensure high treatment integrity are more likely to have an impact on the recidivism of their clientele. Further, their results provide correctional agencies with tools that can be used to both evaluate the integrity of their treatment services and to guide how to improve the likelihood program effectiveness.

Research focus

Research regarding the effectiveness of ISPs had identified two programmatic issues that could potentially be relevant to reducing

recidivism: program philosophy and treatment integrity. As a result, the following research questions were investigated:

- (1) When examining the effects of ISPs on recidivism, are programs that have a human service philosophy more effective than those whose philosophy focuses on deterrence?
- (2) When examining the effects of ISPs on recidivism, does the treatment integrity of the program predict effectiveness?

Methodology

The research questions above indicate that the major goal of this research was to examine whether ISPs are more effective based on program philosophy and treatment integrity. To do so, measures of program effectiveness, philosophy and treatment integrity were gathered from fifty-eight ISPs. After outcome (recidivism) data was obtained for each of the programs, meta-analytic techniques were used to compare differences in program effectiveness by program characteristics. These measures were gathered as part of a grant to examine the effectiveness of a variety of types of community corrections programs in a Midwestern state (for the full report see Lowenkamp & Latessa, 2005). The following sections describe how each measure was gathered.

Program effectiveness: Effects on recidivism

Program effectiveness was measured at the program level, using separate outcome evaluations of each of the fifty-eight intensive supervision prison and jail diversion programs. Quasi-experimental designs were used that matched treatment and control groups on a variety of factors. To conduct all fifty-eight evaluations, a total sample of 11,020 offenders was gathered, 5,510 who attended one of the ISPs and a matched control group of 5,510 offenders who received an alternative criminal sanction. In order to ensure similarity between the treatment and control groups, controls were matched on gender, county of supervision, risk, and type of sentence. Offender characteristics and outcomes were collected from two automated data bases utilized by the state's Department of Corrections, as well as the Bureau of Criminal Offender Investigation and Identification.

Individual level measures of participants were gathered to match treatment and comparison cases and include race (White/non-White), gender, age (in years), marital status (married, never married, divorced, or widowed), and several criminal history variables. The criminal history measures included prior arrests, prior incarcerations, any prior felony (yes/no), type of current offense (personal, sex, drug, property, or other), degree of felony (first degree, second degree, and so on), and whether the offender had any prior community control violations. The offender's available criminogenic needs were also collected. These measures included employment status at arrest (yes/no), education level completed (actual numeric grade as well as completion of high school), history of alcohol abuse (yes/no), history of drug abuse (yes/no), and history of mental health problems (yes/no).

To match on risk level, several of these individual measures were combined into a risk index for all offenders. The risk index included the following factors: arrest history, felony arrest history, incarceration history, violent offense history, sex offense history, drug problems, alcohol problems, employment status at arrest, age, marital status, current offense type, current offense level, and history of (or current) community supervision violations. All measures were scored dichotomously except two, prior arrests, and prior incarcerations. For each of these measures, no incidents = 0, one or two incidents = 1, and three or more incidents = 2. Once combined, all thirteen measures had a range of zero to fifteen, with a mean of 7.4. The original research project from which these data were drawn showed the risk assessment to be a valid predictor of recidivism for this group of offenders (Lowenkamp & Latessa, 2005). That is, the correlations

between the risk score and any incarceration and any arrest were .35 and .31 respectively (Lowenkamp & Latessa, 2005).

Offenders were also matched on type of sentence. Since the treatment groups included both prison and jail diversion cases, controls were matched appropriately in order to provide similar offenders. Thus, the prison diversion cases were compared to two different matched groups – a matched sample of parolees and regular supervision probation cases. On the other hand, the jail diversion cases were compared to a matched sample of either jail releases or regular municipal probation cases.

Finally, the outcome evaluations used recidivism as a measure of program effectiveness. Important to note, program effectiveness is an aggregate, program level variable and represents the difference in recidivism between the treatment and control group for each program. For the purposes of this study, recidivism was defined as any arrest for the jail diversion cases and any incarceration for the prison diversion cases. Program effectiveness is thus determined by comparing differences in recidivism between the treatment and control groups for each program. From this information, meta-analytic techniques were used to calculate the effect size r , which represents the relationship between group membership (treatment versus comparison) and the outcome measure for each program (see Rosenthal, 1991). This measure was used as an indicator of the effectiveness of each program at reducing recidivism. Since the number of offenders served by each program differed from site to site, the effect size was weighted by sample size in order to give greater weight to programs with larger samples (Rosenthal, 1991). Fig. 1 presents the distribution of program effect sizes. The figure indicates that the distribution of cases is approximately normal, with the majority of cases falling near the center of the distribution.

