



**Snohomish County  
Family Drug Treatment Court**

**Process, Outcome and Cost-Benefit  
Evaluation Report**

Submitted by:

Jacqueline van Wormer, Ph.D.  
Zach Hamilton, Ph.D.  
Ming-Li Hsieh, M.A.

Washington State Institute of Criminal Justice and Criminology  
Washington State University

Sean Murphy, Ph.D.

Department of Health Policy Administration  
Washington State University

November 2014

## Acknowledgements

Researchers at Washington State University would like to thank the following individuals for their involvement and support in this project:

- Judge Ellen Fair and Program Manager Janelle Sgrignoli for arranging and allowing unfiltered access to the staff meetings, court sessions, policies and procedures and data assistance.
- Edmund Smith, SCFDTC Coordinator for answering endless questions regarding process and procedures.
- Meagan Cordova for her valuable assistance in locating and pulling control group data for the project
- Shannon Carey and NPC Research for the generous use of their standardized family drug treatment court team survey tool, as well as their incentive and sanction guideline tools.
- Robin Fenn, Cammy Hart-Anderson, Ken Stark and Linda Grant for their assistance in providing WSU Researchers a fuller understanding the treatment process and services in Snohomish County.

Table of Contents

**INTRODUCTION** ..... 7

**BACKGROUND** ..... 8

    OVERVIEW: SNOHOMISH COUNTY FAMILY DRUG TREATMENT COURT ..... 10

**SNOHOMISH COUNTY FAMILY DRUG TREATMENT COURT PROCESS**

**EVALUATION** ..... 12

    ADHERENCE TO THE 10 KEY COMPONENTS: SNOHOMISH COUNTY FAMILY DRUG TREATMENT COURT FINDINGS ..... 13

*Key Component #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing.* ..... 13

*Key Component #2: Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.* ..... 16

*Key Component #3: Eligible participants are identified early and promptly placed in the drug court program.* 17

*Key Component #4: Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.* ..... 20

*Key Component #5: Abstinence is monitored by frequent alcohol and other drug testing.* ..... 22

*Key Component #6: A coordinated strategy governs drug court responses to participants' compliance.* ..... 23

*Key Component #7: Ongoing judicial interaction with each drug court participant is essential.* ..... 28

*Key Component #8: Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.* ..... 29

*Key Component #9: Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.* ..... 30

*Key Component #10: Forging partnerships among drug courts, public agencies and community-based organizations generates local support and enhances drug court program effectiveness.* ..... 32

**SNOHOMISH COUNTY FAMILY DRUG TREATMENT COURT OUTCOME**

**EVALUATION** ..... 33

    OUTCOME FINDINGS: TRADITIONAL COURT VERSUS THE SCFDTC ..... 36

    OUTCOME FINDINGS: THE SCFDTC GRADUATION VERSUS THE SCFDTC TERMINATIONS ..... 39

**SNOHOMISH COUNTY FAMILY DRUG TREATMENT COURT COST**

**BENEFIT** ..... 43

**SUMMARY AND POLICY IMPLICATIONS** ..... 45

**APPENDIX A** ..... 46

**APPENDIX B** ..... 59

**REFERENCES** ..... 63

## Executive Summary

The Snohomish County Family Drug Treatment Court was launched in 2008 through the cooperation of various justice and social service practitioners such as the Washington State Attorney General, Superior Court Representatives, Department of Social and Health Services, Juvenile Court, Human Services and other various community agents. In 2012, Snohomish County contracted with researchers at Washington State University to conduct a process, outcome and cost-benefit study of available data of the Snohomish County Adult and Family Drug Treatment Court programs. This report covers the findings from the process evaluation (originally completed in April 2013), the outcome study and a limited cost analysis study of the Snohomish County Family Drug Treatment Court (SCFDTC). Evaluation of the Snohomish County Adult Drug Treatment Court is provided in a separate publication.

This research describes how well the drug court team follows written program policies and procedures and the nationally supported 10 Key Components (National Drug Court Institute). In addition we were concerned with determining whether SCFDTC participants maintained parental-rights status and completed their assigned treatment at greater rates, and whether children spent less time in the child welfare system than individuals who were processed through the traditional dependency court system. The cost-benefit study aimed to determine whether there were cost-savings associated with reduced foster care and out of home placement subsidy expenditures for SCFDTC participants relative to the matched comparison.

*Process Evaluation:* Multiple methods were used to assess program practices, including direct staffing and court observations (field visits), focus groups with prior participants, drug court case management (DCCM) system review, on-line team member survey and document review. Overall, the SCFDTC has been implemented as intended in policy and according to the 10 Key Components. As is highlighted in Table One, the SCFDTC team carefully follows and executes 9 of 11 identified best practice standards that are applicable to the family drug court model. In summary, the team is comprised of all necessary members, including the CASA/GAL and treatment. The team embraces a non-adversarial approach and has strong communication across team members, both in and outside of the courtroom. Judge Fair provides strong team leadership and is balanced and understanding in her approach with clients. Snohomish County is fortunate to have a strong data management system (DCCM) in order to track clients, generate monthly reports and monitor their data for program changes.

While there are numerous strengths within the SCFDTC, WSU researchers also noted several program areas that could benefit from focused improvements and adjustments. The results of the process evaluation were released to the SCFDTC team in April, 2013. Shortly following the release of

the process evaluation, training was scheduled and conducted by WSU Researchers in October 2013. The training was attended by all SCFDTC team members, including additional court personnel and judicial officers. The intent of the training was to provide targeted technical assistance based on the results of the process evaluation to ensure that the team had the opportunity to make needed improvements.

**Table 1. Drug Court Best and Promising Practices: SCFDTC Adherence Checklist<sup>1</sup>**

Drug Court Practice	SCFDTC Following Practice
1. All team members attend staffings <sup>2</sup>	Yes
2. Treatment communicates with team via email	Yes
3. Drug tests results are available within 48 hours and tests collected at least two times per week in first phase	Yes
4. Judges spends at least 3 minutes engaging with clients during court hearings	Yes
5. Court uses internal data in on-going basis to make program adjustments	Yes
6. Sanctions are imposed immediately	Yes
7. Team members have a response guideline for sanctions	No
8. Participants must be employed or attending school in order to graduate	Yes
9. Ancillary services are offered and completed to meet offender needs (e.g. health care, dental)	Yes
10. Team uses jail sparingly as a sanction	Yes
11. Team members are fully trained in the drug court model. Doesn't include on-the-job training	No <sup>3</sup>

*Outcome Evaluation:* SCFDTC participants had significantly higher treatment completion rates than those who participated in the traditional intervention (75% vs. 52%). In terms of child reunification and termination, a larger percentage of SCFDTC participants had their children returned (70% vs. 62%), and a smaller percentage of SCFDTC participants had their parental rights terminated (9% vs. 30%). In terms of length of dependency, children of SCFDTC participants spent significantly less time in the child welfare system when compared to their traditional court counterparts (393 days vs. 848 days). We also analyzed in-program comparisons to measure outcomes of graduates vs. program terminations. We found that:

<sup>1</sup> These best and promising practices generate reductions in recidivism and/or cost savings in adult drug court models. The full set of Best Practice Standards were published by NDCI Fall 2013. Information gathered for this Figure can be found in the Drug Court Review, volume VIII, Issue 1. Please see Carey et al., (2012) "What works? The ten key components of drug court – Research-based best practices"

<sup>2</sup> Research with adult drug courts has found that it is especially critical that treatment attend both staffing and court in order to ensure reductions in recidivism and cost savings.

<sup>3</sup> Doesn't include on-the-job training

- SCFDTC graduates were less likely to receive jail sanctions (65% vs. 17%),
- Sixty-four percent of SCFDTC participants graduate from the program which is considerably higher than the national average of 50 percent,
- SCFDTC graduates received far more incentives (94% vs. 19%),
- Graduates were more likely to complete treatment (96% vs. 30%),
- Children were returned at much higher rates for those that were successful in the program (96% vs. 31%), and
- Children of graduates spent considerably less time in child welfare system as well (385 days vs. 408 days).

*Cost-Benefit:* The available dataset and variables were limited for this study, and there were also some restrictive timelines under this project that hampered further analyses. However, given that the primary focus of family drug courts is to reunify parents with their children, we feel that our focus on whether the SCFDTC resulted in direct cost-savings associated with reduced foster care and out home placement expenditures for its participants relative to a matched non-FDTC control, likely captures the majority of the cost differential between the two groups; such a focus is also consistent with the literature (Burrus et al., 2011). Even though we were unable to complete a comparison of direct and indirect costs, we did find a net per-participant savings of \$5,969 is generated by SCFDTC participation, due to the decreased out of home placement stays, reductions in foster-care costs and faster reunifications rates. It is also worthy of note that these figures do not include indirect cost savings associated with factors such as reductions in maltreatment, criminal activity and productivity losses; the inclusion of such factors as part of a societal perspective would likely result in substantially higher cost savings.

In the following sections, the history and background of the drug court movement, and development of the SCFDTC is reviewed in detail. Then, each of the 10 Key Components is listed, along with a brief literature review of “what works” for each component. This information is then compared to strengths of the team in executing the component, as well as recommended areas for improvement (referred to as Targeted Areas of Improvement (TAI)). We then provide detailed analyses to measure program outcomes and cost-benefit of the operation of the program.

## Introduction

This report is being submitted by researchers with the Washington State University (WSU) Department of Criminal Justice and Criminology (DCJC) and the Department of Health Policy Administration (DPHA) in response to the request for a process, outcome and cost-benefit evaluation of the Snohomish County Family Drug Treatment Court (SCFDTC).

This report examines how well the SCFDTC follows their outlined policies and procedures, as well as the drug court model as specified by the 10 Key Components for Successful Drug Courts as established by the National Drug Court Institute (NDCI). Data for the process evaluation was gathered via document review, on-site observations of court and staffing procedures, focus groups of prior participants, on-line and staff interviews, and drug court case management database (DCCM) reviews. Findings from these various sources are combined to produce a general understanding of how well the team is following and implementing the intended program.

This project is also concerned with determining if the SCFDTC is effective in achieving stronger outcomes for clients by measuring treatment progress, in-program successes, and child welfare outcomes. In other words, were SCFDTC more likely to engage in and complete treatment at higher rates than a matched comparison group? What characteristics predicted successful SCFDTC graduation? Did parents who participated in the SCFDTC have higher rates of reunification? Were they less likely to have their parental rights terminated?

Unfortunately, due to the sensitive nature of child protection cases and protected records, this project was hampered by a limited number of variables that we could collect. It also took substantial periods of time to build various components of the dataset. Due to these limitations, we had minimal variables available for analyses for the cost-benefit portion of this study and were not able to incorporate a societal perspective where we also assessed indirect costs, such as those associated with reductions in maltreatment, criminal activity and productivity losses. However, given that the primary focus of family drug courts is to reunify parents with their children, we feel that our focus on whether the SCFDTC resulted in direct cost-savings associated with reduced foster care and out home placement expenditures for its participants relative to a matched non-FDTC control, likely captures the majority of the cost differential between the two groups; such a focus is also consistent with the literature (Burrus et al., 2011).

In the sections that follow we provide background on the family drug court movement, review of the Snohomish County funding and management structure, and detailed information and findings for the process, outcome and cost-benefit study. We conclude the report with a summary and set of recommendations for the SCFDTC to consider.

## Background

Drug-associated crimes contribute to an overwhelming number of court cases in the United States. In the 1980's, the number of drug-related crimes grew rapidly, quickly overburdening the courts and resulting in the reallocation of already scarce criminal justice resources (Drug Court Clearinghouse and Technical Assistance Project (DCCTAP), 1999). In response, criminal justice officials scrambled to find a way to significantly and thoroughly address an overwhelming population of addicted offenders that were flooding court systems across the country. A unique response was born in Dade County, Florida in 1989, when a group of court and justice system officials (including then State Attorney Janet Reno) began an integrated and coordinated process of addressing offenders and their complex needs. Rather than simple sentencing and handing a defendant off to the correctional system, the court would now remain involved, with a team of criminal justice and treatment professionals tracking, monitoring, and treating the defendant, often referred to as "client," for an extended period of time. This model, commonly referred to as drug courts, was quickly replicated across the country, with other dockets (e.g. juvenile, family dependency, DUI) adopting the model as well. This wave of new programming has created significant structural changes in how courts and treatment providers manage "specialized" populations. According to latest figures available, there are an astounding 2,734 drug courts in operation in the United States, compared to just over 1,000 ten years prior (Fox and Wolf, 2004; National Drug Court Resource Center, 2012). Family drug treatment courts comprise 334 of these drug court models, and are expanding rapidly in response to the complex needs of families involved in the dependency process.

According to a report by The Urban Institute (1999), the number of child abuse cases reported to Child Protective Services (CPS) in 1994 was almost triple the 1980 statistic (2.9 million compared to 1.1 million). In addition, studies have shown that in 40-75% of child abuse cases, parental substance abuse was a significant factor (Magura & Laudet, 1996; Murphy, Jellnick, Quinn, Smith, Poitras, & Goshko, 1991; National Center on Addiction and Substance Abuse, 1999). One way in which practitioners have attempted to address the substance abuse and child neglect connection is through the creation and implementation of specialized family drug courts. Family drug courts are designed to specifically address cases which arise in response to charges of child abuse or neglect in which substance abuse is a significant contribution to the abuse/neglect (NPC, 2007). Like their adult counterparts, family drug treatment courts (FDTC) seek to blend the coercive ability of the dependency court with treatment and other needed services in order to more effectively address substance abuse and addiction in families. These programs aim to reunify families, if it is in the best interest of the child.



According to the NPC Research (2007), there are three main differences between family and adult drug courts, the end goal, or motivation, being one of them. The motivation for adult drug court participants is typically to avoid a new conviction or jail time, whereas for FDTTC clients, the goal is to maintain or regain custody of their children. Another difference between these two courts is the percent of male versus female participants. In adult drug courts, a vast majority of participants are male; in family drug courts, upwards of 85% of clients are female (Edwards & Ray, 2005). Finally, the complex issues and needs addressed in family court are rarely discussed in adult programs. Family drug courts provide services for various aspects of their clients' lives including treatment, parenting skills, employment, housing, and child services. To put it simply, FDTTCs address a multitude of needs that adult drug courts seldom, if ever, explore.

Like adult drug courts, FDTTCs are also encouraged to adhere to the 10 Key Components as established by the National Association of Drug Court Professionals (1997). These components are outlined by the U.S. Department of Justice Office of Justice Programs (1997, p. iii) as:

1. Drug courts integrate alcohol and other drug treatment services with justice system case processing.
2. Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.
3. Eligible participants are identified early and promptly placed in the drug court program.
4. Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.
5. Abstinence is monitored by frequent alcohol and other drug testing.
6. A coordinated strategy governs drug court responses to participants' compliance.
7. Ongoing judicial interaction with each drug court participant is essential.
8. Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.
9. Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.
10. Forging partnerships among drug courts, public agencies and community-based organizations generates local support and enhances drug court program effectiveness.

The research on the effectiveness of family drug courts specifically is minimal as compared to the substantial amount of research supporting adult drug courts. Recidivism rates for those who graduate from adult drug court are significantly lower than for those who are processed through the traditional system. Recidivism is also significantly lower for those offenders participating but not graduating, as compared to those processed in the traditional court system.

