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Experimental Community-Based Interventions for Delinquent Youth: An Evaluation of Recidivism and Cost-Effectiveness

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Research has documented negative effects of residential confinement in treating delinquent youth. Negative influences of anti-social peers, the institutional environment, as well as disproportion in the intensity of traditional juvenile incarceration relative to youths' underlying risk levels, may each contribute to these findings in the literature (Latessa & Lowenkamp, 2006). These detrimental factors, as well as serious budget constraints including a 12 percent reduction in tax revenue and cuts in juvenile justice funding throughout the nation, have led many to question the viability and efficacy of institutional treatment for moderate risk juvenile offenders (Andrews & Bonta, 2006; Kam, 2010; McNichol et al., 2010). The current assessment examines the recidivism and cost effectiveness of experiential, community-based programs. Using a quasi-experimental design, the evaluation compares similar risk youth served in day treatment and juvenile residential programs in Florida. Results reveal that the experiential community-based programs achieved statistically significantly lower rates of recidivism and subsequent placements compared to a matched sample of residential youth. Substantial differences were found for subsequent felony offending, with moderate to strong estimated mean effect sizes achieved by experiential non-committed programs in comparison to the residential matched group. With cost savings of \$23,000 per youth, results suggest that community-based programming represents both a programmatic and cost effective alternative to residential incarceration for delinquent youth.

Keywords: community-based; juvenile justice programs; residential commitment; recidivism effectiveness; cost effectiveness

The economic recession in the United States following the subprime mortgage crisis at the end of 2007, left states reeling from the effects of an average 12% reduction in state tax receipts (McNichol, Oliff, & Johnson, 2010). Budget deficits ranged from the hundreds of millions in smaller states to larger deficits of more than \$3 billion in Florida and \$17 billion in California (Kam, 2010; McNichol et al., 2010). As a result, states began exploring ways to reduce spending and increase the efficiency of critical services, including public safety programming. Criminal and juvenile justice expenditures were targeted, with states such as Florida attempting to reduce costs of delinquency interventions by diverting youth from costly residential treatment to community-based programming.

The decisions for these shifts were and continue to be guided by a growing scientific literature of systematically collected

and reviewed outcome research documenting the effectiveness of community-based treatments that address adolescents' risks and criminogenic needs—personal, familial, or social characteristics that place a juvenile offender at risk for recidivism (Andrews, Zinger, Hoge, Bonta, Gendreau & Cullen, 1990; Lipsey, 1999). The use of such interventions is a strategy many states are now adopting in an effort to both reduce juvenile recidivism and avoid costs associated with juvenile detention and confinement.

The purpose of the current assessment is to add to this growing body of work by examining the efficacy of experiential, community-based programs in comparison to residential commitment. We explore subsequent juvenile and adult court involvement following program completion from community-based and residential services. Further, the assessment analyzes the relative costs of each intervention option and presents recommendations for future research.

Prior Research

Andrews and colleagues (1990) championed the strategy of matching adolescent risks and needs to treatment as they began

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to assimilate correctional outcome studies using meta-analytic techniques. They began to develop a framework for principles of effective intervention that emphasized individualized treatment and a psychologically informed approach to addressing criminal conduct (Andrews, Zinger, Hoge, Bonta, Gendreau, & Cullen, 1990). The weight of the meta-analytic evidence suggested that greater recidivism reduction effects could be achieved by assessing individuals for risk to recidivate and targeting interventions to those at highest risk (Andrews, 1990; Gendreau, 1996). Treating dynamic risk factors found in the research to be the strongest predictors of reoffending, rather than non-criminogenic needs, was critical to success, especially in view of scarce resources. By matching delinquent youth to services based on their individual risks and needs, rehabilitative treatment could be made more efficient and effective.

