

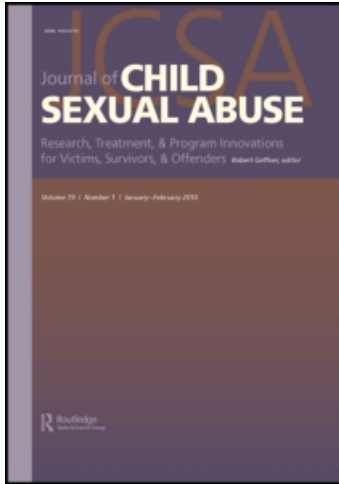
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Journal of Child Sexual Abuse

Publication details, including instructions for authors and subscription information:

<http://www.informaworld.com/smpp/title~content=t792303988>

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Online publication date: 19 January 2010

To cite this Article Gillis, H. L. and Gass, Michael A. (2010) 'Treating Juveniles in a Sex Offender Program Using Adventure-Based Programming: A Matched Group Design', *Journal of Child Sexual Abuse*, 19: 1, 20 – 34

To link to this Article: DOI: 10.1080/10538710903485583

URL: <http://dx.doi.org/10.1080/10538710903485583>

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Treating Juveniles in a Sex Offender Program Using Adventure-Based Programming: A Matched Group Design

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Ninety-five male juvenile sex offenders in an adventure-based behavior management program (LEGACY) were matched with male juveniles in state treatment-as-usual and other specialized programs in the same state to determine program effectiveness (as measured by rearrest rates). The LEGACY program demonstrated significant treatment effectiveness on rearrest rates when compared with youth development centers and other specialized programs two and three years later. Overall, three-year rearrest rates for the most serious reoffenses for each of the placements were as follows: 34.8% for YDC, 32.6% for OSP, and 19% for LEGACY.

KEYWORDS juvenile sex offenders, adventure programming, adventure therapy, behavior management

Received 26 November 2008; revised 1 February 2009; accepted 17 October 2009.

The authors are indebted to the Georgia Department of Juvenile Justice, specifically Ann Watkins, for providing assistance with the data set used in this study. Jean Terry Walsh, MA, Independent Evaluator, of Haverhill, Massachusetts, provided critical comments and content in the explanation of BMtA. Jack Lawler of Real Life Ministries in Post Falls, Idaho, provided indispensable competence in handling the large data set and providing expertise in individual matching clients on dependent variables for use in this study. In addition, Nancy Terry, Sara Anderson, Dick Prouty, Mary Jane Worstell, and Cindy Simpson provided feedback on several drafts of this article.

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INTRODUCTION

The success of residential juvenile sex offender treatment programs continues to be an unresolved issue. According to Vandiver (2006), sexual rearrest rates for male juveniles range from 8% to 14%, while nonsexual rearrest rates range from 35% to 54%. Efta-Breitbach and Freeman (2004a) have cited nonsexual recidivism rates from 35% to 90%. While rearrest often occurs, nonsexual rearrest is more likely than sexual rearrest (Efta-Breitbach & Freeman, 2004b; Hanson & Morton-Bourgon, 2005; Lussier, Leclerc, Cale, & Proulx, 2007; Miethe, Olson, & Mitchell, 2006; Zimring, Piquero, & Jennings, 2007). However, no matter when or which type of rearrest occurs, the emotional and financial cost of rearrest is high.

The purpose of this study was to examine the effectiveness of a behavior management model using adventure programming with juvenile sex offenders (JSOs) by comparing male juveniles who participated in this program with similar juveniles who participated in two other programs within the same state during the same time period. Effectiveness was defined as reduced rearrest rates and number of days until rearrest as reported in computer-based archival records.

Sex Offender Treatment for Juveniles

Zimring and colleagues (2007) noted that JSOs are a small part of the larger cohort of males who commit juvenile offenses. These authors reported that the *frequency* of offenses committed by a juvenile rather than the *type* of offense is a better predictor of future adult sex offender status. Follow-up data on JSOs also does not support the commonly held belief that these juveniles become adult sex offenders.

