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SPECIAL ISSUE ON JUVENILE DRUG COURTS

**NATIONAL DRUG COURT INSTITUTE
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DRUG COURT REVIEW

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THE DRUG COURT REVIEW

Published annually, the Drug Court Review's goal is to keep the drug court practitioner abreast of important new developments in the drug court field. Drug courts demand a great deal of time and energy of the practitioner. There is little opportunity to read lengthy evaluations or keep up with important research in the field. Yet, the ability to marshal scientific and research information and "argue the facts" can be critical to a program's success and ultimate survival.

The *DCR* builds a bridge between law, science, and clinical communities, providing a common tool to all. A subject indexing system allows access to evaluation outcomes, scientific analysis, and research on drug court related areas. Scientific jargon and legalese are interpreted for the practitioner into common language.

Although the *DCR*'s emphasis is on scholarship and scientific research, it also provides commentary from experts in the drug court and related fields on important issues to drug court practitioners.

The *DCR* invites submission of articles relevant to the drug court field. This would include, but not be limited to drug testing, case management, cost-analysis, program evaluation, and legal issues, application of incentives and sanctions, and treatment methods.

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THE NATIONAL DRUG COURT INSTITUTE

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NDCI's mission is to promote education, research, and scholarship to the drug court field and other court-based intervention programs.

Since its inception in December 1997, NDCI has emerged as the preeminent source of cutting-edge training and technical assistance to the Drug Court field, providing research-driven solutions to address the changing needs of treating substance-abusing offenders. NDCI launched five separate team-oriented Drug Court training programs, eight comprehensive, discipline-specific training programs and five separate subject matter training programs.

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**INTRODUCTION TO SPECIAL ISSUE ON JUVENILE
DRUG TREATMENT COURTS**

**By Scott W. Henggeler, Ph.D. and Douglas B. Marlowe,
J.D., Ph.D.**

Research on Juvenile Drug Treatment Courts (JDTCs)¹ has lagged considerably behind that of their adult counterparts. Although evidence is mounting that JDTCs can be effective in reducing delinquency and substance abuse, little is known about the factors that distinguish effective from ineffective programs. Recent review articles and meta-analytic studies concluded that JDTCs produced an average reduction in recidivism of only about 3 to 5 percent—which, although marginally statistically significant, is relatively small in magnitude (Aos, Miller, & Drake, 2006; Shaffer, 2006; Wilson, Mitchell, & MacKenzie, 2006). Importantly, however, the size of the effects varied considerably across programs, with some JDTCs having no effects whatsoever on recidivism, and others reducing recidivism by as much as 8 to 10 percent. In fact, when JDTCs have made substantial efforts to incorporate evidence-based treatments into their curricula and reached out to caregivers in the youths' natural social environments, reductions in delinquency and substance abuse have been reported to be as high as 15 to 40 percent (Henggeler et al., 2006; Shaffer et al., 2008).

These findings should come as no surprise, given that reviewers of substance abuse treatment programs have long recognized that outcomes for adolescents tend to vary widely (Waldron & Turner, 2008). Lackluster results have commonly been reported for programs that failed to offer evidence-based treatments, neglected to include family members or other caregivers in the interventions, or made

¹ These programs are variably referred to as juvenile drug treatment courts, juvenile drug courts, juvenile treatment drug courts and juvenile treatment courts throughout this special issue.

insufficient efforts to tailor the interventions to the cognitive and maturational levels of the juveniles (e.g., Fixsen et al., 2010; Rossman et al., 2004). It would seem that youthful substance-abusing offenders may be unusually intolerant of weak or ineffective efforts. With a relatively narrow margin for error, it is incumbent upon practitioners to “get it right” by honing their skills and targeting their interventions most effectively.

Four articles published in this Special Issue of the *Drug Court Review* fill critical gaps in the literature on JDTCs, and offer concrete guidance for JDTC practitioners to enhance their operations and improve their outcomes. In the first article, Melissa Ives, Ya-Fen Chan, Kathryn Modisette and Michael Dennis compared the services that were received and the outcomes that were produced for a national sample of youths ($n = 1,120$) enrolled in 13 JDTCs to those of a carefully matched comparison sample of youths enrolled in traditional adolescent outpatient (AOP) substance abuse treatment. Both the JDTC and AOP programs were receiving enhancement funding from the Substance Abuse and Mental Health Services Administration (SAMHSA) in an effort to achieve desired outcomes for high-risk youths with substance abuse problems, and thus they collected a common dataset of performance indicators and outcome measures.

Analyses at six months post-admission revealed that, on average, youths in the JDTCs received significantly more substance abuse treatment, family-based services, probation supervision and urine drug testing than did those in AOP, and they were significantly more satisfied with the services they received. Moreover, the JDTC participants reported significantly fewer days of substance use and significantly fewer days of emotional problems at the follow-up than their AOP counterparts. Taken together, these findings suggest that the superior effects of JDTCs might be explained, in part, by their ability to retain juveniles for longer periods of time in substance abuse treatment, apply more consistent supervision,

and engage family members and other caregivers in the interventions.

In a second article, Cindy Schaeffer, Scott Henggeler, Jason Chapman, Colleen Halliday-Boykins, Phillippe Cunningham, Jeff Randall and Steven Shapiro examined what are called the *mechanisms of action* of JDTC effectiveness. In a previous randomized, controlled study (Henggeler et al., 2006), these researchers found that JDTC was superior to traditional family court in reducing self-reported substance use and delinquent activity, and the effects were further enhanced by incorporating evidence-based treatments into the JDTC curriculum. The purpose of the present study was to explain *why* these beneficial outcomes might have been realized. Specifically, the goal was to determine what short-term changes were produced in the lives of the JDTC youths that were subsequently associated with better long-term outcomes.

The results revealed that the JDTC did a significantly better job than the traditional family court of improving caretakers' supervision and discipline of the juveniles, and reducing the juveniles' associations with delinquent and substance-abusing peers. Moreover, as hypothesized, these short-term improvements were associated with longer-term reductions in substance use and delinquency. These findings are highly consistent with a broad literature on effective treatments for delinquency. The key role of faulty parenting and deviant peer associations in maintaining delinquency and substance abuse is well supported by extensive research on the development of antisocial behavior in adolescents (Lieberman, 2008), as well as by mechanism-of-change studies for evidence-based treatments of juvenile offenders (e.g., Eddy & Chamberlain, 2000; Huey, Henggeler, Brondino, & Pickrel, 2000). Consistent with JDTC guidelines (U.S. Department of Justice, 2003) and recent suggestions for improving JDTCs (Hills, Shufelt, & Cocozza, 2009), the findings of Schaeffer and colleagues reinforce the importance

of family in achieving favorable youth outcomes. Also, consistent with a vast literature on the treatment of delinquency, the findings highlight the importance of limiting youths' association with deviant peers.

In a third study, Christopher Salvatore, Jaime Henderson, Matthew Hiller, Elise White and Benta Samuelson employed observational methods to examine the discussions and interactions occurring during JDTC prehearing team conferences and status hearings. Treatment attendance and the youths' demeanor during treatment were discussed most frequently during the prehearing conferences (59 percent of the discussions), followed by educational performance (39 percent of the discussions) and finally by drug test results (18 percent of the discussions). In general, the prehearing conferences were determined to be primarily focused on discussing problems with the youths' compliance in the program and the imposition of sanctions, rather than on therapeutic progress and taking a strengths-based approach. Given that a balanced focus on strengths and accomplishments has been associated with better outcomes among juvenile offenders, the results point to areas for further improvement in JDTC operations.

Perhaps most importantly, Salvatore and colleagues reported that a family member was present during an average of only about 50 percent of the status hearings, and 21 percent of the youths never had a family member attend a single status hearing during the course of the study. Yet, the attendance of a family member at status hearings was associated with significantly better attendance by the youths in substance abuse treatment, with the submission of more drug-negative urine screens (marginally significant) and with fewer sanctions from the judge. These latter findings highlight, yet again, the critical importance of family involvement in JDTCs in order to achieve favorable results.

Finally, Pamela Linden, Shelly Cohen, Robyn Cohen, Ann Bader and Michael Magnani describe their development and pilot-testing of a JDTC training curriculum. This important work holds the potential for reducing undue variability in the implementation of JDTCs and increasing fidelity to JDTC guidelines by systematizing training protocols. Based on extensive interviews with stakeholders (e.g., juvenile justice authorities, parents, youths and expert advisory board members) across nine JDTCs, the investigators developed a training curriculum that fit with federal guidelines (U.S. Department of Justice, 2003). Consistent with the aforementioned findings of Schaeffer et al. and Salvatore et al., the curriculum also emphasizes the importance of engaging families and strengthening parental authority, as well as severing ties with substance using peers. The curriculum was then implemented with several JDTCs that were in the planning or operational stages. Subsequently, the investigators revised the training curriculum based on the participants' feedback.

The next steps in this important line of research should be to determine whether the training curriculum promotes JDTC fidelity and, most importantly, whether fidelity matters in terms of eliciting significantly better youth outcomes. That is, do JDTCs that adhere to the guidelines have better outcomes than comparable programs that do not? Indeed, the link between program fidelity and youth outcomes has been demonstrated for several evidence-based treatments (Fixsen et al., 2010) and is a major rationale for the creation of "purveyor organizations" designed to continuously support and monitor program fidelity and youth outcomes in evidence-based programs.

In summary, the articles in this Special Issue address critical issues pertaining to JDTCs. Are JDTCs more effective than traditional adolescent outpatient services that largely bypass intensive judicial oversight? Which aspects of JDTCs are associated with more favorable youth outcomes?

How are JDTCs effectively developed, and how should staff members be trained to administer the intervention with fidelity? As is typical in behavioral research, the findings may raise as many questions as they answer. Nevertheless, we hope that the articles in this Special Issue are interesting and useful to the reader, and help to move the JDTC field further toward the identification and implementation of evidence-based practices and best-practice standards.

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**CHARACTERISTICS, NEEDS, SERVICES, AND
OUTCOMES OF YOUTHS IN JUVENILE
TREATMENT DRUG COURTS AS COMPARED TO
ADOLESCENT OUTPATIENT TREATMENT**

**By Melissa L. Ives, M.S.W., Ya-Fen Chan, Ph.D., Kathryn
C. Modisette, M.A., and Michael L. Dennis, Ph.D.**

This study used comprehensive intake and follow-up assessment data to compare juvenile treatment drug courts (JTDCs) to adolescent outpatient treatment programs (AOP) on client characteristics, services received and treatment outcomes through 6 months post-intake. The groups were matched using propensity scores to be similar on baseline substance abuse problems, justice system involvement, psychiatric co-morbidity, rates of victimization and baseline outcome measures. JTDC clients received significantly more substance abuse treatment, family-based services, probation supervision and drug testing than AOP clients, and were significantly more satisfied with treatment. At follow-up, the JTDC clients showed significantly greater reductions in days of substance abuse problems and emotional problems, although the magnitude of these effects were small to moderate. These findings suggests that JTDCs can be effective at retaining youths in treatment and achieving relatively improved outcomes.

This paper was supported by the Center for Substance Abuse Treatment (CSAT) and the Substance Abuse and Mental Health Services Administration (SAMHSA) contract 270-07-0191 using data provided by a range of treatment enhancement grants and contracts from CSAT. Additional information about these grants and contracts is available online at:

http://www.chestnut.org/LI/downloads/training_memos/Acknowledgement.pdf

CSAT has pooled data from these and other demonstration grants using the Global Appraisal of

Individual Needs (GAIN) and made these data available by permission for this article and for secondary analyses by other investigators. Information on accessing CSAT's GAIN dataset is available at:

http://www.chestnut.org/LI/downloads/training_memos/Access.pdf.)

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ARTICLE SUMMARIES

**CHARACTERISTICS OF
JUVENILE TREATMENT
DRUG COURT CLIENTS**

[1] Over two thirds of youths in JTDCs reported three or more major clinical problems related to addiction, mental health, crime, violence, victimization, homelessness, or HIV-risk behaviors.

**SERVICES RECEIVED IN
JUVENILE TREATMENT
DRUG COURTS**

[2] Youths in JTDCs were less likely than those in standard outpatient treatment to initiate treatment within two weeks of evaluation. However, they received more treatment and drug testing, and were more satisfied with treatment.

**OUTCOMES IN JUVENILE
TREATMENT DRUG
COURTS**

[3] Youths in JTDCs showed significantly greater reductions in substance use, and less pronounced reductions in emotional problems, than those in standard outpatient treatment after 6 months in treatment. However, limited improvements in family problems and illegal activity indicate a continued need to address these other areas of functioning.

INTRODUCTION

Juvenile substance abuse has been recognized as a significant problem for public health and safety for over a century. Even after treatment, there continues to be a high risk of relapse and recidivism (Dennis, Dawud-Noursi, Muck & McDermeit, 2003a). Juvenile justice systems are the leading source of referral among adolescents entering treatment for substance use problems (Dennis et al., 2003a; Dennis, White & Ives, 2009) and about half of the youth in the juvenile justice system have drug related problems (Office of Juvenile Justice and Delinquency Prevention (OJJDP), 2001; Teplin et al., 2002). Given that adult treatment drug courts have shown some promise in lowering the rates of relapse and recidivism (e.g., Goldkamp, 2003; Marlowe, Festinger, Lee, Dugosh & Benasutti, 2006) and have a 2 to 1 (or greater) financial return on investment (Bhati, Roman & Chalfin, 2008), there have been increasing calls to create and evaluate *juvenile* treatment drug courts (Belenko & Logan, 2003; Henggeler et al., 2006).

Since their inception in the mid-1990s, juvenile treatment drug courts (JTDCs) have received considerable public support to reduce the cycle of relapse and recidivism within a judicially monitored system (Belenko & Logan, 2003; Henggeler et al., 2006). The main features of JTDCs are early identification and referral of eligible youths; an interdisciplinary team-developed treatment plan to address the youths' substance use, school, behavioral and family needs; weekly monitoring and urine screens; judicial feedback during regular court hearings; and rewards or sanctions based on performance (NADCP, 1997; Henggeler, 2007). By late 2004, there were 357 JTDCs and the number of programs has continued to grow at a rate of 30-50% per year to more than 500 in 2009 (Henggeler, 2007; American University, 2009).

In spite of this national expansion, to date there have been only a few studies evaluating who was served by JTDCs, what services they received, and the effectiveness of the programs relative to traditional community-based substance abuse treatment. Consistent with most adolescents in community-based treatment, those presenting to JTDCs are likely to be white, male, from a single parent family, marijuana users, and to report having co-occurring psychiatric disorders, multiple family issues and problems in school (Cooper, 2002; Hiller et al., 2008; Office of Justice Program (OJP), 2000). Using a randomized controlled study, Henggeler and colleagues (2006) found that a JTDC was more effective than traditional justice and community-based treatment services in reducing adolescent substance abuse and criminal involvement during treatment. Moreover, the effects were even larger when the drug court used evidenced-based practices. However, this decrease of substance abuse and criminal behaviors did not subsequently translate into a reduction in re-arrest rates. Using a quasi-experimental design, Rodriguez and Webb (2004) reported greater reductions in marijuana use and criminal behavior, but not cocaine use, for adolescents treated in drug courts than for those in standard probation services.

A retrospective outcome study showed that youths in drug court treatment were no more likely to recidivate over a two-year post-release period than youths being treated in an adolescent substance abuse treatment program (Sloan, Smykla & Rush, 2004). Instead, the authors reported that age, race, sex, prior history of offending, and successful program completion had higher predictive values for future recidivism. Unfortunately, the low level of successful program completion among youths in drug courts was noticeable in several prior studies (Applegate & Santana, 2000; Miller, Scocas & O'Connell, 1998; Rodriguez & Webb, 2004) and concerns have been raised that juvenile drug court treatment might not be as effective as community-based treatment. A concern with such anecdotal comparisons is that the case mix

(i.e., severity of the problems) of adolescents showing up to community-based treatment and juvenile treatment drug courts may not be the same.

The need to understand the ability of JTDCs to get youth into treatment is related to two key points. First, of the 8.9% of youth in the U.S. with past-year dependence or abuse, less than 5% (1 in 17) went to treatment in the past year (OAS, 2006). The failure to get them into treatment has large personal and social costs. Second, relative to adolescents who are abstinent, those who report weekly or more frequent use are more likely to have a wide range of problems that have implications for public safety, including dropping out of school (6% vs. 25%), getting into physical fights (11% vs. 47%), conduct disorder (CD; 13% vs. 57%), any illegal activity (17% vs. 69%), any arrest (1% vs. 23%) and any emergency room admissions (17% vs. 33%) (Dennis, White & Ives, 2009).

In 2005 and 2006, the Substance Abuse and Mental Health Services Administration (SAMHSA) Center for Substance Abuse Treatment (CSAT) funded juvenile treatment drug courts as part of their Services Grants portfolio (SAMHSA, 2005). SAMHSA's Services Grants provide funds to expand and strengthen effective, culturally appropriate substance abuse and mental health services at the state and local levels. Specifically, the JTDC grants were intended for "treatment providers and the courts to provide alcohol and drug treatment, wrap-around services supporting substance abuse treatment, assessment, case management, and program coordination to those in need of treatment drug court services... [and] to combine the sanctioning power of courts with effective treatment services to break the cycle of child abuse/neglect or criminal behavior, alcohol and/or drug use, and incarceration or other penalties" (SAMHSA, 2005).

As part of this funding, CSAT recommended use of the Global Appraisal of Individual Needs (GAIN; Dennis,

Titus, White, Unsicker & Hodgkins, 2003b) and an evidence-based treatment from the Cannabis Youth Treatment experiment (CYT, Dennis et al., 2002, 2004), Adolescent Treatment Models (ATM, Stevens & Morral, 2003), or Assertive Continuing Care (ACC, Godley, Godley, Dennis, Funk & Passetti, 2002, 2007; Godley, Godley, Karvinen, Slown & Wright, 2006).

The National Research Advisory Committee (NRAC) recommends examining the long-term effects of adult drug courts on common outcomes and how those might differ from traditional community-based substance abuse treatment programs (Marlowe, Heck, Huddleston & Casebolt, 2006). We expect that this recommendation will also be part of the research agenda for JTDCs. While both outpatient treatment and juvenile treatment drug courts are large public programs for adolescents with a substance use problem, there has been little information on the extent of the differences between these programs regarding who was served, what services they received, and the outcomes for clients related to substance use, psychological comorbidity, and justice involvement. The Office of Justice Programs (OJP, 2009) notes that one key challenge in evaluating drug courts is the lack of a common assessment or even drug court information systems, which makes it difficult to pool data across JTDCs or demonstrate their equivalence with available comparison groups.

Using standardized, comprehensive intake and follow-up assessments administered to each client from a large number of CSAT-funded grants, as well as research techniques designed to produce an equivalent comparison group, this study provides a comparison of clients treated in juvenile treatment drug courts (JTDC) and a matched cohort of adolescent outpatient (AOP) treatment programs in terms of the services received and their relative effects on five basic treatment outcomes. Our goal is to determine whether, after controlling for differences in case mix, juvenile treatment drug courts can successively get youth into treatment, get

them to participate at similar or better levels than other outpatient treatment programs, and achieve similar or better outcomes. The results provide a foundation for further inquiry to inform the development and delivery of services in current justice systems for adolescents with substance use problems.

METHOD

Juvenile Treatment Drug Courts

In 2005, CSAT funded 16 JTDC sites under its TI-05-005 grant program, with six of these sites choosing the GAIN for assessment (Laredo, TX; San Antonio, TX; Belmont, CA; Tarzana, CA; Pontiac, MI; and Birmingham, AL). An additional seven JTDC sites were funded in 2006, with all seven choosing the GAIN for assessment (San Jose, CA; Austin, TX; Peabody, MA; Providence, RI; Detroit, MI; Philadelphia, PA; and Basin, WY). Awardees from the 13 sites who elected to use the GAIN administered it to collect information from youth at intake, and at 3 and 6 months post-intake (9 and 12-month follow-ups were optional), including the collection of CSAT Core Client Outcomes (SAMHSA, 2005). The majority (86%) of clients in the 13 sites also received an evidence-based treatment (SAMHSA, 2010) as recommended, including Adolescent Community Reinforcement Approach (A-CRA; Godley, et al., 2001), Assertive Continuing Care (ACC; Godley et al., 2006), Family Support Network (FSN; Hamilton, Brantley, Tims, Angelovich & McDougall, 2001), Motivational Enhancement Therapy/Cognitive Behavior Therapy (MET/CBT; Sampl & Kadden, 2001), Motivational Interviewing (MI; Miller, Moyers, Ernst & Amrhein, 2003), Multidimensional Family Therapy (MDFT, Liddle, 2002), Multi-systemic therapy (MST; Henggeler & Shoenwald, 1998), or Seven Challenges (Schwebel, 2004).

Intake data from these 13 sites (N=1,786) were collected from January 2006 through March 31, 2009. At that

time, five sites had completed data collection and eight were still in the field. The records were limited to those with outpatient treatment records (N=1,445). Records for 180 clients who had not yet attained 6 months post-intake were dropped. Of the remaining 1,265 records passing all inclusion criteria, only those with at least one follow-up assessment record were retained, leaving 1,120 (89% follow-up rate for the sample) that were used for this analysis.

Adolescent Outpatient (AOP) Comparison Group Sites

Intake data from CSAT-funded AOP sites, including 75 grantees across 29 states from five grant programs (Strengthening Communities for Youth [SCY], Effective Adolescent Treatment [(EAT) Assertive Adolescent & Family Treatment [AAFT], Adolescent Residential Treatment [ART], and other targeted capacity expansion [TCE] grants) were collected between September 2002 and August 2008. All participating AOP sites used the GAIN (Dennis et al., 2003b, 2006) to collect information at intake and at 3, 6 and 12 months post-intake (some also did 9-month follow-ups), including the collection of CSAT Core Client Outcomes. The majority of AOP projects had completed data collection (ART, SCY, EAT, some TCE), while AAFT and recently funded TCE grants were still in the field.

Starting with 10,037 CSAT clients in outpatient treatment with data collected using GAIN version 5, we limited our sample to 8,604 who had attained 6 months post-intake. Of those, 7,560 had at least one follow-up (88% follow-up rate for the sample) and were used for this analysis. The majority (93%) of this subset received an evidence-based treatment as defined for the JTDC sites above.

Measures

All client characteristic measures were based on client self-report to in-person interviewers using the GAIN

(Dennis et al., 2003b). The GAIN is a standardized biopsychosocial and outcome assessment tool that has been widely used in several studies of community-based adolescent treatment, including: CYT, ATM, ACC, as well as other demonstrations such as the Strengthening Communities for Youth (SCY; Dennis, Ives, White & Muck, 2008), Effective Adolescent Treatment (EAT; Dennis, Ives & Muck, 2008), and Adolescent Assertive Family Treatment (AAFT; Godley, Garner, Smith, Meyers & Godley, in press).

The GAIN integrates clinical and research measures into one comprehensive structured interview with eight main sections: background, substance use, physical health, risk behaviors, mental health, environment risk, legal involvement, and vocational correlates. The GAIN incorporates symptoms for common disorders as specified in the 4th edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV-TR) of the American Psychiatric Association (APA, 2000), the American Society of Addiction Medicine's (ASAM, 1996, 2001) patient placement criteria for the treatment of substance-related disorders, the Joint Commission on Accreditation of Healthcare Organization's standards (JCAHO, 1995), and epidemiological questions from the National Household Survey on Drug Abuse (NHSDA; SAMHSA, 1996, now National Survey on Drug Use and Health [NSDUH]). A detailed list of validation studies using multiple methods (e.g. urine tests, collateral reports, Rasch measurement models, time-line follow-back), copies of the actual GAIN instruments and items, and detailed information about the scales and other calculated variables are publicly available at www.chestnut.org/li/gain.

We used 27 service measures including system involvement (treatment initiation, engagement, continuing care and positive discharge status), treatment satisfaction, and receipt of specific services. Detailed service data (e.g., number of days of treatment, service content, specific services received, and treatment satisfaction) came from the

3-month post-intake follow-up assessment using the GAIN (see Dennis, Ives, White & Muck, 2008 for more detailed descriptions of these process measures). Grantee staff provided information on involvement in the substance use treatment system (initiation, system engagement, continuing care, and discharge status) using the Treatment Transition Log (TTL; Dennis, Ives, White & Muck, 2008). The TTL is a separate Microsoft Excel© service log which documents a client's date of admission and discharge for each level of care (e.g., outpatient, intensive outpatient, short-term residential), including prior level of care/referral source, current level of care, the type of treatment received (e.g., A-CRA, MET/CBT5, specific manualized interventions), and discharge status. Although they are correlated, these four measures represent different aspects of treatment as indicated by the rank order correlation of the sum of the four TTL dichotomous measures (0-4) with total days of treatment ($\rho=.397, p<.001$) and treatment content ($\rho=.393, p<.001$) from self-report. While the significance of the correlations confirms that increases in these staff-reported measures are associated with increased self-reported treatment, correlations less than .4 show that they each have unique variance as well.

We selected five individual GAIN items to represent key outcomes that are highlighted in the drug court literature. The selected items, compared at intake and 6 months later (the maximum time available for both groups), included the number of days out of the past 90 days in which the client reported a) any substance use, b) any emotional problems, c) any trouble with family, d) being in a controlled environment, or e) any illegal activity. While other outcome measures were available, we selected these in order to provide a parsimonious understanding of a range of core outcomes.