In view of continued economic constraints, the question may be asked whether states can implement a strategy using less expensive community-based treatment founded upon this framework and achieve outcomes comparable to or better than institutional programming. Lipsey (1999) found that juvenile probation, parole, and community-based programming tended to have greater effect sizes than institutional programs. Others (Andrews & Bonta, 2006) have reached similar conclusions. Even though differences in efficacy between institutional and community-based programming have been found fairly consistently, the nature and quality of the services make a powerful difference. While Lowenkamp, Latessa and Holsinger (2006) failed to find that community-based treatments were necessarily more effective than correctional programs, they did find that adherence to the principles of effective treatment differentiated ineffective and effective community-based programming. In corroborating research, Latessa and Lowenkamp (2006) reported lowered recidivism rates for programs, whether residential or non-residential, that targeted high-risk offenders with increased supervision, treatment dosage and duration, and referrals to outside resources. Programs incorporating these principles, while monitoring implementation fidelity, appear to lower juvenile recidivism rates (Holsinger, 1999; Lowenkamp, Makarios, Latessa, Lemke, & Smith, 2010).

In a more recent meta-analysis of 545 treatment programs, the Washington State Institute for Public Policy (Drake, Aos, & Miller, 2009) found a number of effective community-based treatment programs that were reasonably priced and demonstrated positive returns. Included among these were Multidimensional Treatment Foster Care, Functional Family Therapy, Adolescent Diversion Project, Multisystemic Therapy, and Family Integrated Transitions. In most of these studies, the characteristics of the offenders and the specific type and quality of treatments provided were generally more powerful predictors of success than the site of the program. However, more positive outcomes were associated with treatments taking place in the community—the enduring environment of the youth (Drake, et al., 2009). In sum, the research suggests that treatments designed to have an effect not only on the individual (e.g., problem-solving skills, criminal thinking, anti-social personality traits), but also on their social environment, (e.g.,

communication--refusal skills, anti-social peer associations) are more likely to be effective.

AMIkids Day Treatment Programs

Juvenile justice interventions come in a variety of forms and typically fall within one of seven philosophical approaches: surveillance, deterrence, discipline, restoration, counseling, skill building, and wrap around services (Lipsey, 2009). Of these approaches, skill-building models (which includes experiential learning and challenge programs) show some promise as an effective juvenile intervention (Gillis & Gass, 2010; Lipsey, 2009; Wilson & Lipsey, 2000).

Founded in 1969, the non-profit AMIkids, Inc. (formerly Associated Marine Institutes), formed in direct response to ineffective programming in the juvenile justice system. The foundation of AMIkids' approach is to provide treatment in an experiential setting, specifically through marine vocational instruction. Over the course of 50 years, AMIkids expanded its approach through development of the AMIkids Culture which includes six core components: bonding, family atmosphere, non-prison environment, positive learning environment, gender responsiveness, and cultural relevancy (AMIkids Personal Growth Model, 2010). Today, AMIkids serves at-risk and delinquent youth around the nation through four primary program settings: 1) residential programs for adolescent males, 2) programs for at-risk girls, 3) alternative schools, and 4) community-based experiential learning environments (such as day treatment, marine institutes, and wilderness camps). Focusing on the latter, we sought to evaluate the effectiveness of community-based experiential programs at reducing subsequent offending and providing a cost-effective alternative to residential care for juvenile offenders. Specifically, we examined the extent to which similar risk youth, as assessed through standardized risk assessments, may be served as effectively, if not more effectively, through interventions such as AMIkids programming than through traditional juvenile residential commitment.

Methods

Data. Data for the study were compiled from the Florida Department of Juvenile Justice (FDJJ), Juvenile Justice Information System (JJIS), Florida Department of Law Enforcement's Florida Criminal Information Center (FCIC), Florida Department of Corrections (FDOC), FDJJ Office of Management and Budget, and FDJJ Bureau of Quality Assurance. The JJIS was used to identify the youth who completed AMIkids and residential services during fiscal year 2007-08. Demographic data for these youth, as well as their offense histories, were obtained from JJIS. Youth who subsequently re-offended were identified through both juvenile offense records in JJIS and through adult records in FCIC and FDOC.