Nelson (2007) described most male JSOs as possessing poor social skills, being self-absorbed and manipulative, and lacking the necessary motivation to achieve in school. Many are diagnosed with learning and behavioral issues that include attention deficit/hyperactivity disorder, dyslexia, and conduct disorders. Typical treatment approaches consist of cognitive behavioral and multisystemic therapies, with treatment goals focused on eliminating deviant sexual thinking and belief systems while increasing interpersonal skills and appropriate sexual behaviors (Fanniff & Becker, 2006). Many treatment programs use relapse prevention models in group settings, with the overall goal of reintegrating JSOs into communities as productive individuals (Efta-Breitbach & Freeman, 2004b). In a 10-year follow-up study with JSOs, Waite and colleagues (2005) reported that rearrest rates for male JSOs were more likely for nonsexual offenses involving another person and were not likely to be for sexual offenses. More importantly, they found that self-contained programs resulted in a longer average time to rearrest (64.02 months) when

compared to programs prescribed for individuals (47.8 months) in a general population.

Efta-Breitbach and Freeman (2004a) reported that male JSO recidivism could be linked to factors such as failure to complete treatment, dysfunctional family histories, deviant sexual arousal, and abnormal mental health diagnoses. The need for research to establish proven effective treatments was the main conclusion of the literature analysis provided by these authors.

Adventure-Based Treatment for Male Juvenile Sex Offenders

The research and evaluation of adventure or wilderness therapy with male juvenile sex offenders is severely limited, with no studies utilizing any form of comparison groups. Adventure-based therapy (ABT) has been described by Gillis, Gass, and Russell (2008) as focusing on group development activities through problem-solving initiatives alone, or in combination with low- and high-challenge (ropes) course experiences. Wilderness adventure therapy (WAT) is either short in length (less than 60 days) or longer (more than 60 days and possibly extending to 120 days in length). It is designed to offer self-contained (specific start-end dates) or continuous enrollment expedition formats (Russell, Gillis, & Lewis, 2008).

Several articles reviewed have highlighted programmatic aspects of working with JSOs in adventure and wilderness settings but have not provided statistical evidence of effectiveness. Kjol and Weber (1990) described a 5-day workshop for 10 male juvenile sex offenders that employed adventure-based programming with discussions at night around a fire. Rayment (1998) described a community-based program with four residential trips for male juvenile sex offenders in Queensland, Australia. Eger and Kilby (1998) and Tidmarsh and Kilby (2003) described the same Male Adolescent Program for Positive Sexuality (MAPPS) operating in Melbourne, Australia, that combined a 4-day outdoor experience with cognitive behavioral treatment. Lambie, Robson, and Simmonds (1997) illustrated the use of psychodrama designed to promote victim empathy with male juvenile sex offenders in conjunction with a 10-day and 4-day wilderness group therapy experience.

In a single group design study using post hoc interviews and the examination of government records, Lambie and colleagues (2000) found no recidivism for an average of two years posttreatment in any criminal categories with 14 male juvenile sex offenders who participated in three adventure programming outings with nighttime campfire counseling experiences (wilderness group therapy). No comparison groups were used in this study. The lack of comparison groups has obviously limited any causal connections of these programs to JSO behavior and has limited the ability to generalize findings from this program to other programs.

