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Five Year Outcomes in a Randomized Trial of a Community-Based Multi-Agency Intensive Supervision Juvenile Probation Program

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Abstract

The long term outcomes of an intensive supervision probation program implemented in several neighborhood afterschool centers in high crime neighborhoods were evaluated. Over a two year period, youth were randomly assigned to this new program or to supervision-as-usual. Of all the boys age 15 or younger who were assessed at low risk for re-offending at program intake, those randomly assigned to the new program were three times more likely to have been incarcerated in prison or CYA over the five years following the program (12% vs. 4% in the control program). At the end of the five-year follow-up period, 69% of the younger low risk boys in the new program were out of the criminal justice system altogether relative to 83% of their counterparts in the control program. Certain attitudes and perceptions associated with delinquent behavior in past empirical studies were changed among these boys who participated in the new program. When interviewed after the program, they had lower expectations of being caught and punished for delinquent activities, lower self esteem in the context of school and family, and were more likely to believe they were the type of kid who “gets into trouble” than their counterparts in the “supervision-as-usual” program. Each of these mediators was associated with the negative long term outcomes found among the younger low risk boys in this experimental study. These results are consistent with a social influence model called “deviancy training.” (See Dodge, Dishion and Landsford 2006a)

Of all the youth on probation who participated in the intensive probation program, only the younger lower risk boys were negatively affected. The older higher risk youth had favorable outcomes initially but these dissipated over time. One problem that may have contributed to the loss of the immediate advantages is a kind of “catch 22” that is common in intensive supervision programs (see Petersilia 1998) where the intensity of the supervision can lead to more probation violations and more detention experiences. Youth that accumulate more detention experiences are typically treated more severely in their next encounter with law enforcement due to a labeling effect (see Johnson, Simons, and Conger, 2004). Just looking at their records, it appears that their behavior is more serious and harder to control due to the increased sanctions experienced and future sanctions are calibrated in accordance with that view. There was an association between being detained in juvenile hall and the long term rate of incarceration among the older higher risk youth.

The authors argue that it is important for those who plan, implement, and manage juvenile justice probation programs to consider the implications of the long term outcomes of this group-based intensive supervision program.

Summary of Findings

Five Year Outcomes in a Randomized Trial of a Community-Based Multi-Agency Intensive Supervision Juvenile Probation Program

This report is a summary of the findings on the long term impact of a new community-based intensive supervision program implemented in Los Angeles County California from February 2000 through December 2002. The new probation model named the Youth Family Accountability Model (YFAM) was funded as part of the California State Juvenile Crime Enforcement and Accountability Challenge Grant Program under the authority of the California State Board of Corrections. Through community-based supervision and services, the program aimed to hold offenders accountable for their actions (i.e., impose appropriate sanctions and require offenders to make restitution to victims); protect the community by reducing recidivism among program participants; and build offenders' competence and thereby reduce placement out of the community. The program was developed as an intervention targeting juvenile offenders who had at least two arrests or one felony arrest, were placed home on probation (HOP), and had not previously been placed out of the home.

The YFAM program promoted a partnership between probation officers and the program staff of contracted community-based organizations in twelve high crime catchment areas in Los Angeles County. Probation services were integrated within a semi-structured after-school program operating out of a community reporting center run by a social service agency. Juvenile offenders were assigned to the center to fulfill a year-long home-on-probation order from the juvenile court and were initially required to report to the center each day after school for three hours. Over the course of the program year, the attendance requirement was gradually cut back for most youth. While attending their community center, YFAM participants received tutoring or homework help, mentoring, drug education, recreation opportunities and other services as needed based on a risk and needs assessment administered to each juvenile at intake. One or more probation officers had an office at each center and the opportunity to interact frequently with the juvenile under their supervision. Probation officers located at the YFAM centers carried caseloads of 45 or fewer youth (all of whom were assigned to their center) in contrast to regular supervision caseloads that varied between 75-150 youth.

Experimental Research Design

The research design implemented for the original evaluation is a true experiment. The 1817 juvenile offenders in twelve different catchment areas were randomly assigned to the YFAM program or to the supervision-as-usual control group. Youth were assigned to one or the other program condition shortly after receiving an order for a year of probation supervision beginning sometime between February 2000 and December 2001. The random assignment process was protected and carefully documented by the researchers. When youth in the study catchment areas met eligibility requirements (one felony or two prior arrests, no previous placement out of the home) received a probation order, an intake risk assessment was administered by an intake probation officer. These assessments were then faxed to a university research office where the assignment to the YFAM or control was made within twenty-four hours.

At the end of the program and at the end of the year after the program, law enforcement, court, and probation records for each study youth were downloaded from a county-level automated data system by probation department personnel and provided to the researchers for coding. Outcomes were coded for the program year (from the date of the instant probation order through one year) and for the subsequent follow-up year. The coders were blind to the study hypotheses.

Short Term Findings Based on Official Records

The initial evaluation showed that the new program had a beneficial impact on the youth who were assessed at high risk for future offending at intake. Fewer of the high risk YFAM youth were rearrested during the program year than their randomly equivalent counterparts who received supervision-as-usual (boys: 57% YFAM vs. 68% Control; girls 11% YFAM vs. 29% Control). The same held true over the 12 months following the program year (13 to 24 months after intake) when fewer high risk YFAM participants were rearrested (boys: 40% YFAM vs. 57% Control; girls 17% YFAM vs. 33% Control). Despite these differences in recidivism, no differences were found in the percentage youth in the new program or control program who resided in the community (as opposed to placement in a probation camp or other facility) at the end of the program. One key reason for finding no differences in orders to camp or incarceration during the program may be the increased number of technical probation violation filings and juvenile hall detention experiences received by the YFAM study youth during their year in the intensive supervision program, significantly more than their randomly-equivalent counterparts in the less intensive supervision-as-usual control program received. Technical violations were especially more likely to be filed against mid and high risk YFAM boys and lower risk YFAM girls during the program year but not thereafter. These youth were more likely to be detained in juvenile hall (which was often related to the filing of a probation violation) during the program year and not the year after.

Short Term Findings Based on Self-Report Responses.

The objective of a second short term evaluation, funded by the Office of Juvenile Justice and Delinquency Programs¹, was to expand the outcomes examined for this experimental evaluation to include self-reported delinquency and other personal and social factors that may mediate offending while preserving the random equivalence between program groups. A randomly selected subset of the youth that had been enrolled in the larger study was interviewed for this purpose. Interviews took place during the year after the program (18 to 25 months after program intake). The staff of the interview study was blind to the program assignment and to the study hypotheses. Interviewers received training in interview techniques that included gaining the trust of the respondent and clearly conveying the confidentiality protections.

Self-reported involvement in delinquent activity is thought to be a more sensitive measure of delinquent behavior than measures coded from official records because only a fraction of delinquent activities come to the attention of authorities (Thornberry and Krohn 2000). Two measures of delinquent and criminal offending were constructed based on self-reported involvement in a list of delinquent activities adapted from Elliott & Huizinga (1989). The self-reported delinquency measures did appear to be more sensitive in that they replicated

¹ Funded by Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice, Grant 2000-JR-VX-0001.

the key findings based on official records but also detected additional program-related differences that had not been detected previously. There were similar indications that the mid and high risk YFAM youth engaged in less general delinquency than their counterparts in the Control program. However, the low risk YFAM youth reported higher levels of delinquency than their randomly equivalent counterparts² suggesting a criminogenic effect of the YFAM program for low risk youth.

The self report measures were also examined within offense categories and within respondent subgroups (younger males, older males, females) for a more detailed look at program outcomes. Here the analyses showed that the disadvantageous YFAM program outcomes were primarily evident among the *younger* low risk boys – for property crimes, drug sales, and status offenses. The beneficial YFAM program outcomes were primarily evident among the *older* mid risk boys and the *higher* risk girls (for violent and property offenses) and among *older* high risk boys (on the overall delinquency variety score). It is interesting to note that the trend in high risk for the younger boys was in the disadvantageous direction, opposite of the significant finding in the other direction among the older high risk boys. Clearly a more complex pattern of program impacts became evident. For this reason, the long term outcomes were examined by subgroup and level of risk to determine which if any of these short term differences in recidivism and self-reported delinquency resulted in long term differences in penetration into the criminal justice system over five years after the program.

Three Broad Questions Addressed in the Evaluation of Long Term Outcomes.

1. Was there an overall advantage for the YFAM program youth? Did the lower recidivism rates observed in the program year and the year after for mid and high risk YFAM youth persist overtime and extend to include the low risk YFAM youth as well?
2. Were the advantages to YFAM program youth limited to those at mid or high risk at intake as suggested by both short term evaluations? Together the short term evaluations found lower recidivism rates and less self reported delinquency among mid and high risk YFAM youth. Did the advantageous program differences persist and result in less penetration into the adult criminal justice system for the mid and high risk YFAM youth?
3. What happened to the low risk YFAM youth, especially the younger low risk boys? Specifically was the YFAM program a disadvantage for younger low risk youth? Five years after the program, did the short term program effects found within this subgroup persist?

To answer these questions, this study expanded the review of outcomes over five years after the end of the program which is six years after program intake for each study youth. Outcomes were coded from both the juvenile justice and criminal justice proceeding archived in state databases. The most serious disposition received or in effect during each of the five years was determined. The long term outcome for each youth was defined as the overall most serious disposition received over this five year period including no new disposition, supervision in the community (juvenile or adult), time in custody (camp, juvenile hall, jail) or time incarcerated in adult prison or California Youth Authority (CYA).

² A brief self report delinquency scale was included in the intake assessment. Using this scale we checked for pre-existing differences between youth assigned to YFAM and Control at each risk level. There were no significant differences at low risk ($t = 0.55$) or at any risk level at the time of program intake. So the differences reported here developed after program intake.

No Evidence for an Overall Advantage for the YFAM Program.

Overall, the most serious disposition received over the five years after the program was supervision in the community (juvenile or adult probation) for 15% of the study youth; detention or ordered custody for 27%; and incarceration in adult prison or California Youth Authority (CYA) for 15% of the study youth. For the remaining 43% there was no further involvement in the criminal justice system over all five post program years. The percentages of YFAM and control youth experiencing these outcomes overall were nearly identical. At the end of the follow-up period, during the fourth and fifth post program years, 66% of the Control and 64% of YFAM youth were out of the criminal justice system.

No Evidence for Advantages in Limited Subgroups.

The short term evaluations indicated favorable outcomes specifically among mid and high risk YFAM youth (and not the low risk youth) over the year following the program. The long term outcomes analyzed here fail to replicate any favorable findings for the YFAM program participants at these levels of risk. Overall the rate of incarceration was 15% among all mid risk youth in both YFAM and Control programs and approximately 23% among all high risk youth in both programs with no significant differences between the programs.

Compelling Evidence for Disadvantage in One Subgroup.

A program-related disadvantage for younger low risk boys that was evident only in the self-reported delinquent activities and not in the official records of recidivism was replicated in the analyses of long term program outcomes. Three times as many of the younger low risk YFAM program boys (11.7%) relative to the control program boys (3.5%) were ordered to prison or CYA over the five years after the programs. Near the end of this period, considering only the fourth and fifth year, there was no indication of any involvement in the criminal justice system for 83% of the control youth relative to 69% of the YFAM younger low risk boys. In no other subgroup was a lasting program difference detected at the level of these broad dispositional outcomes coded from state records archived from both the general criminal history and the specialized juvenile justice systems archived at the state level.

Potential Mediators of Dissipating Favorable Outcomes and Sustained Unfavorable Outcomes.

Several possible mediators of the impact that the new probation program had on continued involvement in the criminal justice system were measured as part of the short term evaluations. These could now be examined in light of the long term outcomes measured. One area of obvious concern is the increased number of probation violations detention experiences among the mid and high risk YFAM program youth relative to their randomly equivalent counterparts in the control program that was documented during the program year. Past research has documented the criminogenic influence that probation violations and associated detention can have in the context of intensive supervision programs (see Petersilia 1998). Program-related differences in the filing of probation violations and related detention experiences for the YFAM program youth relative to the Control program youth were evident primarily for the younger mid risk boys, older high risk boys, and lower risk girls. In two of these subgroups, no short term or long term advantage for the YFAM program was detected and for the third (older high risk males) an initial program advantage dissipated over the long term.

There was no indication of a program-related difference on probation violation and detention experiences during the program among the low risk study boys, that is, the same proportion of younger and older low risk boys was detained in the YFAM as in the Control during the program. Nor was there any relationship between detention experiences during the program and long term outcomes for the younger or older low risk boys so a different set of dynamics needs to be considered to explain the negative long term program outcomes for these boys.