In regards to family court specific research, a 2007 NPC Research study of four national drug courts did find support for their effectiveness. The general findings concluded that those involved in FDC often seek treatment quickly, stay in treatment longer, have higher rates of treatment completion, and are more likely to be reunified with their children than those not involved in family drug treatment court (NPC, 2007). They also found significant reductions in the number of

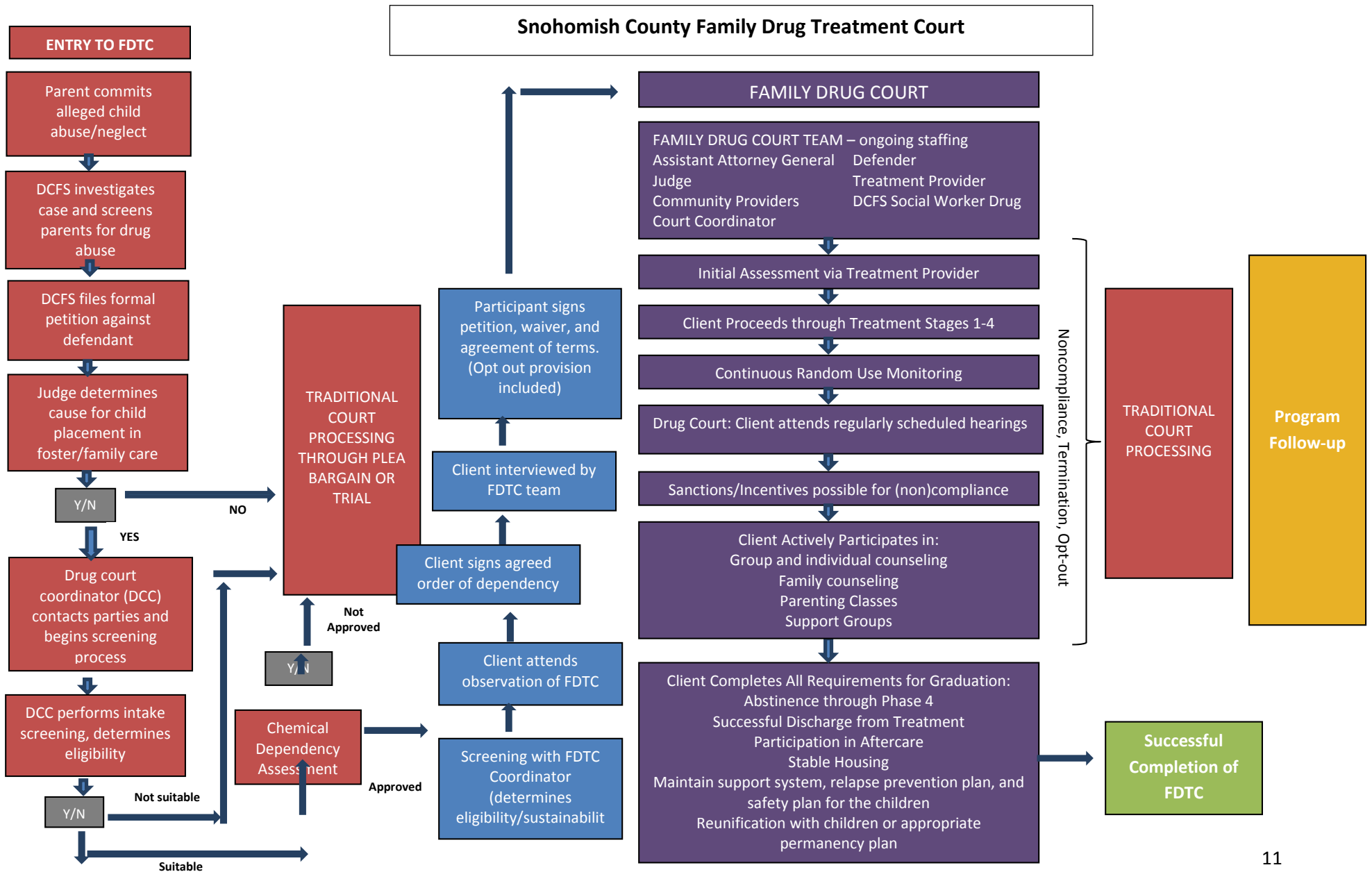
days in which children spent in out-of-home placements. Additionally, the study found that success within the family drug court (permanent placement of children) took, on average, less than a year for FDC participants, a time-frame in compliance with the Adoption and Safe Families Act (ASFA). Unfortunately, the study's findings did not indicate faster success for FDC clients as compared to non-FDC clients. More recent studies have shown that FDC participants experienced treatment completion rates 20 to 30 percent higher than matched comparisons, stronger family reunification rates, and less time spent in out-of-home placements for the children (Oliveros & Kaufman, 2011; Marlowe & Carey, 2012).

### **Overview: Snohomish County Family Drug Treatment Court**

The family drug treatment court began in Snohomish County in 2008 with the cooperation of various justice and social service practitioners such as the Washington State Attorney General, Superior Court Representatives, Department of Social and Health Services, Juvenile Court, Human Services and other various community agents. In 2008, the Snohomish County Council approved a mental health and substance abuse sales tax. A portion of this funding, combined with other state and local monies, funds and supports the current operations of the Snohomish County problem solving courts. These courts include the Family Drug Treatment Court, Adult Drug Treatment Court, Juvenile Offender Drug Treatment Court, Juvenile At-Risk Youth Drug Treatment Court, and Mental Health Court.

*Current Operations:* The Snohomish County Family Drug Treatment Court (SCFDTC) is available for parents when the Attorney General files a child protection case and the petition contains an allegation of child maltreatment resulting from parental substance abuse. As is stated in the handbook, "potential participant information is presented to the drug court team at staffing and the team approves admissions to the program. There are some criteria that make parents generally ineligible to participate in the program. However, the team will review each case individually." Similar to other family drug courts, there is an extensive referral and screening process, and once accepted parents must complete multiple services and programs before they can be considered for graduation. The program is designed to handle up to 30 participants at any given time. Figure 1 identifies each of the major components of the program, as well as entry/exit points, treatment options, and ancillary services.

**Figure 1. Components of the Snohomish County Family Drug Treatment Court**



## **Snohomish County Family Drug Treatment Court Process Evaluation**

Washington State University researchers collaborated with the Snohomish County Family Drug Treatment Court (SCFDTC) staff and team members to conduct the following activities:

1. Multiple on-site visits to achieve the following goals:
  - a. Observe Family Drug Treatment Court staffing sessions,
  - b. Observe Family Drug Treatment Court hearings,
  - c. Observe the traditional dependency court docket,
  - d. Conduct focus group sessions with past participants, and
  - e. Meet with key individuals involved with the drug court (known as the Drug Court Team).
2. Distribution, collection, and assessment of an electronic survey to FDTC team members indicating their program's adherence with the 10 Key Components (NADCP, 1997).
3. Undergo a thorough process evaluation and follow-up with the drug court team on targeted areas for change through a presentation of the findings and training on methods of improvement.
4. Answer any questions or concerns which may arise in the presentation of the findings, or during the overall process of the evaluation.

### **Focus Groups and Electronic Survey Assessment**

Focus group sessions were conducted by evaluators from Washington State University with past participants from the family drug court. Both males and females were included in the focus groups (n=10), and the session lasted one hour in length and covered approximately 20 questions addressing the programs' strengths and areas for improvement, as well as adherence with the 10 Key Components. All of the focus group members involved had participated in and completed the drug court prior to the focus group sessions. The findings from the focus groups indicated some similarities and differences between intended policies and actual processes and are discussed in more detail under each component.

For the team survey, the Washington State University research team was fortunate enough to partner with NPC Research (Portland, OR) who granted WSU researchers access to NPC's drug court survey tool. This tool has been used extensively across the nation to evaluate programs across numerous domains. The survey was approximately 130 questions and took under one hour to complete. The questions were grouped by their association with each of the 10 Key Components in addition to addressing basic demographic and procedural questions. Surveys were received from nine Family Drug Court team members. Key findings from the surveys are covered in detail in the sections below.

## **Adherence to the 10 Key Components: Snohomish County Family Drug Treatment Court Findings**

Outlined below are findings from the staffing/court observations and survey results as it relates to adherence to the NADCP 10 Key Components, as well as their ability to follow internal policies and procedures. Each component is listed, along with a brief literature review of “what works” for each component. It should be noted that a limited amount of research is available on family drug courts, and best practice standards have not been formulated. This information is then compared to strengths of the team in executing the component, as well as recommended areas for improvement (referred to as Targeted Areas of Improvement (TAI)). Following each TAI is a follow-up report. This is provided given that the process evaluation was originally released to the team April 2013, and then targeted training was provided to the SCFDTC in order to strengthen operations for the TAI areas.

### ***Key Component #1: Drug courts integrate alcohol and other drug treatment services with justice system case processing.***

This component is focused the creation of a collaborative and cooperative team, that generally includes the judge, attorney general, client attorney, child protection service workers, substance treatment, coordinator, mental health provider, and CASA/GAL. This process differs from the traditional system in that it brings treatment into the dependency court process and all team members are expected to embrace a therapeutic philosophy when handling cases. Teams are required to create policies and procedures to guide the court in decision-making and to provide continuity across clients. Strong policies and procedure manuals can also be used for training and orientation of new staff.

Research has shown that courts with all team members present and participating in both staffing and court have stronger outcomes (greater reductions in recidivism and stronger cost savings) than courts that do not have all team members actively involved in these steps. Team members should be assigned to the drug court for a minimum of two years. Judicial officers should be assigned for 2-4 years, rotate off the bench for a period of time, and then return to serve again if possible. This rotation method has been correlated with stronger program outcomes.

In addition, teams that utilize email for communication on important topics/issues that occur outside of the regularly scheduled drug court show stronger outcomes as well (Carey et al., 2012).

*Findings:* The SCFDTC operates with a full team, and includes the judge, attorney general, client attorney, drug court coordinator, drug/alcohol treatment provider, CPS worker(s), CASA/GAL and court services.

Observations of the FDTC team staffing and hearings revealed that all team members were present and engaged. The average amount of time spent staffing a case was just over five minutes (range 1 minute, 35 seconds to 15 minutes, 17 seconds). Discussions were cordial and respectful of each discipline, although

some team members were more active (e.g. the judge, coordinator, treatment and CPS) than other positions. The staffing session is opened with the Coordinator sharing general program issues for the week, and also reminding team members of important upcoming FDTC events. After the general “housekeeping” the staffing quickly moved into the individual client reports. Detailed discussions were only conducted on those clients that appeared to be struggling for the week or in non-compliance. The staffing averages 2.5 hours to staff 20 cases.

The Snohomish County FDTC utilizes one main treatment provider, Evergreen Manor. The treatment provider appears to be a fully integrated member of the team. The treatment information shared during staffing centers around basic compliance, with little discussion about the type of treatment modality for the client, or the cognitive-behavioral work that is being completed by the client. However, the provider and CPS submits detailed treatment notes in DCCM by 9am Friday morning. This log contains information on the client ranging from treatment progress, conditions in the home, peers, challenges, etc., and is available for review by all team members.

Team discussions during staffing centered on the use of traditional substance abuse treatment, and mental health services when warranted. Other services are also available for parents (e.g. parenting) and these services were discussed when applicable. Table 2 below highlights the array of services available, discussed and used by the FDTC.

**Table 2. Treatment Services Available to SCFDTC Clients**

Agency	Services Provided
Evergreen Manor (EMI)	Chemical Dependency Assessments, Chemical Dependency Treatment, Mental Health Assessments, Mental Health Treatment, Couples Counseling.
Mill Creek Family Services (MCFS)	Mental Health Assessments, Mental Health Treatment, Parenting Skills Group Counseling.
Center for Human Services (CHS)	Infant Mental Health (for Children ages 0-3) and Individual Child Therapy (for Children 4-17).
Workforce Development Council of Snohomish County (WDC)	Educational, Employment and Career Case Management for participants (through utilization of a WDC ‘Navigator’ who meets with participants individually for assistance and case management).
Evergreen Manor (EMI)	Detoxification Program.
Salvation Army	Housing Assistance, Community Service Work resource.
Good Will of Snohomish County	Annual Donation of Children’s Clothes (Holiday Event).
St. Vincent De Paul	Clothing Assistance, Community Service Work resource.
Everett Gospel Mission (Men’s & Women’s)	Emergency Housing Resource.
Domestic Violence Services of Snohomish County	Counseling, emergency shelter for victims of Domestic Violence.
Volunteers of America, Everett location	Food Bank, Resources for the Homeless.
Community Health Center of Snohomish County	Medical & Dental needs (for participants and their children).
Life During CPS	Provides weekly support group meetings for parents involved with DCFS and dependency cases.

Most team members appear to have adopted a strengths-based philosophy when staffing and handling cases in the courtroom. Observation of both the staffing and court revealed that the team was generally able to reach a consensus about cases, although a few team members clearly still operated more within their traditional role.

Focus group participants believed the drug court team to be, for the most part, understanding and supportive. Various services were offered (e.g. parenting) although clients reported that they did not take advantage of all the services offered to them. Some clients rejected inpatient treatment, as they did not want to be away from their children.

*Strengths:* The Snohomish County FDTC displays a high level of commitment and dedication among its team members, and strong leadership is provided by Judge Fair. The team is diverse and representation is present, in both staffing and court, from all required “core” team members, including CASA/GAL.

Strong communication also exists outside of the drug court, with the team consistently utilizing email for information sharing outside of court, which has been shown in the research to be correlated with better program/client outcomes (Carey et al., 2012).

*Targeted Area of Improvement (TAI):* The primary focus for Key Component One is the creation of an integrated and high functioning team, whereby team members all agree to adopt slightly different roles than their traditional work roles. “Collaborative advantage” (Huxham & Vangen, 2005) refers to a state that is reached within teams whereby greater outcomes are achieved as a team rather than as individual agencies. In other words, all team members are fully trained on policies and procedures, there is a shared understanding of these procedures, the mission and goals are all agreed upon, and team members believe that they gain more personally and professionally from participating on the team. Their levels of knowledge about the underlying conditions (i.e. addiction and ancillary services) should increase drastically and they should be able to experience greater results than as the traditional system.

The SCFDTC is encouraged to continue to strive towards greater role adjustment and to consistently push for a balanced approach in their discussions and decisions. Judge Fair and Coordinator Edmund Smith play a key role in ensuring that the various team members remain centered around the strength-based philosophy, and that if discussions are tending towards the negative, to bring the conversation back towards the strengths and accomplishments of the client for the week.

*One-Year Update:* The team has a new treatment liaison, although this new provider originally served as “back-up” to the original treatment provider. The team continues to experience turnover in the position of the CPS social workers due to changes at the state level, although all new team members are quickly oriented towards policy and procedures by Edmund, and there is oversight by DCFS Supervisor. Training occurs within 2-3 weeks of entrance onto the team.

***Key Component #2: Using a non-adversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights.***

In the traditional court system, the prosecutor, defense attorney and judge are considered the core courtroom workgroup. The traditional dependency system has involvement of even more agencies, with each entity (e.g. CPS, CASA/GAL, defense) possessing a very specific role and agenda. In the family drug court setting, the client attorney, state attorney general, CASA/GAL and CPS are expected to work together as team members, and to embrace a therapeutic and balanced-approach philosophy. In addition, the attorneys on the team should be concerned with the creation and proper use of legal forms for the drug court. The attorney general remains focused on public safety under the model, while the client attorney remains focused on due process rights for clients under the model.

In an effort to reduce costs, some drug courts across the country have eliminated the use of the client attorney and/or attorney general in either (or both) the staffing or court proceedings. This can also occur if there is a philosophical divide between the attorney general and office of public defense on the purpose and goal of the drug court program. Research has shown, however, the importance of having these team members present during both court and staffing. Carey et al (2012) have found that courts that have both the prosecutor and defense attorney present in staffing and court have stronger graduation rates.

*Findings:* The state attorney and client attorney were both present in staffing and court, and took an active role when necessary, but in general were less involved than other team members. The state attorney generates the paperwork on each client for the week.

According to the focus groups, the primary source of referral was through their lawyer or defense counsel. In regards to model adherence by team members, clients indicated that the team took a balanced approach regarding their treatment and accountability to the program, and believed that the judge relayed this information to them in a positive way. Focus group participants did express that they did not understand why there were so many people there (in court) initially. Clients were too impaired at first to understand who was there and why, and what was required of them. Although the team members introduced themselves, when the clients were new they were not able to sustain information and the process was overwhelming for a long period of time.

*Strengths:* Both the client attorney and prosecutor appeared to embrace the philosophy of the drug court model and understood their role requirements. When disagreement did occur, it was handled in a professional manner. Appear to understand each other's role well.

*Targeted Area of Improvement (TAI):* None noted.



***Key Component #3: Eligible participants are identified early and promptly placed in the drug court program.***

This component is focused on the rapid identification, legal and substance abuse screening and quick entry of clients into the drug court model. Researchers and experts in the field of substance abuse treatment argue that quick identification and placement into needed services and support can capitalize on the “open window” whereby potential clients recognize the need for change and help.

