# THE CONCURRENT EVOLUTION AND INTERTWINED NATURE OF JUVENILE DRUG COURTS AND RECLAIMING FUTURES APPROACHES TO JUVENILE JUSTICE REFORM

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Initiating substance use during adolescence is associated with increased risk of developing a substance use disorder (SUD) and becoming involved in the juvenile justice system. Treatment participation rates are low, and the juvenile justice system has become the largest source of referral to substance use treatment. For over two decades juvenile drug courts (JDCs) have been implemented to divert youth from the justice system into treatment with the intent to minimize the possibility of a lifetime of SUD and crime that is costly for the youth, their family, and society. However, most JDCs have been small (under 50 participants per year), minimally evaluated, and have produced mixed results, with a small overall average improvement and wide variation by JDC site. To improve JDC processes and enhance client outcomes, in 2003 the Bureau of Justice Assistance published a framework for planning, implementing, and operating JDCs: Juvenile Drug Courts: Strategies in Practice (JDC:SIP). In addition, some JDCs have incorporated the Reclaiming Futures (RF) approach, a system-wide change intervention. This article provides an overview of the concurrent evolution and intertwined nature of JDCs and RF and sets the context for the National Cross-Site Evaluation of Juvenile Drug Courts and Reclaiming Futures, which is the focus of this special issue.

IN 2012, AN ESTIMATED 4.28 million (14.4%) of U.S. youth aged 12 to 18 met the American Psychiatric Association's definition of substance use disorder (SUD; APA, 2013) during the preceding year (Dennis, Clark, & Huang, 2014). However, only 4% (1 in 24) of those youth received formal substance use treatment during that year (Dennis, Clark, et al., 2014). Relative to other youth, those with SUD are significantly more likely to have had multiple problems related to school, mental health, and physical health, and they face gaps in services there as well (Crowe, 1998; Dennis, Clark, et al., 2014; Teplin, Abram, McClelland, Dulcan, & Mericle, 2002). Due in part to the combination of SUD, co-occurring problems, and low service utilization, youth with SUD were also more likely to have been arrested during the preceding year (2.1% vs. 19.3% odds ratio [OR] = 11.22), to be on probation or parole (2.3% vs. 15.3%, OR = 7.60), or to be involved in the juvenile justice system in some way (3.5% vs. 24.2%, OR = 8.73; Dennis, Clark, et al., 2014).

About half of the youth in the juvenile justice system have problems related to alcohol or drugs (Office of Juvenile Justice and Delinquency Prevention, 2001; Teplin et al., 2005), and juvenile justice systems have become the leading source of referral for adolescents entering treatment for substance use problems (Dennis, Dawud-Noursi, Muck, & McDermeit, 2003; Dennis, White, & Ives, 2009; Ives, Chan, Modisette, & Dennis, 2010). Given the high numbers of justice-involved vouth needing treatment, identifying and implementing successful approaches for working with these youth is crucial.

## THE EVOLUTION OF JUVENILE DRUG COURTS

Beginning in the early 1990s, one approach to addressing the problem of justice-involved youth with SUD was to adapt adult drug court models to juveniles by placing more emphasis on family-based and developmentally appropriate services for adolescents (Belenko, 2001; Rossman, Butts, Roman, DeStefano, & White, 2004). The latter is important because adolescents with SUDs differ from their adult counterparts in several ways, such as being in earlier stages of cognitive and physical development (e.g., concrete vs. abstract reasoning, expansion of pain and pleasure centers in the brain prior to the maturation of the reasoning centers, smaller body size leading to lower tolerance) that make them more susceptible to peer influences, victimization, and the adverse effects of substance use. These differences potentially limit the effectiveness of adult models when applied to juveniles (Brown, Tapert, Granholm, & Delis, 2000; Dennis &

White, 2003; National Institute on Drug Abuse [NIDA], 2014; Tapert et al., 2004; Winters, 1999).

The first decade of implementation of juvenile drug courts (JDCs) saw increasing recognition of the need for JDCs to (1) provide additional staff training (many staff were unfamiliar with adolescent development or its implications); (2) involve families and schools; (3) provide greater protections to youth: (4) work with community partners to address youths' multiple co-occurring needs; and (5) reduce health disparities in problem identification, service delivery, and outcomes. These lessons were translated into a consensus document. Juvenile Drug Courts: Strategies in Practice (JDC:SIP; National Drug Court Institute & National Council of Juvenile and Family Court Judges, 2003). The 16 strategies in that document were developed to serve as a framework for planning, implementing, and operating a JDC with the focus on providing appropriate, individualized substance abuse treatment to adolescents involved in the juvenile justice system who have substance use problems. Table 1 provides a list of the 16 strategies and highlights (in bold) some of the key differences from the more widely used "key components" of adult drug courts (National Association of Drug Court Professionals [NADCP], 1997).

In a survey of 115 JDC staff, van Wormer (2010) found that 72% agreed or strongly agreed with the 16 strategies. However, staff also indicated having little access to training or other resources. In addition, they wanted more help to better understand the treatment process (28%), better understand the assessment process (27%), be more gender and culturally responsive (26%), successfully engage family members (25%), and receive ongoing education specifically targeted at JDCs (22%).