All data were collected as part of general, clinical practice or specific research studies under each treatment site's respective voluntary consent procedures. Data pooled for secondary analysis are under the terms of data sharing

agreements and the supervision of Chestnut Health System's Institutional Review Board. All sites received standardized training and quality assurance on their GAIN data collection to facilitate comparison with other grantees collecting GAIN data.

Matching Procedures

In a preliminary unweighted analysis (available from the author), JTDC youth were significantly different than those in AOP on 36 out of 69 summary items that have been shown to be useful in characterizing client variations in demographics, justice system involvement, environment, substance use, and comorbidity (Dennis, Ives, White & Muck, 2008, Dennis, White & Ives, 2009). To control for these baseline differences and the unequal sizes of the two samples, we matched the AOP group by weighting their responses via propensity scores. The propensity score is a well-established and efficient form of matching (see Dehejia & Wahba, 2002; Rosenbaum & Rubin, 1983). For this analysis we used logistic regression to predict the likelihood (propensity) of each AOP client being a JTDC client based on the 69 intake characteristics presented in Table 1. The propensity score was set to one for JDTC clients. For AOP clients, the score is higher for clients who are more like JTDC clients and lower for those less like JTDC clients. The score was further weighted to result in a matched comparison group with similar characteristics and an equivalent cell size (n=1,120 each).

Handling of Missing Data

For the propensity score calculation, missing characteristics were replaced with their mean values to avoid any bias or significant loss in sample size due to listwise deletion (i.e., the entire record is dropped if one item is missing). The results shown in Table 1 used the original (unreplaced) characteristic values. For treatment satisfaction,

treatment received and its component items, missing data were replaced with the 6-month version of the item since the majority of clients missing 3-month data were admitted to treatment up to several months later, often resulting in their treatment being recorded on the 6-month follow-up. When these detailed service data were still missing, data were replaced via hot deck imputation (Dennis, Lennox, & Foss, 1997) using SPSS/PASW 17 (2008) Replace Missing Value (RMV) procedure. This more complex method was used to keep both the mean and the variance unbiased, and is one method of missing-data replacement that is generally recommended for key outcomes (Rubin, 1996, Little & Rubin, 1989). To create the hot deck, we sorted individual records by type of treatment (OP vs. IOP), treatment duration in days, and Global Individual Severity Scale (GISS)—a total symptom count across substance use disorders, internalizing disorders, externalizing disorders, and crime and violence. We then replaced each missing service value with the median of the four nearest valid answers (two above and two below current record) for that value in the ordered records (for detailed procedures used, see McDermeit, Funk & Dennis, 1999).

To retain the maximum number of records for the five outcome measures, if the 6-month record was missing (n=180), the next available record of 9-month (n=4), 12-month (n=18), or 3-month (n=158) was used instead. Selecting the follow-up records in this order means that missing 6-month outcomes ideally were replaced by the longer term follow-ups when available, and by a shorter follow-up if later data were not available.

Measures of Clinical or Policy Significance

Statistical significance is only a measure of whether the difference is reliably measured, not how important it is from a clinical or policy perspective. Because large sample sizes can make even trivial differences statistically

significant, we also report and focus on differences that are significant both statistically (i.e., reliably measured) *and* in terms of their effect size (i.e., important clinically or for policy). Odds ratios (OR) were used as effect sizes for dichotomous measures and were calculated for all client characteristics, systems involvement items (top portion of Table 2) and any self-help group involvement. Values greater than 1 indicate that JTDC was higher than AOP; conversely, values less than 1 indicate JTDC was lower than AOP. Cohen's *d*s were used as effect sizes for continuous measures including treatment means (lower portion of Table 2) and outcomes (Table 3). As a measure of effect size, Cohen's *d* scores simply standardize the between-groups difference on the variance (average distance from the mean), thus permitting comparisons across groups. Positive values indicate higher JTDC means relative to AOP, and negative values indicate lower JTDC means relative to AOP. Absolute values of effect sizes more than .2, .4, or .8 from zero (i.e., in either direction) are considered small, medium, and large effects, respectively.

RESULTS

Client Characteristics

[1] As shown in Table 1, the JTDC youth were predominately male (72%), Hispanic (53%), aged 15-17 years (77%), from single parent households (52%), in school (92%) but behind academically (58%), and involved in the justice system (100%). During the past year, most acknowledged some history of violence towards others (65%), illegal activity (64%), and having work, school or social peers who regularly used drugs (64-70%) or were intoxicated weekly (46-49%). Most of the youths (53%) reported a lifetime history of victimization, including 35% endorsing multiple traumatogenic factors (e.g., multiple trauma events, committed by multiple perpetrators, committed by someone trusted, or leading the youth to fear for his or her life).

Sixteen percent of the youths reported experiencing trauma events within the 90 days immediately preceding intake.

In terms of substance use, 85% of the youths reported first using drugs or alcohol under the age of 15 years, with weekly use in the 90 days before intake of tobacco (40%), alcohol (13%), marijuana (47%), or other drugs (6%). During their lifetime, 80% self reported criteria for dependence on one or more substances and 47% reported abuse of one or more additional substances. While 38% reported a lifetime history of experiencing withdrawal symptoms, only 23% did so in the week prior to intake and only 2% reported the more acute levels of withdrawal typically requiring formal detoxification programs. While only 17% perceived their substance use as a problem, 70% saw the need for treatment (in part due to pressure from the justice system or their family). About 21% reported high levels of health problems on the GAIN's health problem scale, and 7% were pregnant or had impregnated someone else during the past year. Most had one or more co-occurring psychiatric conditions (60%), including major depressive disorder (29%), generalized anxiety disorder (9%), homicidal or suicidal thoughts (16%), traumatic stress disorder (18%), conduct disorder (45%), or attention deficit hyperactivity disorder (ADHD; 41%). However, only 29% reported ever having received any mental health services. Most of the JTDC youth were sexually active in the 90 days before intake (65%), including 27% having sex with multiple partners or 31% having unprotected sex. Only 1% reported past 90-day needle use. Over 91% self reported experiencing one or more major clinical problems, with 64% reporting more than three (and as many as twelve) major clinical problems.

Table 1. Client Characteristics

		Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio ^a	O.R. 95% Confidence Interval
Demographics	Female	28%	28%	1.05	(0.9 - 1.2)
	Race				
	Caucasian	27%	22%	<u>0.77</u>	(0.6 - 1)
	African American	16%	14%	0.86	(0.6 - 1.1)
	Hispanic	44%	53%	1.41	(1.2 - 1.6)
	Mixed/Other	13%	12%	0.86	(0.6 - 1.1)
	Age				
	0-14 years	21%	22%	1.08	(0.9 - 1.3)
	15-17 years	78%	77%	0.93	(0.7 - 1.1)
	18+	1%	1%	0.83	(0.0 - 1.6)
Single parent	51%	52%	1.03	(0.9 - 1.2)	
In school ^b	91%	92%	1.08	(0.8 - 1.4)	
Behind < 1 year	57%	58%	1.04	(0.9 - 1.2)	

*Table 1
continues...*

		Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio^a	O.R. 95% Confidence Interval
Expelled or dropped out		35%	33%	0.92	(0.7 - 1.1)
Employed ^b		20%	17%	0.83	(0.6 - 1.0)
Crime, Violence and Justice System Involvement	Lifetime justice system involvement	98%	100%	NA	
	Current justice system involvement	94%	100%	NA	
	In a controlled environment ^b	40%	43%	1.15	(1.0 - 1.3)
	13+ days in controlled environment ^b	21%	22%	1.11	(0.9 - 1.3)
	Any physical violence in past year	67%	65%	0.95	(0.8 - 1.1)
	Any illegal activity in past year	64%	64%	1.02	(0.8 - 1.2)
	Any property crime in past year	44%	43%	0.97	(0.8 - 1.1)
	Any interpersonal crime in past year	42%	42%	0.98	(0.8 - 1.1)
	Any drug crime in past year	47%	48%	1.07	(0.9 - 1.2)

Table 1
continues...

		Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio ^a	O.R. 95% Confidence Interval
Intensity of juvenile justice system involvement					
In detention/jail 30+ days		10%	10%	1.05	(0.8 - 1.3)
In detention/jail 14-29 days		5%	4%	0.89	(0.5 - 1.3)
On prob/parole 14+ days w/ 1+ drug screens		28%	24%	0.82	(0.6 - 1.0)
Other prob/parole/detention		37%	45%	1.37	(1.2 - 1.5)
Other JJ/CJ status		18%	15%	0.83	(0.6 - 1.1)
Past arrest/JJ/CJ status		0%	0%	0.33	(-1.9 - 2.6)
Past year illegal activity/SA use		3%	2%	0.63	(0.1 - 1.2)
Environment	Weekly alcohol use in home ^b	22%	21%	0.94	(0.7 - 1.1)
	Weekly drug use in home ^b	8%	7%	0.91	(0.6 - 1.2)
	Work/school peers weekly intoxication	46%	46%	1.00	(0.8 - 1.2)
	Social peers weekly intoxication	50%	49%	0.97	(0.8 - 1.1)

*Table 1
continues...*

	Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio^a	O.R. 95% Confidence Interval
Work/school peers regular drug use	63%	64%	1.05	(0.9 - 1.2)
Social peers weekly regular drug use	70%	70%	1.01	(0.8 - 1.2)
Ever homeless or runaway	28%	28%	0.99	(0.8 - 1.2)
Lifetime victimization	54%	53%	0.94	(0.8 - 1.1)
High severity victimization lifetime	36%	35%	0.95	(0.8 - 1.1)
Victimization ^b	16%	16%	0.99	(0.8 - 1.2)
First use under age of 15	84%	85%	1.08	(0.8 - 1.3)
Weekly tobacco use ^b	44%	40%	0.87	(0.7 - 1.0)
Weekly alcohol use ^b	13%	13%	1.00	(0.8 - 1.3)
Weekly marijuana use ^b	46%	47%	1.04	(0.9 - 1.2)
Weekly other drug use (not tobacco, alcohol or marijuana) ^b	5%	6%	1.17	(0.8 - 1.5)

Substance Use

*Table 1
continues...*

	Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio^a	O.R. 95% Confidence Interval
Any lifetime substance dependence	80%	80%	0.99	(0.8 - 1.2)
Any lifetime substance abuse	48%	47%	0.98	(0.8 - 1.1)
Any past year dependence	36%	36%	1.02	(0.8 - 1.2)
Any past year abuse	42%	42%	0.99	(0.8 - 1.2)
Any lifetime withdrawal symptoms	38%	38%	1.03	(0.9 - 1.2)
Any past week withdrawal symptoms	24%	23%	0.96	(0.8 - 1.2)
Any past week acute withdrawal symptoms	2%	2%	0.97	(0.3 - 1.6)
Any prior substance abuse treatment	29%	31%	1.10	(0.9 - 1.3)
Self-perceived substance problem	18%	17%	0.97	(0.8 - 1.2)
Self-perceived need for treatment	68%	70%	1.10	(0.9 - 1.3)

*Table 1
continues...*

		Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio^a	O.R. 95% Confidence Interval
Physical & Mental Health	High health problems ^c in past 90 days	22%	21%	0.92	(0.7 - 1.1)
	Pregnant or got someone pregnant in past year	7%	7%	0.99	(0.7 - 1.3)
	Major Depressive Disorder	29%	29%	0.97	(0.8 - 1.2)
	Generalized Anxiety Disorder	9%	9%	0.94	(0.7 - 1.2)
	Any homicidal/suicidal thoughts	16%	16%	0.95	(0.7 - 1.2)
	Any Traumatic Stress Disorder	19%	18%	0.93	(0.7 - 1.1)
	Conduct Disorder	45%	45%	0.98	(0.8 - 1.1)
	AD/HD	41%	40%	0.98	(0.8 - 1.2)
	Any prior mental health treatment	29%	27%	0.89	(0.7 - 1.1)

*Table 1
continues...*

		Matched AOP (n=1120)	JTDC (n=1120)	Odds ratio ^a	O.R. 95% Confidence Interval
HIV Risk	Any sexual activity ^b	66%	65%	0.96	(0.8 - 1.1)
	Multiple sexual partners ^b	26%	27%	1.04	(0.9 - 1.2)
	Any unprotected sexual activity ^b	31%	30%	0.95	(0.8 - 1.1)
	Needle Risk ^b	1%	1%	1.29	(0.5 - 2.1)
Problem^d Summary	No major problems	9%	10%	1.10	(0.8 - 1.4)
	1 problem	13%	14%	1.10	(0.9 - 1.3)
	2 problems	14%	14%	0.99	(0.7 - 1.2)
	3 to 12 problems	64%	62%	0.93	(0.8 - 1.1)

Underlined ORs indicate JTDC rates are significantly lower than AOP. Bold ORs indicate JTDC rates are significantly higher than AOP. ^aJTDC/AOP. ^bIn the past 90 days. ^cRecent medical problems, being bothered by medical problems, that kept you from responsibilities. ^dIncluding: cannabis use disorder, alcohol use disorder, cocaine use disorder, amphetamine use disorder, other substance use disorder, any internalizing disorder, any externalizing disorder, physical sexual or emotional victimization, needle use risk, moderate/high sexual risk, moderate/high health problem. SOURCE: DC_CSAT_OP_V5_due6m_horiz_hasFU.sav.

In Table 1, we also show the comparison of JTDC youths with a matched cohort of youths in AOP. All but three of 36 (92%) significant differences were eliminated by this matching procedure (i.e., 3% more than would be expected by chance). The remaining differences were that, relative to the matched group, the JTDC youth were still more likely to be Hispanic (44% vs. 53%; OR=1.41), less likely to be Caucasian (27% vs. 22%; OR=0.77) and less likely to report their highest level of justice involvement as being on “other types of probation, parole, or detention” (37% vs 45%, OR=1.37).

Services Received

Table 2 compares the JTDC and matched AOP youth in terms of services received. [2] Relative to the matched AOP group, youth in JTDC were less likely to initiate treatment within two weeks (85% vs. 75%, OR=0.52), but were more likely to stay engaged at least 6 weeks (87% vs. 94%, OR=2.29), and to receive continuing care after more than 90 days (57% vs. 64%). Both groups had similar rates of positive system discharge status (i.e., were still in or had completed treatment; 59% vs. 54%, OR=0.81). The JTDC youth reported attending more than twice the number of days of intensive outpatient treatment as AOP (2.2 vs. 5.9; $d=.26$), more total days receiving any substance abuse treatment (14.7 vs. 9.9; $d=.24$) and were more likely to score higher on the GAIN’s treatment satisfaction scale (12.8 vs. 13.4 on a scale of 1 to 14, $d=0.31$).

In terms of specific services received, youth in JTDC were more likely to score higher on scales related to family services ($d=.30$) and external services associated with case management ($d=.29$). Family services for JTDC clients most commonly (>50% endorsed) included meeting with family members multiple times and meeting with family about communication issues. External services included discussions with and about probation. For JTDC clients, these two were

among the top three service content items with over 70% of clients endorsing each.

Both groups had similar rates of receiving mental health services (8.2 vs. 7.7), with most of that limited to days of mental health medication. Not surprisingly, JTDC youth were also likely to receive more urine or breath testing (4.6 vs. 10.5, $d=.53$). While JTDC youth were more likely to go to “any” self help group meetings (13% vs. 25%, $OR=1.48$), the difference in days (2.6 vs. 3.5 days of 90) was statistically but not clinically significant.

Table 2. Treatment Received

		AOP Matched (n=1120)	JTDC (n=1120)	Odds ratio^a	OR 95% CI
Systems Involvement	Initiation (admitted within 2 weeks of GAIN)	85%	75%	<u>0.52</u>	(0.3 - 0.7)
	System engagement (in treatment for 6 weeks across admits and transfers)	87%	94%	2.29	(2.0 - 2.6)
	Continuing care (treatment 90-180 days post admission)	57%	64%	1.35	(1.2 - 1.5)
	Positive system discharge status (still in or completed treatment)	59%	54%	0.81	(0.6 - 1.0)
		Mean (s.d.)	Mean (s.d.)	d^b	d 95% CI
Substance Abuse Treatment	Treatment Satisfaction Scale 3m ^c (alpha=.87)	12.8 (2.5)	13.4 (1.6)	0.31	(0.2 - 0.4)
	Nights in SA Residential 3m ^c (r _s =.99)	2.4 (10.6)	2.6 (11.8)	0.02	(-0.1 - 0.1)
	Times in SA ER 3m ^c (r _s =.70)	0.0 (0.1)	0.0 (0.3)	0.04	(0.0 - 0.1)
	Days in SA IOP 3m ^c	2.2 (9.7)	5.9 (17.7)	0.26	(0.2 - 0.3)
	Times in SA OP 3m ^c (r _s =.51)	4.7 (7.0)	6.2 (11.0)	0.16	(0.1 - 0.2)

Table 2
continues...

	Days in other SA Tx 3m ^c	0.7 (5.8)	0.1 (1.9)	-0.13	(-0.2 - 0.0)
	Days on SA meds 3m ^c (r _s =.58)	0.1 (2.3)	0.0 (0.3)	-0.04	(-0.1 - 0.1)
	Days in any SA treatment ^c (r _s =.66)	9.9 (16.3)	14.7 (22.3)	0.24	(0.2 - 0.3)
SA Treatment Content	Direct services received 3m ^c (alpha=.95)	4.4 (2.8)	4.3 (3.0)	-0.02	(-0.1 - 0.1)
	Family services received 3m ^c (alpha=.81)	1.2 (1.3)	1.6 (1.5)	0.30	(0.2 - 0.4)
	External services received 3m ^c (alpha=.92)	3.0 (2.5)	3.8 (2.9)	0.29	(0.2 - 0.4)
	Treatment Received Scale 3m ^c (alpha=.97)	8.6 (5.9)	9.7 (6.9)	0.18	(0.1 - 0.3)
Mental Health Treatment	Nights in MH hospital 3m ^c	0.1 (1.4)	0.0 (0.5)	-0.04	(-0.1 - 0.1)
	Times in MH ER 3m ^c	0.0 (0.1)	0.0 (0.4)	0.03	(-0.1 - 0.1)
	Times in MH OP 3m ^c (r _s =.67)	0.7 (3.6)	0.3 (1.3)	-0.15	(-0.2 - -0.1)
	Days on MH meds 3m ^c	7.9 (24.1)	7.6 (23.5)	-0.01	(-0.1 - 0.1)
	Days of any mental health probs. ^c (r _s =.67)	8.2 (24.3)	7.7 (23.5)	-0.02	(-0.1 - 0.1)
Interventions across systems (SA, MH, JJ)	Times urine/breath analysis ^c (r _s =.78)	4.6 (7.4)	10.5 (12.8)	0.53	(0.4 - 0.6)
	Any self-help ^{cd}	13%	25%	1.48	(1.3 - 1.7)
	Days of self-help ^c (r _s =.95)	2.6 (11.1)	3.5 (9.6)	0.09	(0.0 - 0.2)

Table 2
continues...

Days of structured activity with no substance use ^c ($r_s=.44$)	14.2 (24.9)	17.2 (29.7)	0.11	(0.0 - 0.2)
Total days in a controlled environment ^c ($r_s=.73$)	8.9 (22.1)	8.2 (19.1)	-0.04	(-0.1 - 0.1)
Days incarcerated ^c ($r_s=.40$)	4.1 (14.5)	3.9 (11.5)	-0.02	(-0.1 - 0.1)

Underlined ORs indicate JTDC rates are lower than AOP. **Bold ORs indicate JTDC rates are higher than AOP.**

Bolded effect sizes indicate small effects, italicized and bolded indicate moderate effects.

r_s are test-retest Spearman Rho's.

^aJTDC/AOP ^bCalculated as (Mean JTDC-Mean AOP)/Total SD ^cIn the past 90 days. ^dOR reported instead of *d*.

SOURCE: DC_CSAT_OP_V5_due6m_horiz_hasFU.sav.

Outcomes

Table 3 presents the number of days that the youths reported experiencing problems in five key outcome domains at intake, at the 6-month follow-up, and the respective change in days. In each case, fewer days at follow-up was considered a better outcome. For each measure, we provide both the within-group (did this group get better over time?) and between-group (did one group get better than the other?) Cohen's *d* effect sizes. [3] As can be seen, the largest impact for both the JTDC group and the matched AOP group (moderate within-group effects) was in days of substance use. While both JTDC and AOP clients reported more than 32 days (out of the past 90 days) of use at intake, JTDC use decreased significantly more (18 fewer days) than AOP (14 fewer days). Thus, while substance use did not differ at intake, JTDC clients showed greater reductions in days of use at follow-up. This between-groups comparison, while statistically significant ($F=7.45$, $p<.05$), did not reach a level of clinical significance ($d=-.12$).

Both groups showed clinically significant reductions in days of emotional problems (small within-group effects). While the change in the days of emotional problems was statistically smaller ($F= 5.0$, $p<.05$) for JTDC clients (6.9 fewer days) than for AOP clients (10.1 fewer days), the difference (between-group effect) did not reach the level of clinical significance ($d=.09$).

Table 3 Outcomes

	AOP Matched (n=1120)	JTDC (n=1120)	F	Sig.	Between- Group Change Effect Size d^a
Days of substance use (Intake)	32.4	32.2	0.03	0.874	
Days of substance use (6-month)	18.5	14.4	12.99	0.000	
<i>Change: Days of substance use</i>	<i>-13.8</i>	<i>-17.9</i>	<i>7.45</i>	<i>0.006</i>	<i>-0.12</i>
<i>Within-Group Effect Size d^b</i>	<i>-0.45</i>	<i>-0.57</i>			
Days of emotional problems (Intake)	24.3	22.8	1.19	0.275	
Days of emotional problems (6-month)	14.1	15.9	2.32	0.128	
<i>Change: Days of emotional problems</i>	<i>-10.1</i>	<i>-6.9</i>	<i>5.01</i>	<i>0.025</i>	<i>0.09</i>
<i>Within-Group Effect Size d^b</i>	<i>-0.32</i>	<i>-0.22</i>			
Days of family trouble (Intake)	12.5	12.0	0.34	0.558	

Table 3
continues...

Days of family trouble (6-month)	7.3	7.8	0.40	0.528	
<i>Change: Days of family trouble</i>	-5.3	-4.4	0.71	0.400	0.04
Within-Group Effect Size d^b	-0.23	-0.18			
Days in controlled environment (Intake)	10.3	13.0	7.64	0.006	
Days in controlled environment (6-month)	10.0	11.0	0.95	0.330	
<i>Change: Days in controlled environment</i>	-0.4	-2.1	2.07	0.150	-0.06
Within-Group Effect Size d^b	-0.02	-0.08			
Days of illegal activity (Intake)	5.5	5.6	0.06	0.804	
Days of illegal activity (6-month)	3.8	5.3	5.48	0.019	
<i>Change: Days of illegal activity</i>	-1.7	-0.1	3.59	0.058	0.04
Within-Group Effect Size d^b	-0.11	-0.02			

Bolded effect sizes indicate small effects, italicized and bolded indicate moderate effects.

^aCalculated as ((Mean_ChangeJTDC-Mean_ChangeAOP)/SD_ChangeTotal

^bCalculated as ((MeanPost-MeanPre)/SDTotal Pre

SOURCE: DC_CSAT_OP_V5_due6m_horiz_hasFU.sav.

Of the remaining three outcome measures, both groups had small reductions within-group, but only one of the observed changes within groups reached the clinically significant level (e.g., $d < -0.2$). The comparisons of the amount of change between groups were not statistically or clinically significant. Both JTDC and AOP clients reduced days in trouble with family by a similar amount (from 12 days at intake to 7 days at follow-up). While both were statistically significant within-group reductions, the change for AOP clients showed a small effect, while the JTDC change did not. Neither group significantly changed their days of illegal activity (both reporting 4-5 days in the past 90). Not surprisingly, JTDC clients reported more days in a controlled environment at intake (10 vs. 13 days), but the rate at follow-up and the amount of change were not statistically or clinically different. Consistent with the literature, the GAIN data showed the number of rearrests in the first six months post-intake (not shown in Table 3) to be relatively low (.20 and .24 arrests respectively). While the number of arrests for both groups demonstrated moderate within-group change (-.30 vs. -.34 fewer arrests than the higher intake values; $d = .4$), between-group changes did not differ clinically or statistically.

DISCUSSION

To summarize, JTDC youth were likely to receive more substance abuse treatment, family therapy and external services than matched youths in AOP treatment, and to report self-help participation. They were more satisfied with treatment and were more intensely monitored with urine testing. However, they were less likely to initiate treatment within two weeks of their baseline evaluation. It is logical that JTDC clients received more family services (primarily meeting multiple times with the family and meeting with family about communication), wrap-around or external case management services, and urine tests since, while these are a priority for adolescent programs in general (Cooper, 2002)

and for several of the evidence-based practices they were using, they are of primary importance for JTDCs (Henggeler, 2007; NADCP, 1997). It is also logical that JTDC clients were more likely to stay engaged in treatment six or more weeks and to receive continuing care 90-180 days post-intake, as they are under the increased monitoring and pressure to comply that are principal features of drug courts. Similarly, self-help participation is a requirement of many drug court programs (Hiller et al., 2008) and has been shown to be effective in maintaining abstinence for both adults (Scott, Dennis & Foss, 2005; Scott, Foss & Dennis, 2005) and adolescents (Passetti & Godley, 2008). However, both the AOP and JTDC groups had relatively low rates of self-help group participation.