BEHAVIOR MANAGEMENT THROUGH ADVENTURE

The Behavior Management through Adventure approach (BMtA; Project Adventure, n.d.) examined in the current study centers on treatment focused on changing clients' thinking, feeling, and behaving with the outcome of decreasing dysfunctional behavior and increasing functional behavior consistent with the 19 issues identified by Efta-Breitbach and Freeman (2004b). The BMtA approach centers its adventure therapy treatment on the following seven points (Gass, 1993; Gillis & Gass, 2003): (a) conducting treatment in a therapeutic group, guided by skilled counselors to confront inappropriate behaviors and reinforce appropriate behaviors; (b) placing participants in environments that are new, unique, and simplified yet still supportive (e.g., concrete physical tasks), creating a contrasting environment where clients can gain new and more functional perspectives; (c) presenting the role of the therapist as a facilitator focused on actively designing and framing interventions for specific treatment outcomes, where clients see themselves as the catalyst for their own positive change; (d) using therapeutic processes centered on action-oriented experiences, turning passive therapeutic analysis and interaction into active and multidimensional experiences; (e) taking advantage of enriched and unique opportunities where clients' unfamiliarity with BMtA processes provide rich, observable assessment information for therapists to implement treatment interventions and strategies; (f) producing a climate of functional change through the appropriate use of eustress (Selye, 1974, 1978) where clients use positive problem-solving abilities (e.g., trust, cooperation, clear and healthy communication) to reach desired objectives; and (g) constructing choices with a solution-oriented focus where clients are presented with opportunities to focus on their abilities rather than their inabilities.

Gillis and colleagues (2008) compared a randomly selected group of male juveniles in all BMtA programs ($n = 347$) with a randomly selected group of male juveniles from another outdoor residential treatment program operating in Georgia ($n = 347$) as well as a randomly selected group of male juvenile offenders participating in "treatment as usual" 90-day boot camp programs in state institutions ($n = 347$). The pilot study found that BMtA participants possessed significantly less rearrests over a 3-year period than participants in the other two programs, with effect size differences in the positive range.

ADVENTURE THERAPY IN PRACTICE: THE BMtA LEGACY MODEL

The LEGACY program (Simpson & Gillis, 1998) incorporates the BMtA approach outlined previously with a combination of group process and therapeutic techniques (Schoel & Maizell, 2002) to promote positive change with JSOs who live and sleep in homes within the community owned and staffed by the program. The average length of stay is one year in this full-time

residential program. Clients are between 12 and 16 years of age in a therapeutic group/cohort consisting of approximately 12 to 20 other males.

Consistent with recommendations advocated by Efta-Breitbach and Freeman (2004b), the six goals of the LEGACY program are to: (a) identify and eliminate sexually inappropriate thoughts and behavior through educationally appropriate workbooks and classroom discussion, (b) foster sexually appropriate behaviors through action-oriented approaches that involve consequences for behavior, (c) promote responsibility for one's behavior, (d) develop equal relationships with same-sex and opposite-sex peers rather than relationships based on power and control, (e) foster the development of self-control using adventure-based activities, and (f) develop healthy and appropriate sexual roles and social skills. A typical program day includes household responsibilities, practicing good hygiene, preparing meals, setting group and individual goals, a group discussion of the evening and morning spent in the group home, academics, adventure experiences, and the continuous evaluation of group and individual goals.

The core element to LEGACY is the use of adventure experiences. These are intentional, guided experiences centered on the six points of the LEGACY program highlighted previously. In addition, LEGACY program activities are developmental in structure. For example, a group with a new member would not do an activity requiring close physical contact due to potential boundary issues but would build trust incrementally through activities designed to increase amounts of safe touch. The activities are often fun, but not *just* fun; they require skills that appropriately challenge LEGACY clients. Other developmental skills that are intentionally structured and occur naturally in adventure activities include patience, listening, seeing another's point of view, leading, following, planning, and recognizing the consequences of actions. Therapeutic staff members work in conjunction with adventure activity specialists to frame adventure experiences in relation to issues that LEGACY youth face in real life (e.g., thinking errors, ostracism, and lack of support). These prescriptive frameworks allow participants to experience the activity as a metaphor for their problem behaviors, exploring how they develop and how they can be deescalated in a safe environment.

This study examined the effectiveness of the LEGACY behavior management model in aggregate using adventure programming. This program was compared to two other programs with similar juveniles within the same state during the same time period.