Eligibility for drug court is defined as a set of legal and clinical (abuse/addiction severity) criteria, that is established by the drug court team and used to screen clients into the drug court, or to exclude them. Reasons for exclusion can include prior criminal history, severity of crime (e.g. sexual offense), lack of treatment need, or treatment needs are too severe for the drug court to address (e.g. co-occurring disorders, with schizophrenia present).

All drug court teams are expected to have a written set of eligibility and target criteria outlined in policies and procedures. This includes types of offenses that are eligible and not eligible for referral, level of substance abuse/addiction that must be present, and other target criteria such as high risk/high need, no use of suboxone, and/or no major mental health disorders.

Several key research findings on screening and time to admission have shown that courts that engage in the following experience greater reductions in recidivism and/or cost-benefit (lower investment and outcome costs):

- 50 days or less from arrest (or filing) to drug court admission (as time to entry increases, so does cost),
- Program caseload is less than 125 clients, and
- Use of a screen for *suitability* (and to assist with case management needs).

*Findings:* The SCFDTC is operating at full capacity and appears to be within the boundaries of their eligible target population (parents with pending petitions alleging abuse/neglect due to substance abuse/addiction and diagnosed as in need of substance abuse treatment) as per review of the DCCM.

After filing of a petition in Snohomish County Superior Court, each case involving drugs and/or alcohol is screened by the Drug Court Coordinator for potential placement into SCFDTC. At shelter care hearings, if the Judge determines there is cause to continue the child’s initial placement in foster care or a family placement, the Coordinator contacts the parties and begins the screening process for entry into drug court. According to policy, the time between the dependency order, screening, and the first court date is 14 working days.

According to policy, the following eligibility criteria must be present for participation in the SCFDTC:<sup>4</sup>

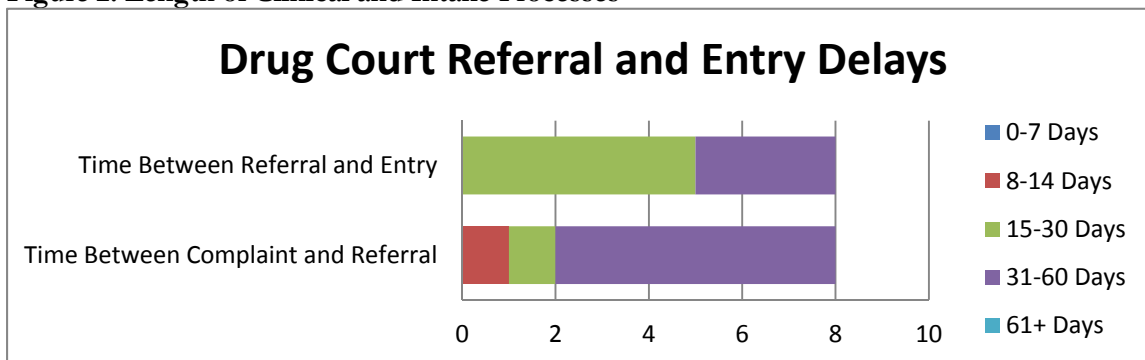
- Parent is a resident of Snohomish County (subject to team review).
- Parent consents to juvenile court jurisdiction and/or transfer to drug court.
- Parent agrees to voluntarily participate in the FDTC program.
- Parent is able to secure transportation to access services and to meet program requirements.
- Abuse/Neglect petition is filed alleging substance abuse.
- Parent has the cognitive ability to participate in the program.

Cases that are ineligible to participate include the following:

- Parent is deemed a violent offender as defined by federal law or regulation.
- Parent is a perpetrator of sexual abuse.
- Parent has committed sexual abuse of a child.
- Substance abuse is not the diagnosed primary condition.
- Parent’s intellectual functioning leaves him/her ineligible for alcohol and drug treatment.
- Parent is a convicted drug dealer.
- Parent with a history of a prior termination of parental rights action will be considered on a case by case basis.
- Parent has committed any physical abuse of a child.
- Parent has had a diagnosis of serious mental illness with long-term history of noncompliance with treatment.
- Parent is experiencing severe and/or terminal medical issues which would prevent full participation in the program (subject to team review).
- Child is in foster care/out-of-home placement at the time of the permanency planning hearing in the underlying dependency case (subject to team review).

Review of record data shows that participants are primarily Caucasian females (82%), and range in age from 19-40, with 69% of the population comprised of 19-30 year olds (2012 DCCM Byrne report). The majority of participants (89%) were unemployed at the time of entry into the SCFDTC, while 7% were employed part-time. The drug(s) of choice for participants are heroin (43%) and methamphetamine (32%).

**Figure 2. Length of Clinical and Intake Processes**



<sup>4</sup> SCFDTC Policy 1.4

All team members report that their eligibility requirements are written in policy, and they have a copy available for their review. According to the staff survey, the team reported (also verified by DCCM) that it can take over 60 days between complaint, referral and entry into the SCFDTC. Team members varied on their responses to the question: “What is your estimate of the typical length of time between referral and program entry? As is highlighted in Figure2, team member perception of how long it takes for the clinical and intake process to be completed varies between 8 – 60+ days.

*Strengths:* The SCFDTC has their eligibility criteria clearly stated, and this policy is strongly enacted and maintained by the coordinator. In addition, all team members work hard to identify potential cases that are within various stages of the dependency process. Attorneys, social workers, attorney general, treatment and other professionals (e.g. Salvation Army Case Manager, Safe Babies / Safe Mom’s Case Worker) can refer to the program, and the coordinator attends shelter care hearings and works with attorneys during the process to screen potential clients.

*Targeted Area of Improvement (TAI):* The SCFDTC should identify a standardized risk/needs assessment tool that will allow them to further assess level of care (beyond drug/alcohol treatment) and needed supervision levels. This tool should not be used, however, to make decisions about likelihood to succeed in the family drug court.

The team should continue to explore ways to reduce the length of time between referral, filing and entry into the family drug treatment court. By utilizing the drug court systems map outlined above, the team could identify decision points at which potential barriers exist, and seek to eliminate those barriers, or at least, reduce the amount of time spent at each decision point.

The team is also encouraged to make sure that *all* referring agencies are provided up to date handbooks and eligibility requirements so that all parties have the same understanding of the referral and screening process.

*One-Year Update:* Referral, filing and entry still continues to be a challenge for the SCFDTC team, but only because the parents/clients are in a state of being unsure about whether they want to opt-in to the program. In fact, many pending clients go “missing” for a period of time. SCFDTC staff conduct interviews on a weekly basis with potential clients and work to assess motivation. This is an opportunity for staff to explain the requirements so they understand the intensity. This is an issue that FDTC programs across the state and nation must deal with given the complex nature of the population.

***Key Component #4: Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services.***

Central to any drug court team is the inclusion of treatment providers. This is where the drug court process takes on its unique shape and philosophical foundation. Under the traditional court process, treatment is an outside entity in which clients are often required by the court to seek counseling or treatment, but the treatment process is not central to the case. It is simply, under the traditional system, a requirement that exists amongst many others such as paying fines, jail time, and probation. The drug court model puts treatment at the center of expectations for compliance and the court and process become a treatment court. Critical to this component, however, and often overlooked, is the requirement that a wide range of services is available beyond traditional drug/alcohol treatment services, based on level of care and the population that is served.

Research shows that drug courts that contract with two or fewer drug/alcohol treatment agencies experience better outcomes (Carey et al., 2012; Cooper, 2000).

Teams should also be focused on building supports for clients and offering other ancillary services for clients. Drug courts that offer dental and health care experience better outcomes than programs that do not offer such service (Carey et al., 2012). Numerous research studies have found that building the drug court as a “wraparound” model, whereby services beyond drug/alcohol treatment are offered can create stronger outcomes.

*Findings:* Prior to program acceptance, a chemical dependency assessment is administered and a diagnosis of substance abuse or chemically dependent must be found. The evaluation generally includes collecting information about the potential client’s substance use, family and personal history; education, employment and vocational, medical, legal, and psychological history, serious presenting problems, trauma and treatment recommendations.

The Snohomish County FDTC utilizes one drug/alcohol treatment provider, Evergreen Manor, which appears to be a fully integrated member of the team. The treatment information shared during staffing centers around basic compliance, with little discussion about the type of treatment modality for the client, or the cognitive-behavioral work that is being completed by the client. However, the provider submits detailed treatment notes in DCCM by 9am the morning of court. The judge receives a packet of information on each client by 10am for review.

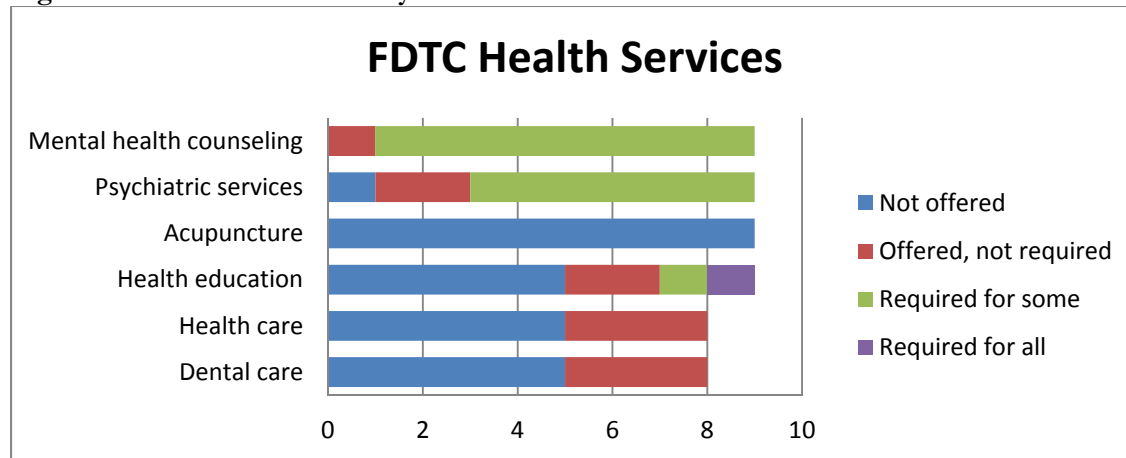
Team discussions during staffing centered on the use of traditional substance abuse treatment, and mental health services when warranted. The team reports that they use a large menu of services in order to meet the needs of the clients (see identified services above).

*Strengths:* The SCFDTC has a strong and committed provider (Evergreen Manor) serving on their team. There appears to be a strong flow of information, which has likely been strengthened by the use of the

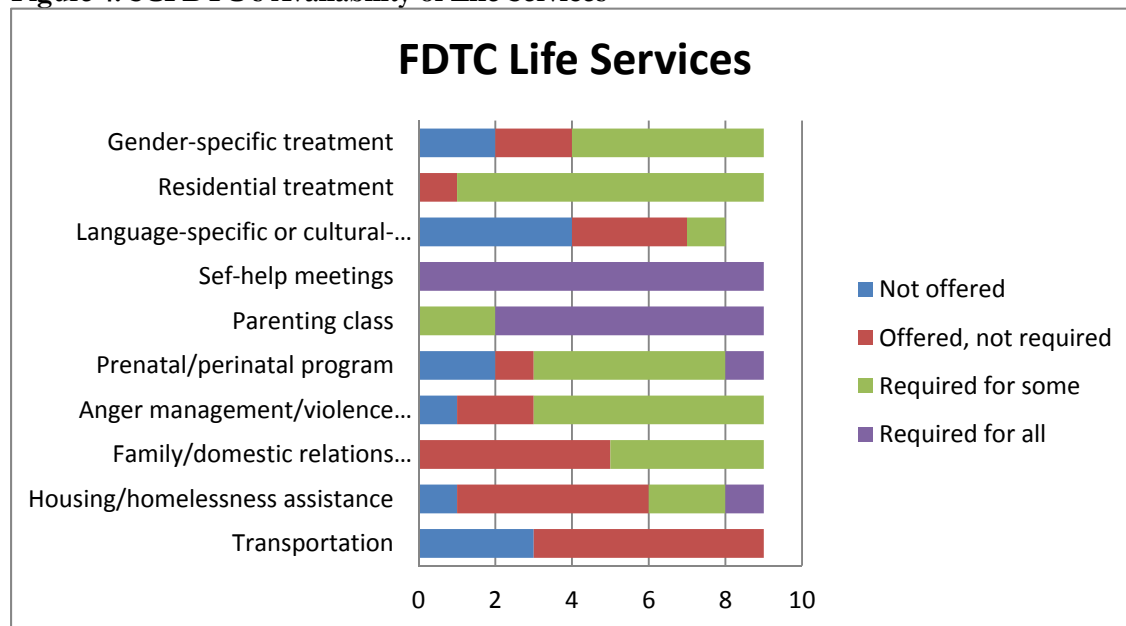
DCCM. Most clients participate in intensive outpatient treatment (IOP), which meets approximately six hours per week, as well as individual sessions. The typical IOP session lasts 12 weeks, however, this can be adjusted depending on the level of care needed. Numerous cognitive-behavioral techniques and curriculums are utilized by the providers, including Living in Balance.

The SCFDTC utilizes self-help groups and support throughout the program as well. Clients may complete treatment and still remain in the program for the required phase completion.<sup>5</sup>

**Figure 3. SCFDTC's Availability of Health Services**



**Figure 4. SCFDTC's Availability of Life Services**



<sup>5</sup> It is not uncommon for drug courts to require that treatment run concurrent to the phase structure of the program. This essentially creates an over-exposure or over-dosage of treatment for drug court clients. Treatment completion does not have to mirror to drug court phase completion.

*Targeted Area of Improvement (TAI):* The SCFDTC is encouraged to engage in a community mapping exercise, whereby they identify all types of potential supports for clients outside of traditional drug/alcohol and mental health treatment. When surveyed, team members varied in their responses to the use and availability of services (see Figure 3 and 4). The process of completing a community mapping exercise as a team not only serves to expand the amount of services identified and eventually used by the court, but allows for strong cross-training on community programs and services. An example of a community mapping exercise can be found at:

[http://www.courtinnovation.org/sites/default/files/Mapping\\_Community\\_Resources%5B1%5D.pdf](http://www.courtinnovation.org/sites/default/files/Mapping_Community_Resources%5B1%5D.pdf)

*One Year Update:* The SCFDTC just completed a community mapping exercise under the direction of Janelle Sgrignoli.

***Key Component #5: Abstinence is monitored by frequent alcohol and other drug testing.***

Alcohol and drug testing is central to the monitoring and accountability of the drug court client. Frequency of drug testing varies across drug courts, with most programs executing several tests a week during the first few phases of the program, and gradually declining as the participant moves through the program phases. The key to drug testing in the program is the creation of a true randomization procedure, fully educating clients about the testing procedure (when to show, what/how much to eat and drink beforehand), and consistently monitoring for cheating the UA system.

Research has shown that drug testing should occur randomly and two-three times a week. Programs that tested more frequently experienced no greater results (Carey et al., 2005).

*Findings:* The SCFDTC requires all participants to submit to random and observed urinalysis testing. There are two separate systems (contracts) in the SCFDTC for the scheduling and collection of drug tests. During the workweek, CPS Social Workers schedule clients for UA's, while the court manages UA's on weekends. Drug testing is performed by treatment providers as well. Clients are assigned to 2 different color lines. On the first day of court, clients receive an orientation at Sterling Labs, whereby staff provides them with an orientation about the procedures for weekend UA testing. Once a client officially "opts-in" to the drug court, the CPS Social Worker provides the client with an instruction sheet regarding their first required CPS appointment, at which time their weekday UA's are scheduled.

Frequency of drug testing varies by Phase, but includes the following minimum structure:

- Phase I: A minimum of three (3) random drug tests per week.
- Phase II: A minimum of two (2) random drug tests per week.
- Phase III: A minimum of two (2) random drug tests per week.
- Phase IV: A minimum of one (1) random drug tests per week.

According to Focus Group Participants, although all drug court clients are monitored via urine analysis testing, there was severe doubt expressed about the "randomization" of the process. Prior

participants also noted that the frequency of the UA varied by social worker. Participants were under the impression that the social worker decided how many times a week the UA's would be administered.

Comments included:

“Some social workers were fair, but others were not.”