## Evaluation of Juvenile Drug Courts

By 2009, an estimated 476 JDCs were in operation in the United States, growing at a rate of 4% per year (Huddleston & Marlowe, 2011). While the JDC:SIP recommends that juvenile courts collect data and continuously evaluate programs to improve operations, JDC evaluations prior to 2004 generally lacked randomized or statistical control groups, had small sample sizes, used nonstandardized assessments,

#### TABLE 1 THE 16 STRATEGIES TO IMPROVE JDC **Step Model Expectations** Engage all stakeholders in creating an interdisciplinary, coordinated, and systemic approach to working with youth and their families. Using a nonadversarial approach, prosecution and defense counsel promote public safety while protecting participant's due process rights. 3 Define a target population and eligibility criteria that are aligned with the program's goals and objectives. Schedule frequent judicial reviews and be sensitive to the effect that court proceedings can have on youth and their families. Establish a system for program monitoring and evaluation to maintain quality of service, assess program impact, and contribute to knowledge in the field. Build partnerships with community organizations to expand the range of 6 opportunities available to vouth and their families. Tailor interventions to the complex and varied needs of youth and their families 8 Tailor treatment to the developmental needs of adolescents. Design treatment to address the unique needs of each gender. 9 10 Create policies and procedures that are responsive to cultural differences, and train personnel to be culturally competent. 11 Maintain a focus on the strengths of youth and their families during program planning and in every interaction between the court and those it serves. 12 Recognize and engage the family as a valued partner in all components of the program. 13 Coordinate with the school system to ensure that each participant enrolls. 14 Design drug testing to be frequent, random, and observed. Document testing policies and procedures in writing. Respond to compliance and noncompliance with incentives and sanctions that 15 are designed to reinforce or modify the behavior of youth and their families. 16 Establish a confidentiality policy and procedures that guard the privacy of the youth while allowing the drug court team to access key information

Note: Adapted from Juvenile Drug Courts: Strategies in Practice, National Drug Court Institute and National Council of Juvenile and Family Court Judges, 2003, Rockville, MD: Bureau of Justice Assistance. Bold text highlights key differences from earlier adult version: Defining Drug Courts: The Key Components, National Association of Drug Court Professionals, 1997, Washington, DC: U.S. Department of Justice, Office of Justice Programs.

had little or no data on court operations or adolescent treatment fidelity, and recorded only limited follow-up (Belenko, 2001; Hartmann & Rhineberger, 2003; Latessa, Shaffer & Lowenkamp, 2002). Reviews and meta-analyses of early JDCs found "no pre to post effect" on average, and in some individual cases found negative effects, including higher rates of reoffending for JDC participants (Latessa et al., 2002).

As more JDCs received federal funding to support start-up, there was an increased push to improve the quantity, and specifically the quality, of JDC evaluations. Between 2002 and 2007, the quality of studies improved, with many studies matching drug court participants to control group participants and using larger (N > 100) sample sizes. As the methodological quality of these studies improved, positive effects for JDC participants became more evident (Crumpton et al., 2006; Lutze & Mason, 2007; Rodriguez & Webb, 2004; Thompson, 2002). Promising outcomes have been demonstrated with regard to drug use, recidivism, and cost-effectiveness (Carey, Sanders, Waller, Burrus, & Aborn, 2010; Crumpton et al., 2006; French, Popovici, & Tapsell, 2008; Henggeler et al., 2006; Ives et al., 2010; McCollister, French, & Fang, 2010; Sheidow, Jayawardhana, Bradford, Henggeler, & Shapiro, 2012).

In the first randomized experiment (N = 161), Henggeler and colleagues (2006) found that a JDC was more effective than traditional justice and community-based treatment services in reducing adolescent substance use and criminal involvement during treatment. Moreover, the effects were even larger when the drug court used evidence-based practices such as contingency management and Multisystemic Therapy.

In another randomized experiment (N = 112), Dakof and colleagues (2015), compared clients assigned to JDCs that used an evidence-based practice called Multidimensional Family Therapy (MDFT) against clients randomly assigned to JDCs implementing generic adolescent group therapy. During the drug court phase, youth in both treatments showed significant reductions in substance use, rearrests, externalizing symptoms, and delinquency. At the 24-month follow-up, the MDFT clients evidenced greater maintenance of treatment gains than those receiving the generic group-based treat-

ment for arrest (Cohen's d = 0.96), externalizing symptoms (d =0.39), and serious crimes (d = 0.38); these are meaningful differences, particularly for arrest, given that a d of 0.10 indicates one standard deviation difference (better) compared to the comparison group.

In the largest quasi-experiment to date, Ives and colleagues (2010) compared 1,120 youth treated in 13 JDCs with 7,560 youth seen in 75 community-based outpatient treatment programs. All of the vouth in the JDC and community sites were interviewed using the Global Appraisal of Individual Needs (GAIN; Dennis, White, Titus, & Unsicker, 2003), at intake and at 3, 6, and 12 months (88%–89%) follow-up), and most (93%) were treated with a range of evidencebased practices (e.g., Adolescent Community Reinforcement Approach, motivational enhancement therapy/cognitive behavior therapy, Seven Challenges). Youth participating in JDC significantly reduced their substance use more than the propensity score matched comparison group seen in community-based treatment and were similar on other outcomes.

A 2012 meta-analysis of 34 JDCs (mostly evaluated quasiexperimentally) found JDC programs to be significantly associated with reduced recidivism on average (mean effect size = 1.37, p < 0.05), but with wide 95% confidence intervals (1.15 to 1.63), even wider variation by study (odds ratio from less than 0.5 to more than 2.0). This suggests that some JDCs may have been much more effective than others in reducing recidivism among participating youth. Unfortunately, many methodological limitations need to be considered when interpreting the findings (Mitchell, Wilson, Eggers, & Mackenzie, 2012).

Finally, research on the JDC:SIP has found that JDCs that implement the 16 strategies have achieved not only reduced adolescent drug use and lower rearrest rates but also significant cost savings. Carey, Allen, Perkins, and Waller (2013) examined the costs of providing services and desired outcomes for youth participating in a JDC compared with those who were eligible for JDC but did not enroll. Findings of this study indicated that JDC was a cost-beneficial approach to treating high-risk youth in the juvenile justice system.