METHOD

Participants

The Georgia Department of Juvenile Justice (DJJ; n.d.) provided the authors with the archival data used in this study. The database contained all youth

committed to the state by juvenile courts between July 1989 and May 2002 ($N = 15,311$) and released from January 1, 1990, and June 30, 2002. Youth were followed for three years to determine if they recidivated to DJJ or to the adult system (prison admissions and felony adult probations). Rearrest was defined as committing a reoffense and receiving a disposition (probation, specialized treatment program, commitment, adult prison, or probation) after release. Offense date was the date the youth committed the offense or was arrested for the offense. Rearrest was counted as the first indication of a reoffense and included technical violations and status offenses but excluded informal adjustments and revocations. The computer-based records excluded all names or additional identifying information. No variables indicating mental health status or educational ability were available from the DJJ for any youth. Youth ranged in age from 8 to 18.

Youth in the data set were identified by the previous program where they were placed prior to release. A total of 129 youth were identified as having received their previous placement at Project Adventure's LEGACY program. All LEGACY program participants were male.

Youth participating in the LEGACY program were matched, one-to-one, with (a) male youth in other specialized treatment programs (hereafter referred to as *other specialized programs*, OSP) and (b) male youth incarcerated in state-operated institutions (hereafter referred to as *youth development centers*, YDC, in Georgia). Youth were matched based on (a) age when the first offense was committed, (b) the most serious arresting offense type, and (c) race. The dataset identified the age at which each youth was initially arrested, and this age was used for matching. Offense type was defined by DJJ as including the following categories: (a) drug selling, (b) drug use, (c) property, (d) public order, (e) sex nonviolent, (f) status, (g) traffic, (h) violent, (i) violent sex, and (j) violation of probation. For the purpose of matching, the youth in the three placements were ranked in order of their length of stay. The net result was 95 youth from each placement setting creating a matched design across the three groups. There were 62 (65.3%) White males and 33 (34.7%) Black males in each of the three groups. The mean age at first offense was 13.75 ($SD = 1.43$).

Matched youth in the OSP group were from a variety of specialized programs in the state of Georgia, including regional state and private hospitals as well as residential treatment services with contracts to work with Georgia's juveniles. Regardless of facility, this matching procedure resulted in two Georgia-based programs accounting for 53 of the 95 juveniles in the OSP sample: Twin Cedars (www.twincedars.org) and Inner Harbour (www.innerharbour.org). The Twin Cedars Bradfield Center is described as working with severely emotionally and behaviorally disturbed adolescents from state-based programs or private pay. The center uses individual and group therapy approaches that utilize experiential approaches (Twin Cedars, n.d.). Inner Harbour provides residential psychiatric programs, psychiatric

outdoor programs, and the *EXCEL* program, designed specifically for court ordered youth (Inner Harbour, n.d.). These programs have staff trained similarly as the LEGACY program. Staff members who stay with the juveniles overnight generally have at least a high school degree and a clean arrest record. Training for staff for working with juveniles takes place upon employment. All of the OSP programs, including the LEGACY program, have licensed or licensed-eligible master's level professional counselors or social workers who provide the therapy to the participants.

Matched youth in the YDC group came from Georgia's Youth Development Centers operated by the DJJ that are located in Augusta, Milledgeville, Atlanta, and Wrightsville. The Department's Web site (Georgia Department of Juvenile Justice, n.d.) describes these centers as offering specialized treatment for court ordered youth. The exact nature of the treatment, especially for sexually offending male juveniles, is not stated on the Web site, even though the staffing qualifications and on-the-job training are thought to be similar to the OSP and LEGACY programs.

Procedure

There were two outcome variables identified for this study: (a) rearrest for criminal behavior after release from placement within a 1-year, 2-year, and 3-year period and (b) the number of days between release and rearrest as documented in the archival dataset. Each juvenile without a reported arrest was assigned 1,095 days (3 years) after release as the maximum time to rearrest. The Statistical Package for the Social Sciences (SPSS), Release 15 was used for statistical analysis. A 2×3 chi-square analysis was conducted on rearrest or no rearrest data at 1 year, 2 years, and 3 years for the 95 youth in each program. Effect sizes were also computed for 1-year, 2-year, and 3-year rearrest rates.