Sample. In a given year, approximately 1,000 male and female juvenile offenders are sentenced to an AMIkids day treatment program in Florida. During daytime hours, youth participate in skill-building, vocational treatment services and

return home for the evening; most receive services on the weekends as well. Day treatment is reserved for youthful offenders who need a higher level of care and supervision than traditional, probation supervision (FDJJ, 2009). Although Florida classifies day treatment as a probation intervention, it is programmatically similar to residential services. Youth spend the majority of their time at the facility, are higher risk than traditional supervision cases, and have comparable risks and needs to youth in residential placements. As such, the current analyses compared youth who completed an AMIkids day treatment program (N=1,083) to a matched sample of juveniles who completed secure residential programming (N=6,158) during fiscal year 2007-08.

A completion was defined as any youth designated in the JJIS as having successfully completed the program and been assigned to probation following release or been directly discharged without subsequent supervision, and/or reached the maximum juvenile jurisdictional age or term served (FDJJ, 2010a and 2010b). Completions are the basis of program outcome comparison, as opposed to including all releases, as this follows the methodology used by the FDJJ and examines only those youth deemed to have received and completed services, versus those who received minimal dosage and duration of services (FDJJ, 2010a and 2010b).

Measures. Recidivism, operationally defined as any adjudication or conviction within one year of program completion, was the primary focus of the assessment (this definition was consistent with prior research on juvenile recidivism, see FDJJ, 2010a and 2010b; McMackin, Tansi, & LaFratta, 2004; Myner, Santman, Cappelletty, & Perlmutter, 1998). Additionally, we examined alternate youth outcome measures including subsequent felony adjudication or conviction, arrest and felony arrest, and placements into commitment, adult probation or prison within one year of program completion.

Placement in either community-based day treatment or residential commitment programming was the primary independent variable of interest (1=AMIkids Day Treatment, 0=Residential Placement). Consistent with prior research the study examined the impact of gender (1=male, 0=female), race (1=Black, 0=White), ethnicity (1=Hispanic, 0=White) and age indicators on disposition and youth outcomes (FDJJ, 2010a and 2010b). Controlling for prior record, the study also includes number of prior charges and adjudications and seriousness indicators in the statistical modeling. Seriousness index scores for prior referrals were also included as a measure of prior offense history. This measures offense gravity for both prior referral and arrest. A weighted system assigns point values to specific offense types, as crime seriousness increases, so does the seriousness score (FDJJ, 2010a and 2010b).

Analytic Procedures

Youth completing experiential day treatment programs were compared to a matched sample of youth completing low, moderate and high restrictiveness level residential programs. Restrictiveness levels refer to the physical and staff security

levels of the facility, as opposed to youths' risk to re-offend (FDJJ, 2010a). Youth were matched however by individual risk level, as measured by the validated Positive Achievement Change Tool (PACT) used by FDJJ to assess criminogenic risks and needs.

To ensure an equitable comparison between youth completing day treatment services and residential programming, propensity score matching (PSM) was used to statistically control for inherent differences between the groups. In a typical application, PSM compensates for possible biases imposed under non-experimental conditions (e.g., lack of randomization) by modeling the selection process related to placement, then comparing outcomes for subjects with a similar likelihood of probation dispositions, but different actual rates of supervision placement. The study relied upon Rosenbaum and Rubin's (1983) method PSM measures. The propensity score was calculated as the probability of a youth completing day treatment services versus residential programming using the probabilities produced by a logistic regression model. Youth with the same propensity score were matched and divided into two groups, those who did and did not receive the community-based experiential interventions.

Table 1.
Independent Variable List for Inclusion in the Matching Process

Variables	B	SE B
Youth is Male	-0.049	0.000
Youth is Black*	-0.007	0.557
Youth is Hispanic	0.046	0.000
Age at Release	-0.126	0.000
Age at First Arrest	0.100	0.000
Prior Referral Seriousness Index	-0.210	0.000
Total Prior Charges	-0.253	0.000
Total Prior Felonies	-0.169	0.000
Total Prior Misdemeanors	-0.173	0.000
Prior Adjudicated Seriousness Index	-0.217	0.000
Total Prior Adjudicated Charges	-0.226	0.000
Total Prior Adjudicated Felonies	-0.167	0.000
Total Prior Adjudicated Misdemeanors	-0.160	0.000

**Although not significant, was included because of its documented relationship with recidivism.*

The logistic regression model was based on the significant differences between youth completing AMIkids day treatment services (N=1,083) and all non-AMIkids youth completing residential programs (N=6,158) in the same fiscal year. Differences in the samples were examined using bivariate analyses. Table 1 lists the factors found to be significantly different between the two samples or considered important factors to control for between populations based on their relationship to the

outcome. The independent variables were then included in the logistic regression model to calculate the propensity scores.