### **Juvenile Drug Court Challenges**

Some of the key problems that continue to challenge JDCs and their clients include lack of treatment access, insufficient treatment quality, and a shortage of continuing care. As noted above, among the adolescent population, less than 1 in 24 youth with SUDs receive treatment (Dennis, Clark, et al., 2014). Of those, less than half receive evidence-based treatment, complete treatment positively, stay in treatment for the 90 days recommended by research, or achieve 90 days postdischarge without relapse (Institute of Medicine, 2006; NIDA, 2014). In fact, a recent 2013 meta-analysis of adolescent treatment suggests that treatment as usual is no better than no treatment at all (Tanner-Smith, Wilson, & Lipsey, 2013). However, the same study found that a wide range of evidence-based practices do significantly better than treatment as usual, with the best (but also the most expensive) being those involving familes. Experimental evaluations similarly show that continuing care can further improve outcomes over discharge as usual (Dennis, Clark, 2014; Godley, Coleman-Cowger, Titus, Funk, & Orndorff, 2010; Godley, Garner, et al., 2010; Godley, Godley, et al., 2014).

JDCs also continue to face challenges related to their small size in terms of number of participants (typically 30 to 80 youth per year) and staff (typically one or two staff per type of position). This often means that the JDC program infrastructures are underdeveloped, programs are short-staffed, and time allowed for staff training is minimal. Moreover, since others in the juvenile justice system and the much larger adult justice system often lack familarity with implementing best practices related to JDCs, training resources are also lacking. Thus, there is a need for education targeting JDC staff, connecting them to other resources (e.g., model data sharing agreements, currciulum) and opportunities to network and problem solve with staff from other JDCs to better understand how to effectively deliver services.

## THE EVOLUTION OF THE RECLAIMING FUTURES MODEL OF JUVENILE JUSTICE SYSTEMS REFORM

In 1999, the Robert Wood Johnson Foundation (RWJF) authorized the Reclaiming Futures: Communities Helping Teens Overcome Drugs, Alcohol, and Crime program for up to \$21 million to help 10 communities reorganize their juvenile justice system to work more closely with the local substance abuse treatment systems and focus more on diversion from traditional prosecution to substance abuse treatment. RWJF subsequently added another \$10 million to expand the program to other communities and extend it an additional seven years, from 2006 to 2013, in collaboration with the Center for Substance Abuse Treatment (CSAT) and the Office of Juvenile Justice and Delinquency Programs (OJJDP).

The Reclaiming Futures (RF) program adapted the systems-ofcare approach from children's mental health to provide a model of juvenile justice reform with a specific focus on improving SUD treatment access, quality, and continuing care (Nissen, Hunt, Bullman, Marmo, & Smith, 2004). RF is a juvenile justice systemwide change intervention that aims to (1) increase the performance of a variety of service delivery partners in identifying youth with substance use disorders, engaging them in substance use treatment, retaining them in treatment, and linking them to continuing care, (2) cultivate community readiness to engage these same young people in an increased array of positive youth development and longer-term "recovery" activities that boost their prospects for long-term success, and (3) provide training and fellowship with similar staff from other sites (Nissen, 2011; Nissen, Butts, Merrigan, & Kraft, 2006).

The focus of RF is not on the creation of a new program but on the creation of change within communities that enables them to collaborate within existing frameworks to deliver effective treatment. To achieve these goals, each RF site utilizes a five-person leadership team, which consists of a juvenile court judge, a juvenile probation officer, an adolescent substance use and mental health treatment professional, a community member (e.g., youth and/or family member, representative from the faith community, elected official, or person not employed by a formal helping system), and the program's project director (Reclaiming Futures, n.d.). The project director's unique role is to conceptualize, create, and execute a multisystem change strategic-impact plan, in collaboration with this diverse cross-disciplinary team (Nissen, 2010).

Although system change needs vary by community, all of the strategic-impact plans share three core elements: (1) advocate for more treatment for young people in trouble with drugs and crime (e.g., by addressing the shortage of care and identifying/assessing young people so that they can access appropriate treatment); (2) assuring better treatment (e.g., assuring that evidence-based, developmentally appropriate, culturally relevant treatment is operating successfully); and (3) building pathways beyond treatment (e.g., connecting youth to caring adults and peers, positive youth development programs, and prorecovery activities in the community), some of which must be specifically created as a result of the adoption of RF.

To accomplish this, leadership teams work together to build six local and community-specific mechanisms (Reclaiming Futures, n.d.; Reclaiming Futures, 2013; Solovitch, 2009):

- Initial screening for potential substance abuse problems (as soon as possible)
- Comprehensive and standardized initial assessment, to make treatment/service plan recommendations
- Service coordination: individually tailored, comprehensive, strength-based, and team coordinated
- Timely initiation, to assure that treatment begins within two weeks of assessment
- Engagement of youth and their families, to assure that youth receive at least three or more sessions within 30 days
- Transition (formerly called "completion"), to assure that treatment is completed, court monitoring withdrawn, and agency services with concurrent connections to long-term community supports provided.

### Evaluation of the Reclaiming Futures Model

Earlier evaluations of RF, conducted between 2003 and 2006, used data from the Reclaiming Futures National Program Office (RF-NPO). These included six surveys of 20 to 40 professionals and community leaders at each site in each survey wave, local evaluations at four sites, and a benefit-cost analysis of the program's potential effects (RWJF, 2011). The RF-NPO reported that during the planning phase, 10 of 11 grantees were able to meet 12 performance process goals related to cross-system management structure: leadership identification; screening; profiling youth/families; identifying gaps and barriers; developing action plans; convening cross-disciplinary training; community, youth, and family input; communication planning; identifying long term-goals and outcomes: and developing comprehensive strategies to address them.

The RF-NPO reported that all projects at the initial 10 sites that implementation grants promoted court/community collaborations; multi-agency partnerships; opportunities for youth to engage in positive, productive behaviors; judicial leadership; and improved substance abuse treatment quality (e.g., increased use of evidenced-based assessment and treatment, reduced time to treatment, increased retention). Some key examples of this work include the development of interagency agreements around the use of screening data, referral to treatment, and the resolution of confidentiality issues related to sharing data. In addition to providing evidence of early implementation, these same agreements have also been used in training as model agreements, allowing subsequent cohorts to build on their work.