An ANOVA compared the difference in mean number of days between release and rearrest for the three placements. Effect sizes were computed on differences between mean days to rearrest for each of the three placement sites. Kaplan-Meier survival functions were also used to estimate true differences in the probability of rearrest between the three placement sites. The outcome for the survival function was considered to be the time at risk in the community to rearrest or to the end of the follow-up period (3 years).

RESULTS

The LEGACY program demonstrated significantly less rearrest than the other two placements from which matched samples were compared with regard to rearrest rates 2 and 3 years after release. There were statistically significant differences between days from release until rearrest for the LEGACY

program and the OSPs. Statistically significant differences were found at Year 2 $\chi^2(2, N = 95) = 8.65, p = .013$ and at Year 3 $\chi^2(2, N = 95) = 11.27, p = .004$. As a method of post hoc analysis for the chi-square, standardized residuals revealed positive differences for the LEGACY placement when contrasted with both comparison groups ($p < .05$) at both Year 2 and Year 3.

Effect sizes (Cohen's [1988] d) were computed with the Effect Size Determination Program (Wilson, 2001) using the Probit method for frequency or dichotomous data on the number of recidivists for each of the placements. For Year 1, effect sizes between LEGACY and YDC were $d = 0.14$; between LEGACY and OSP, $d = 0.34$; and between OSP and YDC, $d = 0.19$. For Year 2, effect sizes between LEGACY and YDC were $d = 0.56$; between LEGACY and OSP, $d = 0.48$; and between OSP and YDC, $d = 0.08$. For Year 3, effect sizes between LEGACY and YDC were $d = 0.63$; between LEGACY and OSP, $d = 0.54$; and between OSP and YDC, $d = 0.08$.

Mean differences in days until rearrest between the three groups were statistically significant $F(2, 282) = 3.38, p = .035$. The Levene Statistic was significant $(2, 282), p = .001$, indicating a lack of homogeneity of variance. Subsequent post hoc tests were conducted using Dunnett T3, revealing a statistically significant difference between LEGACY and ODC ($p = .042$). Differences between YDC and LEGACY and YDC and OSP were not statistically significant. Effect sizes calculated on the days between release and rearrest for each of the placements were as follows: (a) between LEGACY and YDC, $d = 0.29$, 95% CIs [0.00, 0.57]; (b) between LEGACY and OSP, $d = 0.36$, 95% CIs [0.07, 0.64]; and (c) between OSP and YDC, $d = 0.09$, 95% CIs [-0.18, 0.38].

The Kaplan-Meier survival function was used to estimate true differences in the probability of rearrest between the three placement sites. As determined by the survival function, rearrest was significantly different for placement (log rank $\chi^2(2, N = 95) = 9.8, p = .007$). There were no differences with regard to age for those who were rearrested and those who were not, regardless of program.

Overall rearrest rates for the most serious offenses for each of the placements are provided in Table 1 and reveal a rearrest rate for each program as

TABLE 1 Rearrest Rates for the Most Serious Rearrest Offenses

		LEGACY	YDC	OSP	Total
No Arrest	<i>N</i>	77 81.1%	62 65.3%	64 67.4%	203 71.2%
Violent Sex Arrest	<i>N</i>	5 5.3%	5 5.3%	8 8.4%	18 6.3%
Not a Violent Sex Arrest	<i>N</i>	13 13.7%	28 29.5%	23 24.2%	64 22.5%
Total	<i>N</i>	95 100.0%	95 100.0%	95 100.0%	285 100.0%

follows: (a) 34.8% (29.5% + 5.3%) for YDC, (b) 32.6% (24.2% + 8.4%) for OSP, and (c) 19% (13.7% + 5.3%) for LEGACY. Frequencies of violent sex arrests were similar for each program, however total nonsexual arrests for the LEGACY program were less than the other two programs (although the differences were not statistically significant).

DISCUSSION

Based on the BMtA model developed by Project Adventure, LEGACY program participants were individually matched with similar juveniles from other specialized treatment programs operating in Georgia (OSP) as well as treatment-as-usual programs in state institutions for juvenile offenders (YDC). This study found the LEGACY program participants were rearrested significantly less often over a three-year period than participants in the other two programs. While there were significant limitations to this matched study, it does present a promising treatment approach for JSOs that deserves further study.