Program Philosophy and Treatment Integrity

The measures of program philosophy and treatment integrity are also program level characteristics and were gathered by aggregating responses from surveys of staff who worked at each program. The surveys were constructed based on the Correctional Program Assessment Inventory (CPAI) (Gendreau & Andrews, 1994), but employed different scoring criteria, some additional factors, and a different method of administration. Generally speaking, the surveys asked staff to share their assessment of several aspects of the programs in an attempt to determine how closely the program met the principles of effective intervention.

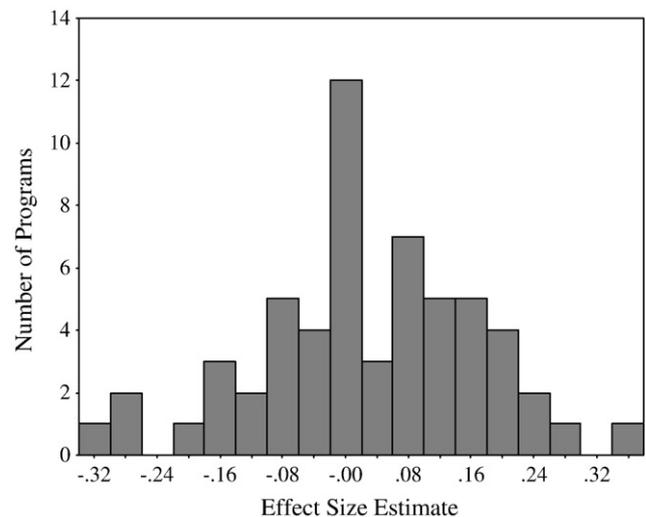


Fig. 1. Distribution of Effect Size Estimates.

Table 1 provides a description of the items included in the measures of program philosophy and treatment integrity. Program philosophy was measured by the extent to which staff believed the program ascribed to either a human service or deterrence philosophy. The surveys of staff provided several measures that differentiated between staff who believed the program operated under a human service model as opposed to a deterrence based model. Deterrence based programs were those programs where at least fifty percent of the staff indicated deterrence or surveillance was the driving philosophy. Human service programs were those which staff indicated that some sort of treatment philosophy was the primary philosophy (such as client centered, cognitive behavioral, therapeutic community, or family systems).

Treatment integrity was measured using questions on the staff survey regarding the principles of effective intervention. That is, the surveys asked staff to share their assessment of several aspects of the programs they worked in an attempt to determine how closely the program met effective intervention practices. For the current research, a total of fifteen items were used to measure treatment integrity. Eleven of these items were taken from the staff survey and four from the program evaluations.

Procedures

First, comparisons in the effectiveness of programs were conducted between programs that were human service oriented and deterrence oriented. Specifically, comparisons were made regarding the average effect size (r) for programs from each type of program philosophy. Second, comparisons of effectiveness were made between programs based on their treatment integrity and extent to which each adhered to principles of effective intervention. The data was further disaggregated in order to examine how the mean effect size varied across program philosophy and treatment integrity simultaneously.

Finally, weighted least squares regression was used in order to examine the amount of variation in the effect size estimates that treatment integrity and program philosophy were able to explain. Since differences in the numbers of participants from each outcome evaluation were likely to produce biased least squares estimates, weighted least squares was necessary to give greater weight to programs with larger sample sizes. Thus, weighted least squares adjusts for differences in sample size and ensures that the appropriate contribution of each observation was used to obtain the final parameter estimates.

Table 1
Factors in the program philosophy and treatment integrity measures

Program philosophy	Description
Deterrence	At least 50 percent of the staff reported that the treatment model was based on deterrence
Human service	At least 50 percent of the staff reported that the program philosophy was any of the following: Eclectic, self help, cognitive, art therapy, cognitive behavioral, disease or medical, cultural appreciation, therapeutic community, client centered, Freudian, biblio-therapy, family systems, education, no model, other.
Treatment integrity measure	Description
Staff values or skill	On average, at least one skill or relevant value looked for when hiring
Pre/post-test offenders	Sixty-six percent of staff stated pre/post testing was used
Exclusionary criteria	On average staff reported the existence of two or more criteria
Exclusions followed	On average staff rated adherence to exclusionary criteria as a 3+ out of 4
# Groups available	At least five groups targeting criminogenic needs were available in house or in the community
Separate groups by risk	Sixty-six percent of staff reported offenders were assigned to groups based on risk level
Hours of treatment per week	Average of twenty or more hours in treatment each week
Length of program	Staff on average reported range of program lasted three to nine months
Manual	Sixty-six percent of staff stated that there was a treatment manual to guide activities
Manual followed	On average staff rated adherence to manual as a 3+ out of 4
Quality of aftercare	On average, staff rated the quality of aftercare as a 3+ out of 4
Risk principle supervision ¹	On average, higher risk offenders were in program for longer than lower risk
Risk principle treatment ¹	On average, higher risk offender received 0.5+ more referrals than lower risk
Higher risk sample ¹	Seventy-five percent or more of the sample was higher-risk (moderate and high)
Treatment referrals ¹	At least 75 percent of the referrals were treatment oriented