To develop and support judicial leadership, the RF-NPO commissioned multiple reports by and for judges on the ethics and lessons they had learned about changing juvenile justice systems using the RF model. These materials were then used in both judicial trainings (led by and for judges) and to support consultant/coach visits to individual sites; they have also been made available to the general public (see www.reclaimingfutures.org/judicial-training). These judicial trainings were funded by the RWJF through 2011, and have continued to the present under independent funding. Judges who participated in the training and responded to independent surveys as part of the above-mentioned evaluation reported that these materials were useful. The training includes learning about the kinds of issues that judges in the initial cohort wrestled with, such as agreements on the use of data, the level of detail they wanted in progress reports, the use of incentives and sanctions, and the importance of not requiring perfection to graduate.

Leadership was also fostered through fellowships across sites of other stakeholder groups, including families, providers, and project directors. As part of their fellowship, the group of 10 RF project directors proposed the six-step model (see Greene et al., 2016 [this volume]) for replicating their work to improve treatment effectiveness. Although a formal evaluation was not conducted on the six-step model until the recent work of the National Cross-Site Evaluation of Juvenile Drug Courts and Reclaiming Futures (JDC/RF National Evaluation)—the results of which are the focus of this special issue—anecdotal data suggest that the six-step model was well-received by people in the field. It has been viewed as practical and providing multiple explicit recommendations based on real-world experience. Given this positive response from the field, several attempts were made by RWJF, CSAT, and OJJDP to replicate the RF six-step model with subsequent cohorts of sites (discussed further below).

Based on the independent surveys conducted between 2003 and 2006, the earlier national evaluation (RWJF, 2011) reported that community leaders perceived significant improvements in 12 of 13 survey indices, most notably perceived increases in the use of screening and assessment tools, substance use treatment effectiveness, project activities, ease of data sharing, and family involvement. These surveys also documented a perceived improvement in the coordination between agencies. Two significant limitations of this evaluation were that it was based on the perceptions of community leaders making general ratings on each topic and that many of these leaders were directly or indirectly involved in the local RF project.

At four sites, local evaluators were able to track the impact of RF on their systems using case processing and service delivery data

(Butts, Roman, & Gitlow, 2009; RWJF, 2011). All four local evaluations suggested that more youth received screening and assessment, youth moved more quickly through the screening and assessment process, and youth received more substance abuse treatment and support services than before the implementation of RF. Recidivism after RF varied across sites, decreasing in one site, increasing in one site, and remaining stable in the other two. While the local evaluations provided relatively objective evidence of model implementation, they also demonstrated variability in the degree of system change, mixed evidence that the observed changes were associated with recidivism outcomes, and no evidence (for or against) that the observed changes were associated with reduced substance abuse or problems.

An early analysis of the potential cost-benefit of RF (Roman, Sundquist, Butts, Chalfin, & Tidd, 2010) was conducted using retrospective analyses of actual costs and the national evaluation community leader surveys about perceptions of improvements (RWJF, 2011) The authors then made assumptions about the impact of system improvements on outcomes based on the literature. They estimated that each site would have to serve 200 youth in need per year to be costeffective. Since most sites exceeded this number, the report concluded that "the preponderance of the evidence suggests that the RF initiative was most likely cost-effective." However, this study has limitations, including (1) that the evidence of change was based on the survey of community leaders' perceptions about improvements, without a comparison group or information on reliability or validity of the measures, and (2) that any consistent, direct evidence of impact on recidivism, substance use, or actual costs to society in this project was lacking. At best, the analysis suggests that RF might be cost-effective, but it provides no direct evidence on whether it actually is cost-effective. Thus, in spite of this evaluation, the question of RF's cost-effectiveness remains unanswered

#### Reclaiming Futures Challenges

One of the common problems identified during technical assistance visits across RF sites concerns youth who were sent to two or more different programs. In these cases, judges frequently received inconsistent assessments and recommendations that they perceived as being centered more on what that program could do to help rather than what was best for the youth. Moreover, if the youth went to multiple programs, each program often conducted its own assessment rather than relying on assessments conducted elsewhere. Forchallenge implementing tunately. this led to standardized assessments to improve reliability, validity, and efficiency. The RF-NPO reported that 7 of 10 sites chose, implemented, and achieved certification on one such standardized assessment tool that they administered at intake: the Global Appraisal of Individual Needs, or GAIN (Dennis, White et al., 2003), which is discussed further below. While this type of cross-site coordination has improved, it remains a challenge in some communities.

To enhance the quality of local substance use treatment services for youth, the RF-NPO and individual sites commissioned literature reviews, adaptations of existing manuals, trainings, pilot tests, and the expansion of outpatient and inpatient treatment facilities. Staff were trained in a number of evidence-based substance abuse treatment models appropriate for adolescents, including the Adolescent Community Reinforcement Approach, motivation enhancement py/cognitive behavioral therapy, Multisystemic Therapy, and Seven Challenges. While the trainings received good reviews from participants, the sites varied in the extent to which they actually implemented the interventions, followed through with quality assurance certification, and were able to sustain the trained workforce and intervention. These treatment fidelity challenges continue in the field due to lack of training and monitoring resources, staff turnover, and other issues.

## APPLICATION OF THE RECLAIMING FUTURES MODEL OF JUVENILE JUSTICE SYSTEMS REFORM TO JDC/RF

Although RF was developed to focus on reform of the entire juvenile justice system, it can also be applied to a specific part of the system. Starting in 2009, RWJF, OJJDP, and CSAT collaborated to fund the implementation of the RF system change model to improve the quality and effectiveness of juvenile drug courts (Nissen & Pearce, 2011).