A set of perceptual and attitudinal mediators that were measured in interviews taken after the program ended do address this finding. The mediators measured included the beliefs related to deterrence, moral scruples associated with criminal activities, friends' involvement in delinquent activities, self esteem in the context of school and family, and self regard. There were several program related differences on these factors among the younger low risk boys, but almost none in the other subgroups. The younger low risk YFAM boys reported lower expectations of being caught and punished for delinquent behaviors, fewer moral scruples associated with delinquency, lower self esteem in school and family contexts, and a less favorable self regard (i.e., I am the kind ... who gets into trouble) at the time of the interview taken during the year after the program. Given the carefully controlled random assignment, it is extremely unlikely that any of these differences were present prior to entering the programs. The evidence suggests that these attitudes shifted among YFAM boys as a result of their involvement in the group-based intensive probation program to which they were randomly assigned.

Further several of these attitudinal mediators were also associated with the long term outcomes found for the younger low risk boys in the study. Specifically, lower estimates of the probability of getting caught and punished, lower self esteem in the school and family context, and a tendency to think of oneself as the kind of person who gets into trouble were related to more serious long term outcomes for the younger low risk boys. We have documented that, after the program, more of the younger low risk YFAM boys expressed these attitudes and perceptions than their counterparts in the "supervision-as-usual" control.

A conceptual table summarizing all of the findings - short term outcomes, mediating factors, and long term outcomes for each subgroup - is presented in a table at the end of this summary section.

Implications of these Findings for Juvenile Probation Practices

An important long term outcome is documented here for the younger low risk boys. Of all the boys age 15 or younger who were assessed at low risk for recidivism at program intake, those who were randomly assigned to the YFAM program rather than the "supervision-as-usual" Control program were three times more likely to have been incarcerated in prison or CYA over the five years after the program. At the end of the five-year long term follow-up, only 69% of these YFAM program youth appeared to be out of the criminal justice system all together relative to 83% of their counterparts in the Control program. The evidence suggests that some of the attitudes and perceptions that have been associated with delinquent behavior in past empirical research were changed among the younger low risk boys over the time that they participated in the YFAM program. When interviewed after the program, these boys had lower expectations of being caught and punished for delinquent activities; lower self confidence or self esteem in the

context of school and family and were more likely to believe that they were the type of kid who “gets into trouble” than their counterparts in the “supervision-as-usual” Control program. Each of these mediators was significantly associated with the negative long term outcomes found among the younger low risk boys in this study.

Of all the youth on probation who participated in the intensive after school probation Program studied here, negative long term outcomes were statistically significant only for this subgroup of boys. This subgroup was younger, less sophisticated and less experienced with delinquent activities at program intake than the other youth assigned to their YFAM program center. The younger less experienced boys interacted with older more sophisticated youth on a regular basis in a program located in their neighborhood. Dodge, Dishion and Lansford (2006a) review the characteristics of youth likely to be harmed in group programs such as this one. They report that it is the younger individuals who are only marginally involved in deviant or delinquent behavior who are most affected when grouped with more experienced youth in situations where some or all of the time together is unstructured or weakly structured. This type of exposure is especially powerful if that exposure extends beyond the boundaries of the program itself, which was likely the case for many youth in the YFAM program because the centers were located within a catchment area. Youth who attended each center lived and went to school in neighborhoods surrounding the center. In their discussion of vulnerability to deviant peer influence, Dodge, Dishion and Lansford conclude that “deviant peer influence operates most strongly on those adolescents who are only marginally deviant ... Youth who are firmly well adjusted may be able to resist deviant peer influences, and youth with very severe levels of deviance may be beyond influence of others” (p20-21). These authors reviewed a large body of past research in the area of delinquency and other areas of personal development and document numerous examples of programs where youth who are more or less involved in problem behaviors are aggregated together in a program context with negative results for the less involved youth.³

Mark Lipsey (2006) provides a meta analytic review of community-based delinquency programs where he finds little evidence of negative effects overall. However, he did find smaller effect sizes in programs with more heterogeneity in the risk levels of the juveniles participating (e.g., in programs with a mix of low, mid and high risk youth) and smaller effects sizes for programs that included group treatment (e.g., group counseling) which he interprets as consistent with the conclusions above. The year after the YFAM program experiment, this new program appeared to be successful in terms of less recidivism and less self-reported delinquency for most of the youth involved. However, this study had the advantage of access to assessed levels of risk at intake and a strong research design that was based on random assignment to the new or usual probation program within the risk level. The strength of this research design made it possible to make powerful comparisons within levels of risk at intake into the future. No indications of any negative effects on the younger low risk youth surfaced in the recidivism records. Negative effects first surfaced after the program when they were reported in interviews by the study youth

³ Based on their review, Dodge, Dishion and Lansford (2006b) recommend that programs, placements and treatments that aggregate deviant youth should be avoided in favor of individually-based treatment and programs. In table 3 of their report, these authors list 16 individually-oriented treatment approaches or programs that can be used in juvenile justice settings. When aggregating can't be avoided, structured activities with adequate adult supervision should be maintained.

themselves. Five years later, the positive impact on mid and high risk youth found initially had dissipated. But the self-reported behaviors among the low risk youth presaged the later findings of further penetration into the criminal justice system experienced by the younger low risk boys.

Among the apparent mediators of this negative outcome was a change in the judgments made by these young boys on the likelihood of getting caught and the severity of punishment that would follow (perceptual deterrence). This is consistent with Jussim and Osgood's (1989; see also Osgood and Briddell 2006) two stage model of the influence process. The first stage is the perception or communication of a group norm. We can speculate that the change in perceived deterrence-related beliefs among the younger low risk YFAM boys was encouraged by exposure to stories and past experiences communicated by the older and more experienced youth at the center. We cannot be sure what mechanisms caused a change in the view of the younger low risk boys, but due to the random assignment, we can conclude that the perceptions of these young boys were changed over the course of their time in the program. The low risk boys in YFAM changed their view of the norms around the likelihood that a person will get caught and severely punished for delinquent acts. The second stage of Jussim and Osgood's model is that this new understanding influences the individual's own behavior. We have observed here that over the long term, these new perceptions were correlated with their long term outcomes which indicated that these boys actually became more involved in delinquent and criminal activities than did the low risk Control program boys.

Turning to the positive short term YFAM program effects for some mid and high risk youth, none were strong enough to have an impact on the long term dispositional outcomes of the youth. One problem that may have contributed to this was the failure to adequately guard against the increased likelihood of probation violations and detention experiences that typically accompany intensive supervision. This kind of "catch 22" is common in intensive supervision programs (see Petersilia 1998) where the intensity of the supervision often leads to more probation violations and detention experiences. Indications of involvement in the criminal justice system that accumulate in an individual's record, can play a part in advancing penetration into the system various ways (Johnson, Simons, and Conger, 2004). Youth with more detention experiences for example are often treated more severely in their next encounter with law enforcement due to a labeling effect. Just looking at their records, it could appear that their behavior was more serious and harder to control due to the increased sanctions they experienced and future sanctions could be calibrated in accordance with that view. Involvement in custody settings can change the way that sanctioned individuals are viewed. In this study there was an association between being detained in juvenile hall and long term outcomes including the rate of incarceration.

Finally, seventeen percent of the youth in this study were females. Unfortunately, we have less to say about their experiences, in part due to the small sample size and the segmented pattern of findings. There were no significant differences in the long term outcomes for the YFAM and the Control program girls, despite the apparent positive impact of the YFAM program early on among high risk girls. Detention experiences during the program were correlated with the long term outcomes of girls in the study overall and lower risk YFAM girls were more likely to receive a probation violation during the program.

While we cannot know all of the reasons why the initial advantageous outcomes observed for the mid and high risk YFAM youth dissipated, we strongly suspect that the detention experiences that accompany probation violations that are magnified in intensive supervision programs are a part of the answer. And we do infer that a foundation for the disadvantageous outcomes found among the younger low risk boys is tied to changes in key attitudes and perceptions that surfaced after the program that were related to grouping low, mid and high risk youth together in long term in group-based programs located in their communities.

We believe that it is important for those who plan, implement, and manage juvenile justice probation programs to consider the lessons from the long terms results of programs such as YFAM that were undertaken with earnest and enthusiasm. We believe that these findings provide important lessons for planners of future community supervision programs. First, planners would be wise to make certain that younger youth, especially those assessed at lower risk for recidivism at intake, are not involved in supervision programs that group youth at varying levels of risk together at all. Second, if intensive supervision is part of a program for juveniles, it is important that arrangements be made to handle all but the most serious disciplinary matters outside of the court process in ways that do not weigh against the youth in future court proceedings.

		SHORT TERM OUTCOMES	MEDIATORS THAT VARIED BY PROGRAM ¹		LONG TERM OUTCOMES	ASSOCIATED MEDIATORS
		Evidence of Program Effect (YFAM vs. Control)	System Mediators (Program Year)	Attitudinal Mediators (One Year After)	Most Serious Disposition (Five Yrs After)	Mediators associated with program effects and long term outcomes
Younger Males	Low Risk	<u>YFAM disadvantage</u> : More self-reported delinquency the year after the program	none	Deterrence (C), Moral/Remorse (C), Self Esteem (C), Self Label (C)	YFAM disadvantage persisted	Deterrence, Self Esteem, Self Label
	Mid Risk	no short term program effect	Violations / Detention (C)	Peer Delinquency (P)	YFAM trend toward disadvantage	Detention, Peer Delinquency
	High Risk	<u>YFAM benefit</u> : Less recidivism during program year and the year after*	none	none	YFAM benefit dissipated	none
Older Males	Low Risk	no short term program effect	none	none	YFAM neither helped nor hurt	none
	Mid Risk	<u>YFAM benefit</u> : Less self-reported delinquency the year after the program	none	none	YFAM benefit dissipated	none
	High Risk	<u>YFAM benefit</u> : Less recidivism during program year and the year after* and less self reported delinquency after	Violations / Detention (C)	none	YFAM benefit dissipated	Detention
Females	Low Risk	no short term program effect	Violations (C)	none	YFAM neither helped nor hurt	Detention
	High Risk	<u>YFAM benefit</u> : Less recidivism during program year* and less self-reported delinquency after	none	Peer Delinquency (P)	YFAM benefit dissipated	none

* The analysis included all mid risk or all high risk youth combined

¹ C indicates a difference in the criminogenic direction for YFAM; P indicates a difference in the protective direction for YFAM

Full Report

Five Year Outcomes in a Randomized Trial of a Community-Based Multi-Agency Intensive Supervision Juvenile Probation Program

Progress in Community-Based Probation Programs

Approximately half a million juveniles in the United States were under community supervision as a result of their violent or delinquent behavior in 2007.⁴ A critical issue facing corrections officials is how to respond to juvenile offenders in ways that will minimize their involvement in the criminal justice system into adulthood. Longitudinal studies have found that early onset and repeated involvement in the juvenile justice system predispose a small number of offenders to long-term criminal careers (Moffitt 1993; Laub & Sampson 2003). Researchers and practitioners have searched for effective ways to intervene early and curtail involvement. Although debate on what intervention strategies are most effective continues, researchers and policy makers in general agree that early identification and intervention with high risk juvenile offenders is a key to reducing criminal behavior in adulthood (Greenwood 1995).

One of the intervention strategies that juvenile justice policy makers and agency practitioners have developed is intensive probation supervision. The idea was originally used for adult offenders as an intermediate sanction positioned between regular probation and commitment to controlled settings. This approach became very popular shortly after Georgia's Department of Corrections published an evaluation that seemed to show that participants had dramatically lowered recidivism rates (Erwin 1986). Over the next decade the concept spread rapidly through many states with wide variation in the ways programs were conceptualized and implemented. Petersilia and Turner (1993) conducted an influential national multi-site evaluation of several randomized trials of intensive supervision for adult offenders. From these experiments it became clear that intensive supervision can have a negative impact on participants rather than the desired positive impacts when it increases the discovery of technical violations which often result in further involvement in the justice system, even in the absence of new arrests for criminal behavior.

Effective intermediate sanctions programs for adults have had the following features in common: provided intensive and behavioral interventions; aimed at absorbing offenders' daily schedule and providing positive reinforcement for pro-social behavior; targeted at high risk offenders; matched treatment modalities and services with identified needs; and provided pro-social contexts that advocated bridging offenders with law-abiding lifestyles (Gendreau et al. 1996, Petersilia 1998).

The development of intensive supervision probation programs for juveniles evolved more slowly, perhaps because the adult programs embraced a punitive orientation that seemed at odds with the more rehabilitative orientation that was prevalent in the juvenile system at the time. As pressures on the juvenile system grew due to increasing numbers of serious and violent juvenile offenders, interest in juvenile intensive supervision approaches grew as well (Goodstein & Sontheimer 1997; Grisso & Schwartz 2000). The juvenile intensive supervision programs frequently sought to combine increased monitoring and accountability with rehabilitative goals (Clear 1991).