¹Items were created using information from the outcome evaluations.

Table 2
Descriptive statistics for the program effect size (r): Overall and by program philosophy

	N	Mean ¹	95% CI
All	58	0.01	-0.01 – 0.03
Human Service	42	0.06	0.03 – 0.08
Deterrence	16	-0.11	-0.15 – -0.08

¹Q (1, N = 58) = 62.50, $p = .00$.

Results

Table 2 presents the results that compare mean effect sizes by program philosophy. All fifty-eight programs together had a mean effect size of .01, with the 95 percent confidence intervals including zero (-.01 to .03). This indicates that taken as a whole, the programs did not have an appreciable effect on recidivism. Human service oriented programs however had a mean effect size of .06 (95 percent C.I. = .03 to .08). While a mean effect size of .06 is not necessarily indicative of a large impact on recidivism, the effect size was statistically significant. Deterrence oriented programs had a negative mean effective size (-.11). This effect size was also statistically significant (95 percent C.I. = -.15 to -.08), implying that deterrence oriented programs on average increased the likelihood that recidivism would occur.

Table 3 presents descriptive statistics of the treatment integrity measure for all programs, as well as for human service oriented and deterrence oriented programs separately. The statistics in this table display the 'percentage score,' or the extent to which the programs adhere to the fifteen treatment integrity items contained in Table 1. Overall, the fifty-eight programs possessed 25.88 percent of the treatment integrity characteristics (SD = 14.50). Human-service programs were rated as having 24.61 percent of the treatment integrity characteristics (SD = 14.77 percent), while deterrence oriented programs had 26.37 percent of the treatment integrity items (SD = 14.16). A t-test for independent samples revealed no statistical difference between the two program groupings ($t = -.41$; $p = .684$). In short, despite the differences in terms of program philosophy (human service vs. deterrence), there did not appear to be any differences in the scores of the treatment integrity measures by type of philosophy.

Table 4 presents the distribution of programs by both their philosophy and treatment integrity score. Chi-square analysis revealed

Table 3
Descriptive statistics for the treatment integrity measure: Overall and by program philosophy

	Mean ^{1,2}	SD	Min	Max
All	25.88	14.50	0.00	62.50
Human Service	24.61	14.77	0.00	62.50
Deterrence	26.37	14.16	0.00	50.00

¹Numbers reported represent percentage score on 15 items listed in Table 1.

²t (56) = -0.41, p = .684.

Table 4
Distribution of treatment integrity categorizations: Overall and by program philosophy

Treatment Adherence Rating Category ¹	0-19		20-39		40+	
	N	percent	N	percent	N	percent
All	21	36	27	47	10	17
Human Service	15	36	20	48	7	17
Deterrence	6	38	7	44	3	19

¹ χ^2 (2, N = 58) = .08, p = .962.

that the number of programs that fell into the categories of treatment integrity (categorized as 0 to 19 percent of the 15 items, 20 to 39 percent of the 15 items, and 40+ percent of the fifteen items) are statistically similar by program philosophy ($\chi^2 = .08$; p = .962). This finding supports the conclusion above, that there were not differences between human service oriented programs and deterrence oriented programs regarding the extent to which they were rated to possess measures of treatment integrity.

As Table 4 indicates there was a small number of deterrence oriented programs (N = 17) relative the number of human service programs (N = 41). The smaller number of deterrence programs becomes a limitation when the programs are disaggregated by program integrity because of the limited number of deterrence programs that fall into each category, especially the category of high treatment integrity (N = 3). Although it would be preferable to have a larger number of programs that were deterrence oriented and of high program integrity, the quasi-experimental nature of the design limited the ability to assign equal numbers of programs into each category. It is important to keep this limitation in mind when interpreting the results because a low number of these types of programs speaks to the generalizability of the findings and could cause the mean effect size estimate to be sensitive to differences in effect size between programs in this category.