Parallel to earlier efforts to evaluate JDCs in general, the JDC/RF grantees used standardized measures (employed across the CSAT studies) to document system involvement on service logs, including treatment intake, level of care, type of evidence-based practice, initiation to treatment, engagement in treatment, involvement in continuing care, and positive discharge status (Dennis, Ives, White, & Muck, 2008). Youth characteristics, services, and outcomes measured were based on in-person interviews using the GAIN (Dennis, White al., 2003). Using the GAIN and the resources of the GAIN Coordinating Center assured that across the grantee sites there was a standardized approach to training, quality assurance, and data management (Titus et al., 2012).

The GAIN is generally staff-administered on a computer and takes between 60 and 90 minutes for the core version, depending upon the youth's symptom severity across domains. 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. It incorporates symptoms for common substance use and other mental disorders recommended by the American Psychiatric Association (APA, 2013), patient placement critieria recommended by the American Society of Addiction Medicine (Mee-Lee, 2013), and the treatment planning standards recommended by the Joint Commission (2015).

The full GAIN includes 103 long (alpha over .9) and short (alpha over .7) scales, summative indices, and over 3,000 created variables to support clinical decision making and evaluation. All of the major scales have been validated to the Rasch measurement model and evaluated in terms of different item functioning by age, gender, race, (see www.gaincc.org/psychometricsprimary substance publications/working-papers). Responses incorporate the youth's selfreported measures of breadth (past-year symptom counts for behavior and lifetime for utilization), recency (48 hours, 3–7 days, 1–4 weeks, 2–3 months, 4–12 months, 1+ years, never), and prevalence (past 90 days). All scales, indices, and selected individual items have interpretative cut points to facilitate clinical interpretation, diagnoses, treatment planning, and decision making. It has been used in more than 300 published studies and 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 GAIN instruments, and detailed information about the scales and other calculated variables, are publicly available at www.gaincc.org.

An early quasi-experiment, also using the GAIN, compared 462 youth from 5 JDC/RF program sites with a matched cohort of 1,517 from 16 other JDCs. It showed that both groups significantly increased the days of substance use treatment and justice system involvement while reducing total costs of service utilization (via reduced emergency room, hospital, and detention time). Both groups reduced the rates of substance use, emotional problems, school/work problems, and the number of crimes committed. Relative to the matched comparison group, JDC/RF youth received significantly more services during the intervention program year, exhibited less violent crime, and achieved a significant reduction in the cost of crime (Dennis, Baumer, Moritz, Nissen, & Stevens, 2016).

# THE NATIONAL CROSS-SITE EVALUATION OF JDC/RF

In 2011, OJJDP, through an interagency agreement with Library of Congress, funded an evaluation of five JDC/RF program sites. This evaluation, formally called the National Cross-Site Evaluation of Juvenile Drug Courts and Reclaiming Futures, was led by the University of Arizona's Southwest Institute for Research on Women in collaboration with Chestnut Health Systems and Carnevale Associates, LLC. The national evaluation addressed many of the previously described JDC and RF research limitations and collected prospective data on JDC/RF implementation and costs. The research was conducted between July 2011 and December 2015 and was reviewed and approved by the University of Arizona's Human Subjects Institutional Review Board.

The overarching goals of the evaluation were to expand on previous evaluations to further understand the particulars of integrating JDC:SIP and RF, describe how implementation of the integrated JDC/RF model actually occurs, and determine what factors contribute to improved outcomes. More specifically, the JDC/RF National Evaluation (1) focused on describing the process of the integration and implementation of JDC:SIP and RF, (2) assessed the influence of the implementation of the integrated JDC/RF model on the system, (3) evaluated the services provided by the JDC/RF programs, (4) evaluated the cost-effectiveness of JDC/RF programs, and (5) assessed the potential for replication of the integrated model. While the evaluation did not involve the kind of quasi-experimental or experimental comparison groups recommended in NADCP's Best Practice Standards for Adult Drug Courts (NADCP, 2013, 2015; see www.nadcp.org/Standards), this still represents one of the largest multi-site studies to date of juvenile drug courts.

Outcomes from the JDC/RF National Evaluation, as well as practical implications for program implementation and practice strategies, are the focus of this special issue. Subsequent articles in this special issue cover a wide range of topics:

- A description of the process of integrating JDC:SIP and RF for program implementation
- An analysis of the clients served in these JDC/RF programs in comparison to those in need of JDC/RF services
- Identification of JDC/RF program characteristics that are particularly related to improved client outcomes
- An examination of the barriers, challenges, strategies, and best-practice recommendations for involving the community in JDC/RF programs.

These topics are presented and discussed in depth, highlighting research-to-practice implications.

The program sites included in the JDC/RF National Evaluation are diverse both geographically and with regard to the population of youth they serve. Two of the JDC/RF sites are located on the West Coast, two in the Midwest, and one in the Great Lakes region. All sites were expected to integrate an RF framework within their JDC. It

is important to begin by fully understanding the complexities of a JDC/RF integrated model. In the article that follows, Greene, Ostlie, Kagan, and Davis discuss the need to develop an integrated logic model and the process of developing such a model, along with a description of the components of the JDC/RF integrated logic model. For other JDC sites integrating the RF framework, as well as other programs intending to combine two or more models of care in their overall approach, that article provides practical insights and helpful processes for doing so successfully.

JDCs fill a crucial role in meeting the treatment needs of adolecents with SUDs. Early intervention for SUD is critical to achieving positive outcomes for youth, their families, and society. With access to substance use treatment frequently coming through the juvenile justice system, it is important to ascertain if certain groups of youth are being underserved in JDCs. Baumer, Korchmaros, and Valdez compare demographic and behavioral characteristics of youth served by JDC/RF programs to youth in the general population who meet the eligibility criteria for JDC. Findings from this analysis indicate that female and Caucasian adolescents are not receiving services at rates similar to other youth—calling for strategies to identify and engage these youth in JDC/RF programs.