An intensive supervision program for juveniles is one of many types of programs included in meta-analytic reviews of over 400 studies on the effects of a range of different types of interventions on juvenile delinquency (Andrews et al. 1990; Lipsey 1992; Lipsey 1995; Lipsey and

⁴ Juvenile Court Statistics at <http://www.ojjdp.ncjrs.gov/ojstatbb/ezajcs/asp/display.asp>, accessed August 2, 2010.

Wilson, 1998; Lipsey 1999). These reviews found that the overall average effect of evaluated interventions for serious juvenile offenders on recidivism has been positive but modest in magnitude. Howell and Lipsey (2004) further summarized the meta-analytical findings by highlighting program characteristics associated with positive program impacts. The juvenile intensive supervision program model evaluated here included many of the highlighted program characteristics including: community-based intensive supervision with a focus on academic skills, a court mandate to attend the program with some services administered by probation officers, continuous service for more than eighteen weeks with more than five hours of contact per week, and many (but not all) youth who were involved were more serious offenses (that is, beyond just status offenses and property offenses like vandalism).

The field of evaluations in community corrections has been plagued by less than rigorous methods (Sherman 2000; Sherman et al. 1997; Weisburd 2000; Palmer & Petrosino 2003). Much of our current correctional policy is not based on evidence gathered through the use of rigorous research designs such as true experimental trials. Calls to move toward the ideal of evaluating public policy using true experimental designs have been persistent (Riecken & Boruch 1974; Sechrest et al. 1979; Farrington et al. 1986). Over the last decade, true experimental designs have been the exception rather than the norm in criminal justice research (Weisburd 2003; Shepherd 2003).

In 2000, Los Angeles County developed and implemented a new intensive supervision program for juveniles that was funded by state resources and mandated an experimental evaluation.⁵ Juvenile offenders were randomly assigned to the new program or to supervision-as-usual. The state-funded program evaluation was based on outcomes coded from county official records (i.e., new arrests, technical probation violations, and placements in controlled settings) during the program year and one year after the program (Hennigan et al. 2003). A parallel evaluation was funded by the Office of Juvenile Justice Delinquency Programs (OJJDP) based on self-reported outcomes including general delinquency and several social and personal variables thought to mediate offending. These were measured in personal interviews conducted 18 to 25 months after program intake (Hennigan et al. 2005).

The current study evaluates the long-term justice system outcomes for the youth randomly assigned to the intensive Youth Family Accountability Model (YFAM) program or a “probation-as-usual” control program over five years after the end of their year-long program (six years after program intake). We will begin by describing the program and what was learned in two initial outcome evaluations.

Evolution of a New Juvenile Supervision Approach

Under the auspices of the Los Angeles County Board of Supervisors, a Juvenile Justice Coordinating Council developed a local action plan that provided the blueprint for a new probation program. The Council sought to develop a model that would be empirically grounded and based on exemplary principles distributed by the Justice Department (Wilson & Howell 1993; Howell 1995). These principles called for immediate responses to offending through the use of graduated sanctions in community supervision. These were combined with case management to create a continuum of community-based care to meet the varied needs of each offender. The group envisioned a supervision model that would strengthen an offender’s bonds with pro-social family members,

⁵ In 1998 the California Legislature initiated a second round of funding under the Juvenile Crime Enforcement and Accountability Challenge Grant Program called the Challenge Grant II program. The California Board of Corrections (BOC) administered the Challenge Grant program with participating counties and supported an experimental evaluation of the programs’ effectiveness.

teachers, and other significant adults and peers who have clear positive standards of behavior (Hawkins et al. 1992; Werner & Smith 1982) and facilitate access to opportunities in the community that could help the juvenile offenders achieve personal fulfillment and social participation (Krisberg et al. 1993).

This new probation model, named the Youth Family Accountability Model (YFAM), was funded as part of the Juvenile Crime Enforcement and Accountability Challenge Grant Program under the authority of the California Board of Corrections. Through community-based supervision and services, the program aimed to: hold offenders accountable for their actions (i.e., impose appropriate sanctions and require offenders to make restitution to victims); protect the community by reducing recidivism among program participants; and build offenders' competence and thereby reduce placement out of the community. The program was developed as an intervention targeting juvenile offenders who had had at least two arrests or one felony arrest, were placed home on probation (HOP), and had not previously been placed out of the home.

Description of the Youth Family Accountability Model Program.

The YFAM program promoted a partnership between probation officers and the program staff of specific community-based organizations in twelve high crime catchment areas in Los Angeles County. Probation services were integrated within a semi-structured after-school program operating out of a community reporting center run by a social service agency. Juvenile offenders were assigned to the center to fulfill a year-long home-on-probation order from the juvenile court and were initially required to report to the center each day after school for three hours. Over the course of the program year, the attendance requirement was gradually cut back for most youth. While attending their community center, YFAM participants received tutoring or homework help, mentoring, drug education, recreation opportunities and other services as needed for each juvenile offender based on a risk and needs assessment administered to each juvenile at intake. One or more probation officers had an office at the center and the opportunity to interact with the juvenile offenders frequently. Probation officers located at the YFAM centers carried caseloads of 45 or less (all of whom were assigned to their center) while officers handling regular supervision were responsible for caseloads that varied between 75-150 youth. Knowing that with intensive supervision, officers would become aware of a broader range of probationers' behavior than with regular supervision, options to deal with behavioral indiscretions that did not require the judge's attention was encouraged.

The twelve centers established early in 2000 were each staffed with at least one probation officer, a project monitor who served as the center manager, and other program staff employed to work with the juvenile offenders. In many cases, service providers traveled to or were located at the center to provide counseling or classes for the juvenile offenders. Case plans were developed for each juvenile offender that focused primarily on the completion of the conditions of probation set out by the court, but also on the provision of other services needed by the juvenile offender. These centers varied in the ways that the probation officer and project staff integrated their activities, provided various aspects of the structured program, enforced attendance, and used case management to provide as needed services (Hennigan et al. 2003; Hennigan & Maxson 2004).

Experimental Research Design of the State-Funded Evaluation

The research design implemented for the original evaluation was a true experiment. The 1817 juvenile offenders in twelve different catchment areas were randomly assigned to the new YFAM program or to the supervision-as-usual Control group. Youth were assigned to a program condition as each received an order for a year of probation supervision beginning some time between February 2000 and December 2001. Table 1 shows the demographics of the sample and comparability across program conditions.

The random assignment process was protected and carefully documented by the researchers. There were very few exceptions to the process.⁶ When youth in the study catchment areas who met eligibility requirements (one felony or two prior arrests, no previous placement out of the home) received a probation order, an intake risk assessment that was developed for the program by the research team was administered by an intake probation officer who was trained by the research team. Each eligible youth and a parent or guardian were separately interviewed as part of the structured risk and needs assessment. These assessments were then faxed to a university research office where the assignment to the YFAM or Control group was made within twenty-four hours. Random assignments were blocked by area (12 areas) by gender and by an initial rough calculation of risk (early initiation of delinquency or not) to preserve the opportunity to partition the sample later by area, sex and risk.

Later, all of the assessment data were used to create a risk of recidivism scale based on fourteen factors. The scale took advantage of the breadth of information collected from multiple sources --the juvenile offender, the guardian, and the probation officer with access to official records at intake. Juvenile offenders received a point for each factor on which they were elevated (e.g., above 75th percentile for scaled factors), so the risk scores ranged from 0 to 14 points. Categorical risk level was determined as follows: youth with 0 or 1 risk point were categorized as low risk, more than 1 and less than 5 were labeled mid risk, and 5 or more risk points were considered high risk. The distribution of youth across risk categories was approximately 25%, 50%, 25% for low, mid and high risk respectively. The distribution of risk factor points and risk level categories for the full YFAM sample is shown in Table 2. The assignment process was successful in creating two randomly equivalent groups; one that received supervision-as-usual called the Control program and the other that participated in the YFAM program at a community reporting center in their neighborhood. Table 3 lists the variables included in the risk assessment and the percent in each group assigned a risk point for each variable. There was no program group difference on any of the factors used to assess risk at intake.

Court, probation and law enforcement records were downloaded from a county level automated data system by probation department personnel and provided to the researchers for coding. Outcomes were coded for the program year (from the date of the instant probation order through one year) and for the subsequent follow-up year. The coders were blind to the study hypotheses.

Differences between the YFAM Program and the Control Program.

The new YFAM program and the supervision as usual Control program differed in some ways and were similar in others. The YFAM program operated daily as a group program that involved all of the youth assigned to the center in a set of core activities. These included homework assistance, mentoring, drug education and recreation. In contrast, the youth in the Control program were not gathered together and were not required to report daily to a center. Individuals in the Control program did not receive any of the core program components as part of their probation experience. Some may have elected to engage in similar activities through community recreation programs, for example, but not daily and not together as a group of probationers. In both programs, youth had equal access to “as needed” services (many of which were court-ordered) such as

⁶ As a matter of program policy, when two siblings became eligible for the YFAM study, they were randomly assigned as a pair. This happened 20 times, 12 pairs fell into YFAM and 8 into the control condition. In one area, a judge intervened and changed the assignment of the youth in two cases. Finally, there were 16 youth who were randomly assigned to YFAM but were never enrolled in the YFAM program. An intent-to-treat approach was taken to resolve these discrepancies. For the evaluation analyses, all youth were categorized by the condition to which they were randomly assigned.

counseling, anger management and drug treatment. Youth self-reports confirmed that the YFAM program youth had a higher level of participation in the core YFAM components than the Control program youth, but there was no difference in the level of “as needed” services received these youth over the program year (Hennigan et al. 2005). Control youth were supervised through a few occasional phone or in-person contacts with their probation officer over the course of the year. YFAM youth, in contrast, had one or more weekly contacts with their probation officer. In sum, the YFAM program youth participated in an intensive group probation program that provided core personal development services, received as-needed services per court orders, and were in frequent contact with their probation officer. The Control program youth received as needed services per court orders and were infrequently in contacted with their probation officer.

Findings of the State-Funded Evaluation Based on County Records

The state-funded evaluation showed that the new program had a beneficial impact on the youth who were assessed at high risk for future offending at intake. Fewer of the high risk YFAM youth were rearrested during the program year than their randomly equivalent counterparts who received supervision-as-usual (boys: 57% YFAM vs. 68% Control; girls 11% YFAM vs. 29% Control) as shown in the top of Table 4. The same held true over the 12 months following the program year (13 to 24 months after intake) fewer high risk YFAM participants were rearrested (boys: 40% YFAM vs. 57% Control; girls 17% YFAM vs. 33% Control) as shown in the bottom of Table 4. In the follow-up year the apparent program effects stronger and were supported by an overall significant main effect for the program, but the positive program outcome, lower recidivism, was primarily evident within the higher risk groups.

Despite these differences in recidivism, there were no differences in the percentage of program or control juvenile offenders that resided in the community (as opposed to placement in a probation camp or other facility) during the program year or the follow-up year according to court records. A key reason for finding no differences in incarceration may be the increased number of technical probation violations filed and detention experiences in juvenile hall that in the intensively supervised YFAM participants relative to the supervision-as-usual Control youth in the program year. As indicated in Table 4, technical violations were more likely to be filed against mid and high risk YFAM boys and lower risk YFAM girls during the program year but not thereafter. YFAM youth were more likely to be detained in juvenile hall (which was often related to the filing of a probation violation) during the program year and not the year after.

Federally-Funded Evaluation Objectives and Methods

The objective of the second short term evaluation, funded by the Office of Juvenile Justice and Delinquency Programs⁷ the year after the program, was to expand the outcomes examined for this experimental evaluation to include self-reported delinquency and other personal and social factors that may mediate offending while preserving the random equivalence between program groups. Studies have found self-report measures of delinquency to have strong criterion and predictive validity (Thornberry and Krohn, 2000; Paschall et al. 2001). A randomly selected subset of the youth enrolled in the larger study was interviewed for this purpose. The sampling frame for the interview study included all youth randomly assigned to YFAM or supervision-as-usual with two exceptions. First, one catchment area that was located in the farthest corner of the county was excluded for logistical reasons. Second, enrollment at the YFAM centers began slowly and unevenly during the time that the centers were working to hire staff and set up their programs. Sampling for the self-report study excluded the first three months of intake at each center. All

⁷ Funded by the Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice, Grant 2000-JR-VX-0001.

youth randomly assigned in eleven catchment areas during the fourth through the twenty-second month of intake were included in the sampling frame for the interview study. Neither the sampling frame nor the achieved sample was statistically different from the original study in terms of demographics or risk factors at intake. (For details see Hennigan et al. 2005).