“One of the social workers UA'd people way more than others, arbitrarily.”

“Someone that was in the same phase and compliance as someone else had to UA way more than the other person who was the same regarding compliance.”

“They were still UA'ing me four times a week even when progressing through different phases.”

Participants also expressed concern about the different UA procedures. The weekend UA's had different hours of submission and the colors assigned are different. This created confusion and frustration among prior participants

*Strengths:* The SCFDTC appears to follow best practice in requiring that all participants have at least 90 days clean and sober before drug court graduation and requiring three UA's a week during the first phases of drug court. The SCFDTC requires sobriety and full abstinence throughout Phase IV and before graduation will be considered. They also inform the clients, via their handbook and repeatedly in coordinator, treatment and court sessions, about the UA testing protocol.

UA results are listed on the status hearing docket review sheets that the team reviews in staffing, so that the team has a full understanding about the history of the tests completed, what drugs they were tested for, and whether they were positive/negative.

*Targeted Area of Improvement (TAI):* Although there are two contracts in place for drug testing procedures, the SCFDTC should consider stream-lining the drug testing procedures in order to reduce confusion among clients.

*One Year Update:* Materials have been revised based the TAI above, and the team is committed to ensuring that the client fully understands/comprehends the UA process. Multiple materials and supports are now offered to ensure that no confusion exists.

***Key Component #6: A coordinated strategy governs drug court responses to participants' compliance.***

*Findings:* The proper use of incentives and sanctions to motivate for behavior change is one of *the most critical components* of the drug court model. Research, however, has repeatedly shown that the use of incentives and sanctions is the least understood and properly implemented/operated component in the model.

Drug courts should have written response guidelines for the use of incentives and sanctions, including sample responses to common behavioral issues. The use of incentives and sanctions should be tied

to the behavior that the court is addressing. Teams should understand that there are proximal and distal goals that clients are working towards in the program (Marlowe, 2012). Proximal are those goals that clients engage in daily – for example treatment or AA/NA attendance. They need to complete these proximal goals in order to meet their long-term objective of sobriety and graduation. The court and team, in addition, create distal goals for clients. These are goals that are for behaviors that are ultimately desired (e.g. housing, GED, employment), but take time for clients to complete. These distal goals are more likely completed after a strong period of sobriety and treatment (Marlowe, 2012). Teams often get confused on the proper use of incentives and sanctions as a behavior modification tool that is tied to the proximal or distal goal. For example, if a client has failed to register for GED classes, an appropriate response would be a ride by law enforcement to the GED testing center. Another appropriate response would be daily check-in with the drug court coordinator until proof of registration could be provided. An inappropriate response would be home arrest or jail, as this punishment is not tied to the behavior (which is actually a distal goal of the program, as compared to a proximal goal).

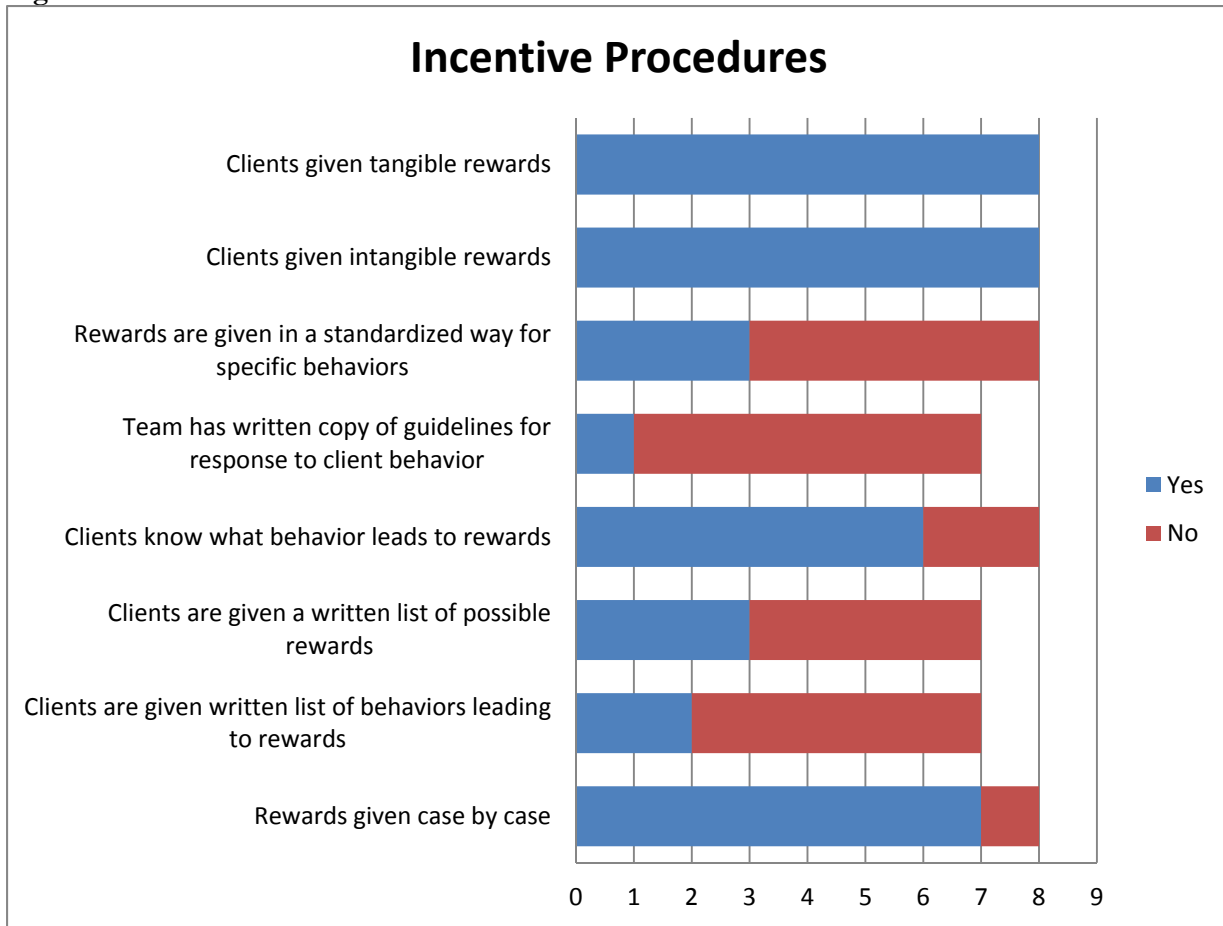
*Findings:* The following policy (1.60) currently guides the SCFDTC in their incentive/sanction process:

“To ensure participant’s accountability and the safety and well-being of children, the court utilizes motivational strategies for positive behavior change (also known as sanctions and incentives policies). FDTC monitors participants’ progress to enforce program expectations and reward positive, healthy behaviors, while considering the best interests of participants, their children, and families. At each court hearing, participants are subject to consequences based on their performance and program compliance for the reporting period. When participants consistently cooperate in FDTC, they may expect the court to recognize them with rewards. When they fail to comply with FDTC requirements, the court may order sanctions. When ordering consequences, the court considers the number of previous consequences, the participant’s current level, and the interests of the children. Both compliant and noncompliant behaviors will be addressed, with rewards and sanctions ordered to reinforce the consequences of participants’ choices and behaviors.”

The use and application of incentives and sanctions are made during the staffing, and generally there is a fair amount of discussion regarding the use of these methods. Incentives are given in a standardized way. The team has a blend of community donations and court based purchases to utilize for incentives.

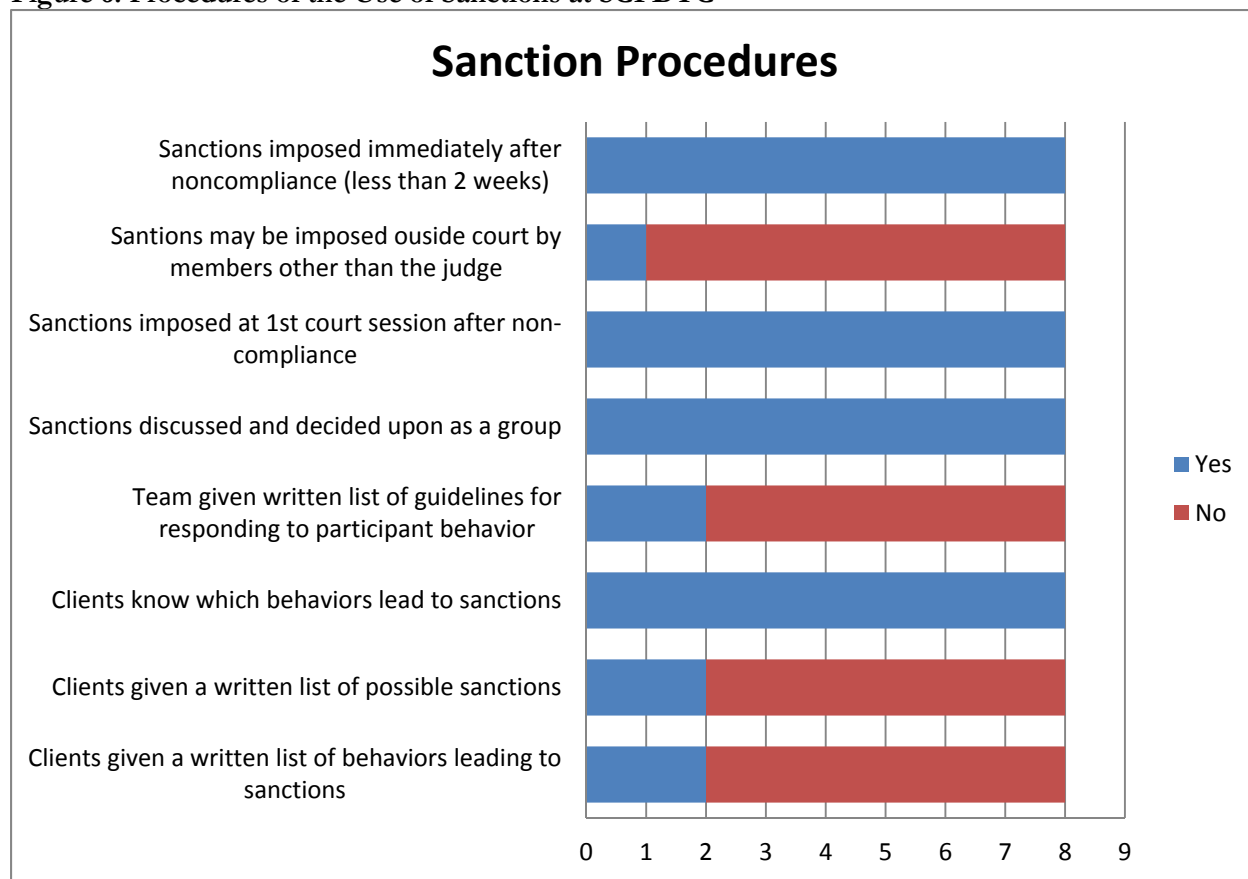


**Figure 5. Procedures of the Use of Incentives at SCFDTC**



Survey test results show that half of the team members acknowledge that participants are not given a written list of possible rewards, and that several of the team members believe that participants are not aware of what specific behaviors can lead to receiving a reward (see Figure 5) below. The full team reported that participants know which behaviors lead to sanctions, however (see Figure 6). This information is listed, in a general form, in the participant handbook.

**Figure 6. Procedures of the Use of Sanctions at SCFDTC**



It was noted during staffing, and through review of the DCCM that the team utilizes a greater frequency of sanctions than incentives. Findings from 2012 (DCCM) indicate the following:

- 292 sanctions were given to participants.
- Sanctions included responses such as verbal warnings, community service work, writing assignments, increased meetings/self-help sessions and jail. Jail appears to be used on a conservative basis.
- There were 30 sanctions in which jail time was ordered.
- There was a total of 150 days served in jail by SCFDTC clients in 2012.
- Twenty clients received jail time, and 60% of these clients were eventually terminated (withdrew voluntarily; absconded; removed for non-compliance) from the SCFDTC.

In contrast to the sanctions, the team provided 96 incentives to participants in 2012. Three standard incentives were used, and included gift certificates (most common), expedited court appearances, and key chain/sobriety tokens. It was observed during the on-site observations, however, that a non-tangible reward, such as applause and verbal praise (by the judge and various team members) occurs at a very frequent rate. Incentives are given for a variety of reasons in the SFDTTC including general progress, use of sober supports, increase/strong communication skills with team members, and helping others.

In regards to incentives and sanctions, family drug court focus group participants were quite vocal

about their experiences with receiving incentives and sanctions. Former clients reported that they knew they would get a sanction if they missed a meeting, requirement or UA test. As was stated by one focus group participant: “they tell you that in the beginning, you know what to expect.”

Former clients were unsure, however, about the policy regarding when or why clients get incentives. Some former clients reported feeling shocked when they received them. Most clients received Starbucks cards, movie tickets, museum tickets, baseball tickets, bowling vouchers, Safeway cards, and gas cards. None of the focus group participants understood the reasoning behind giving incentives. As one focus group member comments: “We are glad to get them, but don’t know why because often we don’t do that anything different.” They also reported that incentives were not given very often, appeared to be given out randomly (e.g. if someone hadn’t had one in a while it was given). Focus group participants also commented that it appeared that some clients were compliant for long periods of time without receiving an incentive, yet they felt that sanctions were always guaranteed after a violation.

Former clients reported that their behavior was shaped more strongly by avoiding jail than hoping to receive an incentive. As one client noted: “No one wants to go to jail. Jail is an effective deterrent for some, but not all.”

*Strengths:* The team has the ability to respond quickly to non-compliant behaviors and because of the strong communication across the team and supporting agencies, appear to be able to collect strong and reliable information about non-compliance.

The SCFDTC has the support of community organizations and funds available in order to offer tangible incentives for clients.

*Targeted Area of Improvement (TAI):* As was stated above, the proper use of incentives and sanctions in the drug court model is probably one of the most critical components, yet least understood and improperly operationalized in the drug court. This is a common issue in drug courts across the country.

The SCFDTC needs to develop written response guidelines for both their sanction and incentive process. It is important that some level and type of guidelines are available, but that individualization can also occur. Marlowe (2012) advises that courts should be using equivalent amounts of incentives and sanctions. Having written guidelines allows for both the drug court team members and the participants to know what types of behaviors will trigger certain responses, what those responses may be. This alleviates the anxiety that is often felt by drug court clients on those weeks when there has been non-compliant behavior. This will also allow the client to have a greater understanding of the use of incentives.

The SCFDTC team needs to focus on developing a stronger understanding and use of the incentive process in court. The SCFDTC team should take advantage of on-line webinars and NADCP conference sessions on the proper use of incentives and sanctions. Such sessions cover the difference between proximal and distal goals, frequency of rewards/punishments, behavior contracts, and creation of guidelines (Marlowe, 2012). Research is clear that using incentives and sanctions to shape participant behavior can be effective if

delivered correctly and with deliberate consideration of the client, the behavior, and the proximal and distal goals. In order to internalize behaviors, clients need to be motivated to do well (and receive rewards) rather than be motivated by fear of jail (which is an external motivator and does very little to permanently change behavior).

*One-Year Update:* Process was renamed “Incentives and Responses.” The entire system has been restructured, based on current research and evidence regarding goal direction and tying responses to demonstrated behaviors. It appears that the team has undergone a serious paradigm shift in how they view the use of incentives and responses. Court staff are now well trained in national best practice standards, and are focused on educating staff on an on-going manner. The team meets for workshops twice a year, and “incentives and responses” are a top agenda item at all workshops

***Key Component #7: Ongoing judicial interaction with each drug court participant is essential.***

The judge is the natural leader of the drug court team, and must often take on many different roles within the courtroom, in staffing and even within the community. These roles often include parental figure, enforcer, support and advocate. A great deal of research has been conducted on the role of the judge within the drug court setting. Findings reveal that drug court participants identify the judge as a key figure for them, and that the amount of time spent before the judge is correlated with success.

Carey et al (2012) have taken this research a step further and found that judges need to spend a minimum of three minutes engaging with clients, while spending seven minutes or more triples the recidivism reduction (0.17 to 0.53). This same research also found that time served on the drug court bench by judges is correlated with strong outcomes and cost-savings. Judges should serve in the drug court a minimum of two years, and ideally can rotate off the drug court bench for a period of time and then return to serve another term. Courts that have this procedure in place experience better outcomes.