The independent variables selected are those known in prior research to have been significantly related to recidivism outcomes and not impacted by the treatment of interest. Although other social-risk variables such as current alcohol and drug use, or aggression may also have significantly differed between the two groups, they were not considered for inclusion given their potential correlation with the treatment received (Stuart, 2010). While some variables may be significantly collinear, with propensity score estimation (PSE) there is less concern with the parameter estimates of the model than with the resulting balance of the covariates (Augurzy & Schmidt, 2001). Further, Stuart (2010) notes that the inclusion of variables that are unassociated with treatment assignment are of little influence in the

propensity score model. Rather, the potential for an increase in bias is more likely to occur as the result of the exclusion of important confounders. Given research (FDJJ & Justice Research Center, 2006) in Florida on the increased likelihood of minority youth being arrested, adjudicated, and committed as compared to non-minority youth, race/ethnicity, though statistically insignificant between the samples ($p > .05$), was included in the model.

Using these independent variables, individual probabilities for placement in day treatment versus a residential commitment were calculated using logistic regression. The probabilities were used as the estimate of the propensity score. Using 'nearest neighbor' techniques, the scores were then used to match youth completing day treatment to similar youth completing residential services during the study time period.

Table 2.
Logistic Regression Results

Independent Variables	B	S.E.	Wald	df	Sig	R	Exp(B)
Youth is Male	-0.17	0.09	3.09	1.00	0.08	-0.01	0.85
Youth is Black	0.55	0.11	22.96	1.00	0.00	0.06	1.73
Youth is Hispanic	0.35	0.08	19.81	1.00	0.00	0.05	1.42
Age at Release	-0.22	0.03	49.08	1.00	0.00	-0.09	0.80
Age at First Arrest	0.06	0.02	6.33	1.00	0.01	0.03	1.06
Prior Referral Seriousness Index	-0.02	0.01	2.36	1.00	0.12	-0.01	0.98
Total Prior Charges	-0.23	0.02	199.22	1.00	0.00	-0.18	0.79
Total Prior Felonies	0.29	0.08	13.21	1.00	0.00	0.04	1.34
Total Prior Misdemeanors	0.28	0.04	56.18	1.00	0.00	0.09	1.32
Prior Adjudicated Seriousness Index	-0.14	0.03	27.56	1.00	0.00	-0.06	0.87
Total Prior Adjudicated Charges	0.23	0.03	47.72	1.00	0.00	0.09	1.26
Total Prior Adjudicated Felonies	0.28	0.14	3.91	1.00	0.05	0.02	1.33
Total Prior Adjudicated Misdemeanors	-0.01	0.06	0.02	1.00	0.89	0.00	0.99
Constant	2.88	0.48	36.33	1.00	0.00		

Supplemental analyses included descriptive statistics and independent samples t-tests. The descriptive statistics illustrated baseline measures on the outcome variables of interest -subsequent arrest, felony arrest, adult conviction/juvenile adjudication, felony adjudication or conviction, or subsequent commitment, adult probation or prison. Independent samples t-tests were used to test for significant differences in the outcomes between the day treatment and matched residential samples.

Results

The initial and post-PSM sample compositions are presented in Table 3. There were some notable differences between the experiential learning and residential samples prior to matching. Compared to day treatment, the residential youth had higher proportions of males, older youth at the time of completion, youth whose delinquency began at a younger age, and youth with more extensive and serious offense histories.