Interviews took place from 18 to 25 months after program intake. The staff of the interview study was blind to the program assignment and to the study hypotheses. Interviewers received training in interview techniques that included gaining the trust of the respondent and clearly conveying the confidentiality protections. Another priority was being sure the interview was private and could not be overheard by others. The latter was particularly important for interviews in controlled settings. These interviews took place in the yard outside of a building or in an office provided for private interviews.

Self-reported involvement in delinquent activity is thought to be a more sensitive measure of delinquent behavior because only a fraction of delinquent activities come to the attention of authorities. Over many years researchers have worked to develop various summary indexes of self-reported criminal behavior. Research on violent offenders has shown that these individuals actually commit more nonviolent offenses than individuals who have engaged only in nonviolent-only offenses. The inference is that the more serious offenders are also the more *frequent* offenders (Piquero 2000). Frequency of offending is predictive of violent crime because those who offend more are more likely to have become involved in violent crime. Further, Piquero's research suggests that the most frequent offenders are likely to be committing the least common crimes. For this reason, the *variety* of offenses a person commits or *versatility* in offending is a useful index of the level of their criminal involvement. It is common in current research to use two measures of delinquent and criminal offending, one based on frequency and one based on variety (i.e., the number of different offenses). Some have argued that the variety score may be the best operational measure of general delinquency and criminal offending (Hirschi & Gottfredson 1995: p. 134).

These two measures of general delinquency were created from the youth's self-reported involvement in delinquent activities over the six months prior to the interview using an instrument adapted from Elliott & Huizinga (1989). An index of the frequency of delinquent activities was based on the frequency of offending across behaviors in five categories including violent offenses (throwing dangerous objects at people, involved in a gang fight, assault, assault with weapon, robbery); property offenses (vandalism, arson, burglary, various kinds of theft, fencing stolen goods, auto theft, forgery, credit card fraud, other fraud); status offenses (runaway, skip school, lie about age to get in or make a purchase, hitchhike with a stranger, avoid paying for things, joy riding); public disorder (got in trouble for being loud and rowdy in public, drunk in public place, made obscene phone calls, paid for sex, begged money from strangers); and drug sales (sold marijuana, crack or cocaine, other drugs such as heroin, LSD, acid). Frequency indices within each category were logged to adjust for extreme skew and summed to create the overall logged frequency of offending score.

A second general delinquency index was based on versatility in offending. This measure was based on a count of the number of different delinquent behaviors reported in the last six months. Similar behaviors (i.e., various kinds of theft and various kinds of drug sales) were counted only once and substance use was excluded from the count. The self-reported delinquency outcomes, then, include: the logged relative frequency, the versatility of offending or variety score and the logged frequency offending within five categories of offenses.

Findings of the Federally-Funded Evaluation Based on Youth Self-Report

Self-reported outcomes expanded the findings based on official records. Overall program effects on the general delinquency measured by the variety score and overall frequency score are given in Table 5. The general delinquency measures did not replicate the key findings in the

previous table based on official records of new arrests. Instead, the self-reported general delinquency measures suggest a criminogenic YFAM program outcome for low risk youth. Low risk YFAM youth reported significantly more general delinquency than did their Control counterparts on the on both delinquency measures.⁸

For mid risk youth, the results were similar to those found for the outcomes coded from official records, suggesting a positive program impact. Mid risk YFAM youth reported significantly less delinquency on the variety and logged frequency scores. There was a significant program by risk interaction in the direction of beneficial program effects for mid and high risk youth and disadvantageous program effects for low risk youth. The analyses also showed that more high risk Control youth were in custody over the self report period. This could have reduced the apparent positive program effect among high risk youth if the days in custody reduced the opportunity for high risk Control youth to engage in delinquent activities.

The self report measures were also be examined within offense categories and within respondent subgroups (younger males, older males, females) for a more detailed look at program outcomes. These results are reproduced in Table 6. Here the analyses suggested that the disadvantageous YFAM program outcomes were primarily evident among the *younger* low risk boys -- for property crimes, drug sales, and status offenses. The beneficial YFAM program outcomes were primarily evident among the older mid risk boys and the higher risk girls (for violent and property offenses) and among older high risk boys (on the overall delinquency variety score). It is interesting to note that trend among in high risk for the younger boys younger was in the disadvantageous direction, opposite the significant finding in the other direction among the older high risk boys.

Three research questions to be tested over the long-term

The short term evaluations based on official records and on self reported during program and the year after suggest the following questions for long term outcomes.

Was there an overall advantage for the YFAM Program youth? Did the lower arrest rates observed in the program year and the year after for mid and high risk youth persist and overtime result in an overall advantage for the youth in YFAM program relative to the youth in the Control program? Have fewer of the YFAM youth been incarcerated in prison or the California Youth Authority (CYA⁹) over the five years after the program ended? Are more of the YFAM youth out of the criminal justice system (adult and juvenile) at the end of the follow-up period?

Were advantages to YFAM Program youth limited to those at mid or high risk at intake as suggested by the short term evaluations? Did the lower rates of self reported delinquency observed among mid and high risk YFAM youth lead to lower rates of incarceration over the long term? Did fewer mid risk and high risk YFAM program youth remain under supervision or in custody at the end of the five-year follow-up period than those in the Control program?

Was the YFAM Program a disadvantage for the low risk youth involved? Specifically was the YFAM program a disadvantage for younger low risk youth? Five years after the program, did the short term negative program effects found within this subgroup persist? Overall, did the

⁸ A brief self report delinquency scale was included in the intake assessment. Using this scale we checked for pre-existing differences between youth assigned to YFAM and Control at each risk level. There were no significant differences at low risk ($t = 0.55$) on self reported delinquency or at any risk level. So we infer that the differences reported here developed after program intake.

⁹ The California Youth Authority (CYA) is now known as the California Department of Juvenile Justice (DJJ).

countervailing program effects that were evident in the self-reported delinquency responses across subgroups during the program and the year after have lasting implications, for better and for worse, on penetration into the correctional system?

Methods

Obtaining Criminal Histories.

Over the course of the original project, Los Angeles County maintained an automated information system for juvenile records (JAI) that was updated and accessed by probation, law enforcement, and juvenile court staff. Separate from this system the state maintains a criminal history system (CHS) that contains the records with input from law enforcement agencies and court systems statewide. The CHS system was primarily designed to collect complete adult criminal histories. Counties around the state vary in the extent to which any of their juvenile records were entered the CHS system. In Los Angeles County, many offenses committed by juveniles were routinely entered, but not all were entered and this too varied locally from agency to agency. Beginning in the late 1990's, the State of California began to work with counties to collect juvenile records in a separate system called the Juvenile Court and Probation Statistical System (JCPSS). By 1999, Los Angeles County was participating by "translating" the data collected in the county JAI system into the protocol required for the state JCPSS system and transmitting these records to the state. Since that time, Los Angeles County records on juvenile arrests, court proceedings, probation orders and related events have been routinely transmitted to the state Criminal Justice Statistics Center in the California Attorney General's Office in the JCPSS format. In order to capture the full criminal histories of the study youth, it was necessary to obtain records from both state systems -- JCPSS and CHS -- to compile the complete criminal histories of the study youth who entered the system as juveniles and matured from juvenile to adult status. The researchers obtained permission from the California Department of Justice to acquire copies of the needed data in accordance with a data protection plan for this research purpose. The data were de-identified after the juvenile and adult records were matched. Analyses were conducted with de-identified data.

All data relevant to the criminal histories of the youth who were originally enrolled in the study were obtained from the California State JCPSS and CHS archives. Together these systems contain the entire recorded record available for all youth in the study. A method of matching juvenile and adult records from these systems and then coding key outcomes from the combined records was developed as part of earlier work undertaken for the Juvenile Justice Data Project (Hennigan et al. 2008). Procedures developed for this work were applied to the YFAM study case records.

The researchers obtained the juvenile records for all of the youth in the study from the JCPSS archive maintained by the California Criminal Justice Statistics Center. Because the personal identification numbers used for youth on probation in Los Angeles County were included in the records regularly submitted to the state JCPSS archive, obtaining these records was straightforward and resulted in 8,373 rows of data for 1817 youth.¹⁰

From the CHS system, the researchers obtained the complete criminal histories of individuals who were potential matches for youth in the study sample based on names (first, last and middle), birth date, sex and the presence of some criminal or delinquent activity in Los Angeles

¹⁰ We discovered that several other counties used the same number ranges for their PIN numbers as did Los Angeles. We found 79 rows (less than 1%) where the data were related to cases from another county e.g., due to National Crime Information Center codes (NCIC) that indicated the entire record contained data that were entered from a county other than Los Angeles. Questionable data rows were checked individually and manually deleted as needed.

County. Our initial data request yielded clear matches for 1501 individuals from the study sample. For the remaining youth, identifiers common to both databases (the study sample and the CHS records) were reviewed. Soundex was used to identify records with minor differences in spelling. The researchers developed decision criteria to address common types of discrepancies and clerical errors that resulted in missed matches such as letter transpositions in names, language differences (e.g., Jorge and George); month, day or year in date of birth that were off by a single digit; and incorrect or blank entry for sex. All cases with these discrepancies were reviewed individually using the county-level criminal record data collected as part of the original evaluation as a point of reference to determine which potential matches focused on one of the individuals involved in the original study. A subsequent data request with corrected or broader matching terms resulted in receipt of data related to an additional 151 persons.¹¹ After re-employing the matching criteria and checking imperfect matches by hand, CHS records for a total of 1613 of the youth from the original study were confirmed.

In the end, all 1817 youth were matched with JCPSS records, as expected. There were 204 youth (11.3%) with no match in the CHS system. There was no difference between the number of matches with CHS records by the study condition, YFAM or Control ($X^2 = 0.289$, ns). All but a few of these cases showed no indication of continued involvement in either the juvenile or adult criminal justice system at the end of the original evaluation, so no further involvement in the criminal justice system was a plausible assumption. However, twelve cases had indications of possible involvement into the adult criminal justice system at the end of the short term evaluations, including one case pending in adult court, one case with a prison order, and the others with an indication of an adult probation order or adult jail near the end of the original evaluation). Of these, 7 cases were YFAM and 5 were Control. One case indicated an order to adult prison at the end of the original study period (a YFAM case). We can only speculate as to why there were no further entries for these youth. Three possibilities include: a) the youth migrated out of the state or country; b) the youth became ill or died, or c) the pending issue was resolved and the youth committed no further crimes. During the course of the original evaluation, we became aware of five deaths and two deportations in the study sample. Four were YFAM participants and three were Control. Most likely there were others who were not documented in these data systems. However, due to the random assignment to conditions, we have no reason to believe that losing these cases introduced a bias in terms of the validity of the program differences found.

As part of the matching process, several cases were found to have more than one personal identifier in the CHS system. These cases were carefully examined to determine if the matches were indeed the same person. For 78 cases, we inferred that youth in the study had records under multiple PIN numbers due to activity in multiple counties, aliases, or misspelled names. These records were combined to create one overall criminal record for each youth. Throughout the matching, checking and coding phases of this project, the researchers sought the advice of a retired member of the LA County Probation Department to decipher apparent anomalies and interpret the implications of probation, law enforcement and court procedures documented in the records.¹²

¹¹ The initial CHS request for data resulted in records contained 45,767 rows of data. An additional 5002 lines of data resulted from the second data request, for a total of 50,769 data rows.

¹² For example, we learned that although the arresting agency is responsible for entering arrests into the state systems, not all agencies have the same access (for example, school police – resulting in fewer school incidents in the records). Different jurisdictions have different procedures or protocols for entering incidents; for example, infractions (such as traffic tickets) might routinely show up in the state system from some places and not from others. Adult CHS records will be less likely generally to list probation (juvenile) entries; many minor probation incidents likely will never make it into the state system. And often errors occurred in follow up entries for court appearances that were miscoded as arrest

Coding Outcomes

CHS records are complex and difficult to access electronically. From a few to thirty or more multi-line records were provided for each individual case. Each line contained coded information on identification, an arrest, a court hearing or related action, other court or law enforcement action, or a comment or other information. JCPSS records were less complex and were structured and coded differently. Using a program developed in prior work (see Hennigan et al. 2008) the relevant portions of each database (JCPSS and the CHS) were transformed into similar formats. The juvenile database was restructured to mimic the event date system format used in the CHS database. The event-based data identified discrete arrests and court dispositions tied to specific charges, dates and places. Additional program codes were written to code the outcomes we sought to track in this study.

The combined coded records based on data from both data systems (JCPSS and CHS) summarized each individual's recorded criminal activities and court dispositions from the juvenile into the adult system. The merged data contained a great deal of redundant information that was either clearly duplicative or apparently so, with dates that were off by a few days, for example. Based on the partially overlapping information gathered from county records for the original evaluation, we determined that apparent discrepancies were often due to typos or imprecisely specified information in the two partially overlapping systems.