The outcomes of this adventure-based behavior management program (LEGACY) provided different findings from previous juvenile delinquent wilderness challenge studies reported by other researchers (Castellano & Soderstrom, 1992; Deschenes & Greenwood, 1998). In this current study, initial significant differences in rearrest became apparent in the second year of the study, with even greater increases occurring in the third year following treatment. Such findings emphasize the importance of recognizing that not all male juvenile delinquent adventure wilderness challenge programs are the same in treatment experiences or focus. Many previous treatment programs have focused only on concepts of self (e.g., issues of self-concept and self-competence found in adapted "Outward Bound" types of programs) and not on the LEGACY treatment elements identified in this article. Outdoor-based programs focusing exclusively on self-development and outdoor living skills with JSOs in hopes that these youth make connections between their actions in the wilderness and their future behavior are missing critical elements of adventure programming used in LEGACY.

Key reasons why the LEGACY program may have succeeded where other programs in this study did not may have been due to how the primary LEGACY goals positively interacted with the adventure therapy principles stated earlier. While the currently available aggregate data does not allow a direct linkage to specific program principles, examples of how these principles were utilized to enrich LEGACY's programmatic goals included the following:

1. Therapeutic processes were enhanced through action-oriented experiences. Adventure therapy conducted in the LEGACY program focused on enriching didactic therapeutic analysis and interaction with active and multidimensional experiences. The program augmented the verbal processes of "talking"

- therapies with concrete physical actions and experiences, having LEGACY JSOs “walk” rather than merely “talk” their behaviors. This aspect of LEGACY appears to be different than any of the OSP or YDC programs.
2. Therapy centered on the use of unfamiliar client environments. Adventure therapy with the LEGACY program intentionally placed JSOs in situations that were new, unique, and simplified while still being supportive. Such dynamics created a *contrasting environment* (Walsh & Golins, 1976) from which JSOs gained new and more functional perspectives. The uniqueness and unfamiliarity of LEGACY adventure activities resulted in spontaneous and creative client responses. When LEGACY JSOs applied this spontaneity and creativity to solving adventure experiences, the successful outcomes from these experiences helped to create a positive environment that fostered guidelines for functional change.
 3. Adventure therapy experiences centered on producing a climate of functional change through the positive use of stress. Adventure experiences focused on introducing *eustress*, or the healthy use of stress, into the client’s system in a healthy and manageable manner (e.g., Selye, 1978). This type of stress placed JSOs into situations where the use of constructive problem-solving abilities (e.g., appropriate trust, cooperation, clear and healthy communication) was necessary to reach desired objectives. Adventure experiences also provided an inherent level of motivation based on clear consequences (i.e., ones that were not arbitrary) for inappropriate behaviors.
 4. Adventure experiences were highly informative with client assessment. Similar to the psychological theory of projection, JSOs’ unfamiliarity with adventure experiences provided rich assessment information for LEGACY staff (e.g., examining lifelong behavior patterns, dysfunctional ways of coping with stress, intellectual processes, conflicts, needs, and emotional responsiveness; Gass & Gillis, 1995b). Such material was valuable for planning treatment interventions and strategies.
 5. Adventure experiences were conducted in a supportive, small group (8–15) atmosphere so that when conflicts arose they could be resolved through positive group interaction (Gass, 1993; Walsh & Golins, 1976). Individual treatment goals were met, but they were accomplished in association with the needs of the group. Group members, under supervision of treatment staff, identified problem behaviors of their peers and assigned behavioral consequences to be completed by the JSO.
 6. Adventure experiences were solution-oriented. In unfamiliar adventure environments, LEGACY JSOs were presented with opportunities to focus on their abilities rather than their inabilities. This type of orientation diminished initial defenses and led to healthy change when combined with the successful completion of progressively difficult and rewarding tasks. Rather than being resistant in therapy by confronting their problems, LEGACY participants were challenged to stretch perceived limitations

and discover untapped resources, strengths, and solutions. Client efforts were also framed by the LEGACY staff to center on the potential to achieve self-empowerment by establishing and maintaining functional interventions (Gass & Gillis, 1995a; Priest & Gass, 2005).