Following the PSM adjustments, the final sample compositions were more balanced than in the initial comparisons (Table 3). Only one of the PSM inclusion variables remained significantly different, average age at release. This was due primarily to the small variance that existed in the variable in the matched samples ($S^1=1.14$, $S^2=1.38$, respectively). The differences were minimal, however, with an average age of 16.6 years for day treatment youth and 16.4 years for the residential comparison. In addition to these differences, average length of stay, which was not controlled for through PSM, was also found to be significantly different. However, since average length of stay is a condition of the program services it was determined that the differences in the samples should, in fact, remain. Overall, 22% of the total day treatment sample matched to low-risk residential youth, 64% matched to moderate-risk, and 14% matched to juveniles completing high-risk residential programs.

Table 3.
Comparisons for Day Treatment and Residential Samples

Day Treatment to Residential	Original Sample		PSM Sample	
	Day Treatment Sample	Matched Residential Sample	Day Treatment Sample	Matched Residential Sample
Total Completions	1,083	6,158	1,083	1,083
Males	862 (80%)	5,210 (85%)	862 (80%)	875 (81%)
Blacks	553 (51%)	3,204 (52%)	553 (51%)	571 (53%)
Hispanics	155 (14%)	3,632 (10%)	155 (14%)	167 (15%)
Average Age at Admission*	16.2	16.4	16.2	15.8
Average Age at Release	16.6	17.1	16.6	16.4
Average Age at First Offense	13.9	13.3	13.9	13.8
Average Prior Referral Seriousness Index	23.8	45.5	23.8	24.8
Average Prior Adjudication Seriousness Index	10.9	22.1	10.9	10.8
Average Number of Prior Charges	9.3	19.4	9.3	9.8
- Felonies	2.7	5.3	2.7	2.8
- Misdemeanors	3.5	5.5	3.5	3.6
Average Number of Prior Adjudications	4.2	8.1	4.2	4.3
- Felonies	1.1	2.5	1.1	1.1
- Misdemeanors	1.7	2.7	1.7	1.7
Average Length of Stay (LOS)	167.8	250.1	167.8	22.2

Table 4 shows the overall outcome comparisons and significant test results. The experiential day treatment sample achieved significantly better outcomes than residential programming, despite serving youth with similar pre-conditions following the PSM procedure. The percent difference observed between the groups was 5% for both subsequent rates of arrest and juvenile adjudication/adult conviction. The rate differences expected (95% confidence intervals) ranged anywhere from one to nine percent, favoring day treatment completions. The rate differences expected with regard to subsequent felony arrests and convictions was substantially higher, ranging from between 8% to 16% for a subsequent felony arrest, and 6% to

13% for a subsequent felony re-adjudication or adult conviction. Further, youth completing day treatment services were significantly less likely to be committed, placed on adult probation, or sentenced to prison following release. In sum, after controlling for sample differences and covariate predictors of recidivism, the community-based, day treatment cohort was significantly less likely to be adjudicated or convicted for an offense within 12 months of completing services (38% day treatment recidivism rate versus 43% residential recidivism rate), and substantially less likely than their residential counterparts to be arrested or convicted for a felony offense.

Table 4.
Outcome Comparisons on Youth Completions FY 2007-08

	Total Completions	Recidivism		Re-Arrest		Felony Re-Arrest		Felony Reconviction		Subsequent Commitment, Adult Probation or Prison	
		Rate	T (Sig)	Rate	T (Sig)	Rate	T (Sig)	Rate	T (Sig)	Rate	T (Sig)
AMIkids Day Treatment	1,083	38%		54%		30%		18%		23%	
			-245(0.01)		-2.30(0.02)		-5.95(0.00)		-5.05(0.00)		-2.99(0.00)
Matched Residential Sample	1,083	43%		59%		42%		2%		29%	
Expected Rate Difference (95% Confidence Intervals)		1.0% - 9.3%		0.7% - 9.1%		8.2% - 16.2%		5.5% - 12.6%		1.9% - 9.3%	

Table 5 presents the effect sizes for the day treatment and comparison groups. Standardized mean difference effect sizes were calculated relative to an underlying base recidivism rate of 50 percent. Given equal numbers of youth in each group, it was not necessary to weight the effect sizes. Positive mean ef-

fects would indicate that the day treatment group had lower recidivism and subsequent placement rates than the residential group. Negative individual effects would reflect rates greater than the baseline of 50 percent,