It became clear that outcomes based on *counting events* would be much less reliable than outcomes based on identifying the *most serious event* in a given time frame. For example, the same arrest might be logged into the data systems on different dates due to entry errors, or simply logged in multiple times. While there appeared to be a great deal of redundancy, it would require careful checking of multiple aspects to determine if the redundancy was truly overlap or a repeated event, or extra charges filed later. Small errors in the dates entered in the two systems, even in the same system, could appear to represent different events that with full inspection of many data fields seemed unlikely. Therefore we chose to define outcomes in terms of the most serious disposition received or in force during a given year. The most serious disposition in effect for each of five years post program was coded into four basic categories: a) out of the criminal justice system with no new disposition received; b) on juvenile or adult supervision (probation or parole); c) court-ordered custody (in juvenile hall, camp or jail); or d) incarceration (prison or CYA).

The researchers first coded the full range of dispositions –including no activity, transferred, technical violation, juvenile diversion, adult diversion, juvenile probation, adult probation, group home, detained in juvenile hall, disposition to juvenile hall, probation camp, detained in jail, disposition to jail, parole, CYA, juvenile in adult court, or prison– for each action in a given year. These were then examined and the most serious disposition in effect each year was identified. The start date was defined as the date of the probation order that made the youth eligible for the study (which defined the beginning of a one year probation order). Shortly after this order every youth in the study had been assessed and randomly assigned to a program condition (YFAM or control). The initial disposition in the program year for all study youth was juvenile probation.

The most serious disposition in effect during each of the five subsequent years was determined. The most serious disposition received during the first year after the program was coded by examining all of the disposition codes in that year and selecting the most serious one. For subsequent years, sentencing data were used to carry over probation, custody or incarceration orders that were in effect for more than one year. If a more serious disposition was received during the

actions. All of these caused potential differences between the JCPSS and CHS records in identifying the same arrest data for the same individual.

year, the more serious disposition was coded. If a less serious disposition was received and a more serious disposition remained in effect, the more serious code remained.

All cases with incarceration coded in any year (n=302 or 16.6% of the cases) were checked by hand to be certain that all information was taken into account. An additional 19 cases (1%) with no dispositions programmed for one or more follow-up years were also manually reviewed to determine if any prior remained in effect for the missing years. For these 321 cases, two persons independently reviewed all of the available criminal history information and assigned a code for the most serious disposition in each year. References used for this checking included the complete case histories from both JCPSS and CHS data systems, and the information contained in the original YFAM study and follow-up records (including the court date history, criminal history transcript and detailed notes made from the original court files). The coders agreed the judgments for 95.3% of these cases. Disagreements were resolved through a joint review of all available reference information.¹³ When sentencing data for incarceration, custody or supervision were missing, standard definitions of typical lengths of supervision or placements were used.¹⁴ During the entire coding process, the coders were blind to the program condition for each youth.

Long Term Program Outcome Variables.

The detailed outcome codes were collapsed into four categories of outcomes to represent four disposition categories: a) no disposition in effect (new or old) during the year; b) on community supervision including probation or parole; c) in custody pursuant to a court order to a juvenile probation camp, juvenile hall or an adult jail facility; or d) incarcerated in a juvenile (CYA) or adult prison facility. For each case, the most serious disposition received or in effect during each of the five years post program was determined. Some dispositions had implications for the youth's status in the system in years that followed. For example, if a youth was sentenced to two years probation, and there were no new dispositions received in the following year, the youth's status was coded in this category for both years. If the records showed a new arrest that resulted in a custody order, to juvenile probation camp or jail in the following year, then the youth's status was coded accordingly. If a youth was sentenced to prison for 3 years, but the records showed evidence of the youth being out in the community in the last year, e.g., an arrest for drunk driving for example, then we coded according to the most serious disposition for any new actions that year. Otherwise we applied the sentence time received to the following years based on the date the disposition was received. In all cases the original home-on-probation order date served as the beginning point for

¹³ Decision rules included: where no adult record existed and no new arrests appeared in the juvenile record, subsequent years were coded as "no new disposition"; where incarceration sentencing information indicated a partial year (for example, 1.33 yrs) and the year was blank after programming, we coded the next year to indicate the second [partial] year of incarceration; when an individual moved out of or transferred out of LA County and no adult records were received, subsequent years were coded as "no new disposition".

¹⁴ When the length of a supervision, custody, or incarceration disposition was not specified in the record: general adult probation was assumed to continue for 3 years; felony probation up to 5 years with the exception of sex offenses that might be longer (based on information from the Chief Probation Officers of California President Don Meyer 10.9.2009); parole was assumed to continue for 3 years (based on CA Penal Code 3000(b)1—parole cannot exceed 3 years except for sex crimes which cannot exceed 5 years and parole for a life sentence was assumed to continue for 5 years); Youth Authority (CYA) was assumed to continue for 2 years and CYA parole for 2 years (based on (1) a memorandum from the Department of Youth Authority: Population Projections for Fiscal Years 2004-05 through 2008-09, dated 16 Sept 2004, pp 7-9 that was last accessed at http://www.cdcr.ca.gov/Reports_Research/docs/research/Fall04Proj.pdf on 22 June 2010; and (2) Michele Byrnes, Daniel Macallair and Andrea D. Shorter, August 2002, *Aftercare as Afterthought: Reentry and the California Youth Authority*, Center on Juvenile and Criminal Justice, San Francisco, pp 5-6 that was last accessed at <http://www.cjcr.org/files/aftercare.pdf> on 22 June 2010).

each subsequent year. Dispositions that straddled two years (such as an order to camp received late in the year) would cause that individual to be coded as in the custody category for both years in the absence of any more serious dispositional outcome.

Variables that May Mediate Long Term Outcomes.

Several potential mediating factors derived from past evaluations of intensive supervision programs (Petersilia 1998) and general theories of delinquency (c.f., Paternoster & Iovanni 1989; Hawkins et al. 1992; Catalano & Hawkins 1996; Akers 1985, 1996; Elliott & Menard, 1996; Paternoster et al. 1983; Grasmick & Bursik 1990) and were included in the short term evaluations. Two factors measured for the entire sample during the program year include the percent of study youth with a probation violation filed and the percent of youth with time in detention. Five additional attitudinal and perceptual factors that have been related to delinquency in past empirical research were measured during the year after the program in private interviews with a randomly-selected sample of 745 of the study youth. The purpose of including these mediators in the current program evaluation was to determine if any of the mediators that showed program-related differences in the short term outcomes for youth randomly assigned to the YFAM or the Control Program, were also related to any differences found on long term outcomes. Program-related differences found shortly after the program could be attributed to differences in the operation or impact of the experimental YFAM program relative to the probation-as-usual Control program. In the current evaluation, these mediators allow researchers to examine which if any of the mediators that showed differences in the short term, were also related to the long terms outcomes for youth in this study. Details of the measurement of these potential mediators are described here.

Probation Violations and Time in Detention during the Program. County records were examined during the initial evaluation to document for which study youth a probation violation was filed during the program year and which study youth were detained in juvenile hall during that year. Detention time in juvenile hall was often the consequence of a probation violation filed on the youth by his or her probation officer. This type of detention was relatively brief – several days or weeks rather than several months.

The short evaluation results, shown in Table 4, included the finding that a higher percent of YFAM and Control program youth had a probation violation filed or a detention experience during the program year but no difference during the first year after the program. Specifically, there is a statistically significant difference between the number of mid and high risk boys and low risk girls received that received one or more probation violations in the YFAM program relative to those in the Control program. Similarly, these YFAM youth were also more likely to be detained in juvenile hall during the program year than their counterparts in the Control program.

Next, the measurement details of five attitudinal and perceptual mediators related to delinquency in past empirical studies that were measured for a randomly selected subset (n=745) of the study youth are described below.

Perceptual Deterrence – Will I get caught and punished? The deterrent effect of the perception that there is a high likelihood that I would get caught and punished for engaging in delinquent activities has been the subject of many studies for adults and for juveniles. While the results have not always been consistent, there is reason to believe that high expectations of getting caught and punished for criminal and delinquent activities can act as a deterrent to criminal offending in the future. All of the youth interviewed had the experience of being arrested and ordered on probation by a judge at the time they were enrolled in the study. In the context of the three scenarios described above, youth in the study sample were asked to estimate: a) the likelihood of getting “*arrested and have to go to court*”, b) how “*severe or light the judge’s order for punishment would be*” and c) how much the punishment would “*bother or annoy you*” for committing each of the scenario crimes. The nine judgments (measured on 6-point Likert scales) of

the certainty and severity of punishment (three judgments in the context of three scenarios) were highly correlated ($\alpha = .78$) and were combined into a deterrence score. This score was severely skewed and was logged to improve the distribution.

Moral Scruples – Is it wrong or bad to do it? Other mediating variables were measured in the context of three scenarios where respondents were asked to imagine that they had just a) stolen a wallet or purse; b) sold marijuana to a stranger on the street; and c) stolen a car. In the context of each scenario, respondents indicated if they would feel remorse for what they had done on a 6-point response scale. For example each respondent was asked “*How proud or ashamed would you be if you <did the offense in the scenario>*”. Three questions were asked for each scenario for a total of nine items to create a remorse score ($\alpha = .86$). In addition, two items asked if the offenses in the three scenarios were wrong or immoral (6 items, $\alpha = .76$), for example “*How right or wrong do you think<doing each offense> would be?*” The morality scores were skewed and the distribution was improved by logging the scores. There is a strong correlation between the two constructs operationally defined as judgments of morality and imagined affective responses to committing the scenario crimes ($r = .69$) so they were combined to create a measure of moral affect (crime is wrong and engenders remorse) with regard to delinquent activities in general.

Peer Delinquency – Do my friends do it? The first mediator, peer delinquency, was measured by asking the study youth questions about the activities of their close friends over the prior six months using a 6-point Likert response scale anchored from “none of them” to “all of them”. This section of the interview began with asking the youth how many close friends they had. Eight percent of the sample ($n=58$) responded that they had none, did not answer the questions about close friends, and therefore had no score on this variable. A peer delinquency score was created by taking the mean of respondents’ answers to thirteen questions which ranged from asking about “*purposely damaged or destroyed property that did not belong to them*” and “*skipped school for a whole day or more*” to “*seriously hurt someone in a fight*” and “*used a weapon like a gun or a knife*”. These items were combined to form a scale of peer delinquency ($\alpha=.92$).

Self Esteem in the school and family context – I am highly regarded by others at school and home. Four items from each of the school and family subscales of the Hare Self Esteem Scale (reproduced in Corcoran & Fischer 2000) were included in the interviews. The eight items were highly correlated and were used to form a self esteem scale ($\alpha = .76$) including school and family sources of esteem. Sample items included in the domain of family are: “*My parents are proud of the type of person I am*” and “*I often feel unwanted at home*”. Sample items included in the domain of school are: “*My teachers are generally happy with the kind of work I do*” and “*I feel like I am an important person in my class*”.

Self Regard – I’m the kind who gets into trouble. Self regard or self labeling was measured with a single item by the respondent’s agreement on a 6-point scale (ranging from “strongly agree” to “strongly disagree”) with the statement: “*I’m the kind of person who gets in trouble.*”

Definition of Subgroups. For some analyses, three subgroups were defined by gender and age. Outcomes and mediators were tested within these subgroups. In the analyses presented here, age was split into two approximately equal groups: those under age 16 and those age 16 or 17 at intake. In the subgroup analyses, comparisons are made between the younger boys, older boys and females. Females made up 17% of the study sample and could not be further divided by age without losing statistical power needed to detect program effects.

Each subgroup was further divided by risk at intake for most analyses. The risk scale developed for the first evaluation has been used throughout. Three levels of risk at intake were defined for boys – those with one factor or less, those with from 2 to 4 factors, and those with 5 to 14 risk factors. For the girls, only two levels of risk were defined -- those with less than three risk factors and those with three or more risk factors at intake.

Statistical Analyses.

Analyses of crime data are often challenging due to skewed data and extreme events coded in nominal level variables, such as the disposition to prison coded in this study. The data available to test the long term outcomes in this study youth were coded categorically, often dichotomously. The analyses required tests that would accommodate multiple categorical independent variables and categorical dependent variables. The analysis approach chosen is a GLM by robust methods (Cantoni and Ronchetti, 2001) to test for program effects, risk effects and the interactions on program effects by risk. The primary outcome variable were used in these analyses was coded as ever incarcerated in prison of CYA over the five year follow-up period or not. However, the percent of youth with outcomes coded into each of four categories are included in the tables.

Next, we conducted follow-up analyses within the subgroups defined in the second short term evaluation (younger males, older males and females) that indicated differing results within these subgroups. Here we chose to conduct simple chi square analyses to test for targeted program differences within risk level.