In the one area in which JTDC youth had lower rates of service provision, treatment initiation within two weeks, we believe that the delay is due to the more complex nature of screening within the drug court system and the need to be referred to treatment typically provided by a separate system of care. This is important because a recent study (Lennox, Dennis, & Modisette, under review) found that initiation of treatment within two weeks was a major protective factor against relapse and recidivism, and that delayed initiation was sometimes a source of health disparities by race or ethnicity. Enhanced coordination between the justice and substance abuse treatment systems could improve treatment initiation and, thereby, reduce the risk of relapse, recidivism, and health disparities.

Relative to a matched cohort of AOP youth, those in JTDC showed statistically significantly greater reductions in days of substance use and smaller reductions in emotional problems. The sizes of both within-group differences were greater than what would typically be considered clinically significant (i.e., $d > .2$). Adolescent drug court participants have shown greater reductions in substance use in other studies comparing JTDC with evidence-based practices vs.

standard probation (e.g. Rodriguez & Webb, 2004) or treatment as usual (Henggeler et al., 2006). Here, however, both the JTDC and the matched AOP sites used one of the evidence-based treatments listed earlier. Consistent with recommendations by Henggeler (2007), this again suggests the importance of emphasizing the use of evidence-based practices in JTDC.

At baseline, the JTDC youth had significantly more days in a controlled environment than the AOP youth both before (13 vs. 6 days) and after (13 vs. 10) the latter were matched. At follow-up, the weighted comparisons were no longer significantly different (11 vs. 10 days). JTDCs seem to be successful at diverting youth from detention to treatment, maintaining longer treatment duration, and achieving significant substance use and mental health outcomes. Compared to similar youth who enter such programs from usual community sources, however, there were no clinically significant differences between groups in the outcomes for both substance use and emotional problems. In addition, there are areas of unmet need (e.g. mental health, victimization, HIV risk, environment, vocational) as well as continued risk for relapse and recidivism that persist at six months and beyond. However, there is a continued need to better address the multitude of needs of JTDC clients, to extend the period of monitoring and the duration of continuing care.

Commentators often question whether drug courts can achieve similar outcomes with youth they pressure into treatment relative to those who present on their own to community-based treatment. In practice, however, youth in the community are also being pressured to go to treatment (by family, schools and in many cases the juvenile justice system). Both systems of care had relatively similar levels of service utilization and outcomes after controlling for small differences in the case mix of the youth they served. Contrary to concerns about “creaming” or “net widening”, this suggests that JTDC are, in fact, one of several ways of getting

significantly impaired youth into treatment and reliably achieving similar (and even slightly better) outcomes. Thus, they have the potential to help reduce the previously described gap in which fewer than 1 in 17 youth with abuse or dependence are receiving any kind of treatment (OAS, 2006) and the wide range of personal and public safety problems associated with continued use (Dennis, White & Ives, 2009).

Strengths and Limitations

This paper had several strengths, including a large sample size, standardized intake and follow-up measures, multiple sites, and multiple sources of data on service utilization (i.e., from staff records and self-report). However, we need to acknowledge some important limitations. First, in this study we have compared two groups receiving treatment (via JTDC or AOP) and did not have a no-treatment control group. While there are similar time effects (i.e., reduced use) that would be expected with substance abuse treatment, this study did not directly evaluate the question of the relative effectiveness of treatment over no treatment.

Second, the maximum required follow-up monitoring period was six month post-intake. Since the duration of drug court treatment is at least six months and often nine to 12 months, (Cooper, 2002; Hiller et al., 2008), the outcomes measured may not reflect post-treatment values. Third, the service utilization measures from staff were very limited (i.e., we did not have detailed data on sessions attended or content) and demographics, clinical characteristics, and outcomes were limited to client self report with no alternative measures (i.e., from clinicians, records, collaterals, biological testing). Fourth, four of the 11 JTDC sites were more than 50% Hispanic and two of these four were the largest JTDC sites (>200 clients each). As a result, Hispanics were over represented in the JTDC sites even after matching. While this might limit generalizability, it does present an opportunity for

further examination of Hispanic vs. non-Hispanic drug court clients. While this difference may be overcome with the expected addition of JTDC sites, the other remaining effect after matching (being on parole, probation or in short-term detention) may be a feature of being a drug court client and less easily addressed.

Future Directions

In this article, we have evaluated characteristic and process measure differences descriptively in a way designed to provide a foundation for future work. Additional research seems warranted to relate the needs, services, and outcomes in a more complex path model to see how they interrelate. The results described in this article present several beneficial directions for future study.

First, we suggest expanding the JTDC group to include sites that are more representative of the public adolescent outpatient treatment demographic, thereby improving generalizability. Recent CSAT funding of additional JTDC grants should make this possible in the next few years. In the meantime, we would recommend using the existing data to compare Hispanic and non-Hispanic JTDC clients. Following a group of youths participating in a drug court program and using GAIN data, Ruiz and colleagues (2009) reported positive reductions in substance-related issues, delinquency and sexual risk engagement, but differential effects by gender and minority status. Therefore, we also recommend more sophisticated examination of the relationships and interactions between drug court involvement and the significant intake characteristics found here, including gender, race, specific substance use, and specific criminal behavior/arrests. Lennox, Dennis and Modisette (under review) recently detailed one such path model on racial health disparities in relapse and recidivism.

Finally, we propose continued examination of JTDC and AOP or other equivalent comparison groups using an expanded list of services with more compelling outcomes including specific recidivism and substance relapse measures as well as specific treatment content, self-help participation and relevant costs to society.

Future analyses are currently underway to address two additional treatment triage related questions. The first addresses prioritization: are those with the highest need for services (intoxication, physical problems, emotional problems, HIV risk, residential treatment need, recovery environment risk, relapse potential) actually receiving services (detoxification services, medical treatment, mental health, HIV education, residential treatment, self-help, biometric tests)? The second addresses intentionality: are the services that are provided going primarily to those with the highest need?

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**MECHANISMS OF EFFECTIVENESS IN JUVENILE
DRUG COURT: ALTERING RISK PROCESSES
ASSOCIATED WITH DELINQUENCY AND
SUBSTANCE ABUSE**

**By Cindy M. Schaeffer, Ph.D., Scott W. Henggeler, Ph.D.,
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Ph.D. and Steven B. Shapiro, M.S.**

Using data from a recent randomized clinical trial, this study examines the underlying basis of the success of juvenile drug court (JDC) and of evidence-based treatments at enhancing JDC outcomes. Participants in the clinical trial and the present study were 161 juvenile offenders meeting diagnostic criteria for substance use disorders and their families. Measures of youth delinquency and substance use as well as measures of family- and peer-related risk factors were obtained at three points during a 12-month period. Results showed that the relative effectiveness of JDC and the evidence-based treatments was likely due, at least in part, to the capacity of these interventions to alter well-established family (e.g., parent supervision) and peer (e.g., association with deviant peers) risk factors for antisocial behavior in adolescents. Implications of the findings for further improvements in the effectiveness of JDCs are discussed.

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ARTICLE SUMMARIES**EFFECTS OF JUVENILE
DRUG COURTS**

[1] Juvenile drug courts are effective in addressing risk factors for adolescent drug use in family risk domains (e.g., low parental supervision) and peer risk domains (e.g., associating with drug using peers).

**JUVENILE DRUG COURT
INTERVENTIONS**

[2] Juvenile drug court outcomes are enhanced when evidence-based treatments such as Multisystemic Therapy (MST) and Contingency Management (CM) are provided.

**SUGGESTIONS FOR
JUVENILE DRUG COURT
PRACTICE**

[3] Outcomes are likely to be further enhanced if juvenile drug courts facilitate youths' access to community-based, pro-social peer activities, such as clubs and sports teams.

**POLICY IMPLICATIONS
FOR JUVENILE DRUG
COURTS**

[4] Outcomes are enhanced when juvenile drug courts ensure that drug treatment providers use evidence-based practices, particularly those that are family-based.

INTRODUCTION

As described by Belenko and colleagues (Belenko & Dembo, 2003; Belenko & Logan, 2003), the emergence of juvenile drug courts (JDC) in the early 1990s was spurred by the influx of substance abusing youth into the juvenile justice system, the lack of effective services in that system for these youth, and the emerging success of adult drug courts (U.S. General Accountability Office, 2005; Wilson, Mitchell, & MacKenzie, 2006). Today, approximately 500 JDCs operate nationally (National Criminal Justice Reference Service, 2008), which is a testimony to their influence among stakeholders in the juvenile justice system.

[1] Although JDCs have increased in number during the past two decades, rigorous scientific evidence of their effectiveness has been obtained only recently. In a randomized trial with several intervention conditions, Henggeler and colleagues (2006) compared the nature of the court (JDC versus traditional family court) and the substance abuse treatment (usual substance abuse treatment versus evidence-based treatment) provided in collaboration with the court. Results at 12-months post recruitment showed that JDC, in conjunction with the usual substance abuse treatment, was more effective in decreasing rates of youth substance use and criminal behavior than was family court when used in conjunction with this same substance abuse treatment. The positive effects of JDC, however, were enhanced when evidence-based treatments for adolescent substance abuse (i.e. multisystemic therapy [MST]; Henggeler, Schoenwald, Borduin, Rowland, & Cunningham, 2009; and contingency management [CM]; Higgins, Silverman, & Heil, 2008) were provided as the treatment component of JDC instead of the usual group-based community substance abuse treatment.

These findings support the effectiveness of JDCs and the integration of evidence-based treatment into JDC. The

reasons for the effectiveness, however, are not fully understood. One plausible explanation for the success of JDC is that participating youth are more likely to receive substance abuse treatment than their counterparts receiving traditional court services (Roman & DeStefano, 2004). Two alternative arguments suggest that linking youth to treatment alone does not explain the positive results of JDC. First, as noted by Henggeler et al. (2006), the combination of JDC and usual substance abuse treatment was more effective than the combination of family court and usual substance abuse treatment. Since youth in both treatment conditions received the same substance abuse treatment available in the community, the treatment could not fully account for the greater effectiveness of JDC. Second, studies of the national substance abuse treatment system (e.g., McLellan, Carise, & Kleber, 2003) and reviews of the services available for juvenile offenders with substance use disorders (Chassin, 2008) concluded that substance-abusing individuals are not likely to receive evidence-based treatments. Moreover, group-based treatments commonly provided to substance-abusing adolescents in community settings might actually be iatrogenic (i.e., may cause negative outcomes), due to the tendency for antisocial youth to reinforce one another's deviant behaviors when clustered together (Dodge, Dishion, & Lansford, 2006).

An alternative explanation, which is the focus of the present study, is that the success of JDC and the evidence-based interventions is due to their ability to directly address the key risk processes associated with adolescent delinquency and substance abuse. Indeed, the principles and practices that define high-quality drug courts (National Association of Drug Court Professionals, 1997) also address known risk factors for antisocial behavior and drug use in family (e.g., poor monitoring and inconsistent discipline), peer (e.g., association with deviant peers), and school (e.g., low attendance) domains (for reviews, see Dishion & Patterson, 2006; Mayes & Suchman, 2006). For example, drug courts provide close

monitoring of youth behavior through community supervision, frequent review of treatment progress and regular drug testing, and issue rewards and sanctions based on youth drug use, compliance with rules at home, and school attendance. As a result of extensive contact with youth, JDC judges and associated stakeholders can tailor interventions, rewards, and sanctions to closely match the youth's individual needs (e.g., mandating no contact with peers with whom the youth has been arrested). Relative to traditional courts, JDCs are also more likely to engage caregivers of youth and include them in providing increased monitoring of the youth.

[2] The effectiveness of JDC on substance-related outcomes was enhanced with the integration of MST as an evidence-based substance abuse treatment (Sheidow & Henggeler, 2008) and CM used within the context of MST. As with JDC, MST focuses on key risk factors for serious antisocial behavior in adolescents. MST interventions place great emphasis on empowering caregivers to set limits on youth peer-group associations (i.e., prohibiting contact with deviant peers), and to monitor youth activities and whereabouts (e.g., verifying that the youth spends time only with approved peers, applying random drug testing of youth). Caregivers also are taught to issue sanctions (e.g., loss of privileges) for deviant behavior such as drug use and to provide rewards (e.g., access to privileges or increased freedom) for appropriate behavior such as school attendance. Consistent with JDC objectives, MST also facilitates collaboration between key systems involved with youth (e.g., family, school, parents of the youth's friends) to coordinate efforts to change youths' maladaptive behavior. CM also emphasizes close monitoring of substance use and the application of incentives (i.e. rewards) and sanctions based on use.

Presumably, JDCs and treatments such as MST and CM set into motion changes in the lives of youth (i.e.,

reductions in risk factors) that ultimately lead to a decreased rate of drug use and antisocial behavior. Intermediate changes that lead to the ultimate change of interest (in the case of JDCs, no additional drug use or drug offenses) are known in treatment outcome literature as “mechanisms of change.” Understanding possible mechanisms of change can help identify the “active ingredients” necessary for the success of interventions. Additionally, it can point to refinements and improvements in areas that could make interventions more effective. For example, a research finding that links improved parental monitoring of youth with decreased drug use would suggest that teaching proper monitoring skills to caregivers of substance-abusing youth might provide a vehicle for enhancing youth outcomes.

To date, no studies exist that have examined mechanisms of change for JDCs. Given the similarities in intervention emphasis between JDC and evidence-based psychosocial treatments such as MST and CM, research on the mechanisms of change for these treatments provide a starting point for examining the mechanisms underlying JDC effectiveness. Although only a handful of studies have examined mechanisms of change for treatments targeting juvenile offenders (Eddy & Chamberlain, 2000; Henggeler et al., 2009) and substance-abusing juvenile offenders (Huey, Henggeler, Brondino, & Pickrel, 2000), results are very consistent. More effective caregiver parenting (e.g., increased monitoring and supervision) and decreased youth association with deviant peers were key determinants of decreases in youth antisocial behavior across these studies. These family- and peer-related variables are also well-established risk factors for the development and continuation of antisocial behavior in adolescents (Dishion & Patterson, 2006; Mayes & Suchman, 2006).

The purpose of the present study is to explore possible mechanisms of change associated with participation in JDC and with the integration of evidence-based treatment

into JDC using data from Henggeler et al. (2006). First, we examined whether improvement in key family and peer risk processes predicted reduced delinquent behavior and substance use across substance-abusing juvenile offenders under all treatment conditions. Finally, for risk processes that were related to decreased delinquent behavior and substance use, we explored whether participation in each of the three treatment conditions had a positive impact on these risk processes.

METHOD

Design and Procedures

In the original study, Henggeler et al. (2006) sought to evaluate the effectiveness of JDC relative to traditional family court services and to determine whether the inclusion of two evidence-based practices (MST and CM) would improve JDC outcomes. In the study, youth were randomly assigned to one of four intervention conditions: 1) Family court with usual community substance abuse services (FC); 2) JDC with usual community substance abuse services (DC); 3) JDC with MST (DC/MST), and 4) JDC with MST and CM (DC/MST-CM). The study by Henggeler et al. (2006) found that outcomes for youth in the DC/MST and DC/MST-CM conditions were similar; as a result, these two intervention conditions were combined (MST/MST-CM) for all analyses conducted in the current study.

Assessments were conducted with each youth and his/her caregiver at three points in time during the study: 1) within 72 hours of recruitment into the study (pretreatment); 2) 4 months post-recruitment, which corresponds to the average end of MST/MST-CM treatment; and 3) 12 months post-recruitment, which corresponds to the average end of JDC. Research assistants administered assessment questionnaires to families in their homes or in detention facilities for youth in juvenile justice custody. Families were

paid \$75 for each completed assessment as compensation for their time.

Participants

Study participants were 161 adolescents recruited from the Department of Juvenile Justice (DJJ). DJJ is the public agency responsible for adjudicating and intervening with juvenile offenders in the community where the study took place (Charleston, South Carolina). All youth met *Diagnostic and Statistical Manual of Mental Disorders'* (4th ed.; DSM-IV; American Psychiatric Association, 1994) diagnostic criteria for alcohol or drug abuse or dependence. Additional inclusion criteria were (a) age of 12-17 years; (b) residence in Charleston County; and (c) residence with at least one parental figure. Adolescents were excluded if they were already involved in substance abuse treatment or if a family member had already received MST treatment. No youth were excluded due to mental health, physical health, or intellectual difficulties.

Participating youth averaged 15.2 years of age ($SD = 1.1$), and 83% were male. Youth in the study were 67% African-American, 31% White, and 2% biracial. Only 15% of study participants lived with both biological or adoptive parents, 21% lived with a biological parent and another adult caregiver, 52% lived with a single biological or adoptive parent, and 12% lived with other relatives. The median annual family income was between \$10,000-\$15,000; 38% of families were receiving financial assistance. The median education level of the primary caregiver was 12th grade. The youth averaged 3.6 arrests ($SD = 2.5$) prior to study entry, and 35% had previously received mental health or substance abuse treatment.

Recruitment and Randomization

All cases entering the DJJ as new referrals or repeat offenders from January 2000 to June 2003 ($N = 2,123$) were screened by probation staff for possible alcohol or drug abuse. If substance abuse was suspected and other inclusion criteria were met, the Structured Clinical Interview for DSM-IV (First, Spitzer, Gibbon, & Williams, 2001) was administered to both the caregiver and the youth offender. All inclusion criteria were met by 165 youth and their families. The families were recruited for study participation by a researcher who obtained consent. One hundred sixty-one families agreed to participate, yielding a recruitment rate of 98%. After securing agreement to participate and upon completion of the pre-treatment assessment questionnaire, families were informed of the conditions to which they were assigned. Youth participants assigned to one of the JDC conditions were enrolled in drug court interventions, which began immediately.

Intervention Conditions

All youth were supervised by probation or parole staff. This included a minimum of two hours of juvenile justice contact per month for about one year. The three intervention conditions are described briefly and outlined in Table 1. For additional details, refer to Henggeler et al. (2006).

Table 1. Interventions and Services Provided by Condition

Intervention Component	FC	JDC	JDC + MST ^a	JDC + MST-CM ^a
Monthly 2-hour meetings with probation officer	X	X	X	X
Weekly drug testing (by court)		X	X	X
Court-provided incentives for positive behavior (e.g., for negative drug screens, school attendance, treatment attendance) and sanctions for substance use and negative behavior		X	X	X
Office-based community outpatient group therapy, family group therapy, and individual therapy. ^b	X	X		
Home-based empirically supported treatment (MST) for antisocial behavior			X	X
Home-based empirically-supported treatment (CM) for substance abuse				X

Note: FC = Family Court (n=42), JDC= Juvenile Drug Court (n=38), MST = Multi-Systemic Therapy (n=38), CM = Contingency Management (n=43)

^a MST conditions were combined for analyses in the present study.

^b Treatment was not manualized, and the content was left to the discretion of the treatment providers; hence, these treatments were not considered to be empirically-supported.

Family Court. Youth in the FC condition appeared before a family court judge approximately once or twice per year. These youth were referred by their DJJ intake representative to receive outpatient alcohol and drug abuse services from the local state-funded alcohol and drug treatment facility. Services typically lasted 12 weeks and included: 1) group treatment sessions focusing on risk reduction, peer influence, conflict resolution, and anger management (1.5 hours, 4 days per week); 2) individual sessions (once per week); and 3) family group therapy (1.5 hours, 2 days per week). In addition, youth concurrently received six weeks of group treatment (once per week) relating to drug-selling activities. The theoretical orientations of these services were based on cognitive-behavioral theory and systems theory. The specific interventions and selection of materials were left to the discretion of the therapists. Services were provided in the office, with minimal community outreach. Less intensive services were offered, if needed, following the completion of the 12-week program.

Juvenile Drug Court. In the JDC condition, the aforementioned community services were also provided, but in the context of JDC proceedings. JDC hearings were held initially once per week, and procedures were typical of those provided in JDCs nationally. Prior to each court appearance, urine drug screens were conducted. During the hearing the youth, caregiver, and substance abuse counselor reported on the youth's behavior during the previous week. If the youth's drug screen was positive or if negative behavior was reported, sanctions could be imposed. Sanctions varied in intensity and ranged from community service to detention. If the youth's behavior was positive and he or she provided negative drug screens, the judge rewarded the youth with incentives that also varied with the achievement level (e.g., meals at fast food restaurants, tickets to sporting events). The participating JDC used a three-level system to determine how often a youth's attendance was required at court (i.e., weekly, biweekly, or monthly). Graduation from one level to the next

was dependent on negative drug screens and acceptable behavior in other areas. The standard duration of JDC was 12 months.

MST/MST-CM. In these two conditions, MST or MST-CM was provided within the context of JDC. MST is a manualized (Henggeler et al., 2009) evidence-based treatment that targets a comprehensive set of risk factors with interventions individualized to youth and family needs. These interventions integrate empirically based clinical techniques (e.g., family therapy, cognitive-behavioral therapy) into a broad-based ecological framework that addresses relevant factors across key domains (e.g., individual, family, peer, school, and neighborhood). MST interventions were focused on promoting behavioral changes in the youth's natural ecology by empowering caregivers with skills and resources to address difficulties that arise in raising adolescents. Intensive, standardized, and sustained quality assurance protocols are used to maintain fidelity to the treatment model. Services are delivered via a home-based approach, which facilitates a high level of engagement and low dropout rates. Therapists carry low caseloads (4 to 5 families per clinician) with services delivered in the home, school, and/or neighborhood settings at times convenient to the family. Therapists are available to respond to clinical problems 24 hours a day, seven days a week.

Youth and families in the MST-CM condition received full MST treatment plus CM (Budney & Higgins, 1998). CM is a behavioral treatment program that involves the following: 1) frequent urine drug tests with a voucher system that rewards negative screens, 2) functional analysis of drug use, and 3) self-management plans for coping with individual triggers based on functional analysis results. Consistent with MST treatment principles, the youth's caregivers were closely involved in all aspects of CM (e.g., taking urine samples, administering vouchers, and reinforcing youth's use of self-management plans).

Measures: Ultimate Outcomes

Ultimate outcomes are those common to all interventions for juvenile offenses and substance abuse cases. These outcomes are defined as reductions in the referral behaviors (i.e., reduced delinquent behavior and use of substances).

Alcohol, marijuana, and polydrug use. Substance use was assessed using the Form 90 (Miller, 1991), an interview based on a timeline look-back methodology. A calendar of the previous 90 days was first used to highlight important events. The calendar was then used to record specific quantities and types of substances consumed each day during the 90-day period. The total number of days during the period that alcohol, marijuana, and/or multiple drugs were used was summed at each point in time.

Delinquent Behavior. The 47-item Self-Report Delinquency Scale (SRD; Elliott, Ageton, Huizinga, Knowles, & Canter, 1983) was used to assess youth delinquent behavior. The SRD taps into a broad range of criminal behaviors and has the best supportive evidence among the various self-report delinquency scales (Thornberry & Krohn, 2000). Youth reported the total number of times they engaged in each behavior during the previous 90 days; these numbers were summed at each point in time.

Measures: Risk Processes

Risk process measures assessed family and peer influences, which are thought to be related to changes in ultimate outcomes. The risk processes examined in the present study were most consistent with existing research on the determinants of antisocial behavior in adolescents and on the change mechanisms of evidence-based treatments for such behavior. Risk processes were measured using scales developed for the Pittsburgh Youth Study (PYS; Loeber,

Farrington, Stouthamer-Loeber, & Van Kammen, 1998). These scales are widely used in studies of juvenile offenders and have strong reliability and validity with this population (e.g., Pardini, Loeber, & Stouthamer-Loeber, 2005). The respondent for each scale (youth, caregiver, or both) varies based on whose report of the process has proven to be most reliable in previous research. For example, caregivers are unlikely to have full information regarding the criminal activity of their child's peers, making them unreliable respondents for this risk process. Other risk factors (e.g., caregiver disapproval of friends) are known to both the caregiver and youth thereby producing high agreement between respondents. Such scales have demonstrated adequate reliability when youth and caregiver reports are averaged together. Youth and caregiver ratings of other risk factors (e.g., parental supervision) might diverge, and thus cannot be reliably combined. In such cases, each perspective is considered valid and is analyzed separately.

Peer delinquency and drug activities. The Peer Delinquency and Peer Drug Activity Scales were used to assess the proportion of youths' friends who engage in various antisocial behaviors. The 11-item Peer Delinquency Scale assessed general delinquency/criminal behavior (e.g., strong armed robbery, destruction of property) committed by peers during the previous 90 days. The 4-item Peer Drug Activity Scale assessed peer drug related behaviors (e.g., used alcohol, sold drugs) during that same time period. For both scales, items were rated using a 5-point scale (from 0 = *none of them* to 4 = *all of them*) and were summed so that higher scores indicated higher proportions of friends involved in delinquent behavior or drug activity.

Peer conventional activities. The Conventional Activities of Peers Scale is an 8-item youth-report measure designed to assess the proportion of participants' friends who engage in pro-social activities. Youth were asked how many of their friends engage in positive activities at school (e.g.,

athletics, clubs), in the community (e.g., church groups), and at home (e.g., doing things with family members). Youth participants rated how many of their friends engaged in these acts during the previous 90 days using a 5-point scale (from 0 = *none of them* to 4 = *all of them*). Items were summed so that higher scores indicated more peers engaged in conventional activities.