Table 5.
Mean Effect Size Estimates for Day Treatment and Residential Samples

Program	Re-Adjudication/ Conviction Rate	Re-Arrest Rate	Felony Re-Arrest Rate	Felony Re-Adjudication/ Conviction Rate	Recommitment, Adult Probation, or Prison Incarceration
Day Treatment	0.24	-0.08	0.41	0.77	0.60
Residential	0.14	-0.18	0.16	0.55	0.47
Effect Size	0.10	0.10	0.25	0.22	0.13

Comparing the residential matched sample to day treatment reveals positive effects ranging from 0.10 to 0.25 across the five outcome measures presented in Table 5 and Figure 1. Relatively strong effect sizes were found for subsequent felony arrest and conviction rates at 0.25 and 0.22, respectively.

Cost Benefit Analysis

The relative expense of AMIkids day treatment and residential services was established using the FDJJ's standard method for calculating program costs. Cost figures were obtained from the FDJJ 2008 Comprehensive Accountability Report (CAR), which were based on actual expenditures for services. The FDJJ derived costs from provider invoices and included both state and federal expenditures. The total costs were then divided by all youth completing services. Costs per completion were weighted by the representation of day treatment youth within each restrictiveness level of the matched residential sample. According to the FDJJ figures, on average it cost \$8,498 per completion for low-risk, \$38,886 for moderate-risk, and \$65,969.90 for high-risk residential services. In comparison, it cost an average of \$12,632 per completion from an AMIkids day treatment program. Based on the weighting procedure for the comparison sample, the average cost per completion for each youth in the matched residential group was \$35,872. The difference in expense between the day treatment and residential programming was \$23,240 dollars for each youth completing services. Figure 2 illustrates the projected expenditures for graduating 100, 250, 500, 750, and 1000 youth from day treatment or residential programs. The cost comparison demon-

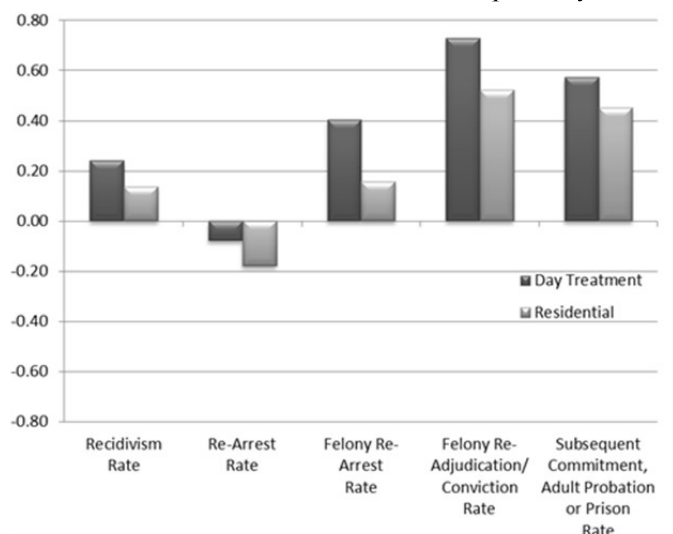


Figure 1. Program Effect Size Estimates for Day Treatment and Residential Services

strates that the state saves over two million dollars for every 100 youth who complete AMIkids day treatment services versus similar youth in residential programming. Potential cost savings for completing 1000 youth in day treatment, as an alternative to commitment, is \$23,240,110 million dollars per year.