*Findings:* Average time spent in court hearings was 5 minutes, 12 seconds. Judge Fair is clearly invested in each client, even if some sessions were brief (generally due to the fact that the participant was doing so well, and they were on a “rocket docket” type procedure). Judge Fair displayed compassion, encouragement and firmness in dealing with clients, which has been found to strengthen outcomes with clients (Zweig et al., 2012).

The judge has received local, state and national training on the drug court model.

There is a backup judge trained and available if Judge Fair is not on the bench.

*Strengths:* Judge Fair is firmly invested in the drug court model, the team and participants. She appears to use the time in the courtroom in an appropriate manner, and manages the docket so that all participants can learn from the experiences of others.

Fellow team members report that Judge Fair makes a point to speak directly to the participants during their court appearances, she provides consistent follow through on warnings and follows the recommendations of the team.

*Targeted Area of Improvement (TAI):* None noted.

**Key Component #8: Monitoring and evaluation measure the achievement of program goals and gauge effectiveness.**

Over the past decade, criminal justice agencies have been increasingly required to use data to inform programming and resource allocation decisions. Making “data-driven” decisions in the drug court model is critical given the amount of resources that are invested in these programs. By collecting data, programs become transparent, it allows for greater accountability outside of the team and process, and can be used for process improvement.

Research has shown that drug courts that use electronic data base systems, use program statistics on-going for modification purposes, and use outside evaluators experience stronger outcomes (Carey et al., 2012).

*Findings:* The SCFDTC Coordinators, CPS workers and treatment providers are required to enter all relevant drug court data into the DCCM.

The Specialty Courts Program Administrator reviews data on a regular basis via the DCCM. Monthly reports for administration and the judicial bench are created for each drug court. Topics covered in the report include warrants, referred and pending participants, acceptance/rejection statistics for the month, discharges (both voluntary and unsuccessful), graduates, new felony charges, and treatment completion.

Exit questionnaires are collected from all graduating drug court participants.

*Strengths:* The SCFDTC should be commended for their data entry procedures and use of the DCCM. The DCCM is an exceptional system that offers many benefits for both case management and program monitoring. Reports can be easily generated and the screens are easy to navigate for the user.

*Targeted Area of Improvement (TAI):* In order to strengthen Key Component #6, the Program Administrator is encouraged to provide a monthly summary of the use of incentives and sanctions by the SCFDTC. This will allow for the judge and team to use the available data in “real time” and to continue to monitor for needed changes to their restructured process.

*One-Year Update:* The team now uses monthly data reports to monitor not only the use of incentives and responses, but other key components as well, such as UA’s, phase progression and treatment progress.

***Key Component #9: Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations.***

Research on the use of evidence-based practices in the criminal justice field has consistently shown that in order to operate effective programs as intended, practitioners must receive the necessary resources to make the program work, receive on-going training and technical assistance, and be committed to the quality assurance process (Barnoski, 2004; Latessa & Lowenkamp, 2006). This component is focused on ensuring initial and on-going training of staff in order to continually expose staff to best-practices.

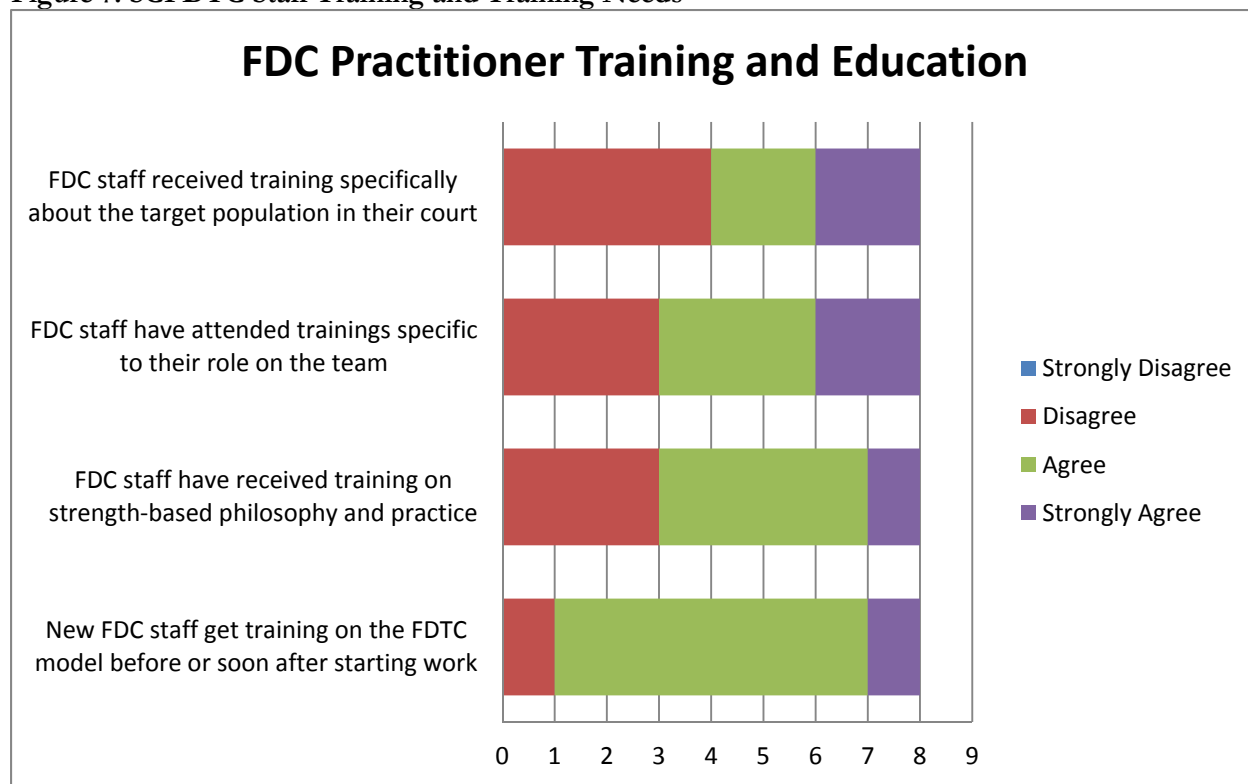
Recent drug court research has shown that initial (implementation) training on the drug court model is critical. In addition, on-going, multi-level training is also necessary in order to ensure compliance to the 10 Key Components (NADCP, 1997). Studies have shown that when drug courts provide team members with formalized training prior to implementation, greater cost-savings are realized for the program (Carey, Mackin & Finigan, 2011).

Not only is training important prior to going “live” in drug court operations, but training for new hires, once the drug court is fully operational, is critical. Team transition and turnover is an operational reality of all drug courts, and an issue that has not been well addressed by many teams (van Wormer, 2010). Training for new hires should be focused on role adoption and program operations, and there should also be a process of renewed team building once new members are on board. New team members should be assigned a drug court mentor, and that verbal and/or written agreement by the new team member(s) exist. A large amount of studies from the criminal justice field reveal that without proper support, oversight and training, criminal justice practitioners are likely to “filter” the program or their assigned work to best fit their personal beliefs, needs and resources, and return to doing “business as usual,” which often means functioning in a punitive manner (Lipsky, 1980; Latessa & Lowenkamp, 2006; Melde, Esbensen & Tusinski, 2006; Rhine, Mawhoor & Parks, 2006; Crea, Usher & Wildfire, 2009; Murphy & Lutze, 2009).

*Findings:* Team members were asked a set of questions on training of staff and training needs. The key findings show (as shown in Figure 7 below) that:

- The majority of the team states that training on the drug court model occurs before or soon after starting on the team.
- Half of the team has received training specifically about the target population of the court.
- Majority of the team has received training in their drug court specific role duties.
- Not all team members have received training on strength-based philosophies.

Figure 7. SCFDTC Staff Training and Training Needs



*Strengths:* The majority of team members have received role specific training. There is also a strong exchange of information across the team about the nature of addiction and treatment services. This was observed in the staffing sessions, whereby the treatment provider was quick to share detailed description(s) about treatment methods, needs and terms with the team when necessary.

*Targeted Area of Improvement (TAI):* Turnover and team transitions are common within the drug court model. The SCFDTC should enact a policy whereby all new team members are trained on the model within three months of employment. Drug court training is specialized, and should focus on understanding the change in role that is required, working as a team member, proper implementation and use of incentives and sanctions and effective treatment modalities. The Washington State Association of Drug Court Professionals (WSADCP), the National Drug Court Institute, the National Association of Drug Court Professionals, and the Center for Court Innovation, all offer exceptional training opportunities, including on-line/webinar sessions.

*One- Year Update:* The team continues to participate in local (in-service) opportunities, workshops, webinars, state conference, as well as national level training when applicable via grant funding.

***Key Component #10: Forging partnerships among drug courts, public agencies and community-based organizations generates local support and enhances drug court program effectiveness.***

At their core, drug courts are built as a collaboration across agencies. These collaborations function best when all agencies support the goals and mission of the drug court program, and partner together in order to create a wide array of services for participants. It is important that the drug team continually assess what new or changing collaborations are needed in response to their client base. If a partner agency works on a regular basis with a drug court client, they should be included on the drug court team, or at least require weekly update information for the team to consider.

Research has shown that outside of traditional drug/alcohol treatment, and mental health services, drug courts are often challenged to identify other providers or partners that can be matched to client needs. Findings by Wenzel, Longshore, Turner and Ridgely (2001), revealed that staff could not identify more than one treatment provider, lacked understanding about basic treatment conditions, and considered AA/NA therapy (NIJ, 2006). Carey et al. (2012) found that drug courts that have formal partnerships with a variety of community agencies experience better program outcomes.

*Findings:* The SCFDTC team reported that they have relationships with community organizations that can provide services for program participants, and that they regularly refer participants to these services. These organizations were identified by the Coordinator. It is clear from the survey, however, that not all team members are aware of these services, or the ability to use such an array of services in their work.

*Strengths:* The team *understands* the need to have varied partnerships in order to meet client needs, and certain team members hold a great deal of knowledge about available resources.

*Targeted Area of Improvement (TAI):* As was noted above, the SCFDTC needs to complete a new/updated community mapping exercise in order to identify and then build relationships with a wider array of new partners. It was also noted by focus group participants that access to (and greater understanding of) more supports was needed. Even if participants do not take advantage of these services when first offered, the team should continue to offer various options in order to find the “best fit.” These should include, at a minimum, the faith community, medical and dental services, parenting supports, arts and recreation programs, employment and housing assistance, education, library/literacy programs, exercise programs, etc.

*One-Year Update:* See above.



## **Snohomish County Family Drug Treatment Court Outcome Evaluation**

This research provides evidence to determine whether the Snohomish County Family Drug Treatment Court (SCFDTC) is effective in achieving its goals when compared to traditional systems/interventions. The core focus of the outcome evaluation is determining whether SCFDTC participants maintained parental-rights status, completed their assigned treatment at greater rates, and if their children spend less time staying in the child welfare system than individuals who participated in the traditional court system. The current evaluation seeks to answer the following questions:

Q1: Did parents who participated in the SCFDTC have higher rates of reunification when compared to their counterparts who were processed through the traditional court process?

Q2: Did parents who participated in the SCFDTC have lower rates of parental-rights termination when compared to their counterparts who were processed through the traditional court process?

Q3: Did parents who participated in the SCFDTC have higher rates of treatment completion when compared to their counterparts who were processed through the traditional court process?

Q4: Did the children of parents who participated in the SCFDTC spend a shorter duration staying in the child welfare system compared to their counterparts who processed through the traditional court process?

Additionally, in order to further evaluate the effectiveness of the SCFDTC, the current study assessed determinants of SCFDTC graduation and treatment completion among participants. The following questions were addressed:

Q5: Did individual characteristics of SCFDTC participants affect their graduation rates?

Q6: Did receiving SCFDTC sanctions affect graduation rates?

Q7: Did the receipt of SCFDTC incentives affect graduation rates?

Q8: Did SCFDTC graduates have higher rates of substance-abuse treatment completion than participants who did not graduate?

Q9: Did SCFDTC graduates have higher rates of reunification than participants who did not

graduate?

Q10: Did SCFDTC graduates have their children spent less time in the system than participants who did not graduate?

### Data

Data were collected and analyzed from a variety of Snohomish County and statewide database systems such as the Snohomish County DCCM, internal files, SCOMIS and TARGET. The current study constructed a retrospective purposive sample of all subjects who participated in the SCFDTC between the years 2009 to 2011 (representing the experimental group) and a similar sample of subjects participating in traditional court proceedings within the county and sample frame years (representing the comparison group). Specifically, in selecting the comparison group, two steps were utilized to screen eligible subjects:

- (1) Comparison group members must not have been involved with the family drug court. Individuals that began the program and then opted-out, were terminated from the program, or were offered the program and declined to participate are considered inappropriate comparison group subjects. Within each of these populations exist issues of motivation, legal differences, and dosage effects that can systematically bias study group comparisons.
- (2) Comparison group members had to meet the targeting and eligibility screening criteria of the family drug court program. In addition, they must have had similar alcohol/drug treatment needs and service provision as the drug court subjects.

In addition, all study subjects had a dependency filing with allegations of abuse and/or neglect of a child and record of treatment completion. Total, there are 82 SCFDTC participants and 386 traditional court participants.

### Measures

Our primary outcomes are measures of treatment completion and dependency status, which were defined as follows:

*Treatment Completion* measures include binary indicators of whether the participant successfully completed the assigned type(s) of treatment; i.e., inpatient substance abuse, outpatient substance abuse, or mental health/other.

*Dependency Status* measures include binary indicators of whether the child was returned to their parents (includes cases referred to unified family court and children returned to one parent and referred to family court for parenting plan); whether parental rights were terminated (refers to parent who has their parental rights terminated by courts and whose child may have later been adopted); and whether a

permanency plan was implemented which could consist of plan of returning child to parent, adoption, third-party custody, or dependency guardianship.

*Length of Dependency* measures how many days the child will stay in the child welfare system before determined dependency status. Dependency status described as above.

### Research Design

The study design was quasi-experimental, with the comparison group selected via propensity score matching between the control pool and dependency court group. This process is expected to decrease selection bias (Gau & Fraser, 2010). Court and DSHS staff assisted with data pulls from different archive management systems in record client information between traditional courts and family drug treatment courts. Due to this procedure, very few offender characteristics were available. Therefore, only gender, race and treatment type were utilized to select subjects from the control pool that match treatment subjects.

Table 3 demonstrates the demographic differences between the pre- and post-match based on the three randomization characteristics. Two out of three measures indicated group differences during our pre-matching analysis; however, no measure was different in post-matching. In addition, the standardized differences (STD) approach (Rosenbaum & Rubin, 1985) was conducted to detect potential misspecification of the balance with comparison samples. A total of one measure exceeds the threshold<sup>6</sup> prior to matching and zero comparisons were found to exceed the threshold post-match. Given these results, our model demonstrated sufficient covariate balance between the SCFDTC and selected comparison group subjects.

After conducting a 1:1 matching strategy without replacement, 77 traditional court clients were matched to the study subjects<sup>7</sup>. Almost 33% of SCFDTC clients in our sample were male, and 94% were white/Caucasian. Approximately 64% of SCFDTC clients had received outpatient treatment and 35% had received mental health treatment or other interventions.

---

<sup>6</sup> Covariate bias is identified  $|STD| \geq 20$  for any given covariate tested (Austin, 2008; Rosenbaum & Rubin, 1985).

<sup>7</sup> Matching rate is 94%.