Bad friends. Youth and caregivers were asked to report on the extent to which the youth had contact with peers who were disapproved of by caregivers. The Bad Friends Scale consists of five youth and five caregiver *yes-no* items (e.g., “Were there any children among your group of friends of which your caregiver disapproved?”) that were summed to give a single-scale score, with higher scores indicating more association with disapproved peers.

Parental supervision. Caregiver supervision was measured using four caregiver and four youth items pertaining to parental knowledge of the youth’s whereabouts and activities. An example of an item for the youth report was, “Does (do) your parent(s) know who you are with when you are away from home?” A comparable item for the parent version is, “Do you know who your son’s/daughter’s companions are when s/he is not at home?” Respondents rated each item using a 3-point rating scale (1 = *almost never*, 2 = *sometimes*, 3 = *often*). Items were summed so that higher scores indicated better supervision.

Consistent discipline. Consistent caregiver discipline was measured using the Discipline Scale, which consists of four caregiver and four youth questions pertaining to parental persistence in disciplining. An example of a caregiver item was, “If you warn your child that s/he will be punished if s/he does not stop doing something, do you actually punish her/him if s/he does not stop?” An example of a youth item was, “If your mother/father warns you that you will get punished if you do not stop doing something, does s/he do

what s/he says and punish you?" Responses to these items were measured using a 3-point rating scale (1 = *almost never*, 2 = *sometimes*, 3 = *often*). All items were summed so that higher ratings indicated more consistent discipline.

Communication. The Revised Parent-Adolescent Communication Form asks youth (29 items) and caregivers (30 items) how often they communicate about their emotions, problems, and disagreements. Adolescent questions included, "Is your parent a good listener?" and "Does your parent insult you when he/she is angry with you?" Examples of caregiver questions included, "Do you and your child try to come to a solution when talking about a problem?" and "When you are having a problem with your child, do you give him the silent treatment?" For each item, the respondent indicated how frequently the behavior occurred using a 3-point scale (0 = *almost never*, 1 = *sometimes*, 2 = *always*). Some items were reverse-scored before being summed so that higher scores indicated better parent-child communication.

Statistical Methodology

Latent growth curve modeling (LGM) techniques and the MPlus Version 5.1 software package (Muthen & Muthen, 2008) were used for all analyses. LGMs analyze patterns of change (i.e., slopes or "growth factors") in a variable that is measured repeatedly to determine whether there has been no change (i.e., values are virtually the same at every time point), linear change (i.e., values consistently go up or down), or nonlinear change (e.g., values go up at first but then level off) over time. For example, height measured over a 4-year period would be captured as a slope (or "growth") of zero (i.e., no change) for adults, as linear with a positive slope (i.e., taller every year) for a child, and as positive but nonlinear for an adolescent (i.e., progressively taller in years 1-3, but leveling off in year 4). LGMs use several statistics (model fit indices) to determine which overall model shape is best suited for the data. These fit indices and their accepted

values for a good fit are: the Comparative Fit Index (CFI; .95 or greater), the Tucker-Lewis Index (TLI; .95 or greater), and the Root Square Error of Approximation (RMSEA; .06 or smaller). In addition, a statistical z score is used to determine the degree to which slopes for each process of interest differ from zero (no change).

In the present study, we expected all risk processes and ultimate outcomes would show significant linear improvements over the three assessment time points (i.e., baseline, 4 months, and 12 months). We also expected that changes in risk processes would be significantly related to changes in ultimate outcome processes (e.g., that increased parental supervision would be associated with decreased marijuana use). To test these associations, parallel process LGMs, which involve estimating two separate LGM processes (e.g., parental supervision and marijuana use) in the same model and examining the degree of association between their slopes, were used. In addition, and most importantly, based on the results of Henggeler et al. (2006), we also expected more improvements on risk processes in the JDC conditions than in the FC condition, and more improvements in the MST/MST-CM conditions than in the JDC condition. To examine the differential improvements between intervention conditions, multiple group LGMs, which provide an estimate of slope for each intervention condition, were used. Multiple group LGMs were conducted only for those risk processes found to be related to ultimate outcomes. Finally, it should be noted that although random assignment was used in the present study, all LGM results are correlational and thus, causality cannot be determined from the results.

RESULTS

[3] This section is divided into three parts. The first section shows how the single-process LGMs used in the parallel process and multiple group models were derived. The second section examines the associations between risk and ultimate outcome processes (i.e., parallel process model results). The third section explores the effects of each treatment condition on those risk processes (i.e., multiple group LGM results) found to have significant associations with reductions in ultimate outcomes.

Preliminary Analyses: Risk and Ultimate Outcome Processes

These analyses showed that the model fit was adequate for all risk and outcome processes. For each process, the linear slope model was the best fit for the given data and was retained for further analysis. Interested readers can obtain, upon request to the first author, a table showing estimates of all model parameters and details regarding the model specification for variables (i.e., peer delinquency and peer drug activity) that violated normality assumptions (i.e., were positively skewed) at one or more points in time as well as for variables (i.e., delinquency and substance use) that involved count data (for which negative binomial LGMs were used).

Association between Risk and Ultimate Outcome Processes

A parallel process model was fit for each pair of risk and ultimate outcome processes. A positive (i.e., both processes increasing) or negative (i.e., as one process increases the other decreases) association between two processes was identified when the estimate of the covariance parameter was statistically significant. As shown in Table 2, analyses supported many of the hypothesized associations

between risk and outcome processes. Twenty-one (21) of 40 possible associations were statistically significant.

The significant findings in Table 2 show that the decreased association of youth with delinquent peers and with drug using peers was associated with reduced delinquent behavior, alcohol use, marijuana use, and polydrug use. Similarly, increased youth association with conventional peers was associated with decreased delinquent behavior, alcohol use, and polydrug use. Several of the risk processes that involved family relations were also associated with reduced adolescent antisocial behavior and drug use. The most consistent associations were observed for caregiver and youth reports of parental supervision. Both youth and caregiver reports of increased parental supervision were associated significantly with reduced delinquent behavior, alcohol use (youth report only), marijuana use, and polydrug use. In addition, reductions in youth polydrug use were associated with both caregiver and youth reports of more consistent parental discipline (i.e., increased enforcement of rules). Youth reports of increased consistent discipline was also associated with reduced alcohol use. Changes in caregiver-adolescent communication or caregiver concern about the youth's bad friends were not associated with reductions in youth antisocial behavior.

Table 2. Parallel Process Latent Growth Models: Association between Changes in Risk and Outcome Processes

Risk Process	Ultimate Outcome Process			
	Delinquent Behavior	Alcohol Use	Marijuana Use	Polydrug Use
Peer delinquency	1.69**	2.22***	1.78*	2.80***
Peer drug activity	0.09***	0.18**	0.12**	0.20***
Peer conventional activities	-0.54**	-1.44*	-1.01 [†]	-1.99*
Bad friends	0.13	0.20	0.29	0.32
Supervision (parent report)	-0.02***	-0.03 [†]	-0.05**	-0.07**

Table 2 continues...

Supervision (youth report)	-0.05***	-0.11***	-0.06*	-0.10**
Consistent discipline (parent report)	-0.01	-0.03	-0.03	-0.06*
Consistent discipline (youth report)	-0.01	-0.04*	-0.02	-0.06*
Communication (parent report)	0.00	0.01	0.02	0.02
Communication (youth report)	-0.01	-0.05 [†]	-0.03	-0.06 [†]

Note. Risk processes were measured using scales from the Pittsburgh Youth Study (Loeber et al, 1998). Delinquent behavior was measured using the Self Report of Delinquency instrument (Elliott et al., 1983); Alcohol, marijuana, and polydrug use were measured using the Form 90 (Miller, 1991). Sample size for all analyses was $N = 161$.

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Change in Risk Processes by Intervention Condition

Multiple group models were used to examine changes in risk processes by treatment condition. Only risk processes that were significantly related to one or more ultimate outcome process (i.e., peer delinquency, peer drug activity, peer conventional activities, supervision, and consistent discipline) were examined. A separate multiple group model was generated for each risk process. Table 3 shows the group-specific change for each risk process over time relative to zero (i.e., no change). Due to the reduced statistical power for the analyses and an objective to reduce Type 2 errors, marginal results are noted.

Table 3. Changes in Risk Processes by Treatment Group Condition: Multiple Group Latent Variable Growth Models

Risk Process ^a	Linear Growth Factor Estimates (Standardized) by Intervention Condition			Model Fit		
	FC	DC only	DC + MST/MST-CM	CFI	TLI	RMSEA
Peer delinquency	-0.09*	-0.12 [†]	-0.09*	1.00	1.03	.000
Peer drug activity	-0.10	-0.17*	-0.15**	1.00	1.04	.000
Peer conventional activities	-0.15	0.32	0.69	1.00	1.09	.000
Supervision (parent report)	0.00	0.00	0.01	.963	.970	.081
Supervision (youth report)	-0.08*	0.10**	0.05*	.946	.959	.070

Table 3 continues...

Consistent discipline (parent report)	0.00	0.01	0.05 [†]	1.00	1.04	.000
Consistent discipline (youth report)	0.02	0.02	0.00	.877	.926	.075

Note. Values in italics represent iatrogenic effects, i.e., functioning declined over time. FC = Family Court ($n = 42$); DC = Juvenile Drug Court ($n = 38$); MST = Multisystemic Therapy; CM = Contingency Management (MST/MST-CM; $n = 81$). Sample size for all analyses was $N = 161$.

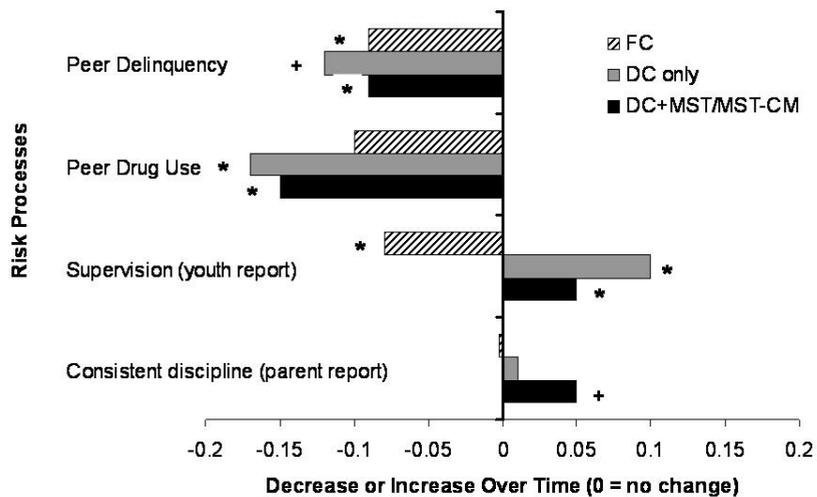
^a Only those risk processes that were related to ultimate outcome processes were examined (see Table 2).

[†] $p < .10$. * $p < .05$. ** $p < .01$. *** $p < .001$.

Significant and marginally significant intervention effects are summarized in Figure 1. The FC condition showed a significant positive effect on one risk factor and a significant negative (i.e., iatrogenic) effect on another. Although youth in the FC condition reported a decreased association with delinquent peers from pre-treatment to 12 months post-recruitment, they also reported a decrease in caregiver supervision during the same time period.

Youth in the DC condition reported significant or marginally significant improvements in three risk factors. Similar to their FC counterparts, youth in the DC condition reported decreased association (albeit marginally significant) with delinquent peers. In contrast with their FC counterparts, however, youth in the DC condition reported *increased* caregiver supervision and decreased association with drug using peers over time.

The MST/MST-CM condition, which integrated evidence-based substance abuse treatments into DC, demonstrated the most favorable changes in risk factors from pre-treatment to 12 months post-recruitment. Youth in this condition reported significant reductions in association with delinquent peers and drug using peers as well as significant increases in caregiver supervision. In addition, caregivers reported a marginally significant increase in applying consistent discipline.

Figure 1. Changes in risk processes by intervention condition

+p < .10 *p < .05 **p < .01

DISCUSSION

[4] JDCs have proliferated during the past two decades. The purpose of this study was to examine the underlying basis for the emerging success of JDC in addressing the problems of substance-abusing youth in the juvenile justice system. The present study examined why JDC was more effective than family court at reducing youth delinquent behavior and substance use. The study also addressed why the integration of evidence-based substance abuse treatment enhanced the capacity of JDC to reduce youth substance use. Study results showed that the relative effectiveness of JDC and the evidence-based treatments were likely due to the ability of these interventions to alter well-established risk factors for antisocial behavior in adolescents.

Youth in the DC condition experienced more consistent reduction in risk factors than did their FC counterparts. During the typical course of JDC involvement (i.e., 12 months), youth reported significant increases in parental supervision and significant or marginally-significant declines in time spent with peers engaged in delinquent and drug activities. In contrast, youth who received services through family court showed significant improvement in only one risk process (peer delinquency), and showed a significant decline over time in parental supervision. Association with deviant peers and low parental supervision are well established as the strongest predictors of adolescent criminal behavior and substance use (Loeber & Farrington, 1998; Mayes & Suchman, 2006). Thus, the capacity of DC to impact these processes provides a viable explanation for the relative effectiveness of DC.

Although not specifically examined in this study, several standard components of JDC are well-positioned to address family- and peer-related risk factors both directly (i.e., in their interventions with youth) and indirectly (i.e., by supporting caregivers and treatment providers in their work

with the youth). For example, judges can order youth not to associate with specific peers who are involved in illegal behavior and can assist caregivers in their supervision of youth by helping them to identify which peers their child should avoid. In contrast with traditional juvenile court, youth compliance with such orders can be monitored closely and appropriate rewards or sanctions can be applied. Thus, JDCs can empower caregivers to address youth problems at home, a critical component of almost all evidence-based treatments of adolescent delinquency (Henggeler & Sheidow, 2003) and substance abuse (Schaeffer, Chang, & Henggeler, 2009).

The results also suggest why the integration of evidence-based treatment of substance abuse (i.e., MST and CM) into JDC enhanced substance-related outcomes. As with results observed for the DC condition, the MST/MST-CM condition was effective at significantly decreasing youth association with drug using peers and increasing caregiver supervision. The integration of the evidence-based treatments was also significantly effective at decreasing youth association with delinquent peers (DC was marginally effective here) and marginally effective at enhancing caregiver consistent discipline. Together, these findings are consistent with the mechanism of change research observed for MST (Henggeler et al., 2009; Huey et al., 2000) and other evidence-based treatments of antisocial behavior in adolescents (Eddy & Chamberlain, 2000). In summary, although causality cannot be inferred in the present study, the findings suggest that the positive changes resulting from youth involvement in JDC and evidence-based treatments might be due, in part, to the capacity of these interventions to influence key risk factors.

Limitations

Several study limitations should be noted. First, and most important, although state-of-the-art longitudinal statistical techniques were used to explore changes in risk and

outcome processes over time, it was not possible to conduct formal tests of mediation using techniques suggested by some methodologists (e.g., Cheong, MacKinnon, & Khoo, 2003). Such tests would have required larger numbers of participants within each intervention condition to obtain adequate power to detect mediation effects. Second, delinquent behavior and drug use were measured through youth self-reports rather than through more objective means such as arrest records and urine drug testing. Third, as the nature and quality of JDCs differ from site to site, the results observed in this study may not extend to other JDCs. Finally, other potential mechanisms of effectiveness (e.g., specific court sanctions and rewards, individually-oriented risk factors) were not examined in this study, but are potentially important for understanding and improving JDC interventions.

Future Directions

The results of this study suggest two possible directions for future research. First, JDC outcomes might be enhanced by an explicit emphasis on the risk factors shown to be malleable through JDC interventions. For example, research could compare outcomes from traditional JDC services with outcomes from JDCs in which interventions directly aim to reduce youth association with deviant peers and increase caregiver supervision. Secondly, as shown in Table 2, youth involvement with peers engaged in conventional activities was consistently associated with reductions in all measures of delinquency and substance use. However, as shown in Table 3, none of the interventions examined in this study had a significant impact on youth association with non-problem peers. Because of their histories of antisocial behavior, many youth involved in JDC are disconnected from and, in some cases, prohibited from participating in conventional prosocial activities. Finding opportunities for prosocial activities for these youth and reducing barriers to their participation might provide another vehicle for enhancing JDC outcomes.

Conclusions and Suggestions for Practice

The present study extends the knowledge base regarding what effects can be expected from youth participation in JDCs. Findings suggest that improvements in peer associations and parental supervision are key factors in the success of JDC. These findings support the core tenets of JDC, namely, the importance of family involvement and individualized interventions. When JDCs link families to empirically supported interventions for delinquency and substance abuse, even greater change in caregiver behavior (e.g., improving discipline techniques) occurs. Based on these results, several recommendations for JDC practitioners are suggested:

- Use empirically supported treatments, such as those recommended by the Substance Abuse Mental Health Services Administration (SAMHSA, 2009), to address adolescent drug use. Inquire as to whether contracted providers deliver such treatments, and if not, advocate that they do so.
- Consider empirically-supported treatments that, in addition to targeting substance abuse, address a range of pertinent risk factors in peer and family domains for greatest positive impact.
- Promote policies and interventions that disconnect youth involved in drug court from other drug- or court-involved peers. For example, in terms of policy, JDCs can avoid clustering court-involved youth together in their own practices and in the treatment services they broker for participants (e.g., referring youth to individual- or family-based services rather than group-based services).

- Encourage policies and interventions that promote youth access (e.g., paying registration fees, assisting with transportation) to prosocial peer activities with adult supervision such as community-based clubs, service organizations, sports teams, and faith-based youth groups.
- Support caregivers in improving their supervision and consistency of discipline with their children. Court-imposed curfews and other restrictions can empower some caregivers to modify youth behavior, but other more intensive interventions (e.g., parent training classes) might be necessary to ensure that supervision and discipline responsibilities are transferred to and sustained by the caregiver after JDC involvement ends.

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**AN OBSERVATIONAL STUDY OF TEAM MEETINGS
AND STATUS HEARINGS IN A JUVENILE DRUG
COURT**

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M.A., Matthew L. Hiller, Ph.D., Elise White, and
Benta Samuelson**

There currently are several hundred juvenile drug court programs in operation in the United States, but relatively little research has examined how these programs are implemented. The current project used a structured participant observation protocol to capture what happens within the prehearing team meetings and drug court status hearings of a juvenile drug court. A secondary focus was placed on determining the extent to which the youths' family members participated in the proceedings and whether this was related to program compliance. The 51 participants, on whom 272 separate observations were conducted, were predominantly African American and male. Findings revealed that the most common information discussed during team conferences was participants' performance in substance abuse treatment and instances of noncompliance since the last status review. In addition, participants who had a family member attend court sessions had fewer incidents of non-compliance with respect to attendance at treatment and school.

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ARTICLE SUMMARIES

**TEAM MEETINGS IN
JUVENILE DRUG COURTS**

[1] Observational research revealed that attendance in treatment and infractions for noncompliance were discussed most frequently during team meetings in juvenile drug courts.

**STATUS HEARINGS IN
JUVENILE DRUG COURTS**

[2] Attendance of parents or other family members at status hearings was associated with better compliance among juvenile drug court participants.

INTRODUCTION

Juvenile drug courts (JDCs) have become an increasingly popular court-based intervention for addressing substance abuse problems among adolescent offenders, with 455 programs implemented by the end of 2007 (Belenko & Logan, 2003; Hiller, Malluche, Bryan et al., 2010; Huddleston, Marlowe, & Casebolt, 2008). This proliferation is important for several reasons. First, arrest rates among juveniles for drug abuse violations represent a significant issue for juvenile justice systems. For example, the 2007 arrest rates for drug law violations for youth was nearly double that of 1990 (Puzzanchera, 2009). Second, prior studies have found juvenile involvement in crime is related to illicit drug use (Bennett, Holloway, & Farrington, 2008; Belenko & Dembo, 2003; Huizinga, Menard, & Elliot, 1989). Research also has found that juvenile drug offenders often recidivate at higher rates than non-drug offenders (Belenko & Dembo, 2003). Finally, a small body of scientific research has accrued that suggests JDCs may have a measurable impact on youth delinquency as well as a positive influence on youths' lives and families (Applegate & Santana, 2000; Henggeler, Halliday-Boykins, Cunningham, et al., 2006; Rodriguez & Webb, 2004; Sloan, Smykla, & Rush, 2004).

In contrast to adult drug courts, which Marlowe (2004) has characterized as the most thoroughly researched criminal justice intervention for drug-involved offenders, relatively little research has examined the functioning of juvenile drug courts (Bryan, Hiller, & Leukefeld, 2006; Butts and Roman, 2004; Hiller, et al., 2010). The primary aim of this study is to examine the everyday operations of a juvenile drug court. Such assessment is valuable for two main reasons. First, it provides needed information from which existing courts as well as teams planning programs may learn. To illustrate, the juvenile drug court field has adopted a set of elements, akin to the "10 Key Components" of adult drug courts (OJP, 1997), to distinguish JDC programs from other

intervention models. These elements are presented in the monograph *Juvenile Drug Courts: Strategies in Practice* (Bureau of Justice Statistics, 2003). Central among these strategies is having a team of professionals representing various stakeholders in the juvenile justice system working with a judge to provide direct supervision and support to drug-involved youth (i.e., Strategies 2 and 4). Guidance regarding how to put these strategies into practice, however, was purposely left somewhat vague to accommodate the myriad of ways that jurisdictions across the United States may differ. For example, courts are given general guidance to meet regularly (either with or without the judge present) in team conferences (often called prehearing staffings or team meetings) to share information and updates on a youth's performance in the program. This information, in turn, is recommended to form the basis for the judge's subsequent interaction with the youth during his or her next status review hearing. This paper presents a description of how one JDC holds its prehearing team meetings and status review sessions to provide one concrete example of how a team has interpreted the second and fourth strategies and put them into practice within their local jurisdiction.

A second reason more descriptive research is needed is to provide a clearer understanding of which JDC elements relate to participant outcomes both during and after their tenure in the program. Work by Marlowe and colleagues (Marlowe, Festinger, Lee et al., 2003; Marlowe, Festinger, Lee et al., 2006) on the relationship between the frequency of judicial review and drug use and criminal behavior is a rare example of research designed to isolate the effective components of adult drug courts. There is nothing analogous to this in the extant juvenile drug court literature, and basic descriptive research on how these programs are implemented can provide a basis on which to do more sophisticated studies for identifying which parts of the JDC are associated with favorable outcomes.

The primary objective of the current study, therefore, is to add to the limited JDC literature by describing the prehearing team conferences and status review hearings of one juvenile drug court program. A secondary objective relates to the need to understand which components are related to participant behavior during and after program participation. More specifically, data on the relationship between family involvement in the status review process (i.e., Strategy 12) and youth compliance with the program are presented.

METHOD

Sample

Only observational data were collected on demographic characteristics; as such, limited information was available for describing the juveniles in this JDC. The sample was comprised of 51 participants, on whom 272 observations were conducted. Ninety-eight percent of the participants were African American and 2% were Caucasian. A majority of the sample was male (92%). Although objective measures of the youths' age, prior criminal history, and use of illicit drugs were not collected, it should be noted that admission policies dictated that only youth between the ages of 14 and 17 years with two or fewer prior adjudications, and who reported using drugs on a daily basis, were eligible for program entry.

JDC Description

The juvenile drug court program examined in the current study began operations in September 2004. It serves predominantly African American youth from the inner city areas of a large city in the Mid-Atlantic region of the United States. This program was designed to provide non-violent, substance-abusing youth with drug abuse treatment, intensive supervision, and case management services. In exchange for pleading guilty to a felony charge (typically a drug offense),

juveniles were given the opportunity to voluntarily complete the program. After fulfilling the requirements of the program, youth who remain arrest-free for one additional year have the charge and plea permanently expunged from their juvenile record.

Structurally, the juvenile drug court is divided into four phases. The first three phases are expected to take the participant at least six months to complete and include substance abuse treatment (provided through an intensive outpatient treatment program), case management, supervision through probation and contracted community providers, and urine drug testing. School attendance and progress are closely monitored as well. During the first and second phase of the program, youth are placed in intensive outpatient treatment (nine hours per week), randomly tested for drug use at least two times per week, and are expected to attend two drug court review sessions per month. Youth advance through the first three stages by meeting the goals in their individualized treatment plans. As they are promoted to higher phases, the intensity of treatment services and supervision is decreased. For example, when the youth is promoted to Phase 3, he or she attends five hours of substance abuse treatment per week, has a status hearing with the team and judge every three weeks, and has the terms of his or her community supervision reduced. Upon completion of the 3rd phase of the program, youth attend a commencement and then enter the 4th phase of the program. During this phase, they meet with the treatment court coordinator every week for the first month and report to the treatment court to update their status every six months for one year.