Finally, past research suggests a variety of factors that might mediate any program differences found on long term outcomes. For example, higher exposure to court processes and detention settings can be a long term disadvantage to the YFAM program youth and as could a lower estimate of likelihood of getting arrested for a criminal act. Program differences on these experiences and on other factors that past research suggests may mediate future criminal activity were tested using chi square tests for mediators measured categorically and t tests for mediators measured on Likert scales.

Results

Long Term Outcomes: Overall Advantage for YFAM Program.

The first analysis tested for an overall advantage of the YFAM program relative to the Control program on long term criminal justice outcomes. Overall, the most serious disposition received over the five years after the program was supervision in the community (juvenile or adult probation) for 15% of the study youth. Detention or ordered custody was the most serious disposition received for 27% and incarceration in prison or CYA was the most serious disposition received for 15% of the study youth. Forty-three percent (43%) of the study youth had no further involvement in the criminal justice system over all five post program years. The percentage of youth experiencing these system outcomes was nearly identical for YFAM program and Control program youth ($X^2 = 0.342$, $df=3$, $n=1807$, ns), indicating no overall program effect over five years. The lower recidivism rates observed during the program and the year after the program (based on official records) did not result in a long term advantage for the YFAM program participants relative to the randomly equivalent youth that received supervision-as-usual in the Control program. At the end of the follow-up period, during the fourth and fifth post program years, 66% of the Control and 64% of YFAM youth were out of the criminal justice system and 14% in both program conditions were incarcerated at that time.

Long Term Outcomes: Limited Advantage for YFAM Program.

The next analyses tested for program effects just within mid and high risk levels. Specifically, the short term evaluations found lower rates of recidivism among high risk YFAM Program youth and less self-reported delinquency among mid and high risk YFAM youth over the year following the program, suggesting an advantageous program outcome for the these youth. The long term outcomes analyzed in this study fail to replicate these findings. The rate of incarceration was 15% among mid risk youth in both programs and approximately 23% among high risk youth in both programs, with no significant differences between the YFAM or Control youth. In both

programs, during the fourth and fifth post program years, approximately 64% of mid risk and 57% of high risk youth were no longer under the jurisdiction of the juvenile or adult criminal justice systems.

Long Term Outcomes: Disadvantage for Some & Advantage for Others.

Here we address the question of whether the dispositional outcomes for three subgroups of study youth -- specifically the younger males, the older males and the females -- show differing program effects within risk levels as suggested in the short term evaluation based on self-reported delinquency where a disadvantage was found for low risk boys and an advantage for mid and high risk boys.

Younger Males. The most serious dispositions received by young boys in the YFAM and the Control programs over the five years after the program are shown in Table 7. The robust GLM test of a program by risk level interaction for the younger males in the study indicates a significant effect on the variable coded for ever incarcerated or not ($t = -2.85$, $df=809$, $p=0.005$). This indicates that the impact of the program varied across risk levels for the younger males. Within the low risk group, a statistically significant disadvantageous program effect is evident. Fewer of the low risk Control program boys (3.5%) relative to the YFAM program boys (11.7%) were ordered to prison or CYA over the five years after the programs ($X^2 = 4.01$, $df=1$, $n=163$, $p=.045$). Further, near the end of this period, considering only the fourth and fifth year, there was no indication of any involvement in the criminal justice system for 83% of these youth in the Control program relative to 69% of the YFAM younger low risk boys ($X^2 = 4.01$, $df=1$, $n=163$, $p=.045$).

Within mid risk, there is a similar but nonsignificant trend toward disadvantageous outcomes, where 12.9% of the control and 19.5% of the YFAM mid risk boys were ordered to prison ($X^2 = 3.49$, $df=1$, $n=430$, $p=.062$). Within high risk, there was no statistically significant difference among the high risk boys in the Control group where 27.4% were ever incarcerated than in the YFAM group where 19.8% were ever incarcerated when tested alone, but this reversal contributed to the overall program by risk interaction reported above. When tested only for younger mid and high risk boys, the interaction between risk and program on ever incarcerated remains statistically significant.

Ignoring the program condition assigned, the percent of younger boys ever incarcerated over the long term varied by level of risk at intake ($t=4.64$, $df=810$, $p=.001$) as expected. The incarceration rate is associated with risk at intake. Within low risk 6%, at mid risk 14%, and at high risk 19% of the younger boys in the study were ever ordered to prison or CYA over the five years after the program.

Older Males. The most serious dispositions received by the older boys in the YFAM and the Control programs are shown in Table 8. The robust GLM test of a program by risk level interaction for the older males was not statistically significant. So outcomes varied only by level of risk at intake on ever incarcerated ($t=3.88$, $df=679$, $p=.001$). At low risk 7%, at mid risk 16%, and at high risk 28% of older males were ever incarcerated over the long term.

Females. Very few of the girls in the study were incarcerated over the five years after the program. Eight girls, four in YFAM and four in the Control program were ordered to prison or CYA. So for this subgroup we tested the number of girls ordered to probation camp, jail, prison or CYA (collapsing across custody and incarceration) in each program condition by risk level and age level. No program related differences were found over the long term for the girls in the study, see Table 9.

Mediators of Program Differences.

Probation Violations and Time in Detention During the Program. Several possible mediators of the impact of the YFAM probation program on delinquent and criminal activities were

measured as part of the earlier evaluations. One area of obvious interest is the increased number of probation violations filed and the higher percentage of program youth with detention experiences among the YFAM program youth relative to their randomly equivalent counterparts in the Control program that was documented from county records during the program year. Table 4 documents that there was a statistically significant program effect overall on the filing of probation violations and detention in juvenile hall during the program year. In Table 10 these variables are broken down by the subgroups of interest in the long term follow-up. Here we see that these actions varied by subgroup. The potentially criminogenic influence of additional violations and or detention experiences for the YFAM program youth was evident primarily for the younger mid risk boys, the older high risk boys, and the lower risk girls. During the program year, 35% of the younger mid risk YFAM boys and 19% of the similar Control youth had a violation filed ($X^2 = 13.32$, $df=1$, $n=433$, $p=.001$) and 49% of the YFAM and 37% of the Control youth were detained in juvenile hall ($X^2 = 6.04$, $df=1$, $n=433$, $p=.014$). Among the older high risk boys in YFAM, 59% had violations filed relative to 33% in the Control ($X^2 = 9.87$, $df=1$, $n=145$, $p=.002$) and these YFAM boys were more likely to have been detained in juvenile hall (82% vs. 67% : $X^2 = 4.70$, $df=1$, $n=145$, $p=.030$). As indicated by the 'C' designation on the table, these experiences are considered to be criminogenic influences based on past research (see Petersilia, 1998).

Recall that the short term evaluations found lower recidivism rates for the high risk YFAM program youth relative to similar Control program youth over the program year and the year after. Less self reported delinquency was found among the older mid and high risk YFAM boys and higher risk YFAM girls during the year after the program. Five years later, all of these short term program advantages had dissipated. The detention experiences during the program year could have contributed to this turnaround over the long term. Table 11 shows that detention experiences in the program year were strongly related to more serious dispositions over the long term (especially incarceration) for all of the mid and high risk males, older (mid risk $X^2 = 27.39$, $df=2$, $n=362$, $p=.000$; high risk $X^2 = 12.16$, $p=2$, $n=145$, $p=.002$) and younger (mid risk $X^2 = 34.51$, $df=2$, $n=430$, $p=.000$; high risk $X^2 = 13.473$, $p=2$, $n=220$, $p=.001$). Detention experiences were also strongly related over the long term to more serious dispositions for all of the females in the study ($X^2 = 10.94$, $df=2$, $n=143$, $p=.004$ for lower risk and $X^2 = 9.23$, $df=2$, $n=169$, $p=.010$ for higher risk). While this evidence is correlational, it is consistent with the inference that the YFAM program advantage that was evident over the short term was undermined over the long term by detention experiences that were more frequently experienced by youth in the intensive supervision program. We will return to this point in the discussion section.

There was no indication of a program-related difference on detention experiences during the program among the low risk study boys, that is, the same proportion of younger and older low risk boys was detained in the YFAM as in the Control during the program. Nor was there any relationship between detention experiences during the program and long term outcomes for the younger or older low risk boys (Table 11), so a different set of dynamics needs to be considered to explain the observed program differences for these boys.

Perceptual and Attitudinal Factors Associated with Juvenile Delinquency. The interviews conducted with a representative sample of the study youth the year after the program provided the opportunity to measure other factors that have been associated with delinquent behavior in past research. Here the objective is to focus on perceptual and attitudinal factors that mediated the program differences observed between the YFAM and the Control programs in the subgroups of interest rather than with delinquency in general. Table 12 shows program-related differences on several potential mediators that were documented during the year after the program. Most of these differences were evident among the low risk boys where the YFAM program youth reported lower expectations of being caught and punished for delinquent behaviors ($t=2.56$, $df=60$, $p=.013$), fewer

moral scruples associated with delinquency ($t=2.87$, $df=60$, $p=.006$), lower self esteem in school and family contexts ($t=2.322$, $df=60$, $p=.024$) and less favorable self regard ($t=-3.119$, $df=60$, $p=.003$). All of these differences were in the criminogenic direction for the YFAM program youth.

In Table 13, the relationship between each potential mediator and an ordinal long term outcome variable (coded for three levels: out of the system, in the system but never in prison or CYA, or ever in prison or CYA for the males) is given. Among younger low risk boys, two of the factors that showed program effects were significantly correlated with the long term outcomes measured here (deterrence $r = -.26$, $p = .043$) and self esteem ($r = -.31$, $p = .016$) and self regard was marginally related ($r = .24$, $p = .059$). This means that youth with lower expectations of being caught and punished for delinquent behavior and those with lower school and family-based self esteem, were more likely to be incarcerated and less likely to be out of the justice system over the long term. And each of these factors showed program-related differences in the criminogenic direction the year after the program (Table 11). This is consistent with the inference that younger low risk boys in the group-based YFAM program (relative to those randomly assigned to the individual-based “supervision-as-usual” Control program) changed their view of the likelihood of getting caught and punished for delinquent activities i.e., they came to believe it was less likely that they would get caught or punished severely and developed less positive views of themselves in the context of school and family domains. These changes could have been developed as they became involved in personal relationships with older and more criminologically-advanced youth who attended the YFAM after school center in their neighborhood with them. This type of exposure has been called deviancy training (Dodge, Dishion and Lansford 2006) which has long history of research in the delinquency area and other personal development areas for youth. We will expand on this point in the discussion section.

The same set of mediators was also examined within the other two subgroups, the older boys and the girls and a couple showed program-related differences (i.e., less peer delinquency among mid risk YFAM boys $t=2.511$, $df=174$, $p=.013$; and among higher risk YFAM girls $t=2.165$, $df=60$, $p=.034$). Lower peer delinquency should have been a protective influence for these YFAM youth. This variable was correlated with more favorable long term outcomes for the mid risk boys and for the girls (Table 13).

Discussion

One important long term outcome documented here is a disadvantageous program impact on younger low risk boys. Of all the boys age 15 or younger who were assessed at low risk for recidivism at program intake, those who were randomly assigned to the YFAM program rather than the “supervision as usual” Control program were three times more likely to have been incarcerated in prison or CYA over the five years after the program (12% vs. 4%). At the end of the long term follow-up, 69% of these YFAM program youth were out of the criminal justice system altogether while 83% of their counterparts in the Control program were out. Several factors known to be associated with delinquent behavior that were measured during the year after the program offer clues to the reasons for this negative program impact. After the program, the younger low risk boys who had been in the YFAM program expressed lower expectations of being caught and punished for delinquent activities; lower self confidence or self esteem in the context of school and family and were more likely to believe that they were the type of kid who “gets into trouble” than was expressed by the younger low risk boys in the Control program. Each of these mediators was associated with the negative long term outcomes among the younger low risk study boys.

For all the youth on probation who participated in the intensive after school probation program studied here, negative long term outcomes were found only for the subgroup of boys who were younger, less sophisticated and less experienced with delinquent activities at program intake.

These youth interacted with the older more sophisticated youth almost daily in an after school center located in their neighborhood, so the friendships and interactions with program youth could naturally extend to school and neighborhood settings outside of the program as well.