While youth in JDC/RF get more treatment than those in regular JDC, the differences are small (Dennis et al., 2016). Given that many youth in both settings with SUDs generally receive substance use treatment as a result of their involvement in the juvenile justice system, it is important to identify critical components (or program characteristics) of JDC/RF programs, including those associated with substance use treatment, that are particularly related to improved client outcomes. Results of the study conducted by Korchmaros, Baumer, and Valdez reveal seven critical program characteristics associated with improved client outcomes:

- Having a defined target population and eligibility criteria
- Employing sanctions to modify noncompliance
- Utilizing random and observed drug testing
- Coordinating with the school system
- Implementing gender-appropriate treatment

- Utilizing policies and procedures responsive to cultural differences
- Training personnel to be culturally competent

Additionally, variations in treatment effectiveness are observed. High-risk youth (i.e., those with greater legal involvement and/or more clinical problems) benefited the most from the JDC/RF programs. Moreover, the authors note that program components or strategies may need to vary for high- versus low-risk youth, given the outcomes delineated in this study.

Finally, community engagement is an essential component of the JDC/RF program model because (1) community entities contribute to the program and system-level planning, and to the decision-making process of the JDC; and (2) community collaboration builds a network of resources that youth and their families can utilize when they transition out of the program. Yet effectively engaging community is not easily achieved. To illuminate how JDC/RF programs work to attain community engagement goals and effectively translate community engagement into JDC/RF operations, processes, and programming, Greene, Thompson-Dyck, Wright, Davis, and Haverly used cross-site findings from qualitative data sources to identify barriers, challenges, strategies, and best-practice recommendations for involving the community in JDC/RF programs. While the benefits of community engagement are numerous, identified challenges such as normative drug use and stigma toward justice-involved youth, limited resources, economic downturn, poverty, and staff and judicial turnover were viewed as limiting community involvement. Effective strategies to overcome these challenges begin with recognizing that community engagement is fundamental to JDC programs and, thus, must be embraced though multiple mechanisms, processes, and procedures.

Two invited commentaries conclude this special issue. The first commentary, by Kagan and Ostlie, presents policy and program implications highlighting findings that are relevant to policy makers and program managers who intend to create or enhance a JDC or JDC/RF program. This commentary includes policy recommendations for JDC-only, JDC/RF, and non-JDC programs that provide substance use disorder treatment to youth in the juvenile justice system. The second

commentary, by Tyson, explores the implementation factors analyzed under the JDC/RF National Evaluation and how those factors can guide the future of federal, state, and local efforts to respond to and treat youth with substance use and addiction issues in the juvenile court system. This commentary deliberates on three central questions that the articles raise: (1) Why is a specialized court approach to substance abuse by youth important? (2) Who should juvenile drug courts serve? and (3) How should court and treatment systems operate to best serve the needs of youth?

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#### REFERENCES

American Psychiatric Association. (2013). Diagnostic and statistical manual of mental disorders (5th ed.). Washington, DC: American Psychiatric Association.

Belenko, S. (2001). Research on drug courts: A critical review 2001 update. New York: National Center on Addiction and Substance Abuse.

Brown, S.A., Tapert, S.F., Granholm, E., & Delis, D.C. (2000). Neurocognitive functioning of adolescents: Effects of protracted alcohol use. Alcoholism: Clinical and Experimental Research, 24(2), 164-171.

Butts, J.A., Roman, J.K., & Gitlow, E. (Eds.). (2009). Organizing for outcomes: Measuring the effects of Reclaiming Futures in four communities. Portland, OR: Reclaiming Futures National Program Office. Retrieved from https://jeffreybutts.files.word press.com/2009/07/organizing for ou tcomes 2009.pdf

- Carev, S.M., Allen, T.H., Perkins, T., & Waller, M.S. (2013). A detailed cost evaluation of a juvenile drug court that follows the juvenile drug court model (16 strategies). Juvenile and Family Court Journal, 64(4) 1–20.
- Carey, S.M., Sanders, M.B., Waller, M.S., Burrus, S.W.M., & Aborn, J.A. (March 2010). Jackson County Community Family Court-Outcome and cost evaluation (Final report submitted to the Oregon Criminal Justice Commission). Portland. OR: NPC Research.
- Crowe, A.H. (1998). Drug identification and testing in the juvenile justice system: Summary. Retrieved from https: //www.ncjrs.gov/html/ojjdp/167889/ index html
- Crumpton, D., Carey, S.M., Mackin, J.R., Finigan, M.W., Pukstas, K., Weller, B.S.,...Brekhus, J. (2006). Maryland treatment drug courts: Interim report of the effectiveness of juvenile drug courts [Technical report]. Portland, OR: NPC Research.
- Dakof, G.A., Henderson, C.E., Rowe, C.L., Boustani, M., Greenbaum, P.E., Wang, W., Hawes, S., Linares, C., & Liddle, H.A. (2015). A randomized clinical trial of family therapy in juvenile drug court. Journal of Family Psychology, 29(2), 232-241.
- Dennis, M.L., Baumer, P.C., Moritz, K.R., Nissen, L.B., & Stevens, S. (2016). Evaluating the impact of adding the Reclaiming **Futures** systems of change approach iuvenile drug court. Manuscript submitted for publication.
- Dennis, M.L., Clark, H.W., & Huang, L. (2014). The need and opportunity to expand substance use disorder treatment in school-based settings. Advances in School Mental Health Pro-Promotion, 7(2), 75-87.