When participants are non-compliant with the program (that is, they have an unexcused absence from a treatment session, poor performance at school, or submit a drug-positive urine screen), the judge sanctions them during the next court hearing. Sanctions include receiving a verbal reprimand from the judge, having to write an essay related to

their non-compliant behavior, doing 4-12 hours of community service, and attendance at Respite (an experiential wilderness program). If a youth submits a positive urine drug screen, this triggers a reassessment of his or her drug use. If the assessment indicates the need for a higher level of care, then the youth may be referred to a short-term residential drug treatment program or some other form of more intensive treatment. If a higher level of care is not indicated from the assessment, the youth may receive another form of sanction or consequence. Youths also are rewarded for positive behavior by the team and the judge. Rewards include praise from the judge or team, applause during the court status hearing, and promotion to a higher program phase. Expungement of the record is the ultimate reward, and this is reserved for those who complete all requirements of the program.

JDC Team

The juvenile drug court team consists of representatives from several stakeholder groups, including a juvenile court judge, coordinator, two attorneys from the district attorney's office, a public defender, a juvenile probation officer, an individual from the local school district, two representatives from the outpatient drug treatment program working with the youth, and one family therapist. Most of these professionals participated in the BJA-sponsored Drug Court Planning Initiative (DCPI) prior to beginning the program and were observed to work very well with each other. Demographically, 50% of the team was male; and 60% were African American and the remaining 40% were Caucasian. Prehearing conferences were attended by all team members but the judge, and these conferences were held immediately prior to the drug court status hearing. During these conferences, each team member had a copy of a written report that had been compiled by the coordinator using all of the information available on the participant since his or her last court review session. During the conference, each case

was discussed and any inaccuracies were corrected and any new information was added to the report. A copy of the updated report was shared with the judge immediately prior to the hearing to refer to as he reviewed each participant's status in the program.

Participant Observation Procedure

Across approximately a 4-month time frame (June 13, 2006 to October 24, 2006), observational data were collected during each of 19 prehearing team meetings and subsequent status review hearings. In total, 272 different observations related to the team discussions of the youths' progress as well as the interaction between the judge and the youths during the court review session were coded. Non-reactive participant observation was deliberately chosen as the data collection method because it allowed investigators to examine the activities of participants and program personnel in a more natural manner not afforded by other common data collection methods (e.g., interviews, surveys; Hagan, 1997). During a full review of the project, the Temple University Institutional Review Board (IRB) granted a waiver of informed consent from the drug court participants because data were coded only with identifiers holding meaning solely to research staff (i.e., nothing that could personally identify the individual to anyone but research staff was recorded) and because the data collection method did not involve interacting directly with the youths. Observations of the prehearing team conference did involve minimal interaction between the researchers and the team. Thus, the IRB required collection of informed consent from the drug court team members. Informed consent signatures were collected prior to the commencement of data collection.

Based on an approach described by Satel (1998), a code sheet was developed to enable the systematic collection of observational data by the researchers. In the three weeks preceding the actual data collection interval, the principal

researcher attended each team conference and status hearing to train the two research assistants who would be responsible for data collection. As a part of this, the code sheet was modified several times to more accurately reflect program operations and improve the accuracy of data collected. As shown in Table 1, the final version of the code sheet was divided into two sections: one section for the prehearing conferences and a second section for the status hearings. General information was coded at the top of each sheet, such as the date of the observation, the observed gender and race or ethnicity of the participant, the time when the judicial review of the individual began, and the time it ended. There were five areas for which pre-hearing conference observations were coded, including treatment, education, supervision/case management, drug use, and recommended sanctions. For the drug court hearing, there were four areas for coding information. These included attendance at the hearing (both participant and family members), actual sanctions or rewards imposed, and the judge's demeanor with the participant.¹

¹ Results related specifically to the interactions between the judge and the participants are discussed in another manuscript targeted for juvenile court judges (Samuelson, Hiller, Henderson et al., under review).

Table 1. Summary of Coding Instrument

Variables Coded for General Information	Variables Coded for Pre-Conference Hearing		Variables Coded for Drug Court Hearing	
<ul style="list-style-type: none"> - Date of hearing - Time contact with Judge - Participant Ethnicity - Participant Gender 	<p><u>Treatment</u></p> <ul style="list-style-type: none"> - discussed - unexcused absence - unexcused lateness - attitude - other <p><u>Education</u></p> <ul style="list-style-type: none"> - discussed - # unexcused absences - # unexcused lateness - # suspensions - # classes skipped/cut - other 	<p><u>Recommended Sanction</u></p> <ul style="list-style-type: none"> - discussed - # hours community service - IHD - # days courtroom observ. - ultimatum: - 30 days to show cause hearing - 250 word essay - verbal reprimand - # weeks delayed phase up - # days of Respite - other 	<p><u>Attendance</u></p> <ul style="list-style-type: none"> - participant - family member - mother - father - other - judge addressed family member <p><u>Actual Sanction</u></p> <ul style="list-style-type: none"> - imposed - # hrs. community service - IHD 	<p>Judge's Demeanor with <u>Participant</u></p> <ul style="list-style-type: none"> - tense v. relaxed - stern v. friendly - closed v. open - scolding v. encouraging - dismissive v. attentive

Table 1 continues...

Supervision/Case Management

- discussed
- # missed sight contacts
- # missed voice contacts
- other

Drug Use

- discussed
- urinalysis drug positive
- positive marijuana
- positive cocaine
- positive benzodiazepines
- positive other
- urinalysis missed
- urinalysis tampered/adulterated
- other

- # days courtroom observ.
- ultimatum:
- 30 days to show cause hearing
- 250 word essay
- verbal reprimand
- # weeks delayed up
- # days of respite
- other

Rewards

- given praise/ acknowledgment
- phase promotion(to_)
- other

A portion of the code sheet also was reserved for researchers to write narrative comments about what they observed. Within each area, several variables were coded for each observation. For example, the treatment area under the preconference hearing section included items for recording whether or not the team discussed anything about the youth's performance in treatment since his or her last review, whether the youth had skipped or been late to treatment sessions, and the youth's general attitude while in treatment. With regard to attendance at the drug court review hearing, coders marked whether the youth was present, whether family members attended, who those family members were (the judge asked each family member to introduce him or herself), and whether there was any dialogue between the family member and the judge.

Analytic Plan

Data analyses focused on meeting the two objectives of the study: describing the prehearing team conference and drug court status review hearing, and determining whether there was a relationship between family involvement in the status hearings and the juveniles' in-program behavior. For the first objective, simple descriptive statistics, including percentages and averages, were calculated. The second objective required a series of correlations to be calculated between family involvement in the review sessions and the variables coded during the prehearing conference (e.g., whether the participant skipped treatment, submitted a positive drug test, or had poor behavior at school).

RESULTS

Prehearing Team Meetings

Treatment. Among the five areas that were coded during the prehearing team meetings, treatment was the most frequently mentioned topic, with the JDC team talking about

treatment during 161 of the 272 (59%) coded discussions. This aspect of the team discussion was led by a representative from the outpatient treatment program that youth were required to attend as a condition of the JDC program. The topics of the treatment conversations varied, but were most often focused on the youths' attendance and demeanor at treatment sessions. For example, during one session, the treatment representative stated that a participant had been disrespectful to his counselor and was not participating in group counseling sessions. When the participant was confronted about this behavior by the counselor, the participant "cursed her out." The JDC team then reached a consensus that the participant needed a sanction for this behavior and suggested one week of attendance at Respite Care (a wilderness experiential program for juvenile delinquents).

Education. Another common topic of discussion during the prehearing team conferences was the youths' education, which was observed to be mentioned during 106 of the 272 (39%) meetings. Led by a representative from the local school district, the majority of these conversations focused on educational status updates, such as changes in the youths' grade level, absences from school, tardiness, whether a participant had re-enrolled in high school, and any future educational plans they may have. For example, during one session, the school district representative reported that a participant had been promoted to 10th grade and was planning to attend a local community college after finishing high school.

Supervision/Case Management. Also frequently discussed was supervision/case management, which was mentioned during 112 of the 272 (41%) meetings. These reports were made by the juvenile probation officer on the team. For example, on one occasion, a participant received a negative report regarding compliance with IHD (in-home detention). The IHD officer reportedly saw him loitering on a

street corner and possibly selling drugs. The officer gave the participant a warning on the spot and referred the matter to the JDC team to investigate and address more fully.

Drug Use. Although the JDC regularly and randomly urine tested the youth for illicit drugs, this issue was discussed only during 49 of 272 (18%) pre-court observations. When discussed, the focus was on positive drug test results or on anomalies such as a missed drug test or a test that was suspected to be invalid. For example, during one session it was reported that the participant had missed a urine test and had subsequently refused to provide a sample. The team then discussed an appropriate sanction for this misbehavior and forwarded the recommendation to the judge. Even though information on both positive and negative drug-screen results was noted on the reports for the team meetings, the team was observed to rarely discuss drug-negative urine tests. Because positive or suspect drug tests were infrequent and received the lion's share of attention during the discussion, this finding illustrates the team's tendency to focus on negative behavior during the prehearing staffings rather than routinely noting positive behavioral indicators like negative drug screens.

Recommended Sanctions. For each case, when a non-compliant behavior (such as skipping a treatment session or being late to school) was reported, the JDC team reached a consensus about what sanction to recommend to the judge. A total of 69 sanctions were suggested during the 272 pre-court observations. These punishments ranged from writing essays (e.g., about the importance of attending school) to discharge from the program (reserved for those who had repeatedly refused to participate in various components of the program or who had been charged with a new crime). Rewards for adhering to the program requirements were not routinely discussed during the team conferences. When rewards were discussed, this was usually precipitated by the youth doing something particularly distinctive (e.g., receiving an award at

school). The most common rewards were verbal praise from the team and phase promotions, which were announced during the court review sessions. More tangible rewards, such as gift certificates, were not provided, although some members of the JDC team did informally reward success in the program by taking participants to lunch or purchasing gifts (e.g., sunglasses) for them.

Drug Court Status Review Hearings

Participant Attendance. Immediately following the prehearing team conferences, the team would adjourn and reconvene in the juvenile judge's courtroom. The coordinator would share the updated reports with the judge with some brief discussion before the participants and family members were admitted. A participant was observed 12 times out of 272 observations to not be present when his or her name was called during the hearing, usually prompting the judge to issue a bench warrant demanding the youth appear. Later, these participants were sanctioned for this non-compliant behavior.

Each juvenile appeared before the judge an average of 4.9 times during the 4-month duration of the study. The median number of appearances was five, and ranged from 0 to 11 appearances. On average, the appearances lasted for 4.03 minutes, ranging from less than a minute to 11 minutes. The modal length of the judge-participant interaction was between 2 and 2.99 minutes, with 23% of the interactions lasting this long. In terms of the total amount of time youth interacted with the judge during the 4-month duration of the study, youth spent a total average of 15.27 minutes interacting with the judge. The median total amount of time before the judge was 12 minutes (range = less than 1 minute to 57 minutes).

Family Attendance. As shown in Table 2, a number of juveniles (21%) attended the court hearings by themselves,

but many had family members who were involved to some extent in the program. Thirty-seven participants (79%) had a family member appear in court at least one time, but the typical level of support was relatively low (median = family members attended 40% of the sessions). Approximately one-third of the youths had a family member present during 75% or more of their sessions.

In terms of which family members attended, it was much more likely that a mother attended as compared to a father or other family member. Approximately 70% of the youths had their mother attend court with them at least one time, approximately 25% had their father attend court at least one time, and approximately 37% had another family member (e.g., sibling, grandmother, grandfather, aunt, uncle) attend court at least one time. For 17% of the youths, mothers attended all of the court sessions, compared to only 2% of the fathers and 4% of other family members. Approximately 40% of the youths were accompanied by their mothers for up to 50% of the sessions, compared to 13% for the fathers, and 32% for other family members.

The observed responses by the family members during the court hearings varied by individual participants. These data were coded only for instances during which a family member directly interacted with the judge ($n = 70$). Of these interactions, the majority (59%) of the family members' demeanors were rated as being "good," 27% were rated as "fair," and 14% were rated as being "poor." The following qualitative accounts are presented as examples to illustrate the variation in the family members' interactions with the judge. There were two separate instances during which a youth was placed in a residential treatment program for a longer period than was expected by the parent. One mother expressed her feelings in court by crying and another mother expressed her feelings in court by cursing and yelling. These expressions represent a somewhat negative interaction because they demonstrate the parents overtly disagreed with

the decisions made while in court. In other sessions, some parents interacted more positively during court, by smiling, thanking the judge, and shaking hands with the staff. Clearly, not only did the number of times a family member attended court vary, but the content and quality of the interactions with the court also varied.

Family Involvement and Participant Compliance

The secondary focus of this study was to begin laying the foundation for research to determine which elements of the JDC are effective in enhancing outcomes. Because a youth's family has been repeatedly shown to be a significant influence on his or her delinquent behavior, and because one of the strategies of juvenile drug court is to engage the entire family in the process, the relationships between family involvement in the court sessions and the participants' during-program behavior (e.g., treatment attendance, drug test results) were examined.

Table 2 Family Attendance at Treatment Court Hearings

Attendance Rates at Court Hearings

Percentage of Hearings *Any Family Member* Appeared in Court

Average (Range)	49 (0-100)
Median	40
None	21.3
1-25% of the time	14.9
26-50% of the time	21.2
51-75% of the time	10.6
76-99% of the time	6.4
All	25.5

Percentage of Hearings *Mother* Appeared in Court

Average (Range)	39 (0-100)
Median	33
None	29.8

Table 2 continues...

1-25% of the time	17.1
26-50% of the time	23.3
51-75% of the time	8.5
76-99% of the time	4.2
All	17.0

Percentage of Hearings *Father* Appeared in Court

Average (Range)	12 (0-100)
Median	0
None	76.6
1-25% of the time	8.5
26-50% of the time	4.2
51-75% of the time	4.2
76-99% of the time	4.2
All	2.1

Table 2 continues...

Percentage of Hearings *Other Family Members* Appeared in Court

Average (Range)	11 (0-100)
Median	0
None	63.8
1-25% of the time	23.4
26-50% of the time	8.5
51-75% of the time	0
76-99% of the time	0
All	4.3

As shown in Table 3, family involvement was significantly related to the youths' behavior in the program. Youths whose family members attended more status hearings were significantly more compliant with the program rules, such as attending treatment sessions, attending school and providing drug-negative urine tests.

Table 3. Correlations Between Family Attendance at Drug Court Hearings and Participant Compliance

Compliance Indicator	Percent of Hearings Attended by Any Family (<i>r</i>)
Absent from Treatment	-.38**
Late to Treatment	-.33*
Absent from School	-.21
Late to School	-.31*
Positive Urine Screen	-.26†
Received a Sanction	-.38**

† $p < .10$; * $p < .05$; ** $p < .01$

DISCUSSION

This study adds to a small, but growing, body of empirical research studying juvenile drug courts, and presents a description of the activities occurring within both the prehearing team meetings and the judicial status review hearings. The data address a significant gap in the published literature on these two key aspects of a juvenile drug court. As such, these observations are useful because they provide an example of how one team interpreted the guidance given

by Strategies 2 and 4 in the monograph *Juvenile Drug Court: Strategies in Practice* (Bureau of Justice Assistance, 2003) to meet the needs of their local jurisdiction.

Systematic observation of numerous prehearing conferences and drug court status reviews provide insight into how these are conducted in one JDC that was implemented with a specific plan to abide by the 16 Strategies of juvenile drug courts. Specifically, findings related to prehearing conferences suggested that the most common areas addressed included substance abuse treatment, school performance, and supervision/case management. The results of urine drug tests (which were collected frequently and randomly from each participant) were discussed somewhat infrequently. It is unclear why this was the case. It was somewhat rare for a participant to test positive for an illicit drug, so it appears the team chose to only discuss the positive drug tests rather than focusing on the fact that a positive drug test had not occurred. The team's focus on the negative rather than positive behaviors of the participants might represent a series of missed opportunities to reward compliant behavior. As such, it may also be inconsistent with the 11th Strategy of juvenile drug courts, which urges a focus on the strengths of the participants and their families.

A secondary focus of the current study was to lay the foundation for future research that may elucidate which elements of the JDT are effective. Because family is a significant predictor of delinquent youth behavior, and because family involvement is encouraged by the 16 Strategies for JDCs, we examined the relationship between observed family involvement in the drug court hearings and behavioral indicators of whether the participants remained compliant with program rules. Consistent with previous research that has found a direct relationship between familial bonds and delinquency (Gilmore, Rodriguez, & Webb, 2005; Rodriguez & Webb, 2004), this study found that juveniles who had family members attend court sessions with them had

a lower likelihood of engaging in non-compliant behaviors. The more often a family member attended court, the lower was the probability that the youth would be late or absent from treatment, late to school, or receive a sanction for non-compliance. There was also a marginal trend toward lower rates of drug-positives urines as well.

Although a correlation between youth success and family attendance is clearly demonstrated here, the analyses performed do not allow any causal inferences to be drawn. Stated otherwise, the direction of this relationship is unclear. It may be that family members chose to attend court hearings when their juveniles were performing well. However, it is important to recognize that previous research has consistently revealed that family involvement in treatment is a key to desistance from delinquency, successful JDC outcomes, and reducing substance use among youth (Dishion & Andrews, 1995; Dishion & McMahon, 1998; Dishion, Nelson, & Kavanaugh, 2003; Gilmore, et al., 2005; Liddle et al., 2001, Rodriguez & Webb, 2004). Parenting practices can be influential in preventing substance use, as research consistently demonstrates effective parental monitoring is a key variable to inhibiting delinquent behaviors (Dishion, Nelson, & Kavanaugh, 2003).

Statistical analyses also revealed that family support varied substantially among these youth. Family levels of involvement were low for many of the youth, with about one fifth of the sample always attending court by themselves. Another 30% had family members who attended less than 50% of the sessions with them. Although a strictly correlational finding, family support was found to be related to compliance with the juvenile drug court program. The lack of engagement of family members in the JDC program brings into question the ability of the juvenile courts to accomplish their mission without a sufficient level of engagement of family members. The results of this study suggest that juvenile drug courts' effectiveness, to some degree, may rely

on the ability of the court to address participants' familial bonds. This point is underscored by the evidence-based literature on the importance of engaging and working with the delinquent youth's family and addressing dysfunctional family systems (Dishion & McMahon, 1998; Dishion, Nelson, & Kavanagh, 2003). Even more directly relevant are the findings of a randomized trial of Multisystemic Therapy (MST) and Contingency Management in a juvenile drug court (Randall, Halliday-Boykins, Cunningham, & Henggeler, 2001). Findings from this study showed that a family-focused therapy like MST enhanced the impact of a juvenile drug court on participants' during-program delinquency and drug use (Henggeler, et al., 2006). Anecdotally, the family therapist on the team often noted that participants who attended family therapy sessions (which was voluntary and infrequently used) had an "easier" time complying with the demanding requirements of the program.

Limitations

There are several limitations with regard to this research. First, data were collected over a somewhat limited time frame. Therefore, analyses cannot be conducted longitudinally because data regarding long-term outcomes for participants were not collected. This prevents an examination of the program effectiveness over time as well as the ability to relate specific components of the program, namely the preconference team sessions, drug court reviews, and family involvement to longer-term goals, such as subsequent recidivism. Furthermore, the sample was mostly African American, which may limit the generalizability of the results to JDCs with greater racial or ethnic heterogeneity among program participants. Findings, however, may be somewhat generalizable to programs that operate in jurisdictions with large, impoverished inner city areas.

Limiting the measurement of family involvement to observations of their participation in the court reviews also is

problematic. Clearly, a family member may be involved in a child's life in a significant way, but still not attend court sessions. However, given the centrality of judicial review in JDC programs, parents may be expected to be particularly mindful of being at these sessions. Even though the timing of the court sessions (late afternoon on Thursdays) may have precluded the participation of some parents, one might also expect parents who wished to be involved, but couldn't, to ask a family member or friend to be there with their child. Regardless, future research should improve the limited observational measure by collecting more information (preferably with some form of standardized instrument) through surveys of the youths and family members.

In conclusion, the widespread use of juvenile drug court programs across the United States has led to a need for studies on how these programs are developed and implemented. It is hoped that the findings and conclusions of this study will have real value to practitioners who are interested in comparing their programs to other expressions of the drug court model as well as practitioners involved in designing new JDC programs. Perhaps of particular importance are the findings that family involvement was significantly related to youths' behaviors while in the program. This may provide a foundation for future studies that are specifically designed to determine which elements of the JDC are effective. Ultimately, knowing which parts of the JDC "work" and which do not would provide invaluable information for program design as well as clear direction on how to maximize participant outcomes.

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**DEVELOPING ACCOUNTABILITY IN THE LIVES OF
YOUTH: DEFINING THE OPERATIONAL**

FEATURES OF JUVENILE TREATMENT COURTS

**By Pamela Linden, Ph.D., Shelly Cohen, Ph.D., Robyn
Cohen, Ann Bader, M.P.A., and Michael Magnani, J.D.**

This article describes efforts to develop a comprehensive and informative training curriculum for juvenile treatment courts. Data were collected from four operational juvenile treatment courts in New York State. Methods included interviewing treatment court staff, youth participants and community providers; holding parent/guardian focus groups; and organizing a concept-mapping exercise with representatives of each of the major treatment court roles. Additional site visits to five national model court sites provided insight into how divergent models address the common problem of working with youth with multiple, complex needs in the juvenile justice system. Findings led to the development of a three-day training curriculum for planning and operational juvenile treatment court teams. During this training, participants developed measurable action plans for implementation of newly learned strategies. Pre- and post-training surveys of teams from the pilot training provided further insight into the needs of jurisdictions in working with juvenile justice-involved youth. Participants reported that the time together as a team was particularly beneficial.

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the time generously given to us by the staff, clients, and families of the juvenile treatment courts throughout New York State, who described their perceptions and experiences with the programs.

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ARTICLE SUMMARIES**JUVENILE TREATMENT
COURTS**

[1] Juvenile treatment courts provide court monitoring, close supervision, treatment and case management services for drug-involved youths and their families.

**TRAINING NEEDS OF
JUVENILE TREATMENT
COURTS**

[2] Juvenile treatment court teams identified training needs related to adolescent development, engaging youths and their families in treatment, applying graduated sanctions and rewards, identifying community resources, education law, and cross-disciplinary communication.

**RESPONSE TO TRAINING
OF JUVENILE
TREATMENT COURT
TEAMS**

[3] Pilot training with the “DAILY” curriculum led juvenile treatment court teams to feel more confident, knowledgeable and energetic in their work, and to make changes to their operations, policies and procedures. More research is needed to gauge the effectiveness of this training curriculum.

INTRODUCTION

Juvenile treatment courts grew out of the popular adult drug court model first implemented in Dade County, Florida in 1989. The adult drug court model was created in response to the overwhelming number of offenders cycling in and out of the criminal justice system. The punishment of drug addicted offenders soon resulted in a “revolving door syndrome” (National Association of Drug Court Professionals, 1997). Using the concept of “therapeutic jurisprudence” (Hora, Schma, & Rosenthal, 1999), treatment-oriented rehabilitation under court supervision emerged as a suggested means to reduce future arrests, convictions, and time to initial disposition. In addition, therapeutic jurisprudence surfaced as a way to increase treatment retention rates and save taxpayer money (Huddleston, et. al, 2008). In the 20 years since the first adult drug court became operational, research has demonstrated significant reductions in recidivism when compared to conventional case processing within New York State (Rempel, et al., 2003) and nationwide (Government Accountability Office, 2005).

The success of the adult drug court model, coupled with increases in chemical use and abuse by youth in the juvenile justice system, led to attempts to replicate the drug court model with juveniles. National arrest data obtained from Uniform Crime Reports indicated that although the overall percentage of juveniles arrested between 1993 and 2002 decreased by 11%, the number of juveniles arrested for drug abuse violations increased by 59% (Snyder, 2006). Even among youth not arrested for drug- or alcohol-related offenses, substance use has been a persistent problem with estimates suggesting that up to 78% of arrested youth were alcohol or drug involved at the time of arrest (National Center on Addiction and Substance Abuse, 2004).

Additionally, many youth enter the court system with substantial difficulties in school (e.g. truancy, multiple suspensions, and academic failure), family strife (e.g. familial chemical abuse, mental health or criminal problems), emotional/psychological and physical health problems (e.g. mood and anxiety disorders, trauma, abuse, victimization, learning disabilities, sexually transmitted diseases) and chemical use/abuse (Belenko & Dembo, 2003). At intake, youth in New York State Office of Children and Family Services (OCFS)-operated facilities are screened for service needs. On March 21, 2007, of the 1,088 youth in OCFS-operated facilities, 77% showed substance abuse needs, 51% showed mental health needs, 16% showed special education needs and 47% showed health-related needs (NYS Office of Children & Family Services, 2007). Likewise, of the 26,639 youth assessed at probation intake by New York State County Probation Departments using the Youth Assessment and Screening Instrument (YASI), over one-third of youth adjudicated as juvenile delinquents scored in the high risk category for the family (46%), school (36%), community peer (45%), and mental health (45%) domains.ⁱ

These youth often come to court having been previously involved in many disconnected public service systems (e.g. child welfare, special education, mental health, and juvenile justice) with minimal communication or coordination regarding the services provided (U.S. Department of Justice, 2003). In addition, youth do not have the flexibility to modify their environment when it is non-conducive to recovery. They usually cannot change the people, places and things with which they have daily contact. The needs of youth in juvenile treatment courts are often more complex than that of adults in similar programs. Dispositional orders and treatment plans in juvenile treatment courts must consider the greater role of family, community and peers in the lives of youth, as well as the changes in social, emotional, and cognitive development that the youth are experiencing. These changes include risk taking, hyper-

emotionality, limited ability for abstract thinking, and experimentation with drugs as part of normal development (Butts & Roman, 2004). In addition, it is more difficult to motivate adolescents to change, given their inherent sense of invulnerability, and the fact that most juvenile treatment court participants have not experienced the negative consequences associated with drug use (e.g. loss of jobs, relationships, and physical health) that are typical of their adult counterparts (Roberts, Brophy, & Cooper, 1997).