The characteristics of youth likely to be harmed in group programs, according to the review by Dodge, Dishion and Lansford (2006a), are youth who are younger and only marginally involved in deviant or delinquent behavior who are grouped with more experienced youth in situations where some or all of the time together is unstructured or weakly structured. This type of exposure is especially powerful if that exposure extends beyond the boundaries of the program itself, which was likely the case for many youth in the YFAM program because the centers were located within catchment areas. Youth who attended each center lived and went to school in neighborhoods surrounding the center. In their discussion of vulnerability to deviant peer influence, Dodge, Dishion and Lansford (2006a) conclude that “deviant peer influence operates most strongly on those adolescents who are only marginally deviant (Caprara & Zimbardo, 1996; Vitaro, Tremblay, Kerr, Pagani & Burkowski, 1997). Youth who are firmly well adjusted may be able to resist deviant peer influences, and youth with very severe levels of deviance may be beyond influence of others” (p20-21). These authors reviewed a large body of past research in the area of delinquency and other areas of personal development, and document numerous examples of programs where youth who are more or less involved in problem behaviors are aggregated together in a program context with negative results. Based on their review they offer several recommendations for program practitioners (see Dodge, Dishion and Lansford 2006b).

Mark Lipsey (2006) provides a meta analytic review of community-based delinquency programs where he finds little evidence of negative effects overall. However, he did find smaller effect sizes in programs with more heterogeneity in the risk levels of the juveniles participating (e.g., a mix of low, mid and high risk youth) and smaller effects sizes for programs that included group treatment (e.g., group counseling) which he interprets as consistent with the conclusions above. The year after the YFAM program experiment, this intensive program appeared to be successful in terms of less recidivism and less self report delinquency for most of the youth involved. However, this study had the advantage of access to assessed levels of risk at intake and a strong research design that was based on random assignment to the new or usual probation program within the risk level. The strength of this research design made it possible to make powerful comparisons within levels of risk at intake into the future. No indications of any negative effects on the younger low risk youth surfaced in the recidivism records. Negative effects first surfaced after the program when they were reported in interviews by the study youth themselves. Five years later, the positive impact on mid and high risk youth found initially had dissipated. But the self-reported behaviors among the low risk youth presaged the later findings of further penetration into the criminal justice system experienced by the younger low risk boys.

Among the apparent mediators of this negative outcome was a change in the judgments made by these young boys on the likelihood of getting caught and the severity of punishment that would follow (perceptual deterrence). This is consistent with Jussim and Osgood’s (1989: see also Osgood and Briddell 2006) two stage model of the influence process. The first stage is the perception or communication of a group norm. We can speculate that the change in perceived deterrence-related beliefs among the younger low risk YFAM boys was encouraged by exposure to stories and past experiences communicated by the older and more experienced youth at the center. We cannot be sure what mechanisms caused a change in the view of the younger low risk boys, but due to the random assignment, we can conclude that the perceptions of these young boys were changed over the course of their time in the program. The low risk boys in YFAM changed their view of the norms around the likelihood that a person will get caught and severely punished for delinquent acts. The second stage of Jussim and Osgood’s model is that this new understanding influences the individual’s own behavior. We have observed here that over the long term, these new

perceptions were correlated with their long term outcomes which indicated that these boys actually became more involved in delinquent and criminal activities than did the low risk Control program boys.

A different dynamic may have been in play for the mid and high risk boys in the study that showed a positive program impact during the program year and the year after. High risk youth had fewer new arrests during the program and the year after and mid and high risk boys self reported less delinquent behavior overall during the year after the program. For the most part, these mid and high risk boys did not differ from their randomly equivalent counterparts on the perceptual and attitudinal indicators measured after the program (only younger mid risk boys reported less delinquent friends than their control). However, the mid and high risk YFAM boys (overall) were subject to more disciplinary actions taken by their probation officers during the program. This kind of “catch 22” is common in intensive supervision programs (see Petersilia, 1998) where the intensity of the supervision often leads to more probation violations and detention experiences. Indications of involvement in the criminal justice system that accumulate in an individual’s record, can play a part in advancing penetration into the system in various ways (Johnson, Simons, and Conger, 2004). Youth with more detention experiences for example are often treated more severely in their next encounter with law enforcement due to a labeling effect. Just looking at their records, it could appear that their behavior was more serious and harder to control due to the increased sanctions they experienced. Consequently, future sanctions would be calibrated in accordance with that view. The nature of the records inhibited our ability to count arrests and the seriousness of arrests over the long term, so we cannot confirm or discredit this speculation. Involvement in custody settings can change the way that sanctioned individuals are viewed. In this study there was an association between being detained in juvenile hall and long term outcomes such as the rate of incarceration.

Seventeen percent of the youth in this study were females. Unfortunately, we have less to say about their experiences, in part due to the small sample size (n=312) and the segmented pattern of findings. There were no significant differences in the long term outcomes for the YFAM and the Control program girls, despite the apparent positive impact of the YFAM program early on among high risk girls. Detention experiences during the program were correlated with the girls long term outcomes overall and lower risk YFAM girls were more likely to receive a probation violation during the program. The higher risk YFAM girls had more favorable outcomes in the short term, but no lasting differences at the level of the dispositions coded.

The results of this experimental trial confirm that the YFAM model, a neighborhood-based group intensive supervision program with collaboration between the county probation department and local service providers, is decidedly *not* a good match for the lower risk and younger youth. The study results in the context of past research suggest that the negative impact is likely tied to grouping together youth at various levels of risk over an extended period of time. For the lower risk and younger youth, the program had a strong negative impact over the long term that ended with fewer of these youth staying clear of continued involvement in the criminal justice system and more of these youth ending up incarcerated over the long term than their randomly equivalent counterparts. Young and low risk youth should not be assigned to this kind of intensive supervision model. This study powerfully conveys the concept that these youth will be better served in less intensive supervision arrangements without exposure to higher risk youth, especially those from their own neighborhoods.

Finally, it is important to note that there are no absolute definitions of low, mid and high risk. Here these levels were defined in a relative sense for the population of youth who received home on probation orders for the first time in areas of the county with high levels of juvenile crime. Fourteen dimensions of risk were examined at intake and youth who were in the upper quartile on no more than one dimension or less were labeled low risk. Yet these youth might be considered

mid risk relative to a community sample of youth where those with no arrests could be considered low risk. Youth who scored in the upper quartile on five or more risk factors were labeled high risk for this study. At the same time, other youth with the same level of risk factors who were already more heavily involved in the juvenile justice system (e.g., found unfit or previously sent to camp or juvenile hall) were not eligible for the YFAM program, so most of the high risk youth in the program were coming to the attention of the court for the first time. While the results varied by the relative levels of risk assigned at intake in this study, translating the levels as labeled here to other places and situations should be approached cautiously.

Table 1. Demographics in the Study Sample by Program Condition				Table 2. Risk Factors at Intake by Program Condition			
	YFAM	Control			YFAM	Control	
Number of cases	914	903			914	903	
				<u>Number of risk factor points</u>			
Gender				0	13.5%	15.8%	
Male	83%	83%		1	8.1%	7.6%	
Female	17%	17%		2	17.8%	18.7%	
Age				3	18.1%	15.1%	
12 or younger	3%	3%		4	17.1%	17.5%	
13	8%	7%		5	9.2%	10.0%	
14	16%	17%		6	7.3%	5.8%	
15	26%	28%		7	3.9%	4.2%	
16	32%	31%		8	2.4%	2.4%	
17	15%	14%		9	1.5%	1.7%	
Race/Ethnicity				10	0.6%	0.6%	
Black	23%	22%		11	0.4%	0.6%	
Hispanic	61%	59%		12	0.1%	0.1%	
Non Hispanic White	10%	11%		13	0.0%	0.0%	
Asian & Pacific Inlander	3%	4%		14	0.0%	0.0%	
Other	3%	4%					
				<u>Category of risk at intake</u>			
Number of arrests at intake (current and prior)				Low Risk (0 or 1 risk point)	22%	24%	
1	34%	36%		Mid Risk (more than 1, less than 5 risk points)	53%	51%	
2	36%	35%		High Risk (5 or more risk points)	25%	25%	
3 or more	30%	29%					

Table 3. The percent of youth in the YFAM and Control group that were assigned risk points within each sample.

Distribution of Risk Points assigned at Intake	Full Study Sample		Sampling Frame for Self-Report Study ¹		Achieved Self-Report Sample ²	
	YFAM	Control	YFAM	Control ²	YFAM	Control ²
Percent assigned risk points for each risk component	n=913	n=902	n=763	n=770	n=374	n=371
poor school performance	35%	35%	35%	34%	36%	33%
early onset of delinquent behavior	32%	31%	31%	29%	32%	30%
school disciplinary action	25%	24%	24%	23%	25%	25%
conduct disorder	24%	26%	25%	25%	25%	25%
referred for emotional / behavioral problems	27%	25%	24%	22%	25%	23%
variety of past delinquent behaviors	23%	21%	22%	19%	24%	22%
defiance of parents	24%	23%	24%	21%	24%	19%
parent criminal history	22%	22%	20%	20%	21%	17%
skip school	19%	20%	19%	19%	21%	22%
recent substance use	22%	23%	21%	23%	20%	25%
runaway from home	16%	15%	16%	13%	17%	14%
possible gang association	18%	20%	18%	20%	15%	18%
numerous significant life changes	17%	17%	16%	16%	15%	13%
negative attitude toward authority	9%	8%	7%	6%	8%	5%

¹ Area 1 and the first three months of intake were excluded from the Self-Reported Study Sampling Frame. The sampling was initiated in each area after a three month period for setting up systems and implementing the programs. Area 1 was located too far from the research base to allow routine home visits over the rolling two year interview period.

² The program groups do not vary in risk level categories in any sample.

³ Each month youth were randomly selected (blocked on prior program assignment) from the sampling frame to be contacted for an interview during the year after the program. 71% of the youth randomly selected from the sampling frame were successfully interviewed. No bias in the interview sample relative to the full sample or the sampling frame was observed.

Table 4. Short term outcomes and potential mediators coded from county records for the program year and one year after.¹

	n	OUTCOMES				POTENTIAL MEDIATORS			
		New arrest	X ²	Reside in community	X ²	Probation violation filed	X ²	Detained in juvenile hall ²	X ²
<u>During the program year</u>									
<u>Boys Only</u>									
Control Low Risk	181	24%		96%		14%		24%	
YFAM Low Risk	161	23%		92%		14%		26%	
Control Mid Risk	387	37%		82%		21%	**	37%	*
YFAM Mid Risk	411	42%		82%		29%		45%	
Control High Risk	179	68%	*	65%		38%	*	68%	*
YFAM High Risk	186	57%		65%		48%		77%	
<u>Girls Only</u>									
Control Lower Risk	69	20%		93%		11%	*	13%	†
YFAM Lower Risk	74	18%		89%		27%		26%	
Control Higher Risk	87	29%	*	90%		37%		39%	
YFAM Higher Risk	82	11%		83%		45%		40%	
Total Cases	1817								
<u>Year after the program³</u>									
<u>Boys Only</u>									
Control Low Risk	135	32%		94%		7%		18%	
YFAM Low Risk	118	26%		94%		6%		16%	
Control Mid Risk	271	43%	†	87%		18%		35%	
YFAM Mid Risk	280	36%		83%		16%		30%	
Control High Risk	147	57%	***	73%		19%		48%	
YFAM High Risk	157	40%		65%		24%		46%	
<u>Girls Only</u>									
Control Lower Risk	38	9%		92%		13%		18%	
YFAM Lower Risk	46	16%		93%		16%		20%	
Control Higher Risk	65	33%	†	95%		23%		26%	
YFAM Higher Risk	66	17%		93%		10%		27%	
Total Cases ¹	1323								

¹ This table is based on findings reported in the original report (Hennigan et al. 2003) funded by state of California through the second Challenge Grant for County Juvenile Probation in 1999.

² This variable was not included in the original report.

³ The sample size is smaller because a full year after the program had passed for only 1324 youth, 73% of the study sample at the time this original report was prepared.