**Table 3. Descriptive Statistics-Demographics: Pre- and Post- Match (N = 468)**

Variables	Before Match				After Match			
	n	Comparison %/Mean(SE)	SCFDTC %/Mean(SE)	STD %	n	Comparison %/Mean(SE)	SCFDTC %/Mean(SE)	STD %
	468	82.5	17.5		154	50.0	50.0	
Male	468	50.3	30.5**	40.9	154	32.5	32.5	0.0
Race	402			14.4	128			16.9
White		90.1	87.0			93.8	93.8	
Black		4.5	1.4			1.6	1.6	
Hispanic		3.0	7.2			3.1	3.1	
Nat. Amer.		1.5	4.3			1.6	1.6	
Asian		0.9	0.0			0.0	0.0	
Treatment Type	406		***	17.9	154			0.0
IP		16.4	1.2			1.3	1.3	
OP		44.8	63.4			63.6	63.6	
MH or Other		38.9	35.4			35.1	35.1	

Note: \*\*\*<.001, \*\*<.01, \*<.05, Nat. Amer. = Native American, IP = Inpatient, OP = Outpatient, MH = Mental Health

The outcome descriptive post-match is displayed in Table 4. Roughly 64% of subjects successfully completed their treatment assignments. Approximately 66% of parents maintained their parental rights, while 20% had their parental rights terminated. On average, children stayed in the child welfare system for 619 days.

**Table 4. Outcome Descriptive (N = 154)**

Items	% / Mean(sd)
Treatment Completed (Yes)	63.6
Dependency Status	
Child Returned	65.6
Permanency planning	14.9
Parental rights terminated	19.5
Length of Dependency	619.2(30.5)

Analytic Plan

After obtaining a suitable match, we employed Pearson’s chi-square tests to examine the differences between the SCFDTC and comparison groups for categorical variables; t-test for continuous variables. An unadjusted odds ratio was computed to identify the odds of treatment completion. In addition, a multinomial logistic regression was performed on the three-category dependency-status outcome measure to generate adjusted odds ratios.

**Outcome Findings: Traditional Court versus the SCFDTC**

The results for treatment completion, dependency involvement and time spent within the child welfare system are presented in Table 5.

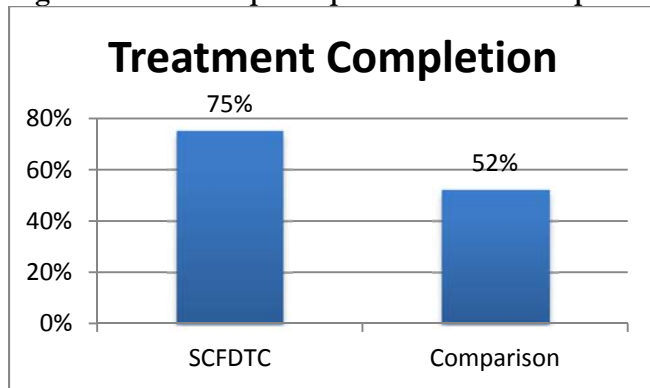
**Table 5. Chi-square Test and *t*-Test on Outcome (N = 154)**

Items	Comparison%/Mean (sd)	SCFDTC%/Mean (sd)	X <sup>2</sup> / r	OR / Phi
Treatment Completed	51.9	75.3	9.092**	2.824
Dependency Status			14.042**	.302
Child Returned	62.3	68.5		
Permanency planning	7.8	22.1		
Parental rights terminated	29.9	9.1		
Length of Dependency	848.2 (44.1)	393.1 (21.2)	-.604***	

Note: \*\*\*<.001, \*\*<.01, \*<.05

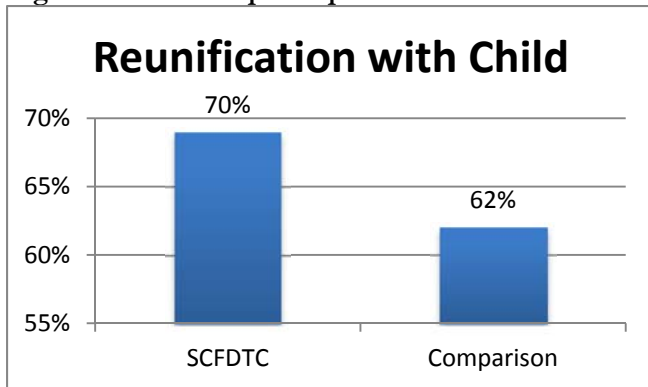
As can be seen in Figure 8, in terms of treatment, the SCFDTC participants had a significantly higher treatment completion rate than those who participated in treatment through the traditional dependency system (75% vs. 52%). The SCFDTC participants had almost three times greater odds of completing treatment than the comparison group.

**Figure 8. SCFDTC participant treatment completion rates.**



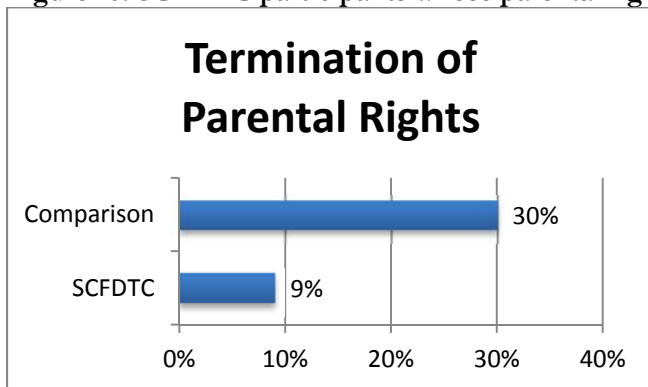
A founding principle of the family drug court movement is that through continual court support and treatment, participants will be more likely to be reunified with their children, as they will be addressing their underlying addiction and parenting needs/challenges. In terms of dependency status, there were statistically significant differences between the two study groups when analyzing dependency status. As can be seen in Figure 9, a larger percentage of SCFDTC participants had their children returned (70% vs. 62%).

**Figure 9. SCFDTC participant reunification with children.**



A targeted goal of the SCFDTC program is to impact and reduce the amount of parents that have their rights terminated in the dependency process. As can be seen in Figure 10, the percentage of SCFDTC participants that had their parental rights terminated was considerably lower than the comparison group (9% vs. 30%).

**Figure 10. SCFDTC participants whose parental rights were terminated.**



Another important measure is reducing the amount of overall time spent in the child welfare system. As can be seen in Figure 11, in terms of length of dependency, children of SCFDTC participants spent significantly less time in the child welfare system when compared to their traditional court counterparts (393 days vs. 848 days).

Figure 11. SCFDTC participant time spent in child welfare system.

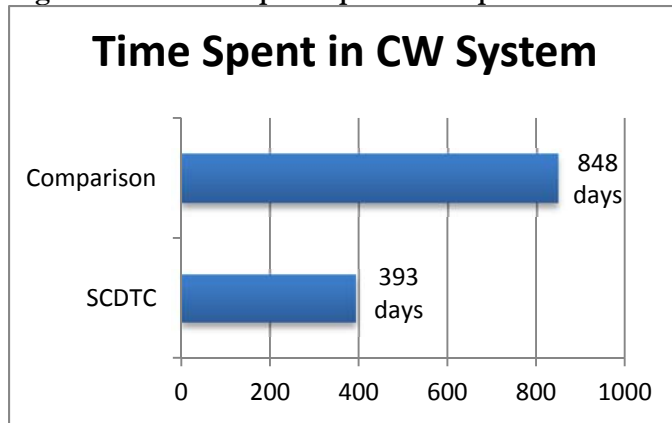


Table 6 presents the results of the multinomial logistic regression. The findings reveal a good model fit (-2LL = 35.083,  $\chi^2 = 14.720$ ,  $p = .023$ ) and the covariates explain 13% of the variance in the dependent variable (Nagelkerke  $R^2 = .132$ ). SCFDTC clients were significantly more likely to experience a permanency-planning outcome (OR = 9.340,  $p = .002$ ) and more likely to have their children returned (OR = 2.693,  $p = .048$ ) than to have their parental rights terminated.

Table 6. Multinomial Logistic Regression of Dependency Status (N = 154)

Variables	Dependency Status						
	Child Returned			Permanency Planning			
	<i>b</i> (SE)	Wald	OR	<i>b</i> (SE)	Wald	OR	
SCFDTC	.991 (.500)	3.919*	2.693	2.234 (.728)	9.430**	9.340	
Male	.807 (.558)	2.091	2.240	1.031 (.727)	2.012	2.804	
White	.491 (.923)	.282	1.633	-.482 (1.134)	.181	.617	
-2LL	35.083						
Nagelkerke $R^2$	.132						

Note: \*\*\*<.001, \*\*<.01, \*<.05

In summary, the current evaluation found that parents who participate in the SCFDTC have higher rates of reunification and lower rates of having their parental rights terminated. The SCFDTC participants also had their children spend less time in the system. Moreover, the SCFDTC participants possessed higher rates of treatment completion when compared to their counterparts who were disposed through the traditional court process.

#### Outcome Findings: The SCFDTC Graduation versus the SCFDTC Terminations

Table 7 contains the descriptive statistics for the SCFDTC participants. The mean age of SCFDTC participants was almost 31 years, 30% were male, and 87% were white/Caucasian. The majority (64%) of

SCFDTC participants graduated, 76% completed treatment and 70% had their children returned. On average, the SCFDTC participants had their child involved in the child welfare system approximately 393 days. Approximately 63% of subjects had received outpatient treatment; however, 1.2% of subjects received inpatient treatment. Thirty-five percent of subjects had mental health treatment needs and received more than one type of treatment intervention at the same time. Approximately 35% of SCFDTC participants received jail as a sanction from the SCFDTC team/judge, 28% received any type of sanction (e.g. community service work, “goodbye” essays) while a strong 66% received various types of incentives from SCFDTC team/judge.

**Table 7. Descriptive Statistics for SCFDTC Participants (N = 82)**

<b>Items</b>	<b>% / Mean(sd)</b>
SCFDTC Graduation	64.4
Male	30.5
Age	29.66(.756)
Race	
White	87.0
Black	1.4
Hispanic	7.2
Native American	4.3
Dependency Status	
Child Returned	69.5
Permanency planning	22.0
Parental rights terminated	8.5
Treatment Completed (Yes)	75.6
Treatment Type	
Inpatient	1.2
Outpatient	63.4
Mental Health and Other	35.4
Ever received sanctions in Jail (Yes)	35.4
Received any sanctions (Yes)	28.0
Received any incentives (Yes)	65.9
Length of Dependency	393.6 (20.1)

Table 8 displays the results of chi-square test and *t*-test assessing differences between the comparison group and SCFDTC graduates. As would be expected when comparing graduates to those terminated from the program, we found that:

- SCFDTC graduates were less likely to receive jail sanctions (65% vs. 17%),
- SCFDTC graduates were received far more incentives (94% vs. 19%),
- Graduates were more likely to complete treatment (96% vs. 30%),
- Children were returned at much higher rates for those that were successful in the program (96% vs. 31%), and
- Children of graduates spent considerably less time in child welfare system, as well (385 days vs. 408 days).



**Table 8. Chi-square Test and *t*-Test (N = 82)**

Items	Comparison % Mean (sd)	SCFDTC Graduation % Mean (sd)	X <sup>2</sup> / t	OR
<i>Client Characteristics</i>				
Male	38.5	27.7	.905	
White	87.5	86.8	.006	
Age			2.907	
≤ 25	38.5	23.9		
26 to 35	42.3	64.0		
≥ 36	19.2	13.0		
Ever received sanctions in Jail (Yes)	65.4	17.0	17.388***	.109
Received any sanctions (Yes)	15.4	34.0	2.930	
Received any incentives (Yes)	19.2	93.6	41.973***	61.6
Treatment Type			2.317	
IP	3.8	0.0		
OP	69.2	63.8		
MH and Other	26.9	36.2		
<i>Outcome</i>				
Treatment Completed (Yes)	42.3	95.7	26.757***	30.682
Child Returned (Yes)	30.8	95.7	35.529***	50.625
Length of Dependency	408.5 (27.3)	385.5 (28.2)	-.531*	

Note: \*\*\*<.001, \*\*<.01, \*<.05, IP = Inpatient, OP = Outpatient, MH = Mental Health

In summary, the current evaluation found that demographic factors (i.e. age, gender, and race) did not affect the graduation rates of SCFDTC clients. Parents who received any type of sanction from the SCFDTC did not increase their likelihood of graduation. However, parents who had received incentives from the SCFDTC did increase their graduation likelihood. When comparing the successful and unsuccessful participants, those offenders who successfully completed the SCFDTC have higher rates of treatment completion, possess higher rates of reunification and have their child spent less time in the system.

### Conclusions

Overall, the current outcome evaluation addressed a total of ten research questions. We found that SCFDTC participants outperformed the traditional court participants in all areas, including treatment completion rates, dependency status and length of dependency. In terms of the further effectiveness of the SCFDTC, this study revealed the SCFDTC graduates had stronger outcomes than those who were terminated from the SCFDTC. We concluded the success of the SCFDTC as follows:

- Those parents who participated in the SCFDTC have higher rates of reunification when compared to their counterparts who were disposed through the traditional court process (69% vs. 62%), and this was statistically significant. In a further analysis, we found that the SCFDTC subjects possess 3 times greater odds of having their children return home compared to parental rights terminated (OR = 2.693).
- Those parents who participated in the SCFDTC are less likely have their parental rights terminated as

compared to the control group who were disposed of through the traditional court process (9% vs. 30%).

- The SCFDTC participants had a significantly higher treatment completion rate than those who participated in the traditional intervention (75% vs. 52%).
- Children of SCFDTC had significantly quicker dependency outcomes (shorter durations of stay in the child welfare system) than those who participated in the traditional intervention (393 days vs. 848 days).
- Individual characteristics such as age, gender and race did not affect the graduation rates of SCFDTC participants.
- SCFDTC Participants who received any type of sanction (e.g. writing assignment, community service, increased self-help sessions) from the SCFDTC did not increase their likelihood of graduation rates. Parents who received jail time as sanction from the SCFDTC did experience a *negative* impact on their likelihood of graduation.
- Parents who received any type of incentive such as decreased amounts of court appearances, verbal praise from the judge, children's museum tickets, or gift certificates from the SCFDTC experienced stronger graduation likelihood.
- SCFDTC graduates had a significantly higher treatment completion rate than those who were terminated from the SCFDTC (96% vs. 42%). The SCFDTC graduates possessed 31 times greater odds of having their treatment intervention completed (OR = 30.682) than the comparison.
- The SCFDTC graduates had a significantly higher reunification rates than those who were terminated from the SCFDTC (96% vs. 31%). The SCFDTC graduates possessed 50 times greater odds of having their children returned (OR = 50.625).
- The SCFDTC graduates had a significantly shorter length of dependency court involvement than those who were terminated from the SCFDTC (385 days vs. 408 days).

# Snohomish County Family Drug Treatment Court Cost Benefit

## BACKGROUND

For the cost analysis of the Snohomish County Family Drug Treatment Court (FDTC), we assessed whether there were cost-savings associated with reduced foster care subsidy expenditures for FDTC participants relative to the matched non-FDTC control group.

## METHODS

### *Data and Measures*

Estimates of monthly foster-care expenditures were obtained from the Washington State Department of Social and Health Services (DSHS).<sup>1</sup> The Level I (i.e., basic care) subsidies for foster care vary according to the youth's age. We were unable to obtain the age of youth in the study; therefore, we used the average rate of \$500 per month.

Due to the generally inflexible structure of child welfare cases, we assume that the hearing and processing costs of FDTC and non-FDTC cases are similar; therefore, we focus on the operating costs of the FDTC program. The annual FDTC expenditures were obtained from the Snohomish County Superior Court budget. The total expenditures for 2011 (\$87,964) were then divided by the total number of drug court participants in 2011 (54), for a cost-per-participant of \$1,629.

### *Analysis*

All analyses were based on intention to treat; therefore, individuals in the treatment group were considered to be drug court participants regardless of whether they completed the program. A third-party taxpayer perspective was adopted, indicating that only direct costs associated with the resources paid for by taxpayers and used to manage the patients in each group were taken into consideration (Gold et al., 1996). A generalized linear model (GLM) and the method of recycled predictions were used to predict the mean total cost values for the FDTC and control groups (Glick et al., 2007). Cost data is often highly skewed, which may bias the standard errors of regression coefficients in traditional linear models, thereby reducing the likelihood of identifying statistically significant results for individual variables, and the model as a whole. However, the GLM allows one to choose both the mean and variance functions. Manning and Mullahy (2001) offer a guide for choosing the most appropriate variance structure via the modified Parks test (Park, 1966). A gamma distribution with a log link function was determined to be most appropriate for this analysis. To account for sampling uncertainty, p-values and standard errors were estimated using a nonparametric bootstrap with 10,000 iterations.