The statistics in Table 5 examine the interaction between treatment integrity and program philosophy. Mean effect sizes are presented for each category of treatment integrity and program philosophy. Several significant findings were revealed regarding the mean effect size for the varying combinations of program philosophy and treatment integrity. A significant and negative mean effect size (ES = -.09; 95 percent C.I. = -.12 to -.05) is displayed for all programs with a low treatment integrity score (0-19 percent). This indicates that overall, programs that scored low in treatment integrity produced offenders

who were more likely to recidivate than their matched pair. If the treatment integrity score was low (0-19 percent), and the program had a human service orientation, the mean effect size was positive (.01), however, the 95 percent confidence intervals did include zero (95 percent C.I. = -.05 to .06). If treatment adherence was low (0-19 percent) and the program had a deterrence orientation, the mean effect size returned to being significant and negative (ES = -.16; 95 percent C.I. = -.21 to -.11). This suggests that although programs with low treatment integrity actually increased recidivism, program philosophy mitigated this deficiency. That is, when programs that had low treatment integrity adhered to a human service philosophy, they were at least able to avoid increasing recidivism.

When treatment integrity was high (40+ percent), a significant positive effect size was obtained for all programs (ES = .14; 95 percent C.I. = .09 to .20). When human service oriented programs were isolated the mean effect size increased and remained significant (ES = .17; 95 percent C.I. = .12 to .23). Regardless of high treatment integrity however, deterrence oriented programs had a negative mean effect size (-.06), that was non-significant (95 percent C.I. = -.22 to .09). These findings suggest that the combination of human service orientation and adherence to the principles of effective intervention significantly increased the beneficial effects of correctional treatment programming.

Fig. 2 provides a visual representation of the statistics displayed in Table 5. Each mean effect size represented a different combination of treatment integrity and program philosophy. The figure is revealing in that it indicates that the mean effect sizes fell into line with the suggestions from prior research. That is, the lowest three effect sizes were all categorized as deterrence oriented, and within deterrence oriented programs incremental increases were observed as treatment integrity increased. The three highest mean effect sizes were all categorized as human service oriented and incremental increases were also observed with increases in treatment integrity. It is worth noting that only programs that were categorized as human service and having moderate to high treatment integrity were found to have produced significant reductions in recidivism.

Finally, Table 6 presents the results from a weighted least squares regression model that used treatment integrity and program philosophy (human service orientation = 1) to predict the effect size. The model itself was statistically significant (F = 24.80; p < .05), as were both the predictors in the model. In addition, the adjusted R² value for the model was .46, indicating that 46 percent of the variation in program effect size estimates was explained by the model. The standardized beta coefficient for treatment integrity was .39 while controlling for program philosophy. This supports the notion that adherence to the principles of effective intervention has a beneficial effect on program effectiveness in reducing recidivism. Similarly, the standardized coefficient for program philosophy was .44, suggesting that programs that adhered to a human service orientation were also more likely to reduce recidivism. The results in Table 6 suggest that program philosophy and treatment integrity both varied independently of each other and that both were able to explain a significant portion of the variation in program effect size.

Table 5
Average effect size by program philosophy and treatment integrity

Treatment Rating	All Programs			Human Service			Deterrence		
	N	ES	95% CI	N	ES	95% CI	N	ES	95% CI
0-19 percent	21	-0.09	-0.12 – -0.05	15	0.01	-0.05 – 0.06	6	-0.16	-0.21 – -0.11
20-39 percent	27	0.03	0.00 – 0.05	20	0.04	0.02 – 0.07	7	-0.05	-0.10 – 0.01
40+ percent	10	0.14	0.09 – 0.20	7	0.17	0.12 – 0.23	3	-0.06	-0.22 – 0.09
Correlation ¹	58	0.56	0.35 – 0.71	42	0.34	0.31 – 0.74	16	0.71	0.33 – 0.89

¹Correlation between treatment adherence score category and effect size.