- Dennis, M.L., Dawud-Noursi, S., Muck, R.D., & McDermeit (Ives), (2003). The need for developing and adolescent evaluating treatment models. In S. Stevens & A.R. Morral (Eds.). Adolescent substance abuse treatment in the United States: Exemplary models from a National Evaluation Study (pp. 3-34). Binghamton, NY: Haworth Press.
- Dennis, M.L., Ives, M.L., White, M.K., & Muck, R.D. (2008). The Strengthening Communities for Youth (SCY) initiative: A cluster analysis of the services received, their correlates and how they are associated with outcomes. Journal of Psychoactive Drugs, 40(1), 3-16.
- Dennis, M.L., Scott, C.K., & Laudet, A. (2014). Beyond bricks and mortar: Recent research on substance use disorder recovery management. Current Psychiatry Reports, 16(4), 442.
- Dennis, M.L., & White, M.K. (2003). The effectiveness of adolescent substance abuse treatment: A brief summary of studies through 2001. Unpublished manuscript.
- Dennis, M.L., White, M., & Ives, M. (2009). Individual characteristics and needs associated with substance misuse of adolescents and young adults in addiction treatment. In C. Leukefeld, T. Gullotta, & M.S. Tindall (Eds.), Handbook on adolescent substance abuse prevention and treatment: Evidence-based practice (pp. 45–72). New London, CT: Child and Family Agency Press.
- Dennis, M.L., White, M., Titus, J.C., & Unsicker, J. (2003). Global Appraisal of Individual Needs (GAIN): Administration guide for the GAIN and related measures (version Bloomington, IL: Chestnut Health

- Systems. Retrieved from http://www. gaince.org/ data/files/Instruments and Reports/Instruments Manuals/GAIN-Imanual combined 0512.pdf
- French, M.T., Popovici, I., & Tapsell, L. (2008). The economic costs of substance abuse treatment: Updated estimates of cost bands for program assessment and reimbursement Journal of Substance Abuse Treatment. 35(4), 462-469.
- Godley, M.D., Coleman-Cowger, V.H., Titus, J.C., Funk, R.R., & Orndorff, M.G. (2010). A randomized controlled trial of telephone continuing care. Journal of Substance Abuse Treatment, 38(1), 74-82.
- Godley, M.D., Godley, S.H., Dennis, M.L., Funk, R.R., Passetti, L.L., & Petry, N.M. (2014). A randomized trial of assertive continuing care and contingency management for adolescents with substance use disorders. Journal of Consulting and Clinical Psychology, 82(1), 40-51.
- Godley, S.H., Garner, B.R., Passetti, L.L., Funk, R.R., Dennis, M.L., & Godley, M.D. (2010). Adolescent outpatient treatment and continuing care: Main findings from a randomized clinical trial. Drug and Alcohol Dependence, 110(1), 44-54.
- Green, A., Ostlie, E., Kagan, R., & Davis, M. (2016). The process of integrating practices: The Juvenile Drug Court and Reclaiming Futures Logic Model. Drug Court Review, 10(1), 31-59.
- Hartmann, D.J., & Rhineberger, G.M. (2003). Evaluation of the Kalamazoo County Juvenile Drug Treatment Court Program (Technical report). Kalamazoo, MI: Kercher Center for Social Research, Western Michigan University.

- Henggeler, S.W., Halliday-Boykins, C.A., Cunningham, P.B., Randall, J., Shapiro, S.B., & Chapman, J.E. (2006). Juvenile drug court: Enhancing outcomes by integrating evidencebased treatments. Journal of Consulting and Clinical Psychology, 74(1). 42 - 54
- Huddleston, W., & Marlowe, D.B. (2011). Painting the current picture: A national report on drug courts and other problem-solving court pro-United grams in the States. Alexandria, VA: National Drug Court Institute.
- Institute of Medicine. (2006). Improving the quality of health care for mental and substance-use conditions Washington. DC: National Academies Press. Retrieved from http://www.nap .edu/catalog.php?record\_id=11470
- Ives, M.L., Chan, Y.F., Modisette, K.C., & Dennis, M.L. (2010). Characteristics, needs, services, and outcomes of vouths in juvenile treatment drug courts as compared to adolescent outpatient treatment. Drug Court Review, 7(1), 10-56.
- Joint Commission. (2015). Guide to Joint Commission Behavioral Health Care Accreditation. Oakbrook Terrace, IL: Author.
- Latessa, E.J., Shaffer, D.K., & Lowenkamp, C. (2002). Outcome evaluation of Ohio's drug court efforts (Final report). Cincinnati, OH: Center for Criminal Justice Research, University of Cincinnati.
- Lutze, F., & Mason, K. (2007). Final report of the juvenile drug court process and outcome evaluation: Benton and Franklin County (Unpublished report).

- McCollister, K.E., French, M.T., & Fang, F. (2010). The cost of crime to society: New crime-specific estimates for policy and program evaluation. Drug and Alcohol Dependence, 108 (1-2), 98–109.
- Mee-Lee, D.A. (2013). The ASAM criteria: Treatment criteria for addictive. substance-related, and co-occurring conditions. Chevy Chase, MD: American Society of Addiction Medicine.
- Mitchell, O., Wilson, D.B., Eggers, A., & MacKenzie, D.L. (2012). Assessing the effectiveness of drug courts on recidivism: A meta-analytic review of nontraditional drug tradition and courts. Journal of Criminal Justice 40(1), 60-71.
- National Association of Drug Court Professionals. (1997). Defining drug courts: The key components. Washington, DC: U.S. Department of Justice, Office of Justice Programs. https://www.ncirs Retrieved from .gov/pdffiles1/bja/205621.pdf
- National Association of Drug Court Professionals. (2013). Adult drug court best practice standards: Volume 1. Alexandria, VA: Author, Retrieved from http://www.allrise.org/sites/default/file s/nadcp/AdultDrugCourtBestPracticeSt andards.pdf
- National Association of Drug Court Professionals. (2015). Adult drug court best practice standards: Volume 2. Alexandria, VA: Author. Retrieved http://www.ndcrc.org/sites/de fault/files/adult drug court best prac tice standards volume ii.pdf
- National Drug Court Institute & National Council of Juvenile and Family Court Judges (2003). Juvenile drug courts: Strategies in practice (Bureau of Justice Assistance monograph). Rockville. MD: Bureau ofJustice Assistance. Retrieved from https://