## RESULTS

On average FDTC participants cost the child-welfare system \$6,552 (SE=354) in foster-care subsidies, versus \$14,150 (SE=732) for non-FDTC individuals, for an average cost savings of \$7,598 (SE=811,  $p < 0.001$ ; 95% CI = -9,215, -6,056). Not only does this amount far exceed the per-participant FDTC operating cost of \$1,629, but it is also clear that the net per-participant savings of \$5,969 is statistically significant, as well, given that the per-participant operating cost is not encompassed by the 95% confidence interval.

One important limitation is that we were unable to estimate the exact foster-care subsidy amount associated with each individual due to our inability to obtain the child's age; however, we feel that using the average subsidy expenditure of \$500 per month serves as a good proxy. It is also worth reiterating that this analysis was completed using a third-party taxpayer approach, where only direct expenditures related to the management of those being investigated were considered. That is to say, we were unable to include indirect savings, such as those associated with reduced psychological distress, improved workplace productivity, etc.

Our savings are in line with those in the extant literature. Carey et al. (2010) performed an assessment of the drug courts in Jackson County, Oregon, and found an average savings of \$5,769 [2011 USD] over 4 years for FDTC participants relative to a comparison group. Similarly, Burrus et al. (2011) found mean savings of \$5,943 [2011 USD] for FDTC participants in Baltimore, MD, relative to a comparison group. In an evaluation of Maine's FDTCs, Zeller et al. (2007) found a savings of \$11,003 [2011 USD] for FDTC participants relative to a comparison group, after controlling for the FDTC costs and reduced utilization of foster care. After also accounting for a number of indirect costs associated with maltreatment, including increased criminal activity and losses in productivity, the authors estimated a mean savings of \$23,547 [2013 USD] for FDTC participants.

## Summary and Policy Implications

As can be seen in the results of the process, outcome and cost-benefit evaluation, the SCFDTC is working carefully to follow their intended policies and procedures and is engaging in a majority of the national best practice standards for drug courts. In addition, we found that SCFDTC participants outperformed the traditional court participants in treatment completion rates, dependency status and length of dependency. In terms of the further effectiveness of the SCFDTC, this study revealed the graduates had stronger outcomes than those who were terminated from the SCFDTC. The SCFDTC also generated a large cost-savings for taxpayers given their ability to reunify families at such faster rates than the traditional system, and their minimal use of jail as a sanction. The key findings from this evaluation are as follows:

- The team is cohesive and includes all necessary core team members, including the judge, state attorney, client attorney, treatment, coordinators, CPS, and CASA/GAL. This most likely contributes to the success of the program and Snohomish County and state officials are encouraged to continue funding to allow these position to participate on the team.
- The SCFDTC utilizes a single drug/alcohol treatment provider, which is correlated with stronger program outcomes.
- The team has strong communication and uses protected email outside of the court to share important information about clients.
- The judge is assigned to the court on a 2/4/2 rotation schedule. The judge serves for two years as a substitute, four years as presiding SCFDTC judge, and then another two years as a substitute.
- Parents who participate in the SCFDTC have higher rates of reunification when compared to their counterparts who were processed through the traditional court process (70% vs. 62%).
- SCFDTC participants experience almost 3 times greater odds of having their children return home compared to parental rights terminated (OR = 2.693).
- Those parents who participated in the SCFDTC are less likely have their parental rights terminated as compared to the control group who go through the traditional court process (9% vs. 30%).
- SCFDTC participants show significantly higher treatment completion rates than those who participate in the traditional system (75% vs. 52%).
- Children of SCFDTC participants had significantly quicker dependency outcomes (shorter durations of stay in the child welfare system) than those who were processed through the traditional dependency system (393 days vs. 848 days).
- A net per-participant savings of \$5,969 is generated by SCFDTC participation due to the decreased out of home placement stays, reductions in foster-care costs and faster reunifications rates. This finding does not account for indirect costs, such as those associated with reductions in maltreatment, criminal activity and productivity losses; the inclusion of such factors as part of a societal perspective would likely result in substantially higher cost savings.

Given the strong findings demonstrated in this evaluation, it is clear that the program is a critical component of the dependency court process and likely contributing to a healthier and safer community. The Snohomish County Council and Mental Health Sales Tax Board are strongly encouraged to continue funding the program, team and administration position, and training needs. In addition, not only should sustainability continue, but expansion of the program to meet a larger in-need population should be considered.

## **Appendix A**

### **Drug Court Practitioner Fact Sheet**

#### **Behavior Modification 101 for Drug Courts: Making the Most of Incentives and Sanctions**

**Dr. Douglas Marlowe**



**NDCI**  
NATIONAL DRUG  
COURT INSTITUTE

# Drug Court Practitioner Fact Sheet

September, 2012

## Behavior Modification 101 for Drug Courts: Making the Most of Incentives and Sanctions

*By Douglas B. Marlowe, JD, PhD  
Chief of Science, Policy & Law, National Association of Drug Court Professionals*

Drug Courts improve outcomes for drug-abusing offenders by combining evidence-based substance abuse treatment with strict behavioral accountability. Participants are carefully monitored for substance use and related behaviors and receive escalating incentives for accomplishments and sanctions for infractions. The nearly unanimous perception of both participants and staff members is that the positive effects of Drug Courts are largely attributable to the application of these behavioral contingencies (Lindquist, Krebs, & Lattimore, 2006; Goldkamp, White, & Robinson, 2002; Farole & Cissner, 2007; Harrell & Roman, 2001).

Scientific research over several decades reveals the most effective ways to administer behavior modification programs. Drug Courts that learn these lessons of science reap benefits several times over through better outcomes and greater cost-effectiveness (Rossman & Zweig, 2012). Those that follow nonscientific beliefs or fall back on old habits are not very effective and waste precious resources. Every Drug Court team should stay abreast of the research on effective behavior modification and periodically review court policies and procedures to ensure they are consistent with science-based practices.

---

### **The Carrot and the Stick**

Some criminal justice professionals may resist the notion of rewarding offenders for doing what they are already legally required to do. These professionals may believe that treatment should be its own reward or that avoiding a criminal charge should be incentive enough. Other professionals may feel ambivalent about administering

punishment to their clients. They may view their role as providing treatment and rehabilitation, not policing misconduct.

Such sentiments can lead some Drug Court teams to rely too heavily on either incentives or sanctions rather than providing a proper balance of each. Rewards and sanctions serve different, but complementary, functions. Rewards are used to increase desirable behaviors, such as going to work

or school, whereas sanctions are used to reduce undesired behaviors, such as engaging in crime or drug abuse. When used together, they can have synergistic effects that produce better outcomes than applying either technique alone (Marlowe & Kirby, 1999).

Although some sources recommend that rewards should outnumber sanctions by a 4:1 ratio (Gendreau, 1996; Wodahl et al., 2011), this suggestion is based on after-the-fact clinical observations or correlations rather than on controlled scientific studies. In the absence of definitive guidance, a rule of thumb is to have at least equivalent amounts of positive reinforcement and punishment available for participants. If participants may be punished for missing a counseling session, then they should also be able to earn a reward for attending a counseling session. In this way, participants have a roughly equal opportunity to earn a reward or to incur a sanction. Arranging contingencies in this manner enables Drug Courts to reduce undesirable behaviors while simultaneously replacing them with desirable prosocial behaviors.

### The Carrot *and* the Stick

#### **Practice Pointer**

*Balance positive reinforcement with punishment to reduce undesired behaviors and replace them with desired prosocial behaviors.*

### Trust but Verify

The most influential factor in behavior modification is certainty. The more consistently participants receive rewards for accomplishments and sanctions for infractions, the more effective the program will be. Therefore, the success of every Drug Court will depend, ultimately, on the reliable monitoring of participants' behaviors. If the team does not have accurate information about whether

participants are being compliant or noncompliant in the program, there is no possible way to apply incentives or sanctions correctly or to adjust treatment and supervision services accordingly.

Research reveals the most effective and cost-efficient Drug Courts perform urine drug testing no less frequently than twice per week on a truly random basis for at least the first several months of the program (Carey, Finigan, & Pukstas, 2008; Carey, Mackin, & Finigan, 2012; McIntire, Lessenger, & Roper, 2007). This includes conducting drug testing on weekends and holidays when drug and alcohol use are most likely to occur. Outcomes also appear to be better for Drug Courts that use monitoring technologies that extend the time window for detection, such as sweat patches, anklet devices, and EtG or EtS testing (Cary, 2011; Flango & Cheesman, 2009).

Generally speaking, drug testing should be among the last supervisory burdens lifted and ordinarily during the last phase of the program. Because Drug Courts typically ratchet down the intensity of treatment and supervision services as participants make progress in the program, relapse is always a risk as those services are reduced. Therefore, drug testing should continue unabated in order to be certain that relapse is not occurring during other adjustments to the program regimen.

Drug Courts that include law enforcement or community corrections officers on their teams also tend to have better outcomes (Carey et al., 2008, 2012; Harberts, 2007, 2011). Addicted offenders are generally not at risk for using drugs or committing crimes while they are in court, at a probation office, or in a treatment program. The risks they face are in their natural social environments, where they are confronted with drugs, drug-using associates, and the stresses of their daily lives. A Drug Court must extend its influence into the natural settings in which its participants live and function. This may include conducting random home visits, verifying employment and school attendance, enforcing area and person restrictions, monitoring curfew compliance, or performing bar sweeps.



## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### Trust but Verify

#### Practice Pointers

- *Conduct urine or saliva drug testing no less frequently than twice per week for at least the first several months of the program.*
- *Conduct urine or saliva testing on a truly random basis, including on weekends and holidays.*
- *Do not substantially reduce the frequency of drug testing until participants are in the last phases of the program and have begun to engage in their continuing-care plans.*
- *If frequent drug testing is not feasible, employ continuous detection technologies, such as sweat patches or anklet monitoring devices, or use tests that have longer time windows for detection, such as EtG or EtS.*
- *For technologies that have short detection windows, such as breathalyzers (BALs), randomly administer the tests in the field, for example during unannounced home visits.*
- *Have community supervision officers periodically and randomly observe participants in their natural social environments.*

### Timing is Everything

The unfortunate reality is that the effects of rewards and sanctions begin to decline within only a few hours or days after a participant has engaged in a target behavior. This has important implications for scheduling status hearings in a Drug Court. The longer the time interval between status hearings, the longer the delay is likely to be before sanctions or rewards are imposed.

Drug Courts have substantially better outcomes when participants are required to appear in court no less than every two weeks for at least the first several months of the

program (Carey et al., 2008; Carey, Mackin, & Finigan, 2012; Festinger et al. 2002; Jones, 2011; Marlowe et al., 2006, 2007).<sup>1</sup> This allows the team to respond relatively quickly to achievements and infractions, thereby producing better outcomes in a shorter period of time. If the next status hearing after an infraction is not scheduled for several weeks, noncompliant participants should be brought in sooner for a court hearing to reduce the delay interval before a consequence can be imposed (Carey, Mackin, & Finigan, 2012).

Research has not yet clearly established the ideal point to ratchet down the frequency of status hearings. However, evidence suggests status hearings should be held approximately monthly until participants are in the last phase of the program and have begun to engage in their continuing-care plans (Carey, Finigan, & Pukstas, 2008).

### Timing is Everything

#### Practice Pointers

- *Schedule status hearings no less frequently than twice per month until participants have initiated abstinence and are regularly attending treatment.*
- *Ensure noncompliant participants are brought in for a court hearing within a reasonable period of time after a serious infraction has occurred.*
- *Continue status hearings on an approximately monthly basis until participants have engaged in their continuing-care plans.*

### Staying Centered

A common misconception persists among many professionals that rewards and sanctions are most effective at high magnitudes. In fact, rewards can be effective at low to moderate magnitudes. For example, positive outcomes have been reported using verbal praise, certificates of recognition, transportation passes, and gift cards (Stitzer, 2008).

<sup>1</sup> This assumes the Drug Court is treating the appropriate target population of high-risk and addicted offenders.

Sanctions tend to be least effective at the lowest and highest magnitudes and most effective within the intermediate range. Sanctions that are too weak can precipitate *habituation*, in which the individual becomes accustomed, and thus less responsive, to punishment. Sanctions that are too harsh can lead to resentment, avoidance reactions, and *ceiling effects*, in which the team runs out of sanctions before treatment has had a chance to take effect.

The success of any Drug Court will depend largely on its ability to craft a creative range of intermediate-magnitude incentives and sanctions that can be ratcheted upward or downward in response to participants' behaviors.<sup>2</sup> Drug Courts that are too lenient will be apt to make outcomes stagnant, and those that are too harsh will be apt to elicit negative reactions and ceiling effects. Programs that respond to participants' behaviors in a thoughtful and balanced manner will achieve the best results.

### Staying Centered

#### **Practice Pointers**

- *Develop a wide and creative range of intermediate-magnitude rewards and sanctions that can be ratcheted upward or downward in response to participants' behaviors.*
- *Avoid overreliance on sanctions that are low or high in magnitude.*

## Fishing for Tangible Resources

Many Drug Courts are stretched thin for resources to purchase tangible rewards. One economical and effective way to deal with this issue is to use the *fishbowl procedure*. Participants earn opportunities to draw prizes from a fishbowl (or other lottery container) for their accomplishments, such as

attending treatment sessions and providing drug-negative urine specimens. Most of the draws earn only a written declaration of success, such as a certificate of accomplishment for the week signed by the judge. Others earn small prizes of roughly \$5 to \$10 in value, and a small percentage earns larger prizes, such as DVDs, tickets to sporting events, or clothing for work or school.

Research indicates the fishbowl procedure can produce comparable or better outcomes at a lower cost than programs that reward participants for every achievement (Petry et al., 2005; Sigmon & Stitzer, 2005). The possibility of winning a substantial reward appears to compensate for the reduced chances of actual success, and the lottery process adds entertainment value as well. Contrary to some concerns, there is no evidence that fishbowl procedures trigger gambling behaviors (Petry et al., 2006) or that participants exchange their rewards for drugs or other inappropriate acquisitions (Festinger et al., 2008; Festinger & Dugosh, 2012; Roll et al., 2005).

The use of tangible incentives may be particularly impactful for high-risk, antisocial offenders who would ordinarily have the poorest outcomes in correctional rehabilitation programs (Marlowe et al., 1997, 2008; Messina, Farabee, & Rawson, 2003). Because many of these individuals have habituated to punishment and are not accustomed to receiving positive reinforcement, tangible rewards may exert substantially greater control over their behavior than threats of punishment.

### Fishing for Tangible Resources

#### **Practice Pointer**

*Stretch program resources by incentivizing participants with opportunities to draw rewards from a fishbowl. Most of the rewards may be of low or no dollar value, but a few should be highly desirable to participants.*

<sup>2</sup> The National Drug Court Institute (NDCI) maintains a list of incentives and sanctions that are being used by hundreds of Drug Courts around the country. The list is available at <http://www.ndcic.org/content/list-incentives-and-sanctions>.

## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### Do Due Process

Participants are most likely to react favorably to receiving sanctions or not receiving rewards if they believe fair procedures were followed in making the decision. The best outcomes are achieved when participants are given a reasonable opportunity to explain their side of the dispute, are treated in an equivalent manner to similar people in similar circumstances, and are accorded respect and dignity throughout the process (Burke & Leben, 2007). This does not imply that participants should necessarily get the outcome they desire. They should be given a fair chance to explain their side of the story and a clear-headed rationale for how and why a particular decision was reached.

Most importantly, being condescending or discourteous is never appropriate. Even the most severe sanctions should be delivered dispassionately with no suggestion that the judge or other team members take pleasure from meting out punishment. Numerous studies have reported better outcomes for Drug Courts in which the judges were rated as being respectful, fair, consistent, and supportive in their interactions with participants (Farole & Cissner, 2007; Senjo & Leip, 2001; Zweig et al., 2012).