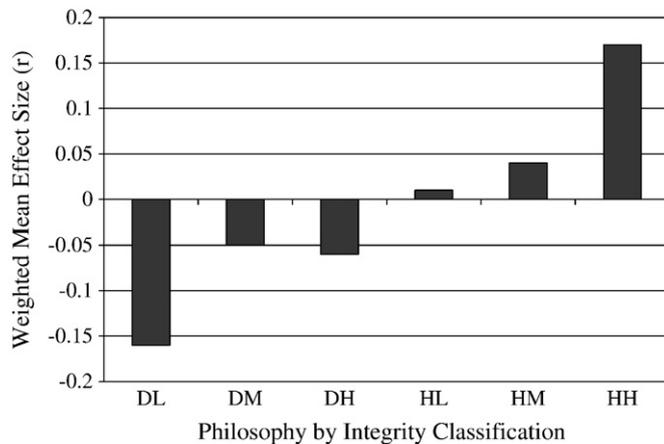


Fig. 2. Distribution of effect sizes by both program philosophy and treatment integrity. Classification: DL = deterrence philosophy, low integrity; DM = deterrence philosophy, moderate integrity; DH = deterrence philosophy high integrity; HL = human service philosophy, low integrity; HM = human service philosophy, moderate integrity; HH = human service philosophy, high integrity.

Discussion

The results from this research suggest that ISPs can be effective at reducing recidivism if they meet certain criteria. Specifically, this research found that when ISPs were categorized as abiding by the principles of effective intervention and operated using a human service philosophy, they were more effective at reducing recidivism. Further, the results indicated that merely possessing characteristics that were indicative of treatment integrity was not enough if the program had a philosophical orientation towards deterrence. This could suggest that staff who have internalized deterrence as a philosophy of punishment are not implementing the programming as effectively as staff who have adopted a human service approach. Alternatively, it could be that although the principles of effective intervention were implemented properly, offenders were not responsive to treatment that was delivered in light of other messages that may have been sent by a deterrence-oriented staff. It is also possible that even if deterrence-oriented staff were implementing treatment with integrity, that staff were also behaving in other ways (outside of the confines of treatment programming) that were interfering with the program's ultimate effectiveness. For example, deterrence oriented staff may have over-emphasized the use of punishment, or behaved in other ways that produced a negative culture within the program.

Two clear conclusions and implications emerge in light of these findings. First, in order for ISPs to have a chance at reducing the likelihood of recidivism, they must maintain a relatively high level of treatment integrity. The items displayed in Table 1 represent a handful of specific characteristics that are related to the principles of effective intervention. As mentioned previously, the measure of treatment integrity used in this research was derived from the Correctional Program Assessment Inventory (Gendreau & Andrews, 1994). The CPAI covers six domains and within these domains examines large number of characteristics that are designed to

measure adherence to the principles of effective intervention. Given the findings from the current research is consistent with other findings (e.g. Lowenkamp et al., 2006), the empirical evidence suggests that treatment programs should strive to implement assessment processes such as the CPAI in order insure that they are maintaining necessary levels of treatment integrity.

Although insuring treatment integrity is of paramount importance, the results from the current research also suggest that program philosophy is an important characteristic of effective programming. Maintaining a high level of treatment integrity may not be enough if the program as a whole does not adhere to a human service philosophy. In short, the findings here suggest that program philosophy may be just as important as treatment integrity. Therefore, in addition to bringing the program's components themselves up to par regarding treatment integrity, it may be of equal importance to insure that staff truly embrace a human service approach to treatment and completely understand the rehabilitative ideal.

The findings regarding program philosophy suggest that program effectiveness may be increased through the training of administrators and staff within correctional programs. Administrators and staff in correctional programs need to be given the information and tools necessary to effectively deliver intensive programs that maintain a high degree of therapeutic integrity while understanding the importance of the human service approach to changing offender behavior. Further, correctional staff need to be given information that helps them understand why surveillance and control alone are not effective in reducing recidivism and how previous deterrence oriented correctional philosophies have by and large failed to have an appreciative impact on recidivism.

These conclusions may represent a paradigm shift for many correctional programs and for the systems within which they operate. Agencies such as the National Institute of Corrections and the National Institute of Justice have devoted many resources to the dissemination of information regarding effective correctional practices and provide an outlet for correctional administrators seeking information regarding how to best manage their correctional populations. The promotion of a human service philosophy should take a high priority for correctional administrators, especially those involved in ISP programs that have been previously entrenched in the philosophy of deterrence. Increasing the importance of both treatment integrity and the human service philosophy has the potential for moving programs into a more holistic method of delivering services and working with offender populations.

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Table 6

WLS regression model predicting effect size with treatment integrity and program philosophy

	B	SE	-95% CI	p	Beta
Constant	-0.17	0.02	-0.21 – -0.13	0.00	
Treatment Integrity	0.00	0.00	0.00 – 0.01	0.00	0.39
Human Service Philosophy	0.13	0.02	0.08 – 0.17	0.00	0.44

$F(2, 57) = 24.80, p = .00; \text{Adjusted } R^2 = 0.46.$

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