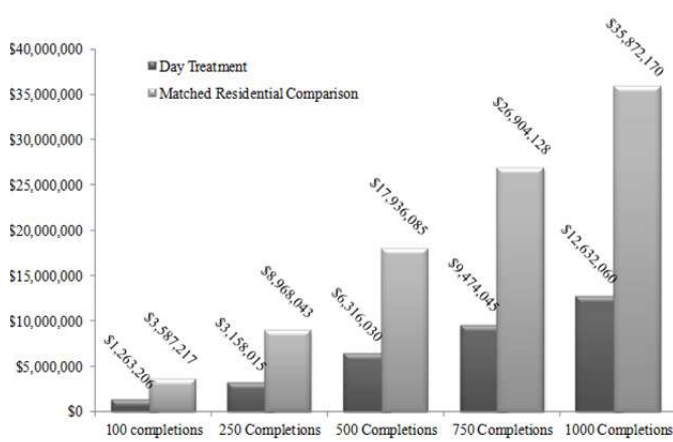


Figure 2. Cost Comparisons for Day Treatment and Residential Completions FY 2007-08

Discussion

Recent meta-analytic and evaluation research on juvenile justice programming has documented the negative effects of institutional treatment for youthful offenders, particularly low to moderate risk youth who do not require the intensity and duration of residential interventions and may actually be at increased risk for relapse if committed. The effectiveness of community-based, experiential day treatment services; however, has not been fully explored to determine whether they can reduce recidivism among juvenile offenders. The current study examined the recidivism and cost effectiveness of a national delinquency day treatment provider, AMIkids Inc., and found that in comparison to a matched sample of youth completing residential programming, the community-based, day treatment group was significantly less likely to be re-adjudicated or re-convicted for an offense within 12 months of release.

Of particular note, while overall re-arrest rates for the day treatment youth were slightly better than the residential group, subsequent felony arrest and adjudication/conviction was substantially lower for the day treatment cohort. It would appear that skill building programs, specifically one that employs experiential learning opportunities within the community, are able to achieve comparable if not substantially better outcomes than serving similar risk youth in residential commitment programs in Florida. Mean effect sizes ranged between 0.10 and 0.25 across the five outcome measures, using the residential matched sample as a comparison to the day treatment group. Coupled with cost comparisons demonstrating a savings of

over \$2 million dollars for every 100 youth completing AMIkids day treatment, the findings suggest that these community-based interventions represent a viable option for effectively reducing delinquency at significant costs savings to state juvenile justice systems.

The current study represents an initial examination of one experiential program model and is limited to evaluating only the day treatment component of services offered by the provider. Future research should explore specific programming strategies, as well as service dosage and duration measures, to identify practices that are associated with reductions in juvenile recidivism. Additionally, to further evaluate the efficacy of day treatment services research should examine the relative effectiveness of these interventions compared to other, non-residential programs available in Florida. Staff in AMIkids day treatment programs follow a manualized system of care referred to as the Personal Growth Model. While data were not available for the current study, future analysis should assess whether model fidelity is associated with improved outcomes, and if so, whether reductions in subsequent offending and at-risk behaviors vary for certain types of youth (e.g., males, females, younger, higher risk youth, for example).

The Association for Experiential Education (2011) reported positive effects of adventure therapy programming compared to incarceration, when certain elements are coupled with therapeutic services. Relying on prior research (Gass, 1993; Gillis & Gass, 2010), the Association outlined seven factors associated with successful programs including treatment that: employs action-oriented experiences; uses unfamiliar client environments; produces change through the positive use of stress; relies on client assessment to inform care; delivers services in small, supportive groups; uses solution-oriented practices; and allows the therapist to actively engage in and frame services (Association, 2011). In the current study, the day treatment model we evaluated integrated experiential learning, vocational instruction, education and challenge experiences in seamanship, water safety, fishing, low ropes, high ropes, backpacking, gardening, culinary arts, and/or wilderness adventures (e.g., rafting, scuba diving, and rappelling). For many clients, these involve unfamiliar environments and experiences. AMIkids reports that experiential activities take place in small groups, which foster a more relaxed atmosphere with staff and facilitate cognitive behavioral change. The extent to which these specific strategies address offenders' individual risks and needs, and reduce subsequent offending still must be empirically tested.

The findings reported here preliminarily support the conclusion that experiential, day treatment models can achieve similar if not better recidivism outcomes compared to traditional residential confinement for juvenile offenders. Given the well-documented potential negative effects of incarceration, as well as the costs of confinement, states searching for cost effective alternatives for delinquent youth should give strong consideration to the expansion of community-based, non-residential day treatment services.

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