Although the development of the juvenile treatment court model within the family court system was inspired by the adult drug court movement, it did not represent the revolutionary thinking that accompanied the establishment of adult drug courts. Unlike the adult criminal court system, the initial objective of juvenile court case processing was to rehabilitate the youth to be responsible citizens by treating the problem that led to the delinquent behavior (Mack, 1909). Consequences of illegal acts that lead to the court appearance are meant to be more commensurate with the assessment of the youth's problems than with the severity of the offense. Rather than the traditional adversarial contest common to the criminal court process, all parties involved with youth in juvenile court (judge, attorneys, probation, and social services) should aim to collaborate using a problem solving approach to achieve the best interests of youth. The major differences between juvenile treatment court and traditional juvenile court case processing include having a more systematic framework for frequent judicial monitoring; more formal linkages between the court and community treatment providers; and a case management team that works collaboratively to regularly assess the ongoing and changing needs and strengths of the youth and the family, develop a service plan, and monitor compliance with all court mandates.

In 2003, the U.S. Bureau of Justice Assistance partnered with system stakeholders (i.e. program

practitioners, researchers and policy analysts) to develop a sixteen strategy guide to plan, implement and operate a Juvenile Drug Treatment Court program (U.S. Department of Justice, 2003). These sixteen strategies were used to aid in the development of the interview and focus group guides for the present study. The strategies are summarized below:

- (1) **Collaborative planning** should engage state, county and local agencies to support the project in the development process, coordinate day-to-day operations, provide continuous cross-training, and establish mechanisms for program accountability and evaluation.
- (2) **Teamwork** should be interdisciplinary, non-adversarial and proactive in resolving key issues.
- (3) **A clearly defined target population and eligibility criteria** should be based on a comprehensive community needs assessment with input from all stakeholders.
- (4) **Judicial involvement and supervision** should be ongoing, sensitive to the effects that court proceedings can have on youth and their families, and inclusive of parents or guardians at status hearings.
- (5) **Monitoring and evaluation systems** should be designed to maintain the quality of services, assess program impact and contribute to knowledge in the field.
- (6) **Community partnerships** should be built with a range of community organizations to expand the opportunities available to the youths and their families.

- (7) **Comprehensive treatment planning** should tailor interventions to the complex and varied needs of youths and their families.
- (8) **Developmentally appropriate services** should take into account the emotional and chronological age of the youth, and address relational and environmental issues that affect adolescent behavior.
- (9) **Gender-appropriate services** should ensure females receive equitable treatment, avoid gender stereotyping, and address gender-specific issues, such as reproduction, parenting and the effects of trauma.
- (10) **Cultural competence** should be ensured through policies and procedures that are responsive to cultural differences and personnel should be trained on culturally competent treatment and assessment procedures. Programs should analyze minority success rates and determine how services may be adapted to enhance those success rates.
- (11) **A strength-based focus** should be maintained on youth and their families during program planning and in every interaction between the court and the persons it serves.
- (12) **Family engagement** should seek to include family members as valued partners in all facets of the program.
- (13) **Educational linkages** should tie the court with the school system, and ensure participants attend educational programs appropriate to their needs.

- (14) **Drug testing** should be frequent, random and observed, and should follow written policies and procedures.
- (15) **Goal-oriented incentives and sanctions** should be administered in a manner that is immediate, predictable and consistent.
- (16) **Confidentiality policies and procedures** should protect the privacy of youth while allowing the drug court team to access key information.

Juvenile treatment court teams are challenged to integrate the objectives recommended in the Department of Justice's sixteen strategies with the specific needs of their juvenile offender population and resources within their community. Within this context, court programs must 1) individually define and assess their operational features; 2) select and maintain their planning and implementation teams; 3) identify their target population and program capacity; 4) create procedures and infrastructure that balance judicial leverage with the goal of promoting the youth and family strengths, and 5) collaborate with multidisciplinary partners to monitor youth progress. In order to accomplish these tasks, it is imperative to integrate the demands, perspectives, and personalities of a diverse group of stakeholders representing governmental, public and private entities.

An additional concern is that empirical outcome studies of juvenile treatment court programs have not yet sufficiently demonstrated the effectiveness of this approach for youth in the juvenile justice system (National Institute of Justice, 2006). Many limitations of the evaluation studies performed on juvenile treatment courts include small sample sizes, lack of a comparison group, or limited follow-up (BJA Drug Court Clearinghouse, 2008). In addition, most studies

focus on the “black box” of juvenile treatment courts without illuminating the individual components that may contribute to its success. Nevertheless, it is widely accepted that juvenile treatment courts represent a promising method of dealing with delinquent youth, especially when paired with evidence-based adolescent substance abuse treatment (Henggeler, 2007).

The New York State Unified Court System received a grant in 2003 from the Bureau of Justice Assistance (BJA) to develop and test a training curriculum of strategies utilized within operational juvenile treatment courts. The impetus for the project stemmed from juvenile treatment courts within New York State that were opening at a much slower rate than their adult treatment court counterparts. As of March 2005, there were 84 adult criminal drug courts, 40 family dependency treatment courts, and only 8 juvenile treatment courts operational within the 62 counties of New York State. Only four of those eight programs had more than 10 active participants. In contrast, as of December 2004, there were 811 adult criminal drug courts, 153 family dependency treatment courts, and 357 juvenile treatment courts nationwide (Huddleston, et. al, 2005). Clearly, the percentage of problem solving courts that served juveniles was much smaller in New York State than the national average.

The purpose of the project was to compile and disseminate guidelines for implementing juvenile treatment courts within New York State localities through development of a training based on the experiences of staff, youth, and families within operational programs. The goal of the training was to have teams of trainees develop measurable action plans for implementing and enhancing juvenile treatment courts in their jurisdictions. Consequently, this would allow for the expansion of juvenile treatment courts in New York that paralleled the growth of the statewide adult drug court movement.

Despite the divergent needs and resources of the youth, staff, and other stakeholders in the range of communities studied, overarching issues and strategies were identified as common to the development of all juvenile treatment courts. It is anticipated that this paper will help lay the foundation for future outcome studies by operationalizing concepts and common strategies that have been utilized by operational juvenile treatment court stakeholders.

METHODS

Four juvenile treatment courts within New York State were selected for inclusion in this study. Inclusion was based on being operational for at least one year, having at least 10 current participants and representing diverse geographical regions throughout the state, ranging from a large metropolitan area to a suburban area. Site visits were arranged with each of the juvenile treatment court teams. Site visits included an initial group meeting to explain the scope of the project, observations of case conferences as well as court proceedings, individual interviews of youth participants, and a focus group with parents/guardians of youth participants.

To supplement the information learned from New York State sites with national exemplary program strategies, site visits were also made to five programs throughout the United States. Finally, an advisory board of topic experts and policy makers was assembled to provide expert feedback on the study findings and the draft curriculum.

Treatment Court Stakeholder Interviews. Interviews were conducted with key stakeholders from each of the four programs, including judges, presentment (prosecuting) attorneys, law guardians, law clerks, chief clerks, coordinators, case managers, probation officers, mental health and substance abuse treatment providers and educational representatives. The semi-structured interview guide included

items regarding the court program planning process, current policies and procedures, roles and responsibilities of team members and subjective accounts of court program strengths and weaknesses. Respondents were asked to share their perceptions of what program components positively contributed to the operation of the program.

Parent Focus Groups. Four separate focus groups were conducted with a total of 14 parents/guardians of current and former youth participants. Parents/guardians were asked their opinions on working with the juvenile treatment court professionals, how participating in the program affected their family, and what aspects of the program were most and least helpful to them.

Youth Interviews. Individual audio-taped interviews with 37 current and former juvenile treatment court youth participants provided the youth perspective on the strengths and weaknesses of court program components.

National Model Court Site Visits. Site visits to four model court programs in California and one in South Carolina provided the opportunity to learn about innovative program designs used by other jurisdictions to handle youth with multiple and complex problems in the juvenile justice system.

Advisory Board Meetings. A 12-member advisory board consisting of state policy experts from mental health, chemical abuse, education, probation and the judiciary was organized to provide information about state policy initiatives relevant to juveniles involved in the justice system. Advisory board members provided feedback to the curriculum developers as a group after development of the curriculum outline, and after receipt of a complete copy of the draft curriculum. Curriculum developers also met individually with selected advisory board members once the curriculum was finalized.

Concept Mapping Exercise. Ten individuals from the four operational juvenile treatment courts participated in a concept mapping focus group exercise. The participants represented the judiciary, probation, law guardian, presentment (prosecuting) attorney, chief clerk, mental health treatment, chemical abuse treatment, program administrator and clinical coordinator. Concept mapping is a technique used by groups to establish a conceptual framework to guide their program development and evaluation. It results in a collective view that is meaningful for all program partners, expresses ideas in their language, and produces a picture or map representing all major ideas and interrelationships (Trochim & Kane, 2005).

Feedback from Pilot Training. Five New York State county teams participated in a two and one-half day pilot training in October 2006. Teams completed a pre-training survey that inquired about the types of juvenile cases generally seen by their courts, the status of their juvenile treatment court (planning or operational), program census and typical issues presented by youth in their courts. Immediately following the training, each team member completed a training satisfaction survey. Select team members were also contacted six months post-training to provide feedback on the degree to which they implemented the information and skills obtained at the training in addition to their progress toward achieving action plan objectives developed on their final day of training.

QUALITATIVE DATA ANALYSIS

Qualitative data, including interview and focus group notes, were analyzed using framework analysis to organize all information collected into key concepts and emergent categories (Pope, et al, 2000). During the first stage, evaluators familiarized themselves with the transcripts, notes and memos taken during data collection. In the second stage, a thematic framework was identified, in which key ideas and

themes were listed within overarching categories. These categories were used to synthesize data by indexing and creating an overall conceptual chart. The final stage involved the interpretation and analysis of the data using the initial objective of identifying a conceptual framework for a training curriculum.

RESULTS

Prominent themes identified from interview and focus group data are presented below. These themes, or primary concepts, were ultimately integrated with results from the concept mapping exercise and the sixteen strategies to develop the Pilot DAILY (Developing Accountability in the Lives of Youth) Curriculum modules.

Multidimensional Problems of Target Population.

Although three of the four courts referred to their programs as “juvenile drug courts”, all of the courts recognized that chemical dependency was not necessarily the primary problem faced by the youth they served. In addition to alcohol and drug use and abuse, most youth entered the programs with combinations of poor performance in school; histories of abuse, neglect, and multiple traumas; family and neighborhood dysfunction; medical problems; negative peers; and co-occurring mental health and behavioral problems. They often failed in school, at prior treatment experiences, and in previous probation programs, with their families having no idea how to deal with them. These court programs reported that they needed to look at the whole picture, not just the youths’ drug and alcohol history. Court programs explored the educational, familial and vocational aspect of youths’ lives in addition to their trauma history. In keeping with this belief system, the pattern of chemical abuse in youth accepted into these programs varied considerably from inconsistent (albeit regular) use to daily poly-substance abuse.

Family Engagement. These court programs believed that their clients were not only the youth, but the youth's family as well. Parent/guardian focus groups illuminated the importance of communication and cooperation between families and court teams in order to implement timely interventions with youth. Many family members conveyed initial feelings of helplessness, fear, humiliation and distrust. These initial feelings reportedly turned into an appreciation and respect towards the juvenile treatment court teams for their support in getting treatment for the youth.

Accountability. Court teams described challenges and frustrations in working with youth who appeared unmotivated to change; working with families who appear exhausted, overwhelmed, embarrassed, and disengaged; negotiating with schools that appeared ready to give up on the youth; and facing limited availability of treatment providers offering best practice services specifically designed for adolescents. Court teams explained the central role of the judge in overcoming these obstacles by demanding accountability from all stakeholders, including treatment providers, schools, probation officers, families, and the youth themselves. With the court serving as the instigator of change, it was believed that juvenile justice goals of community safety and youth pro-social development could be achieved. Thus, staff provided numerous examples of the court serving not only as the central agency coordinating information and service planning, but using its authority to convene meetings and provide youth with the services that they were entitled to receive.

Cross-disciplinary Language. Juvenile treatment courts rely heavily on inter-disciplinary communication, negotiation and agreement on the program's overall mission, values and procedures, as well as specific interventions with individual youth. The court program personnel and members of the project's advisory board said that the team needs a shared language through which to communicate effectively. Many court programs found that cross-disciplinary training

helped to achieve this goal. For example, judges reported that they have improved the handling of cases of drug involved youth by understanding the biology of addiction. They reportedly learned from chemical abuse specialists that when a young person shows a positive drug screen, relapse can be an expected part of the recovery process. Likewise, team members with expertise in clinical issues benefited from understanding the language and constraints of the juvenile justice system. This cross-disciplinary communication was often achieved through attendance at outside conferences or bringing expert speakers to team meetings, as well as simply listening to each other.

Infrastructure & Leadership. Court program staff emphasized the necessity of building a strong foundation internal to the court program. This foundation includes planning, staffing, policies and procedures, and multidisciplinary agreements. This foundation was usually developed as a result of one person (usually the judge or the coordinator) with strong leadership skills who brought stakeholders together. Programs were then sustained as a result of a hard working team with a built-in capacity to adapt the program to the changing needs of the youth, their families and their communities. Paying attention to operational details was believed to be critical, with passionate individuals setting the tone to ensure that standards are met. Teams made consensus decisions on policy issues as well as individual case management issues. This did not always translate into an agreement on these issues, but rather a commitment to not be afraid of conflict, and to disagree in an atmosphere of mutual respect for the expertise, culture, and statutory obligations of other teammates.

Supervision & Monitoring. Staff credited positive changes in youth behavior to the information that they collected through strict monitoring. They believed they knew much of what the youth did, and that the youth were aware they would receive punishment if program rules were broken.

Home visits, checking curfews, random alcohol and drug testing, and good communication between the court, schools, probation officers, and treatment providers were all believed to be important components of this monitoring. Although strict monitoring was essential in the initial stages of the program when youth were only motivated by “fear of getting caught,” staff and youth believed that what sustained positive behavior was a consistent and caring adult who genuinely liked adolescents and believed in their potential for success. One staff member commented, “It’s not programs that change kids, it’s the *relationships* that change kids.” Staff believed that youth could sense when the staff was sincere in their caring, and similarly that families responded positively when they were treated with respect.

Interviews with the youth revealed that successful participants developed strong emotional bonds with an adult affiliated with the court program who encouraged, cared, and believed that they were capable of making positive decisions (Linden, 2008). One program with a particularly large census utilized a photographic binder with participants’ names and pictures so that all staff members could recognize participants individually when they came to court.

Youth Pro-Social Development. Meeting the needs of youth was often a very creative process, with some courts designing specialty programs such as women’s groups for girls (to teach them how to dress and apply make-up appropriately) and a father’s program for boys. These opportunities for increasing pro-social skills were always balanced with clear and consistent rules and boundaries, swift and appropriate consequences for negative behavior, rewards for pro-social behavior and public acknowledgement of successes.

Nearly all of the interviewed youth reported “being around [drugs and alcohol] all the time.” Most youth who maintained sobriety in the program reported they severed ties

with alcohol and drug using peers, particularly when the nature of those relationships was superficial. On the other hand, some youth who were maintaining sobriety reported that they retained relationships with emotionally close, albeit drug using, friends. These youth described a perceived protective role of these friendships. They reported that these emotionally close peers supported their abstinence by reminding them of the consequences of using, stating how proud they were of their abstinence, and warning them when peers were going to be using drugs so that they could stay away. This was in contrast to superficial associations described more as acquaintances, or “cliques” that came together for the purpose of drug use and who were not emotionally close (Linden & Cohen, 2009). These anecdotal perceptions by program youth led to the recommendation that juvenile treatment court teams ask youth about their peer relationships as they go through the court program.

Evidence-Based Practices for Adolescents. New York State policy experts on the advisory board recommended inclusion of an overview of evidence-based community supervision and mental health, chemical abuse and co-occurring disorder treatment practices in the curriculum. They specifically cited the availability of extensive current research on best practices for adolescents.

The national site visits confirmed experiences of the New York State court teams and contributed to clarification of essential issues that juvenile treatment courts must address. These issues included: 1) the need for flexible eligibility criteria; 2) the importance of on-going program development activities; 3) the use of structured youth assessments; 4) delineation of roles and responsibilities within court teams; 5) team staffing that genuinely cares about youth and is committed to the court program; 6) an emphasis on family, schools, and peer groups; 7) a commitment to identifying and addressing the underlying problems leading to youth behaviors using a strengths-based approach; 8) the strategic

(rather than punitive) use of court leverage; and 9) the development of strong community partnerships to provide strict monitoring and treatment.

DEFINING A CONCEPTUAL FRAMEWORK

Shortly after the analysis of the interview, focus group and national site visit data, researchers convened a concept mapping focus group. Concept mapping has several characteristics relevant for addressing problems in defining and assessing operational features of juvenile treatment courts. It is purposefully designed to integrate input from multiple sources with differing content, expertise or interest. Concept mapping uses rigorous multivariate data analyses to visually depict the composite thinking of the group, and creates a framework or structure that can be used to guide action planning, program development or evaluation and measurement (Kane & Trochim, 2007). The steps followed in the concept mapping exercise included:

- *Preparation.* Ten participants representing the multiple disciplines comprising juvenile treatment court teams were selected;
- *Statement generation.* In a group brainstorming exercise, participants generated 90 short statements or phrases in response to the statement “*An effective juvenile treatment court should have the following characteristics*”;
- *Structuring the statements.* Participants independently sorted the 90 statements generated by the group into conceptually related piles. The sorting parameter rules stated that 1) each statement could be placed into only one category, and 2) the number of piles generated by each participant needed to be greater than one but fewer than the total number of

statements. In addition, there could be no “miscellaneous pile”;

- *Rating statements.* Participants were asked to rate each statement or phrase in terms of how important it was to their idea of a juvenile treatment court on a five point scale where 1= relatively unimportant and 5 = extremely important;
- *Creating binary matrices.* Researchers created a graphic representation of which statements were grouped together by individual participants. This was accomplished by first creating a binary symmetrical square matrix for each individual with 90 rows and 90 columns (each row and column representing one of the statements). If two statements were sorted in the same pile by an individual, then that individual’s matrix would contain a “1” at the intersection of the column and row for those statements. Otherwise, the column and row intersection would contain a “0”. All diagonal values contain a “1” because by definition, a statement is always in the same pile as itself. The individual matrixes were then added together, so that the value of any point in the matrix indicated how many people placed that pair of statements in the same pile. Those numbers could range from 0 to the total number of people who participated in the exercise.
- *Computerized representation of statements.* Two procedures were used to summarize the relationships between the statements. Researchers used SPSS statistical software to apply a multidimensional scaling procedure (PROXSCAL) to the combined matrix. A map was produced of points representing the two dimensional distances between the statements (SPSS, 2006). SPSS software was then used to

perform hierarchical cluster analysis on the two dimensional X-Y coordinates of each of the 90 statements to generate a series of cluster solutions, ranging from five to ten clusters.

- *Interpretation of maps.* Participants reconvened via a conference call to name each cluster and to decide on the most appropriate cluster solution that represented the juvenile treatment court concept. Prior to the call, each participant received a package which contained: 1) a list of all the statements; 2) a map of the points generated by the multidimensional scaling procedure, and 3) six separate cluster solutions (ranging from five to ten clusters). Through a consensus agreement, the participants chose a 9-cluster conceptualization of juvenile treatment courts and named each of the nine clusters. Since each statement had a mean rating of importance (i.e. 1= relatively unimportant and 5 = extremely important) from the original exercise, it was also possible to compute a mean rating of importance for each of the generated clusters. These clusters, in order of highest to least mean importance rating, were: 1) Ongoing Monitoring and Assessment of Youth, 2) Program Development and Teamwork, 3) Family Engagement, 4) Case Management and Accountability, 5) Treatment, 6) Community Collaborations, 7) Administration, 8) Response to Youth Behavior, and 9) Timely Consequences (see Appendix A. for specific statements making up the cluster and their corresponding mean ranks). The three individual statements that received the highest rankings of importance to juvenile treatment courts (i.e. ≥ 4.75) were weekly case conference, individualized treatment, and mutual respect of team roles. The three individual statements that received the lowest rankings (i.e. ≤ 3.10) were managing calendar time, the judge's "hammer", and detention.

PILOT DAILY CURRICULUM

Data collected from the aforementioned research activities provided the framework for the DAILY juvenile treatment court curriculum. In Figure 1, the leftmost column shows the sixteen strategies that were used to guide the collection of qualitative data in interviews and focus groups. The second column lists the key themes that were derived from interviews and focus groups. The third column lists the 9-cluster conceptual framework derived from the concept mapping exercise. The last column presents the 11 modules of the pilot DAILY curriculum held in October of 2006. Thus, each row demonstrates the column's contribution to the corresponding row's module.

Figure 1. Key Concepts in Juvenile Treatment Courts

Sixteen Strategies	Interviews & Focus Groups	Concept Mapping Clusters	Pilot DAILY Modules
Collaborative Planning Community Partnerships	<i>Accountability</i>	Community Collaborations	<i>Module 1: DAILY Curriculum Foundation</i>
Teamwork Clearly defined target population and eligibility criteria Judicial involvement and supervision	<i>Infrastructure and leadership Cross-disciplinary language</i>	Program Development/ Teamwork Administration	<i>Module 2: Nuts & Bolts I: Planning, Roles & Responsibilities</i>
Collaborative planning Community Partnerships	<i>Leadership</i>	Community Collaborations	<i>Module 3: Innovative Programming</i>
Confidentiality Goal-oriented incentives & sanctions Drug testing	Supervision & Monitoring	Case Management/ Accountability Timely consequences Ongoing monitoring & assessment	<i>Module 4: Nuts & Bolts II: Program Operations</i>
			<i>Figure 1 continues...</i>

Educational linkages	<i>Cross-disciplinary language</i>	Community Collaborations	<i>Module 5: "School Matters" in Juvenile Treatment Courts</i>
Cultural competence Developmentally appropriate services	<i>Youth Pro-social development</i>	Response to Youth Behavior	<i>Module 6: Working with Adolescents</i>
Comprehensive treatment planning	<i>Multidimensional Problems of Target Population</i>	Treatment	<i>Module 7: Adolescent Mental Health, Chemical Use & Co-occurring Disorders</i>
Family Engagement	Family Engagement	Family Engagement	<i>Module 8: Engaging Families</i>
Gender appropriate services Focus on strengths	<i>Evidence-Based Practices for Adolescents</i>	Case Management/ Accountability	<i>Module 9: Evidence-Based Practices</i>
Gender appropriate services Cultural competence	<i>Evidence-Based Practices for Adolescents</i>	Case Management/ Accountability	<i>Module 10: Using the World Wide Web</i>
Program monitoring & evaluation	<i>Evidence-Based Practices for Adolescents</i>	Case Management/ Accountability	<i>Module 11: Program Evaluation and Sustainability.</i>

The specific topics presented in each of the 11 modules are described in detail below.

Module 1: DAILY Curriculum Foundation. Participants learn the importance of using a holistic approach to treating the multidimensional problems presented by youth and their families. Strategies for holding multiple partners accountable (i.e. schools, treatment providers, probation, families and youth themselves) are discussed. The current strengths and limitations of chemical abuse and mental health treatment providers, courts, community supervision and educational systems in meeting the needs of youth and families are explored.

Module 2: Nuts & Bolts I: Planning, Roles & Responsibilities. Participants explore the essential role of strong leadership and strategies that facilitate collaboration among adolescent chemical abuse/dependency and mental health treatment providers, county attorneys, law guardians, education and court team members. Participants also identify critical planning/implementation team members and strategies to secure “buy-in” from key stakeholders. Essential documents, such as a policy and procedures manual, consent for release of information to and from treatment agencies, as well as youth and family agreements are explained. Participants explore stakeholder roles and responsibilities, while managing role conflict through dialogue. Participants are exposed to examples of creative collaborations used by other court programs.

Module 3: Innovative Programming. Participants learn about programs nationwide that are considered exemplary in their strategies to combine courts, schools and chemical abuse and dependency treatment services. Unique strategies to increase youth pro-social development are emphasized.

Module 4: Nuts & Bolts II: Program Operations. Participants explore factors to consider when identifying the target population, referral sources, eligibility and exclusion criteria, youth assessment tools, phase structure, graduated sanctions and rewards, drug testing strategies and dispositional outcome policies for youth exiting the program.

Module 5: “School Matters” in Juvenile Treatment Courts. Participants are exposed to the components of educational evaluations and assessments conducted by the education system within their community. Participants learn how to access youth academic and special education information, as well as information on attendance, behavior, and academic performance. An overview of the legal rights of youth in regard to both general education and special education services is reviewed, along with strategies to hold school districts accountable for services they must provide under federal education statutes. The structure of school systems is explained and participants learn strategies to increase their effectiveness when communicating with schools.