- www.ncjrs.gov/pdffiles1/bja/197866. pdf
- National Institute on Drug Abuse. (2014). Principles of drug abuse treatment for criminal justice populations: A research-based guide (NIH Publication No. 11-5316). Rockville, MD: Author. Retrieved from https://www.drugabuse .gov/sites/default/files/txcriminaliustice 0.pdf
- Nissen, L.B. (2010). Boundary spanners revisited: A qualitative inquiry into cross-system reform through the experience of youth service professionals. Qualitative Social Work, 9(3), 365-384
- Nissen. L.B. (2011).Communitydirected engagement and positive vouth development: Developing positive and progressive pathways between youth and their communities in Reclaiming Futures. Children and Youth Services Review, 33, S23-S28.
- Nissen, L.B., Butts, J.A., Merrigan, D., & Kraft, M.K. (2006). The RWJF Reclaiming Futures initiative: Improving substance abuse interventions for justice-involved vouths. Juvenile and Family Court Journal, 57(4), 39-51.
- Nissen, L.B., Hunt, S.R., Bullman, S., Marmo, J., & Smith, D. (2004). Systems of care for treatment of adolescent substance use disorders: Background, principles and opportunities. Journal of Psychoactive Drugs, 36(4), 429-438.
- Nissen, L.B., & Pearce, J. (2011). Exploring the implementation of justicebased alcohol and drug intervention strategies with juvenile offenders: Reclaiming Futures, enhanced adolescent substance abuse treatment, and juvenile drug courts. Children and Youth Services Review, 33, S60-S65.

- Office of Juvenile Justice and Delinquency Prevention (OJJDP). (May 2001). Juvenile Drug Court Program (NCJ 184744). Washington, DC: Department of Justice, OJJDP.
- Reclaiming Futures. (2013). The Reclaiming Futures model. Portland, OR: Author. Retrieved from http://www.reclaimingfutures.org /members/sites/default/files/main doc uments/RF-MODEL.pdf
- Reclaiming Futures. (n.d.). How the model works. Retrieved from http://re claimingfutures.org/model/model-how -it-works
- Wood Foundation Robert Johnson (RWJF), (2011). Reclaiming Futures: Communities helping teens overcome drugs, alcohol and crime. Princeton, NJ: Author. Retrieved from http:// www.rwjf.org/en/library/research/201 1/01/reclaiming-futures-.html
- Rodriguez, N., & Webb, V.J. (2004). Multiple measures of juvenile drug court effectiveness: Results of a quasi-experimental design. Crime & Delinguency, 50(2), 292-314.
- Roman, J.K., Sundquist, A., Butts, J.A., Chalfin, A., & Tidd, S. (2010). Costbenefit analysis of Reclaiming Futures. Portland, OR: Reclaiming Fu-National Program Office. tures Portland State University.
- Rossman, J., Butts, J.A., Roman, J., DeStefano, C., & White, R. (2004). What juvenile drug courts do and how they do it. In J. A. Butts & J. Roman (Eds.), Juvenile drug courts and teen substance use (pp. 55-106). Washington, DC: Urban Institute.
- Sheidow, A.J., Jayawardhana, J., Bradford, W.D., Henggeler, S.W., & Shapiro, S.B. (2012). Money matters: Cost-effectiveness of juvenile drug court with and without evidencebased treatment. Journal of Child &

- Adolescent Substance Abuse, 21(1), 69-90
- Solovitch, S. (2009). Reclaiming Futures. In S.L. Isaacs & D.C. Colby (Eds.), To Improve Health and Health Care, Volume XIII. San Francisco: Jossey-Bass.
- Tanner-Smith, E.E., Wilson, S.J., & Lipsey, M.W. (2013). The comparative effectiveness of outpatient treatment for adolescent substance abuse: A meta-analysis. Journal of Substance Abuse Treatment, 44(2), 145-158.
- Tapert, S.F., Schweinsburg, A.D., Barlett, V.C., Brown, S.A., Frank, L.R., Brown, G.G., & Meloy, M.J. (2004). Blood oxygen level dependent response and spatial working memory in adolescents with alcohol use disorders. Alcoholism: Clinical and Experimental Research, 28(10), 1577-1586.
- Teplin, L.A., Abram, K.M., McClelland, G.M., Dulcan, M.K., & Mericle, A.A. (2002). Psychiatric disorders in youth in iuvenile detention. Archives of General Psychiatry, 59(12), 1133-1143.
- Teplin, L.A., Elkington, K.S., McClelland, G.M., Abram, K.M., Mericle, A.A., & Washburn, J.J. (2005). Major mental disorders, substance use disorders, comorbidity, and HIV-AIDS risk behaviors in juvenile detainees. Psychiatric Services, 56(7), 823–828.
- Thompson, K. (2002). Statistical summary of North Dakota juvenile drug court: May 2000 to June 2002 (Technical report). Fargo: North Dakota State University.
- Titus, J.C., Smith, D. C., Dennis, M. L., Ives, M., Twanow, L., & White, M. K. (2012). Impact of a training and certification program on the quality of interviewer-collected self-report assessment data. Journal of Substance Abuse Treatment, 42, 201-212.

van Wormer, J.G. (2010). Understanding operational dynamics of drug courts (Doctoral dissertation, Washington State University). Retrieved from http://research.wsulibs.wsu.edu/xmlui /handle/2376/2810

Winters, K.C. (1999). Treating adolescents with substance use disorders: An overview of practice issues and treatment outcome. Substance Abuse, 20(4), 203–225.

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