7. The role of the therapist was changed. In LEGACY experiences, therapists and other staff members were removed from serving as the central means of functional change by the adventure experience. This shift allowed therapists to remain more “mobile” to actively design and frame interventions for specific treatment outcomes.

Focus on Adventure

While overall rearrest rates for LEGACY youth were less than the other two matched groups, rearrest rates for specific violent sexual offenses were not different and were consistent with similar findings for rearrest rates with self-contained programs (Waite et al., 2005). Perhaps all three approaches were similarly effective in treating violent sexual offenses, with the LEGACY program distinguishing itself from the other two treatment programs in non-violent sexual offenses due to the focus on adventure therapy during the group sessions. In considering these outcomes, it is important to note the consistent findings in the research literature of low rearrest rates of male juvenile sex offenders, especially when compared to the rearrest rates of adult sex offenders (Efta-Breitbach & Freeman, 2004b; Hanson & Morton-Bourgon, 2005; Lussier et al., 2007; Miethe et al., 2006; Zimring et al., 2007).

The data from this study found a 5.3% rearrest (failure) rate for violent sexual rearrest and a 13.7% rearrest rate for nonsexual offenses with the LEGACY group. These rearrest rates are well below the 8–14% rates for sexual rearrest and 35–54% rates for nonsexual rearrest described by Vandiver (2006), or the even higher rates reported by Efta-Breitbach and Freeman (2004a).

Limitations

The anonymous nature of the dataset provided no information about pre-existing mental health conditions or educational status, nor did it provide information concerning the follow-up services provided to any of these youth. Using government supplied data on rearrest had the possibility of underestimating rearrest rates of male juvenile sexual offenders because of juveniles moving out of state, reoffenses being undetected, or cases not being reported to law enforcement (Furby, Weinrott, & Blackshaw, 1989).

Selection of the sample attempted to provide a one-to-one match of LEGACY program juveniles with juveniles in the YDC and OSP programs. Georgia’s DJJ considers the LEGACY program to be a specialized program so those matched juveniles may have been more similar to one another.

The YDC program is a lock-up facility for juveniles in Georgia. These young men, despite being matched with the other groups on variables that existed in the dataset, may have been more pathological and antisocial than either of the other samples. The dataset was silent on any factors beyond the age of the first offense, most serious arresting offense, and most serious rearrest offense that could give any indication that the samples were equivalent or not.

Future Research

The promising findings in the current study, despite its limitations, suggest at least two future areas of study for greater understanding of the LEGACY program: (a) achieving greater clarity on exactly how various LEGACY program elements promote and contribute to the prosocial orientation and self-regulation of participants and (b) gathering greater understanding on how the LEGACY program assists clients in sustaining improvements beyond program completion. The differences in the delay in rearrest suggest that LEGACY assists male juveniles better than the other two programs. Understanding how the LEGACY program enables participants to sustain gains that further and permanently reduce rearrest is critical for issues of treatment fidelity and program replication in other settings.

Further investigation needs to be completed on the small number of juvenile sex offenders who reoffended with sex offenses. As noted in the results, none of the three treatment programs demonstrated significant differences from one another in this statistical measure (5–8% rearrest rates). Greater scrutiny on what type of treatment programs could address the needs of these recidivating juvenile offenders merits further examination.

In the short term, more comparison studies will be conducted on the BMtA model using the dataset available from the Georgia DJJ. Results from Gillis and colleagues (2008) have indicated that the adventure-based approach to working with populations of juvenile delinquents is promising. In the long term, research is needed on the various components of the BMtA program, particularly the adventure-based approach to treatment, in order to establish its effectiveness as a viable behavior management program for adolescents in educational, correctional, and other treatment settings.

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