Module 6: Working with Adolescents. Participants learn about current research findings on the physical, cognitive, emotional, social, and neurological development of adolescents. Emphasis is placed on the different ways in which adolescents and adults process information. In addition, the presentation of the stages of normal adolescent development broadens the participants’ understanding of how brain development relates to high risk youth behaviors. The knowledge gained in this module prepares court teams to make therapeutic and informed decisions on youth dispositions. Participants also explore the role of social networks in chemical use and abuse, essential milestones of early, middle and late adolescence, strategies to engage youth, and alternatives to risky behaviors.

Module 7: Adolescent Mental Health, Chemical Use & Co-occurring Disorders. This module prepares juvenile treatment court teams to work with juveniles with mental health, chemical use and co-occurring disorders. The psychopharmacology of addiction is discussed in relation to the impact of substance use on behavior, functioning, and motivation of youth. Participants are exposed to mental health and chemical use terminology. Participants also learn how to differentiate between chemical use, abuse and dependence. Specific strategies for assessment and intervention are also discussed.

Module 8: Engaging Families. The juvenile treatment court is present in the lives of youth for a short time compared to parents and family. Understanding the perspective of parents/guardians of youth in juvenile treatment court programs can assist teams in balancing the imposition of court authority while working toward the goal of strengthening parental authority. Understanding the parent/guardian perspective prepares juvenile treatment court teams to engage families and learn how parenting styles affect youth outcomes. Issues raised in parent/family focus groups are explored and include: parental burnout, perceived loss of control over children, challenges of learning the procedures, roles and expectations of the NYS Juvenile Justice System, parental need for (but fear of) the external authority of the court, and the family burdens of meeting the requirements of the juvenile treatment court program (e.g. transportation to and from weekly court hearings and treatment sessions).

For some parents, the fear of having their children placed outside of the home is mediated by the degree of caring and concern they perceive the court program staff to demonstrate. Although many parents are appreciative of the degree to which the judge and court program staff become familiar with their child, some typical emotional reactions toward the juvenile justice system include fear, confusion,

anger, disappointment, anxiety, humiliation and distrust. Examples of strategies that help support family engagement are efforts by all staff to recognize family members in court, not only by name, but having mechanisms to praise and acknowledge them when they appropriately make efforts to support their child's recovery. In addition to formal family therapies, families can be supported by providing opportunities for them to engage in positive activities together or with other families in the program.

Module 9: Evidence-Based Practices. Probation practices along with mental health and chemical abuse treatment strategies that are supported by empirical evidence are introduced. Participants learn to distinguish effective from ineffective programs using scientific parameters. Strategies that juvenile treatment court programs can implement to hold service providers accountable to provide evidence based treatment are explored. Strategies include: what to look for when conducting site visits and what questions to ask treatment providers to evaluate the use of evidence-based practices.

Module 10: Using the World Wide Web. Local, statewide, and national data that can assist teams in understanding the changing needs and characteristics of court-involved youth in their community are presented. Internet-based resources that support the work of juvenile treatment courts, including New York State and federal chemical abuse clearinghouses, evidence-based treatment resources, adolescent mental health information, juvenile justice agencies and up-to-date listservs are examined.

Module 11: Program Evaluation and Sustainability. The role of evaluation in measuring juvenile treatment court processes and outcomes is discussed. Participants learn to make data-driven policy decisions and provide proof of effectiveness for program sustainability. Potential funding

resources (government and private) for continuation of the juvenile treatment court program are examined.

Team Action Plan Development Activity. The purpose of the “action plan” is for each county team to develop specific objectives and activities related to the planning and implementation of a juvenile treatment court program. The action plan integrates court operations and program policies related to youth needs such as chemical dependency, mental health, education, supervision, monitoring, and family engagement. With discussion led by the team facilitator, teams brainstorm together to identify goals and measurable objectives to be implemented over the next 12 months. Barriers to implementing the goals and objectives, specific to each individual county, are discussed by the team and potential strategies to overcome barriers are identified. Each team presents their action plan to the entire training group and has the opportunity to critique and receive feedback.

MODULE DELIVERY

Each training participant receives a binder with 11 sections, representing each module. Each module contains module learning objectives, PowerPoint slide handouts, and individual and group exercises, such as case studies for discussion with the larger group. Instructors use a combination of didactic lecture and interactive exercises. For example, during the *Education Matters* module participants independently complete a short quiz involving “can/cannot do” in education law. The instructor facilitates group discussion as participants share their responses.

Each team receives a “Juvenile Treatment Court Resource Guide” containing listings of county-specific resources such as adolescent mental health and substance abuse providers, school district contact information and approximately 75 primary source scholarly articles, OJJDP

reference materials, assessment instruments, National Report Series Bulletins, and other relevant reading materials.

At the conclusion of each module, participants complete an evaluation form specific to that module. They are asked to identify at least one primary concept learned in the module and how it might be used to enhance their program, in addition to any additional knowledge or resources they would need to implement proposed changes. The information contained in the module evaluation forms is used to develop the team action plan.

DAILY PILOT TRAINING: FIVE COURT TEAMS

In October 2006, five New York State planning and operational juvenile treatment court teams were invited to a 3-day pilot training at the New York State Judicial Institute. A facilitator – a seasoned juvenile treatment court team member representing a variety of court program roles (e.g., judge, law guardian, probation officer, program coordinator and county attorney) – was assigned to each team for the duration of the training to provide guidance and answer questions. At the conclusion of the training, each county team developed individualized action plans under the direction of their assigned facilitator, and presented their action plan to the large group for discussion.

Pre-training surveys indicated that the greatest challenges experienced by the operational juvenile treatment court teams were: engaging both youth and their families in accepting and staying in the program and identifying practical uses of graduated rewards and sanctions to motivate behavior change. Both operational and planning teams hoped to learn: how to more effectively deal with limited community resources and uncooperative schools; how to better understand youth behavior in the context of drug addiction and family relationships; as well as concrete court policies

(e.g. phase advancement requirements) that have been used in other programs.

Participant evaluations from the pilot training indicated that county teams would have benefitted from more time together as a team to process new information learned from modules and to discuss strategies with the help of their facilitators to implement new policies based on presentations. Although all modules were appreciated by at least some of the trainees, those that were identified as most valuable were on education law, normal adolescent development, and the effects of drugs and mental illness on adolescent behavior. Comments in the evaluations emphasized the need for continuous cross-training, even in developed programs.

A follow-up evaluation call to select team members suggested that four of the five county teams made significant changes as a result of the DAILY training, including: 1) adjusting the policy and procedure manual to reduce the length of mandated involvement in the program and increase parental involvement requirements; 2) changing the ways that sanctions are implemented; 3) becoming more pro-active with juveniles and their families; 4) working with other agencies to maximize the use of services and avoid duplication of effort; 5) increasing collaboration with court partners such as probation, law guardians, Court Appointed Special Advocates (CASA), and a community mentoring program; and 6) forming a community advisory committee. They also reported feeling more energized and confident in their planning and implementation, felt they had a better understanding of the needs of adolescents, and met more regularly. Additionally, teams reported using the resources that they received at the training, such as manuals from the Center for Substance Abuse Treatment and the sixteen strategies. These materials were used during meetings and for cross-training with partners such as the Department of Social Services and treatment providers.

At follow-up, the teams reiterated the positive contribution made by the facilitators during the training. Many teams reported having stayed in contact with their facilitator. Additionally, teams especially appreciated having the time together “away from the phone and regular roles.” On the other hand, some found that it was very difficult to schedule time together after the training. One participant said, “It is rare to be able to meet with the judge, probation officer, and county attorney all at once.”

Overall, planning (rather than operational) teams were more satisfied with the training. In addition, one team that was pressured into participating, instead of voluntarily applying, neither enjoyed nor benefited much from the opportunity. However, subsequent trainings revealed benefits from pre-training site visits, which allowed them to begin discussions of areas that needed policy development, and allowed the training team to present the philosophy and overview of the curriculum. Evaluators also found that post-training site visits were more helpful than follow-up phone calls in both getting feedback from teams and helping them stay on track to reach their intermediate action plan objectives.

DISCUSSION

Although there are currently no outcome data on the effectiveness of this training on the success of youth in these programs, the results of this exploratory research effort suggest that juvenile treatment court programs benefit from specialized training to intervene positively in the lives of drug- and justice-involved youth and their families. As with any multi-system collaborative initiative, thoughtful and comprehensive planning is necessary before the first client stands before the judge. Court teams must garner and sustain motivation and resources to develop creative intervention strategies for this difficult to engage population.

Given the diverse perspectives of these multi-disciplinary teams, we have found that it is beneficial to provide teams with knowledge and skills. This study found that one of the biggest challenges to planning teams, particularly those with staff involved in other problem solving courts, was finding the time to meet to develop policies and procedures necessary to implement the new program. Even those who had been in the juvenile justice system for a substantial period of time commented on the benefits from the training on education law, understanding adolescent behavior in the context of normal development, and the effects of drug use, mental illness, and environmental trauma.

Unfortunately, the unique and complex problems presented by youth and families prohibit the ability to develop a one-size-fits-all implementation manual for juvenile treatment courts. However, interviewed staff believes the critical keystones are: staff that genuinely cares about youth, are willing to communicate and deal with conflicts as they arise, are prepared to identify and work toward mutually agreed upon goals, and have reasonable targets for the accomplishment of key activities. Many teams experience a collective satisfaction in their work and express the sincere belief that they are turning around the lives of many youth. Marlowe (2004) points out that few outcome studies use a methodology that is rigorous enough to allow drawing meaningful conclusions regarding the effectiveness of juvenile treatment courts. Anecdotal impressions by staff that activities and interventions are perceived as successful need to be examined more closely, and more scientifically to add to the body of knowledge on the overall effectiveness of juvenile treatment courts.

Policy stakeholders concerned with juvenile treatment court programs should ensure that court teams are prepared with appropriate information on adolescent development and evidence based mental health, chemical

abuse, and probation practices. Teams should learn the skills of assessing youth and family needs while engaging youth and families. In addition, court teams should be supported in their effort to improve upon and institutionalize court operations. This includes identifying and assessing candidates for juvenile treatment court programs, structure and administration of graduated rewards and sanctions, phase advancements, drug testing and systematic program evaluation. Stakeholders must realize that this is neither a quick nor an easy process. Substantial time has to be set aside for both planning and ongoing program development activities in addition to case conferencing. Juvenile treatment court stakeholders should ensure that teams have access to ongoing training opportunities to increase knowledge and improve skills. Court programs may find the need for periodic booster trainings along with dedicated time as a team to review and modify action plans for continued program development.

We recommend the creation of a cohesive network of juvenile treatment court programs to share information, present case studies and share innovative and successful strategies with one another. This can be accomplished efficiently through web-based technologies such as webcasts and other technology-driven training initiatives.

More process and outcome evaluation research is also clearly needed in the area of juvenile treatment courts. Research designs need to include follow-up data collection at 6-, 12- and 24-months post-program to track long-term outcomes in areas such as recidivism/new arrests, post-program sobriety or substance use, post-program treatment service utilization, frequency of continuing outpatient care, and educational and vocational status. Follow-up research should also include a qualitative component to explore participant perspectives on program satisfaction and solicit suggestions for program improvement.

In research and evaluation studies examining juvenile treatment courts, court member training and education in substantive areas related to problems youth present with are rarely, if ever, taken into account. We suggest that the degree of relevant knowledge that court team members have influences the success or failure of program participants. Critical decision making can be optimized through team training, increasing the likelihood of achieving juvenile justice goals of public safety and youth development.

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Appendix A. Concept Map Cluster Statements and Ratings.

STATEMENTS WITHIN CLUSTERS	MEAN RATINGS
1. Ongoing Monitoring and Assessment of Youth	4.25
Drug testing	4.70
Psychosocial assessments	4.60
Compliance monitoring	4.22
Making referrals	4.10
Screening	4.10
Phases	3.80
2. Program Development/Teamwork	4.15
Mutual respect of team roles	4.75
Money	4.67
Client to staff ratio	4.60
Adequate staffing	4.56
Respect of team members	4.56
Attendance of legal representation at case conference	4.40
Law guardian commitment to program	4.40
Mutual understanding of mission	4.40
Personality of judge	4.40
Team empowerment	4.40
<i>Appendix A continues...</i>	

STATEMENTS WITHIN CLUSTERS	MEAN RATINGS
Never want to bluff	4.38
Consistent dedicated staff	4.30
Re-education of new team members	4.30
Integration of probation	4.22
Staff selection	4.22
Attendance of judge at case conference	3.80
Cross-training	3.78
Commitment to program	3.70
Relationship between judge and law guardian	3.60
Mechanisms for policy change	3.33
Monthly policy meetings	3.11
Team development outside of court	3.11
3. Family Engagement	4.13
Learning about home environment	4.63
Getting to know family in their own territory	4.60
Home visits	4.40
Orientation with family	4.40
Buy-in by family	4.22
Random home visits	4.20
Understanding all family problems	4.20
<i>Appendix A continues...</i>	

STATEMENTS WITHIN CLUSTERS	MEAN RATINGS
Orientation with kids	4.11
Empowering family	4.10
Beliefs	4.00
Enforcement of expectations for family	4.00
Values	4.00
Expectations of kids from family	3.80
Contract with youth and parent	3.70
Priorities	3.60
4. Case Management/Accountability	4.13
Individualized case processing	4.67
Enforcement of expectations from youth	4.40
Enforcement of expectations from service providers	4.20
Advocating for child's best interests	4.13
Reasonable expectations	4.10
Cultural competence	3.90
Enforcement of expectations of staff	3.50
5. Treatment	4.00
Individualized treatment	4.78
Quality assurance of treatment	4.30
Identifying individual strengths	4.20
<i>Appendix A continues...</i>	

STATEMENTS WITHIN CLUSTERS	MEAN RATINGS
Psychiatric evaluations	4.00
Aftercare	3.80
MICA (mentally ill and chemically addicted) services	3.78
On-site psychiatric evaluation	3.70
Psychiatric supervision	3.44
6. Community Collaboration	3.97
Awareness of what services are being provided	4.44
Linking to resources	4.40
Community supervision at school	4.30
Provider compliance	4.20
Nurturing relationships with providers	4.10
Ancillary resources	3.90
Community supervision of curfew	3.89
Identifying resources	3.78
Contacting providers	3.70
Re-examining agreements with providers	3.56
Community outreach	3.44
7. Administration	3.84
Weekly case conference	4.90
Easy access to all team members	4.56
<i>Appendix A continues...</i>	

STATEMENTS WITHIN CLUSTERS	MEAN RATINGS
Verifying reports	4.00
Paperwork	3.60
Criteria for case advancement	3.38
Management Information System	3.25
Handbooks	3.20
8. Response to Youth Behavior	3.81
Therapeutic sanctions	4.38
Evaluations	4.11
Rewards	4.00
Sanctions	4.00
Graduation	3.90
Agreement about violations	3.57
Alumni group	3.25
Tracking of participants after program	3.25
9. Timely consequences	3.63
Immediate response	4.56
Crisis intervention	4.40
Detention	3.10
Judge's hammer	3.10
Managing calendar time	3.10

ENDNOTES

ⁱ Data supplied by the New York State Division of Probation and Correctional Alternatives. It includes all full YASI (Youth Assessment and Screening Index) assessments completed by individual county Probation Departments in New York State between the inception of regular collection of this data and January 2008. These data refer to youth assessed by probation and not necessarily referred to Family Court.

PRACTICE COMMENTARY

DEVELOPMENT OF VETERANS TREATMENT COURTS: LOCAL AND LEGISLATIVE INITIATIVES
By Sean Clark, J.D., James McGuire, M.S.W., Ph.D., and Jessica Blue-Howells, M.S.W.

Veterans treatment courts are a recent but rapidly growing phenomenon in the judicial system, driven by a need for mental health and substance abuse treatment among justice-involved veterans. As of January, 2010, there were 24 operational veterans treatment courts in the United States, with another 40 in planning or development. This article examines how these courts have developed out of and been informed by existing treatment court theory and practice, and identifies the unique elements that characterize this new form of treatment court. An analysis of legislative initiatives targeting veterans in the courts finds that legislative proposals generally include more restrictive admission criteria than typical veteran court practice; a finding which may limit coverage of legislation-driven veterans treatment court dissemination. We conclude with a review of potential benefits of this collaboration between the courts and the U.S. Department of Veterans Affairs, and emphasize the importance of systematic evaluation of both veteran outcomes and policy effects of legislative initiatives that seek to influence development of the veterans treatment court model.

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INTRODUCTION

Since the 1989 advent of the first drug court, the concept of treatment as an alternative to incarceration has taken hold in the judicial system, as evidenced by the robust growth of treatment or problem solving courts (Huddleston, Marlowe, & Casebolt, 2008; National Institute of Justice, 2006). Treatment courts share the central premises that a) behaviors characteristic of mental illness and addiction are frequently present in encounters with law enforcement and can and do result in incarceration, and b) extended treatment monitored and reinforced by specially trained judges can diminish or end involvement with the justice system over time (Bureau of Justice Assistance, 2008; Huddleston, Marlowe, & Casebolt, 2008).

There is an abundance of news stories that have focused attention on the impact of various aspects of military experience, particularly combat, on the mental health of Service members returning to life in the U.S. from the wars in Iraq and Afghanistan (for example, Tempest, 2006). Combat exposure or injury and/or repeated deployments have been implicated in domestic or other interpersonal conflict and alcohol or drug abuse resulting in behavior that can trigger a law enforcement response. Post-traumatic stress disorder (PTSD) has been hypothesized to have links to criminal behavior (Baker & Alfonso, 2010).

In a landmark national study, Kulka (1990) described the relationship between military trauma and post-deployment mental health problems and criminal activity, citing the community readjustment experiences of Vietnam War veterans. Since then, military researchers have conducted population-wide mental health screening studies, the most recent of which found that, among American soldiers who had served in Iraq, 27% of active duty and 35% of reserve component members were at risk for mental health problems that included depression, PTSD, suicidal and

aggressive thoughts, and interpersonal conflict (Milliken, Auchterlonie, & Hoge, 2007). In addition to these findings is the as yet unclear extent and intensity of traumatic brain injury (TBI) which likely heightens mental health and readjustment risk (Tanelian & Jaycox, 2008).

Besides actual combat exposure, in recent years military researchers examining the training of American soldiers have begun to recognize and address the impact of acquisition of combat skills and of constant battle readiness upon civilian readjustment, and have coined the acronym “battlemind” to identify 10 skills adaptive for combat that require conscious modification for coping with civilian life (Walter Reed Army Institute of Research, 2010). These include constant awareness of one’s surroundings, carrying weapons at all times, strict control of one’s emotions during combat, unpredictable fast driving, absolute discipline and unquestioning obedience to orders. Although most soldiers and veterans appear to develop effective coping responses for the stressors experienced in the military and upon reentry to civilian life, research and media reports suggest that a significant proportion of Service members returning from current wars either as a result of mental health problems or as a result of their military training are at high risk for contact with the criminal justice system. While there is little national data, to date, on criminal involvement among veterans of the current wars, the most recent data from the U.S. Department of Justice, Bureau of Justice Statistics (BJS) *Survey of Inmates in Local Jails 2002* revealed that 9.3 percent of people incarcerated in American jails were veterans (Mumola & Noonan, 2008).

In summary, significant numbers of America’s veterans are involved in the nation’s justice system or are at risk for such involvement. Justice-involved veterans have been shown to have high rates of substance abuse, mental illness, homelessness, and other chronic and infectious medical diseases, and most are likely eligible for U.S.

Veterans Administration (VA) services (Mumola, 2000). The emerging veterans treatment court model represents a considered response to veterans' justice involvement that is due to stress, trauma, medical or psychiatric illness and social dysfunction. This article briefly describes veteran-specific modifications that have been made to established treatment court models, and reviews recent legislative efforts and their congruence with established and developing veterans treatment court practices. The article concludes with a consideration of the potential benefits of collaboration between veterans treatment courts and the U.S. Department of Veterans Affairs.

EVOLUTION OF TREATMENT COURTS

Drug Treatment Courts

In June of 1989, officials in Miami-Dade County, Florida established the nation's first dedicated treatment court, known at the time as the Drug Treatment and Diversion Program (Bureau of Justice Assistance, 1998). This small-scale, innovative effort (Brummer & Rodham, 1993) touched a nerve in the judicial system. There are over 1,100 adult drug courts out of 2,301 drug courts operating in the United States, and hundreds more problem-solving or treatment courts employing nontraditional court procedures to address specific problems (Huddleston, Marlowe, & Casebolt, 2008).

Initially, the Miami-Dade program's eligibility criteria were narrow: only first-time offenders could participate, and only those charged with possessory drug offenses (Brummer & Rodham, 1993). Over time, these criteria were expanded, and the court accepted defendants with a wider range of charges and criminal histories. Difficult as it may have been to design and implement, the program's basic philosophy and structure were simple. The court would approach defendants as individuals in need of treatment, rather than bad actors in need of punishment. In

practical terms, this meant suspending traditional criminal proceedings against a participating defendant, facilitating access to drug treatment services, supervising and encouraging the defendant's adherence to treatment requirements (with a combination of positive and negative reinforcement) and, upon successful completion, dismissing the instant charge and expunging the record. Potentially more problematic than organizing such a system was the profound attitudinal shift required of the judges, attorneys, and court personnel working with the new program. Rather than the adversarial orientation of a traditional court, the drug treatment court embodied a truly collaborative approach, offering support and encouragement to defendants undergoing court-supervised treatment, while holding them accountable. These basic structural and conceptual elements inform, to varying degrees, every drug treatment court in operation today.

Mental Health Treatment Courts

The success of the drug treatment court movement opened the door for other novel uses of the criminal justice system to address specific problems. Notable among these are the mental health courts. As noted by the Bureau of Justice Assistance: "Drug courts have been particularly instrumental in paving the way for mental health courts... Some of the earliest mental health courts arose from drug courts seeking a more targeted approach to defendants with co-occurring substance use and mental health disorders." (BJS, 2008, p. 3).

In addition to drug treatment court model standards involving ongoing monitoring of court participants and a focus on abstinence and sanctions that reinforce abstinence, a fully-realized, effective mental health court is more than an alternative track providing linkage to treatment services in lieu of prosecution. It is also a diagnostic tool that can identify the resource limitations of the public mental health

and substance abuse treatment systems. In this way, a mental health court is a flexible mechanism capable of connecting participants with treatment services tailored to meet their individual needs, in an environment that promotes adherence to treatment, recovery in the community, and hopefully, reduced contact with the justice system. Mental health courts are like drug courts in their mission and basic structure, but the wide variation of needs among mental health participants, coupled with what are often scattered and limited resources to meet those needs, means that mental health courts are tremendously diverse and, by necessity, creative in their efforts to work with participants. Mental health treatment courts require greater flexibility and patience from judges, as well as adjustable expectation levels (Bureau of Justice Assistance, 2008).

The Effectiveness of Treatment Courts

Treatment courts have multiplied rapidly in part because research has begun to demonstrate effectiveness in significantly reducing recidivism in a population which has consistently been unresponsive to treatment (Marlowe, DeMatteo, & Festinger, 2003). Four meta-analyses indicated that drug courts reduced crime by an average of 7 to 14 percentage points (Huddleston, Marlowe, & Casebolt, 2008). Outcome studies on mental health courts are promising, but to date based on limited data. These studies suggest fewer new bookings, greater numbers of mental health treatment episodes, lower likelihood of rearrest or new charges, and improvement of mental health functioning and reduction of substance use (Bureau of Justice Assistance, 2008).

Researchers who have conducted outcome studies have identified two significant factors inhibiting treatment courts' performance. The first is difficulty in securing both the full range and sufficient dosages of health and mental health services for treatment court clients, upon which the effectiveness of the court intervention crucially depends

(TAPA Center for Jail Diversion, 2004). More recently, local government mental health budgets under severe strain from the recession may further exacerbate service scarcity. The second inhibiting factor is treatment courts' inability to deliver the type of treatments indicated for participants. Researchers and policy analysts have begun suggesting that diversion clients, particularly those at highest risk for re-offending, should receive not only standard mental health treatments but evidence-based treatments that target underlying trauma, including combat trauma (Osher, 2009; Steadman, 2009), and criminogenic thinking (Cusack et al., 2008).

In sum then, prior to the advent of the veterans treatment court model, almost two decades of experience had led to the identification of principles supporting treatment court practices, and the mental health court represents an important evolutionary step for the treatment court model. These developments, and the outcome studies that have examined them, set the stage for the arrival of the newest treatment court model, the veterans treatment court.

VETERANS TREATMENT COURTS¹

At the most basic level, veterans treatment courts supervise veteran defendants by design, with structural features intended to enhance the provision of and adherence to treatment services for this population. These courts are usually formed within drug or mental health courts or

¹ The terms "Veterans treatment court," or "veterans court" as used in this article should not be confused with the United States Court of Appeals for Veterans Claims (<http://www.uscourts.cavc.gov/>) which "provides veterans an impartial judicial forum for review of administrative decisions by the Board of Veterans' Appeals that are adverse to the veteran-appellant's claim of entitlement to benefits for service-connected disabilities, survivor benefits and other benefits such as education payments and waiver of indebtedness."

according to drug and/or mental health court principles, seeking to cluster veteran defendants on a single, dedicated docket. An important element of a veterans court is access to veteran-specific resources. Many veterans have access to economic benefits and health services through the U.S. Department of Veterans Affairs (VA), State Departments of Veterans Affairs, County Departments of Veterans Affairs, and a variety of additional programs for veterans operated at federal, state and local levels.