[†] p=.10; * = p<.05; ** p<.01; *** p<.001

Table 5. Program outcomes based on measures of self-reported general delinquency and custody over a 6 month self report period 6 to 13 months after the program .¹

	Number of cases ²	Self-Report Delinquency Variety Score		Self-Report Delinquency Frequency Score		In custody ³ over part or all of the self report period	
<u>Outcomes for all youth</u>			t test within		t test within		χ^2 within
Control Low Risk	93	1.98	*	0.438	*	12.9%	
YFAM Low Risk	79	2.94		0.576		19.0%	
Control Mid Risk	192	3.63	t	0.637	*	31.4%	
YFAM Mid Risk	209	2.93		0.542		29.7%	
Control High Risk	84	5.37		0.784		64.3%	*
YFAM High Risk	86	4.36		0.708		45.4%	
Total Cases	743						
<u>ANOVA results:</u>			sig		sig		sig
Program effect		ns		ns		ns	
Risk level effect		F(2,737)=16.65	***	F(2,737)=11.16	***	F(2,737)=33.13	***
Program x Risk interaction		F(2,737)=3.32	*	F(2,737)=3.77	*	F(2,737)=3.58	*
¹ This table based on findings reported in the interview -based evaluation conducted during the year after the program (Hennigan et al. 2005). this evaluation was funded by Office of Juvenile Justice and Delinquency Prevention, U.S. Department of Justice, Grant 2000-JR-VX-0001.							
² The interview sample size was 745. Two were omitted due to missing data.							
³ Custody by self-report includes all occasions where the youth indicated spending a night in custody.							
¹ p=.10; * = p<.05; ** p<.01; *** p<.001							

	N	Delinquency Variety Score	Logged Normed Frequency by Crime Types ²										X ²	
			Violent Log Freq	Property Log Freq	Drug Sales Log Freq	Status Offenses Log Freq	Public Disorder Log Freq	In custody over self report period (no, yes)						
Younger Males³														
Control Low Risk	32	1.56	*	0.11		0.09	*	0.00	**	0.22	*	0.16		9.4%
YFAM Low Risk	25	3.92		0.22		0.26		0.10		0.41		0.19		12.0%
Control Mid Risk	86	3.38		0.24		0.23		0.09		0.36		0.18		37.5%
YFAM Mid Risk	89	3.22		0.21		0.21		0.08		0.33		0.19		36.0%
Control High Risk	37	4.22		0.39		0.27		0.12		0.30		0.19		73.0%
YFAM High Risk	37	5.54		0.33		0.37		0.20		0.45		0.30		54.1%
Total Cases	306													
Older Males³														
Control Low Risk	46	2.35		0.18		0.12		0.04		0.24		0.17		15.2%
YFAM Low Risk	35	2.91		0.28		0.19		0.08		0.28		0.18		22.9%
Control Mid Risk	70	4.13	*	0.27	*	0.28	*	0.11		0.36		0.31	**	30.0%
YFAM Mid Risk	82	2.78		0.14		0.16		0.08		0.33		0.17		25.6%
Control High Risk	28	6.86	*	0.52	t	0.38		0.20		0.47		0.45		64.3%
YFAM High Risk	33	4.39		0.33		0.33		0.13		0.34		0.36		42.4%
Total Cases	294													
All Females (two risk levels)														
Control Lower Risk	33	2.18		0.10		0.09		0.07		0.29		0.13		12.1%
YFAM Lower Risk	39	1.95		0.11		0.07		0.04		0.25		0.14		20.2%
Control Higher Risk	37	4.70	*	0.30	*	0.31	*	0.07		0.42		0.28		37.8%
YFAM Higher Risk	34	2.29		0.13		0.12		0.04		0.28		0.18		29.4%
Total Cases	143													

¹ Table based on findings reported in the interview-based evaluation (Hennigan et al. 2005).

² The frequency of self-reported activities of each type was recoded into none(1), bottom third (2), middle third (3) and top third (4).

³ Subgroups defined by median split on age in the interview sample.

¹ p=.10; * = p<.05; ** p<.01; *** p<.001

Table 7: Long Term Outcomes Coded for Younger Males by Program by Risk Level						
Younger Males	Number of cases	No new disposition	Probation Supervision	Custody Order (Camp or Jail)	Incarceration (CYA or Prison)	
Defined as: Most serious disposition received across five years post program ²						
Total	812					
Control Low Risk	86	59.3%	18.6%	18.6%	3.5%	*
YFAM Low Risk	77	46.8%	18.2%	23.4%	11.7%	
Control Mid Risk	225	36.4%	16.4%	34.2%	12.9%	t
YFAM Mid Risk	205	34.1%	15.6%	30.7%	19.5%	
Control High Risk	113	23.0%	12.4%	37.2%	27.4%	
YFAM High Risk	106	19.8%	16.0%	45.3%	19.8%	
† p=.10; * = p<.05; ** p<.01; *** p<.001						

Table 8: Long Term Outcomes Coded for Older Males by Program by Risk Level						
Older Males	Number of cases	No new disposition	Probation Supervision	Custody Order (Camp or Jail)	Incarceration (CYA or Prison)	
Defined as: Most serious disposition received across five years post program						
Total cases	682					
Control Low Risk	92	48.9%	14.1%	28.3%	9.8%	
YFAM Low Risk	83	59.0%	10.8%	22.9%	7.2%	
Control Mid Risk	162	42.6%	13.0%	24.1%	20.4%	
YFAM Mid Risk	200	43.0%	11.5%	27.5%	18.0%	
Control High Risk	66	22.7%	7.6%	33.3%	36.4%	
YFAM High Risk	79	32.9%	8.9%	24.1%	34.2%	
† p=.10; * = p<.05; ** p<.01; *** p<.001						

Table 9: Long Term Outcomes Coded for Females by Program by Risk Level					
	Females	Number of cases	No new disposition	Probation Supervision	Custody Order (Camp, Jail, Prison, CYA)
Defined as: Most serious disposition received across five years post program					
	Lower Risk Control	69	68.1%	17.4%	14.5%
	Lower Risk YFAM	74	71.6%	17.6%	10.8%
	Higher Risk Control	87	59.8%	17.2%	23.0%
	Higher Risk YFAM	82	54.9%	20.7%	24.4%
	Total Cases	312			
† p=.10; * = p<.05; ** p<.01; *** p<.001					

Table 10. Program effects within subgroups on potential mediating factors measured during the program.									
		Probation violation filed during the program year				Detained in juvenile hall in the program year			
	n	no	yes	X ²	direction ¹	no	yes	X ²	direction ¹
Younger Boys									
Low Risk Control	86	92%	8%	ns		81%	19%	ns	
Low Risk YFAM	77	86%	14%			75%	25%		
Mid Risk Control	225	81%	19%	***	C	63%	37%	*	C
Mid Risk YFAM	208	65%	35%			51%	49%		
High Risk Control	113	59%	41%	ns		32%	68%	ns	
High Risk YFAM	107	60%	40%			27%	73%		
Older Boys									
Low Risk Control	92	80%	20%	ns		71%	29%	ns	
Low Risk YFAM	83	87%	13%			73%	27%		
Mid Risk Control	162	76%	24%	ns		64%	36%	ns	
Mid Risk YFAM	200	77%	23%			59%	41%		
High Risk Control	66	67%	33%	**	C	33%	67%	*	C
High Risk YFAM	79	41%	59%			18%	82%		
Females									
Lower Risk Control	69	94%	6%	***	C	87%	13%	ns	
Lower Risk YFAM	74	74%	26%			74%	26%		
Higher Risk Control	87	70%	30%	ns		61%	39%	ns	
Higher Risk YFAM	82	62%	38%			60%	40%		
¹ Significant effects in the criminogenic direction for the YFAM Program are coded "C" and those in the protective directions coded "P".									
[†] p=.10; * = p<.05; ** p<.01; *** p<.001									

Table 11. Program effects within subgroups on potential mediating factors measured during the year after the program.

	n	Perceptual Deterrence			Moral /Remorse			Peer Delinquency			Self Esteem			Self Label			
		Mean	sd	t test ¹	Mean	sd	t test ¹	Mean	sd	t test ¹	Mean	sd	t test ¹	Mean	sd	t test ¹	
Younger Boys																	
Low Risk Control	34	1.42	0.34	* C	3.16	0.52	**a C	1.75	0.61	ns ^a	4.81	0.60	*a C	2.12	1.36	**a C	
Low Risk YFAM	28	1.19	0.36		2.66	0.83		2.04	0.90		4.40	0.79		3.29	1.58		
Mid Risk Control	96	1.26	0.37	ns	2.72	0.61	ns	2.58	1.26	*a P	4.35	0.73	ns	3.58	1.46	ns	
Mid Risk YFAM	95	1.34	0.36		2.88	0.62		2.13	1.05		4.54	0.71		3.24	1.43		
High Risk Control	40	1.29	0.36	ns	2.48	0.72	ns	3.27	1.40	ns	4.42	0.70	ns	4.26	1.46	ns	
High Risk YFAM	41	1.28	0.40		2.47	0.70		2.87	1.35		4.42	0.68		4.23	1.39		
Older Boys																	
Low Risk Control	44	1.44	0.35	** C	2.99	0.61	ns	2.15	1.16	ns	4.63	0.56	ns ^a	3.02	1.44	ns	
Low Risk YFAM	32	1.21	0.40		2.85	0.61		2.03	1.05		4.62	0.90		2.94	1.44		
Mid Risk Control	62	1.31	0.40	ns	2.68	0.71	ns	2.36	1.10	ns	4.60	0.81	ns	3.50	1.61	ns	
Mid Risk YFAM	76	1.33	0.39		2.88	0.70		2.46	1.19		4.47	0.75		3.35	1.58		
High Risk Control	25	1.28	0.36	ns	2.56	0.66	ns	2.96	1.06	ns	4.30	0.79	ns	4.00	1.21	ns	
High Risk YFAM	29	1.35	0.38		2.76	0.55		2.43	1.06		4.41	0.73		3.96	1.26		
Females																	
Lower Risk Control	33	1.37	0.42	ns	3.24	0.68	ns	1.85	0.66	ns ^a	4.78	0.85	ns	2.59	1.62	ns	
Lower Risk YFAM	39	1.37	0.42		3.01	0.73		2.24	1.24		4.59	0.82		2.85	1.51		
Higher Risk Control	37	1.45	0.38	ns	2.84	0.65	ns	2.31	1.08	*a P	4.53	0.96	ns	3.48	1.60	ns	
Higher Risk YFAM	34	1.41	0.35		2.84	0.67		1.81	0.7		4.67	0.92		2.94	1.50		

¹ Significant effects in the criminogenic direction for the YFAM Program are coded "C" and those in the protective directions coded "P".

^a t test was adjusted for unequal variances

ⁱ p=.10; * = p<.05; ** p<.01; *** p<.001

Table 12. Relationship between long term outcomes and probation violations and time in detention during the program.

		Probation violation			Detained in Juvenile Hall		
Young Males by Risk		no	yes	X ²	no	yes	X ²
Low Risk n=163	out of system	90%	10%	ns	79%	21%	ns
	in system or in custody	89%	11%		78%	22%	
	incarcerated	83%	17%		75%	25%	
Mid Risk n=430	out of system	77%	23%	ns	70%	30%	***
	in system or in custody	74%	26%		57%	43%	
	incarcerated	64%	36%		27%	73%	
High Risk n=220	out of system	62%	38%	ns	45%	55%	***
	in system or in custody	56%	44%		31%	69%	
	incarcerated	65%	35%		11%	89%	
Older Males by Risk							
Low Risk n=175	out of system	90%	10%	ns	77%	23%	ns
	in system or in custody	82%	18%		68%	32%	
	incarcerated	87%	13%		60%	40%	
Mid Risk n=362	out of system	85%	16%	**	72%	28%	***
	in system or in custody	73%	27%		62%	38%	
	incarcerated	65%	35%		35%	65%	
High Risk n=145	out of system	61%	39%	ns	34%	66%	**
	in system or in custody	57%	43%		34%	66%	
	incarcerated	41%	59%		8%	92%	
Females by Risk							
Lower risk n=143	out of system	87%	13%	ns	87%	13%	**
	in system	80%	20%		72%	28%	
	in custody or incarcerated	72%	28%		56%	44%	
Higher risk n=169	out of system	72%	28%	ns	70%	30%	**
	in system				50%	50%	
	in custody or incarcerated	58%	42%		45%	55%	
† p=.10; * = p<.05; ** p<.01; *** p<.001							

Table 13. Relationship between long term outcomes¹ and mediators that showed program differences one year post program.

		n	Perceptual Deterrence	r	Crime is wrong and engenders remorse	r	Peer Delinquency	r	Hare Self Esteem Scale (school/family)	r	Self Regard (I'm the kind ... who gets into trouble)	r
Young Males by Risk ¹												
	Low Risk	62	-0.26	*	-0.17		0.02		-0.31	**	0.24	t
	Mid Risk	190	-0.16	*	-0.08		0.21	**	0.07		0.11	
	High Risk	81	-0.30	**	-0.19		0.10		-0.18		0.04	
Older Males by Risk ¹												
	Low Risk	76	0.03		-0.23	*	0.08		-0.08		0.19	**
	Mid Risk	138	-0.02		-0.15		0.17	*	-0.11		0.23	
	High Risk	54	-0.08		-0.14		-0.08		-0.02		0.19	
Females by Risk ²												
	Lower Risk	72	-0.12		-0.29	*	0.30	*	0.00		0.22	t
	Higher Risk	71	-0.18		-0.19		0.21	t	-0.02		0.23	**

¹ For the boys, long term outcomes are coded ordinally (1=out of the system; 2=in the system including in custody but not including incarceration; and 3= incarcerated in prison or CYA.

² For the girls, long term outcomes are coded ordinally (1=out of the system; 2=in the system but not in custody or incarceration; and 3= in custody in a probation camp or juvenile hall, or in jail or incarcerated in prison or CYA.

^t p=.10; * = p<.05; ** p<.01; *** p<.001

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