There are currently 24 veterans courts that are actively overseeing veterans, with an additional 40 in various stages of planning. Table 1 presents data outlining elements of 9 of the 24 operational courts. An additional 15 veterans courts were started since March 2009 and the specifics of the court operations are still emerging. The best-known of its type is the veterans treatment court in Buffalo, New York, over which Judge Robert Russell presides. As the leading pioneer of the veterans court model, Judge Russell and his court serve as the model upon which many other operational and planned veterans courts are patterned (Russell, 2009). Planning groups typically consist of leaders in criminal justice and the judiciary, Veterans Service Organizations, political leaders, and treatment providers. The Veterans Health Administration (VHA) is involved in planning the development of a court as a treatment provider, and in treatment planning once veterans are accepted to participate in the court. The design and implementation of the legal and procedural aspects of the court program fall to members of the local judiciary and legal community, who employ their expertise in the jurisdiction's laws and rules of procedure.

Table 1: Characteristics of Veterans Courts Developed Through March 2009.

Court Type	Model	Veteran Eligibility	Charges Allowed	Pre/post conviction	Mentors	VA staff role
District Court	wellness court	eligible for VHA, MH or SA diagnosis	misdemeanor	post-conviction	no	<ul style="list-style-type: none"> • in court • linkage to VA • treatment
County Superior Court	combined MH and drug court	all veterans	felony or misdemeanor	post-conviction	in development (VA)	<ul style="list-style-type: none"> • in court • linkage to VA • treatment
County Superior Court	combined MH and drug court	combat veterans with military-related MH condition	felony or misdemeanor	post-conviction	in development (VA)	<ul style="list-style-type: none"> • in court • linkage to VA • treatment <p style="text-align: right;"><i>Table 1 continues...</i></p>

County Superior Court	collaborative court	all veterans	felony or misdemeanor	mixed	yes (VA)	<ul style="list-style-type: none"> • in court • linkage to VA
County Circuit Court	mental health court	all veterans	felony or misdemeanor, some exclusions of violent crimes	post-conviction	no; under consideration	<ul style="list-style-type: none"> • in court • linkage to VA
County Circuit Court	drug court	all veterans	misdemeanors and non-violent felonies (case-by-case for violent charges)	pre-plea	in development (court)	<ul style="list-style-type: none"> • telephone referral • linkage to VA
City Court	combined MH and drug court	all veterans	misdemeanor or felony	mixed	yes (court)	<ul style="list-style-type: none"> • in court • linkage to VA • treatment <p style="text-align: right;"><i>Table 1 continues...</i></p>

County Court	combined MH and drug court	all veterans	misdemeanors and non-violent felonies (case-by-case for violent charges)	mixed	yes (VA)	<ul style="list-style-type: none"> • in court • linkage to VA • treatment
County District Court	drug court	all veterans	non-violent alcohol or drug-related felonies	post-conviction	in development (community)	<ul style="list-style-type: none"> • in court • linkage to VA • treatment

Note: This table includes courts that were developed through March 2009. Since that time, 15 additional veterans courts have begun seeing clients. They are not included in the table as they are in very early developmental phases and have not defined all of the elements listed here.

In these courts, veterans are identified through a screening process, typically based on a question such as “have you ever served in the U.S. Armed Forces or U.S. military?” Those who have served in the military are referred to the court team for consideration. As in other types of treatment courts, the court team reviewing cases is overseen by the judge, and can include the court coordinator, prosecuting attorney, defense attorney, community health/mental health provider, probation officer, and U.S. Department of Veterans Affairs representative who can determine eligibility for VA services. If the prosecution consents and the court approves, the veteran can choose to participate in a judicially supervised treatment plan in lieu of traditional criminal case processing.

As shown in Table 1, veterans courts vary in the way they define a court-eligible veteran. Most veterans courts consider all defendants with military service, while others treat only those who qualify for services at the VHA (http://www1.va.gov/opa/vadocs/current_benefits.asp). Still others admit only veterans with particular mental health or substance abuse diagnoses, such as drug addiction or PTSD. In one operational veterans court and a number of planned courts, the veteran’s mental health diagnosis must be directly linked to his or her combat service (for example, PTSD related to military combat), a criterion which that court believes captures veterans with the most severe symptoms and readjustment problems. Perhaps the broadest admission criteria is employed by one newly developed veterans court, which admits active duty military personnel who have not yet been discharged from the service, as well as their spouses if the spouse also has criminal charges pending that meet court acceptance criteria.

Veterans courts also differ as to the nature and severity of charges that render a veteran defendant eligible to participate. One court focuses exclusively on misdemeanor charges, and eight other courts will admit defendants with

certain felony charges. Four courts consider only non-violent charges, while the other five will review cases with violent charges (for example, assault) to determine treatment court eligibility. In two courts, charge-based eligibility is defined by state statutes that regulate that state's drug court or mental health court operations. Since this is a newly emerging model, several courts have general criteria and accept all referrals for further review, rather than defining criteria in advance that might screen out potential participants.

Veterans courts admit defendants with cases in a variety of procedural postures. One court will accept a veteran prior to entering a plea, five courts require the veteran to plead guilty and be placed on probation as a condition of enrollment in the program, and three courts oversee defendants both pre- and post-plea.

On the treatment side, although there is some geographic variability in the VA system, the VHA generally provides a broad range of services and supports for veterans involved in the justice system. Services include inpatient and outpatient medical and psychiatric services; domiciliary; nursing home and community residential care; specialized healthcare for female veterans; and residential services designed for homeless veterans. Medical services include specialized assessment and treatment of TBI caused by closed or penetrating head trauma, which may cause veterans to behave in a manner consistent with mental health and substance abuse diagnoses. Mental health services include general psychiatry, substance abuse treatment, compensated work therapy and PTSD treatment. This full range of services means that veterans can access, through a single point of service, most or all of the components of a court-supervised treatment plan. Families of veterans involved in a veterans treatment court often have needs in addition to those of the veteran. VA medical centers and Vet Centers can provide some counseling services to family members in the context of direct treatment of the veteran, and some family

members can be eligible for health coverage benefits through the CHAMPVA program. However, in many cases, needs of family members who are not veterans are addressed through community services.

The addition of veteran-specific resources to the treatment court resource coalition and service continuum can mean significant enhancements to a treatment plan, not least of which is the efficiency of dealing with a single provider for a given case, or across much of an entire docket. VHA staff collaborate with existing veterans courts in a number of ways. As indicated in Table 1, VHA staff participation in the court ranges in intensity and can include presence in court, referral to and assistance with linkage to VHA services, and direct provision by the staff member of ongoing case management, substance use disorder and mental health treatment services. VHA's court involvement begins once a veteran has elected to participate. Veterans not eligible for access to or electing not to participate in a court program are still referred for services at VHA. With the veteran's consent, VHA can share assessment information with the court while the veteran is under consideration for treatment court.

VHA's contribution to the process is its provision of treatment services, not legal advocacy or representation. In the context of treatment court, the VHA does not extend to expert testimony or forensic assessments². VHA does not operate formal diversion programs and cannot accept legal custody of a veteran (Perlin, 2006).

² Qualification to provide forensic evaluation services requires specialized training and certification. *See* American Board of Psychiatry and Neurology, Forensic Psychiatry Core Competencies Outline 2.1, available at: http://www.abpn.com/downloads/core_comp_outlines/core_FP_2.1.pdf (last visited Oct. 14, 2009).

In addition to VHA services, the Veterans Benefits Administration (VBA) of the U.S. Department of Veterans Affairs determines eligibility for services, offers benefits, and in some courts sends representatives to the court to educate veterans regarding their benefits and assist with applications to receive benefits. Some VBA benefits include disability compensation for veterans disabled by illness or injury incurred or aggravated during active military service, pensions for permanently and totally disabled veterans with low incomes, education and training benefits, home loans and life insurance. The addition of VBA to the court treatment team helps to ensure that veterans are able to access all benefits to which they are entitled and also provides an additional point of contact to help veterans stay engaged in the court treatment process.

All veterans courts in operation use or plan to use a mentoring program, matching veteran defendants with volunteer mentors from the community, all of whom are also veterans. The concept of the veteran mentoring component is to re-engage the veteran defendant with a positive sense of veteran identity, as well to offer practical advice and services in addition to what the veteran receives in the context of his or her treatment plan.

While veterans courts are a new model, there are identifiable lessons learned in the past year, often reflecting issues outlined in the National Association of Drug Court Professionals' flagship document, *Defining Drug Courts: The Key Components* (1997). Most important of these is the need for clearly-defined roles and managed expectations; that is, all parties must understand each others' roles, and any limits on the roles and services. This helps reduce confusion and frustration among court team members and reinforces understanding of the VA's nonsupervisory treatment role. Successful models of coordination have included the participation of the VHA staff member in court treatment team meetings, as well as holding regular administrative

meetings to ensure that all parties have an understanding of the mission of the court and each others' roles, and to review the progress of court development. Such meetings have helped identify important gaps in services (for example, transportation) and potential solutions. Administrative meetings also help reinforce the veteran's status as both a veteran eligible for VA services and a citizen eligible for community services.

Importantly, having written materials or handbooks defining the court structure and the expectations of participants is key to ensuring that roles are understood when there is staff turnover. In the absence of written materials, roles can be confused and veterans may not understand the type of program they have enrolled in. Clear communication among the parties involved in veterans courts has highlighted the need for a VHA staff person to act as a liaison to assist the veteran in accessing VHA resources. Although the VHA is a service-rich system, accessing the full range of services can be very difficult for outside providers to navigate. Finally, there is a clear need for leadership representation from all parties involved in the veterans court to ensure that resource commitments are honored.

LEGISLATIVE INITIATIVES

To date, development of veterans courts has been led by communities with established treatment courts that have strong coalitions of justice and community partners interested in the intersection of substance abuse, mental health, criminal justice, and veterans' issues. Legislation, both state and federal, that encourages or requires the creation of veterans courts is a recent development with significant implications for the future development of these courts.

Table 2 provides a snapshot of pending and enacted legislation focused on veteran defendants in criminal cases. Unlike a local decision made without legislative prompting to

launch a veterans court in response to observed local needs and with resource commitments secured, a legislative mandate for veterans courts, while a powerful driver for development broadly, can leave judges, attorneys, and treatment providers wondering how to get started. It is therefore worth considering the extent to which these legislative efforts mirror the structure and function of existing courts that preceded and informed their introduction.

At the federal level, a proposed law (H.R. 2138/S.902, 2009) has the potential to provide material support to a large number of veterans courts, as well as significantly heightened visibility for the veterans court model. As currently written, the Services, Education, and Rehabilitation for Veterans (SERV) Act (2009) would provide \$25 million in grants to the courts for the creation of veteran-specific treatment court programs. Among veteran court-focused legislation, the SERV Act is unique in its requirement that courts include a veteran peer mentor component, often cited as a defining feature of the Buffalo model. The SERV Act's limitation to nonviolent offenders mirrors that found in the original drug court authorizing legislation, the Violent Crime Control and Law Enforcement Act of 1994 (1994), and is notable for its restrictiveness. Defendants are barred from participating not only if their current charges involve violence, but also if they have a prior conviction for a violent crime within the past five years.

Table 2. State and Federal Legislative Initiatives

State/Federal legislation	Underlying issue to be addressed	Other restrictions on participation	Program Duration	Court monitoring of treatment progress	Who screens/ initiates the process?	Pre-plea/ post-plea	Status of Legislation?
California (PC 1170.9)	PTSD, substance abuse, psychological problem stemming from combat	defendant asserts causal link between condition and instant offense	not longer than maximum sentence	not specified	defendant	post-plea	amended version signed by governor 9/29/06; original version 1982
California (AB 1925)	PTSD, TBI, military sexual trauma, substance abuse, or any mental health problem stemming from United States military service	no	not specified	yes; provides for veterans court teams, led by judges	not specified; requires submission of plan including operational details	not specified	introduced 2/16/10; amended and referred to Appropriations Committee 4/21/10 <i>Table 2 continues...</i>

Colorado (HB 1104)	“mental health injuries” resulting from military service	no	not specified	yes; authorizes veterans treatment courts	not specified	not specified	signed by governor 4/16/10
Connecticut (SB 211)	returning military veterans accused of committing crimes which may be related to mental illness or substance abuse problems suffered due to military service	not specified	not specified	not specified	not specified	not specified	referred to Judiciary Committee 3/5/10

Table 2 continues...

Minnesota (Minn. Stat. § 609.115, Subd. 10)	PTSD resulting from military service	no	not specified	not specified	court, prosecutor, defense counsel, other court personnel - "as early as practicable" in the process	pre-plea and post- plea	signed by governor 5/12/08
Nevada (AB 187)	PTSD, Substance Abuse, mental illness - "appear to be" related to military service, including readjustment	defendant not charged with violent crime; no convictions for violent crime - unless prosecutor consents	not specified	yes; court to receive regular progress reports	court, prior to sentencing	post- plea; records sealed after three years	signed by governor; took effect 7/1/09 <i>Table 2 continues...</i>

New Hampshire (HB 295)	"mental illness"		not specified	not specified	court	not specified	signed by governor 7/13/09; took effect 1/1/10
New Mexico (SM 074)	feasibility of veterans' courts	n/a	n/a	n/a	n/a	n/a	approved 3/10/09; report due 10/1/09
Texas (SB 1940)	"service-related disabilities]" contributing to veterans' criminal justice involvement (PTSD, TBI)	defendant suffers from brain injury or mental illness resulting from military service	at least six months	yes; "ongoing interaction with program participants"	unclear; court is responsible	not specified	signed by governor 6/19/09

Table 2 continues...

Virginia (HB 663)	PTSD, TBI, mental illness, alcohol or drug abuse, "any of which appear to be related to military service," including readjustment to civilian life	defendant not charged with violent crime; no convictions for violent crime within past 10 years	not specified	yes	not specified	not specified	referred to Committee for Courts of Justice 2/16/10
SERV Act (S.902; H.R. 2138)	funding for veterans courts and drug courts serving veterans	defendant not charged with violent crime; no convictions for violent crime	not specified	yes	not specified	not specified	referred to the House Committee on the Judiciary 4/28/2009. referred to Subcommittee on Courts and Competition Policy 5/26/2009.

As shown in Table 2, there is considerable variation among states in the requirements for veteran defendants' participation in the treatment courts. One significant point of departure is whether defendants must enter a guilty plea to participate in the treatment court program. When a defendant in a court following the pre-plea model successfully completes treatment, the charge is dismissed. In a post-plea court, successful completion may earn the defendant the chance to withdraw his or her guilty plea, and to have the charge(s) dismissed³. This distinction also affects the amount of leverage courts have over defendants. Presented with a persistently noncompliant defendant, a judge sitting in a post-plea treatment court could enter a finding of guilt based on the plea⁴. That judge's pre-plea counterpart, having exhausted any available sanctions, would likely transfer the case back to the docket where it originated. The defendant would then be free to plead not guilty and contest the charge(s) as if the treatment court episode never happened. Several legislatures have not explicitly addressed the pre-versus post-plea issue.

Because the potential benefit to the diverted defendant is so significant, participation as defined in pending and enacted legislation is often restricted based on the nature and severity of the pending charge, as well as the defendant's criminal history. For example, California's PC 1170.9, which provides for post-plea diversion for veteran defendants with psychological problems stemming from combat exposure,

³ Completing a post-plea treatment court program does not always result in dismissal of the charges. Some courts supervise individuals in treatment as a condition of probation. For these participants, successful completion will not alter the charges.

⁴ The judge in a post-plea court could also allow the noncompliant defendant to withdraw his or her guilty plea, and transfer the case to its original docket. The important point is that this judge has more options for the disposition of the case than does the pre-plea judge.

does not limit participation to defendants with nonviolent charges or criminal histories⁵. In contrast, Nevada's recently passed AB 187, which promotes a pre-plea model for veterans courts, does limit participation to nonviolent offenders. The pre-plea model, by limiting the type of offense that can be overseen by the court, may generate lower numbers of participants for these treatment courts, although successful participants will emerge with fewer encumbrances (e.g., convictions, periods of incarceration), notably on efforts to gain and maintain employment (Bazelon Center for Mental Health Law, 2003).

At the operational court level, not all existing veterans courts accept defendants with felony charges, but those that do tend to admit these defendants post-plea. The felony-accepting courts reflect the growing interest in an expanded offense model and in examining the effectiveness of such treatment courts that admit defendants with felony (Broner et al., 2003; Fisler, 2005) and violent offenses (Bazelon Center for Mental Health Law, 2003), a practice usually conducted in consultation with the defendant's victim.

Most of the veterans court-focused legislation defines veteran participants by requiring that clinical issues be traceable to their military service or combat exposure. In addition to being at odds with the broader criteria used by most existing veterans courts, this approach may have consequences worth considering before program implementation. Limiting eligibility to veteran defendants whose clinical conditions stem from their service may result in the rejection of veterans who, because of identified clinical needs, diversion-eligible charges, and eligibility for and

⁵ California's proposed AB 1925 would allow jurisdictions significant discretion in establishing veterans courts, including on the pre-plea/post-plea issue and the admission of defendants charged with crimes of violence.

access to VA health care, might seem ideal candidates for such programs. The most current BJS data (Mumola, 2000) on veterans in the justice system indicate that only 20% of veterans reported seeing combat during military service, and an analysis of more recent BJS data on veterans in prison concluded there was no relationship between recent mental health problems and combat exposure (Noonan & Mumola, 2007). Turning veterans away whose problems are not related to combat or military service may open the door to criticism that the rejection comes not because the veterans lack the requisite clinical needs to benefit from treatment court, or because their charges are too severe, but because they came by their mental health or substance use problems the “wrong” way (i.e. outside the military). Such exclusion could limit the impact of veteran peer support, which as indicated in Table 1 is a key feature of almost all of the developing courts. Finally, while requiring that veterans *only* be seen in veterans courts is unlikely for a host of reasons, it is quite possible that veterans themselves, imbued with a camaraderie found in few other social groupings, might be unlikely to support any exclusion of otherwise eligible veterans.

Requiring that clinical issues be traceable to military service further appears to create a barrier to participation in veterans treatment courts that has no parallel in the drug and mental health courts on whose models they are to be built. Drug and mental health courts make no inquiry and draw no distinctions as to how their participants developed the need for substance use or mental health treatment. Defining veterans courts as vehicles of treatment for veterans with service-related substance use and mental health needs, and no others, would thus be a significant departure from the longstanding practice of drug and mental health courts, and one that could exclude many participants.

A recent *Wall Street Journal* commentary (Efrati, 2009) has referenced the American Civil Liberties Union (ACLU) of Nevada’s testimony before the Nevada State

Legislature regarding veterans courts. The Nevada ACLU raised the concern that the legislation, by including language that exempted veterans court participants from certain of Nevada's mandatory minimum sentencing laws, provided preferential treatment for veterans since similar exemptions do not apply in mental health or drug treatment courts for non-veterans. By contrast, the Illinois ACLU voiced support for the Cook County Veterans Court, in part because participants receive the same legal treatment as those in existing drug or mental health courts (Walberg, 2009). In establishing an automatic veterans court exemption from mandatory minimum sentencing laws, the Nevada legislation raises a potential Equal Protection issue not present in other legislative initiatives and runs counter to current practice in existing veterans courts.

There has also been some limited media suggestion that veterans courts may be offering preferential treatment based solely on defendants' veteran status, rather than the reality which is operating a differently-resourced (with VHA as the primary provider) but otherwise equivalent treatment court for veteran defendants with identified, treatable pathologies. Veteran status is never the sole criterion for an individual's participation in a treatment court program. For such diversion to make sense, that individual must first be determined to have a substance use or mental health problem. Defendants eligible for veterans treatment court are also eligible to participate in local drug and/or mental health courts.

A final point on which legislative efforts differ from each other is the responsibility for screening potential participants into these programs. Some rest this function with the court, others with the prosecutor, and at least one with the defendant him or herself. The earlier and more consistently screening is performed, the larger the pool of potential participants, and the greater the number of veterans the court will be able to accept. Screening later in the process or

screening applied without clear responsibility for who identifies or screens veterans is likely to result in lower numbers of veterans being admitted, potentially resulting in eligible defendants losing the benefit of treatment court participation. Operational veterans courts also vary widely in how the screening process occurs. Some have a formal process where the pre-trial officer or all judges ask about military service, whereas others receive referrals through word of mouth, self referral or referrals from attorneys who know of the court.

CONCLUSION

The veterans treatment court has developed as a model which is an outgrowth of drug and mental health treatment courts and which organizes veteran-specific healthcare and mentoring services at a time when resources supporting programs that seek to provide an alternative to incarceration are dwindling. The nature of problems which veterans present, encompassing both mental illness and substance use, will likely require elements of both drug treatment and mental health treatment court models, a challenging blend of principles for judicial management in a single court model. Access to a comprehensive package of medical and mental health resources and the addition of peer support services designed to motivate and ensure access for justice-involved veterans represent significant enhancements of the treatment court model, which may explain in part why courts and judges, even those who do not preside over treatment courts, have been so receptive and energetic in developing the veterans court model.

In addition to grassroots/local development of the veterans courts, there is much legislative interest and activity in development of this model, emphasizing procedures similar to how the early veterans court pilots have been operationalized. Yet legislative proposals are generally much narrower in specification of which group or groups of

veterans would be eligible to participate. Some of the more restrictive legislative efforts may keep larger populations of veterans out of veterans courts, thus defeating the goal of getting veterans to federally-funded VA services and minimizing the impact on county health care budgets. While there are clearly factors that would limit veteran participation from both judicial (for example, severity of offense) and VA (for example, eligibility as a veteran for healthcare benefits) perspectives, discretionary review by judges and VA eligibility and upgrading procedures are such that practice may continue to be at odds with legislation.

An important implementation challenge is that heretofore the VA as a system has not reached out to justice-involved veterans. Thus, despite increased interest, judges often have little understanding of the range of services the VA can provide, and VA staff is often unaware how little community and justice system professionals know about the VA. There is a frequently-encountered perception in the community that VA health services are of poor quality, and that veterans do not either use or like to use the VA for healthcare. The facts are quite different: A recent RAND study found that the quality of VA services across a spectrum of 294 measures of quality in disease prevention and medical treatment outperformed all other sectors of American health care (Asch et al., 2004). Veterans have rated their satisfaction with VA services as high or higher than other American healthcare consumers rate their healthcare providers (Kussman, 2007; National Quality Research Center, 2006). A 2004 Institute of Medicine report indicated that, for all American veterans who use mental health services, 41% used VA mental health services almost exclusively (Rosenheck, 2004). Finally, the importance of the VA as a resource for returning military is underscored by the fact that approximately half (48%) of soldiers discharged since 9/11 have used VA services (Veterans Health Administration Office of Public Health and Environmental Hazards, 2009).

VHA's Office of Mental Health Services has over the last four years set population-based services and evidence-based treatment standards, which are now codified in the Uniform Mental Health Services in VA Medical Centers and Clinics (Veterans Health Administration, 2008). For three years, services have been enhanced system-wide through supplemental funding from Congress, and these enhancements are being monitored through a system of performance measures to assure implementation. Perhaps most importantly, the VHA in 2009 authorized staff to work with not only treatment courts, but with law enforcement, jails, and courts broadly to provide healthcare services where the criminal justice system makes the determination that public safety allows for treatment (Kussman, 2009), and now has a requirement that every VA Medical Center have a Veterans Justice Outreach Specialist to address the needs of justice-involved veterans (Veterans Health Administration, 2008). In identifying services and resources, it is important to note that there is literature which suggests that veterans have better outcomes when services are provided in a veteran-specific environment, in which military training, combat experience, and military cultural norms and values are understood and accepted; where VA staff are specifically trained in assisting veterans in managing these experiences; and where other veterans are present to provide the peer support that is often needed to cope effectively (Burnette, Williams, & Law, 1987; Shatan, 1973; Williams, 1980).

Relatedly, in its efforts to facilitate community readjustment, the military has been proactive in screening for TBI and mental health problems and has mandated and begun to provide batlemind debriefing training to diminish the impact of combat training and stress on community readjustment. Early results of this prevention approach are promising but show limited efficacy (Adler et al., 2009). Research on the Vietnam experience indicates that military and VA resources in collaboration with community and justice system resources are likely to be necessary over an

extended period of time to assist veterans in making effective readjustments to family and community life.

This review summarizes initial elements of the veterans courts in a rapidly growing arena. Limitations of the review are the limited number of courts and legislative proposals examined and the unanswered question of whether the presence of specialized veterans healthcare and peer support does in fact have a significant positive effect on outcome for justice-involved veterans. Future research needs to collect and analyze both process and outcome data that can determine the effectiveness of this strategy of diversion. In addition, at the systems level, it will be important to examine the policy effects of legislation that seeks to address this important area of societal concern. In contrast to a general neglect of post-war readjustment problems following the Vietnam War, veterans court policy and practice will provide useful lessons in reintegrating those soldiers from recent wars whose maladaptive coping may be improved through VA-justice system collaboration.

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