Drug Courts also tend to have better outcomes when they clearly specify their policies and procedures regarding incentives and sanctions in a written program handbook or manual (Carey et al., 2008, 2012). Staff members and participants should be clearly informed in advance about the specific behaviors that may trigger sanctions or rewards; the types of sanctions and rewards that may be imposed; the criteria for phase advancement, graduation, and termination; and the consequences that may ensue from graduation and termination. However, rigidly applying a set template of sanctions and rewards may undermine participant progress or buy-in. Outcomes are better when the team reserves a reasonable degree of discretion and flexibility to modify its responses based on extenuating circumstances encountered in individual cases (Zweig et al., 2012).

### Do Due Process

#### Practice Pointers

- *Allow participants a reasonable chance to explain their side of any dispute, administer equivalent consequences for equivalent behaviors, and accord all participants respect and dignity throughout the process.*
- *Specify policies and procedures concerning incentives and sanctions in a written program handbook or manual, and ensure that all staff members and participants are familiarized with the procedures.*

### Sanctions or Therapeutic Consequences?

A common point of contention in many Drug Courts is whether participants should receive punitive sanctions for positive drug tests or whether their treatment plans should be adjusted. The answer depends on whether their usage is compulsive. Individuals who are dependent on or addicted to drugs or alcohol (substance dependent individuals) should be expected to require time and effort to achieve sustained sobriety. If a Drug Court imposes high-magnitude sanctions for substance use early in treatment, odds are the team will run out of sanctions before treatment has had a chance to take effect, and the participant might fail out of the program. This practice could paradoxically make the most substance-dependent individuals, who need treatment the most, more prone to failure in Drug Courts.

For this reason, Drug Courts typically administer a gradually escalating sequence of consequences for substance use. The earliest consequences often involve enhancing treatment services, whereas later consequences may include punitive sanctions of increasing severity. Once a participant has received a reasonable dose of treatment and has begun to stabilize, then it becomes appropriate for the team to raise its expectations and apply punitive consequences for drug or alcohol use.

Evidence suggests, however, that not all participants in Drug Courts may be substance dependent. Some participants may be abusing these substances but do not meet diagnostic criteria for dependence (DeMatteo et al., 2009). These individuals (substance abusers) may experience repeated adverse consequences of substance use, such as multiple criminal arrests or car accidents, but their usage is largely under voluntary control. For them, increasing treatment would not be a logical consequence for substance use because they may not require such services. Moreover, applying gradually escalating sanctions could have the unintended effect of permitting them to continue abusing substances for some period of time until the sanctions reached a sufficient threshold of severity to gain their attention. For them, the preferable course of action would be to apply higher-magnitude sanctions for substance use early in the program, so as to put a rapid end to this voluntary misconduct.

Because substance-dependent individuals and substance abusers should ordinarily receive different consequences for substance use early in treatment, separating them into different status hearings is advisable. Doing so helps to avoid perceptions of unfairness if some participants receive lenient therapeutic consequences while others receive punitive sanctions for comparable infractions.

Under no circumstance should a nonclinically trained judge or probation officer make the decision to increase the intensity of treatment as a punishment for noncompliance or reduce the intensity of treatment as a reward for compliance. Recommendations to change the treatment plan should be made by duly trained clinicians, and the judge should act on the basis of those expert recommendations in ordering the conditions of treatment.

## Sanctions or Therapeutic Consequences?

### **Practice Pointers**

- *For substance-dependent participants, administer treatment oriented consequences for substance use early in the program, such as increasing the required number of counseling sessions, transferring the individual to a more intensive level of care, or evaluating the participant for possible medication.*
- *Once substance-dependent participants have engaged in treatment and achieved an initial sustained interval of sobriety, begin applying escalating sanctions for substance use.*
- *For nonaddicted substance abusers, begin applying escalating sanctions for substance use during the initial phase of the program.*
- *Hold status hearings separately for substance-dependent participants vs. substance abusers to avoid potential perceptions of unfairness.*
- *Rely on the clinical expertise of duly trained treatment professionals when ordering changes to the treatment regimen.*

## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### First Things First

Distinguishing between proximal and distal behavioral goals is essential to modifying habitual behaviors. *Proximal* goals are behaviors that participants are already capable of performing and are necessary for long-term objectives to be achieved. Examples might include attendance at counseling sessions and delivery of urine specimens. *Distal* goals are the behaviors that are ultimately desired, but will take some time for participants to accomplish. Examples might include gainful employment or effective parenting.

A Drug Court should generally sanction high if a participant fails to meet proximal expectations and sanction low if a participant fails to meet distal expectations. If a participant receives low-magnitude sanctions for failing to fulfill easy obligations, this will almost certainly lead to habituation. If a participant receives severe sanctions for failing to meet difficult demands, this will almost certainly lead to hostility, ceiling effects, or a sense of learned helplessness. For example, a participant who fails to show up for counseling sessions or who delivers tampered urine specimens should ordinarily receive a substantial punitive sanction, such as home curfew, community service, or a brief period of detention. However, if that same participant failed to find a job or enroll in an educational program during the early phases of the program, he or she should receive a lesser consequence, such as a verbal reminder or essay assignment. This process, called *shaping*, permits Drug Courts to navigate between habituation and ceiling effects and thus achieve effective outcomes.

The converse rule of thumb applies to rewards. Lower-magnitude rewards should be administered for easy, proximal behaviors, and higher-magnitude rewards should be administered for difficult, distal behaviors. For example, participants might receive verbal praise and encouragement for attending counseling sessions, but might receive reduced supervision requirements for finding a job or returning to school.

The earlier discussion concerning participants who are substance dependent vs. substance abusers is highly relevant here. For participants who are dependent on drugs or alcohol, abstinence is a distal goal; therefore, positive

drug tests should ordinarily receive low-magnitude, therapeutic consequences during the early phases of treatment. For substance abusers, however, abstinence is an easier-to-accomplish proximal goal, and they therefore should receive higher-magnitude punitive sanctions for drug use from the outset.

### First Things First

#### **Practice Pointers**

- *Distinguish between proximal behaviors that participants are already capable of performing and distal behaviors that they are not yet capable of performing.*
- *Begin by assigning higher-magnitude sanctions and lower-magnitude rewards to easy proximal behaviors, and assigning lower-magnitude sanctions and higher-magnitude rewards to difficult distal behaviors.*

### Phase Advancement

Distal goals eventually become proximal goals as participants make progress in the program. For example, after achieving a stable period of sobriety, finding a job or enrolling in an educational program becomes easier to accomplish. Therefore, participants should begin to receive higher-magnitude sanctions over time for failing to fulfill such obligations and should receive lower-magnitude rewards for accomplishing them.

The primary purpose of phase advancement in a Drug Court is to inform participants that what was previously a distal goal has now become a proximal goal. For example, phase one in many Drug Courts focuses on stabilization of the participant and induction into treatment. The emphasis might be placed on completing clinical assessments, establishing a daily routine, abiding by a home curfew, and obtaining a self-help group sponsor. Participants would ordinarily not, however, be required (or even encouraged) to find a job or return to school

at this early stage in their recovery. Once a participant has become stabilized and developed a proper routine, however, he or she would then be advanced to phase two in which other goals, such as employment or education, may become more salient. Thus, failing to attend job training during phase one might receive no consequence or only a minimal consequence, whereas failing to attend job training during phase two or three might elicit a more substantial sanction.

Each time a participant is advanced to a higher phase in the program, the team should take the opportunity to remind all participants about what was required for the phase advancement to occur and what new challenges await the individual. The judge should review the process of phase advancement in court and explain to all participants the implications of moving from one phase to another. In this way, participants will not be surprised when program expectations of them and the consequences for misbehaviors increase accordingly.

### Phase Advancement

#### ***Practice Pointers***

- *Identify which distal behaviors have become proximal as participants advance to each successive phase in the program. Increase the magnitude of sanctions and reduce the magnitude of rewards for those behaviors accordingly.*
- *Review in open court the process of phase advancement and the changing expectations that ensue whenever a participant advances to a new phase.*

## Conclusion

At its core, the criminal justice system is a behavior modification program designed to reduce crime and rehabilitate offenders. Historically, unfortunately, rewards and sanctions were rarely applied in a systematic manner that could produce meaningful or lasting effects. Dissatisfied with this unacceptable state of affairs, a group of criminal court judges set aside special dockets to provide closer supervision and greater accountability for substance-dependent and substance-abusing offenders. Wittingly or unwittingly, these judges devised programs that are highly consonant with the scientific principles of contingency management or operant conditioning.

Research now confirms that the effectiveness and cost-effectiveness of any Drug Court will depend largely on its ability to apply these behavioral techniques correctly and efficiently. Drug Courts that ignore the lessons of science are not very effective and waste precious resources and opportunities. Drug Court teams should periodically consult the latest findings on behavior modification and attend training and technical assistance activities to ensure they are making the most of their limited resources and leveraging the best outcomes for their participants and their communities.

## BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS

### Suggested Readings

Burdon, William M., John M. Roll, Michael L. Prendergast, & Richard A. Rawson. (2001). Drug courts and contingency management. *Journal of Drug Issues, 31*, 73–90.

Harrell, Adele, & John Roman. (2001). Reducing drug use and crime among offenders: The impact of graduated sanctions. *Journal of Drug Issues, 31*, 207–32.

Lindquist, Christine H., Christopher P. Krebs, & Pamela K. Lattimore. (2006). Sanctions and rewards in drug court programs: Implementation, perceived efficacy, and decision making. *Journal of Drug Issues, 36*, 119–146.

Marlowe, Douglas B. (2007). Strategies for administering rewards and sanctions. In J.E. Lessenger & G.F. Roper (Eds.), *Drug courts: A new approach to treatment and rehabilitation* (pp. 317–336). New York: Springer.

Marlowe, Douglas B. (2008). Application of sanctions [Monograph Series No. 9]. In C. Hardin & J.N. Kushner (Eds.), *Quality improvement for drug courts: Evidence-based practices* (pp. 107–114). Alexandria, VA: National Drug Court Institute.

Marlowe, Douglas B. (2011). Applying incentives and sanctions. In D.B. Marlowe & W.B. Meyer (Eds.), *The drug court judicial benchbook* (pp. 139–157). Alexandria, VA: National Drug Court Institute. Available at [http://www.ndci.org/sites/default/files/nadcp/14146\\_NDCI\\_Benchbook\\_v6.pdf](http://www.ndci.org/sites/default/files/nadcp/14146_NDCI_Benchbook_v6.pdf).

Marlowe, Douglas B., & Conrad J. Wong. (2008). Contingency Management in Adult Criminal Drug Courts. In S.T. Higgins, K. Silverman, & S.H. Heil (Eds.), *Contingency management in substance abuse treatment* (pp. 334–354). New York: Guilford Press.

Petry, Nancy M. (2000). A comprehensive guide to the application of contingency management procedures in clinical settings. *Drug & Alcohol Dependence, 58* (1-2): 9–25.

Stitzer, Maxine L. (2008). Motivational incentives in drug courts. In C. Hardin & J.N. Kushner (Eds.), *Quality improvement for drug courts: Evidence-based practices* (pp. 97–105). Alexandria, VA: National Drug Court Institute.

### References

Burke, K., & Leben, S. (2007). Procedural fairness: A key ingredient in public satisfaction. *Court Review, 44*, 4–24.

Carey, S.M., Finigan, M.W., & Pukstas, K. (2008). *Exploring the key components of drug courts: A comparative study of 18 adult drug courts on practices, outcomes and costs*. Portland, OR: NPC Research. Available at [www.npresearch.com](http://www.npresearch.com).

Carey, S.M., Mackin, J.R., & Finigan, M.W. (2012). What works? The 10 key components of drug court: Research-based best practices. *Drug Court Review, 8* (1), 6–42.

Cary, P.L. (2011). The fundamentals of drug testing. In D.B. Marlowe & W.B. Meyer (Eds.), *The drug court judicial benchbook* (pp. 113–138). Alexandria, VA: National Drug Court Institute. Available at [http://www.ndci.org/sites/default/files/nadcp/14146\\_NDCI\\_Benchbook\\_v6.pdf](http://www.ndci.org/sites/default/files/nadcp/14146_NDCI_Benchbook_v6.pdf).

DeMatteo, D.S., Marlowe, D.B., Festinger, D.S., & Arabia, P.L. (2009). Outcome trajectories in drug court: Do all participants have serious drug problems? *Criminal Justice & Behavior, 36*, 354–368.

Farole, D.J., & Cissner, A.B. (2007). Seeing eye to eye: Participant and staff perspectives on drug courts. In G. Berman, M. Rempel, & R.V. Wolf (Eds.), *Documenting results: Research on problem-solving justice* (pp. 51–73). New York: Center for Court Innovation.

Festinger, D.S., & Dugosh, K.L. (2012). Paying substance abusers in research studies: Where does the money go? *American Journal of Drug & Alcohol Abuse, 38*(1), 43–48.

Festinger, D.S., Marlowe, D.B., Dugosh, K.L., Croft, J.R., & Arabia, P.L. (2008). Higher magnitude cash payments improve research follow-up rates without increasing drug use or perceived coercion. *Drug & Alcohol Dependence, 96*, 128–135.

Festinger, D.S., Marlowe, D.B., Lee, P.A., Kirby, K.C., Bovasso, G., & McLellan, A.T. (2002). Status hearings in drug court: When more is less and less is more. *Drug & Alcohol Dependence, 68*, 151–157.

Flango, V.E., & Cheesman, F.L. (2009). The effectiveness of the SCRAM alcohol monitoring device: A preliminary test. *Drug Court Review, 6*, 109–134.

Gendreau, P. (1996). The principles of effective intervention with offenders. In A. Harland (Ed.), *Choosing correctional options that work* (pp. 117–130). Thousand Oaks, CA: Sage.

## References *(continued)*

- Goldkamp, J.S., White, M.D., & Robinson, J.B. (2002). An honest chance: Perspectives on drug courts. *Federal Sentencing Reporter*, 6, 369–372.
- Harberts, H. (2007). Probation strategies. In J.E. Lessenger & G.F. Roper (Eds.), *Drug courts: A new approach to treatment and rehabilitation* (pp. 355–376). New York: Springer.
- Harberts, H. (2011). Community supervision. In D.B. Marlowe & W.B. Meyer (Eds.), *The drug court judicial benchbook* (pp. 97–111). Alexandria, VA: National Drug Court Institute. Available at [http://www.ndci.org/sites/default/files/nadcp/14146\\_NDCI\\_Benchbook\\_v6.pdf](http://www.ndci.org/sites/default/files/nadcp/14146_NDCI_Benchbook_v6.pdf).
- Harrell, A., & Roman, J. (2001). Reducing drug use and crime among offenders: The impact of graduated sanctions. *Journal of Drug Issues*, 31, 207–32.
- Jones, C. (2011). *Intensive judicial supervision and drug court outcomes: Interim findings from a randomised controlled trial*. Sydney, Australia: New South Wales Bureau of Crime Statistics & Research.
- Lindquist, C.H., Krebs, C.P., & Lattimore, P.K. (2006). Sanctions and rewards in drug court programs: Implementation, perceived efficacy, and decision making. *Journal of Drug Issues* 36: 119–146.
- Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Arabia, P.L., & Kirby, K.C. (2008). An effectiveness trial of contingency management in a felony preadjudication drug court. *Journal of Applied Behavior Analysis*, 41, 565–577.
- Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Lee, P.A., & Benasutti, K.M. (2007). Adapting judicial supervision to the risk level of drug offenders: Discharge and six-month outcomes from a prospective matching study. *Drug & Alcohol Dependence*, 88(Suppl. 2), 4–13.
- Marlowe, D.B., Festinger, D.S., Lee, P.A., Dugosh, K.L., & Benasutti, K.M. (2006). Matching judicial supervision to clients' risk status in drug court. *Crime & Delinquency* 52: 52–76.
- Marlowe, D.B., & Kirby, K.C. (1999). Effective use of sanctions in drug courts: lessons from behavioral research. *National Drug Court Institute Review*, 2, 1–31.
- Marlowe, D.B., Kirby, K.C., Festinger, D.S., Husband, S.D., & Platt, J.J. (1997). Impact of comorbid personality disorders and personality disorder symptoms on outcomes of behavioral treatment for cocaine dependence. *Journal of Nervous and Mental Disease*, 185, 483–490.
- McIntire, R.L., Lessenger, J.E., & Roper, G.F. (2007). The drug and alcohol testing process. In J.E. Lessenger & G.F. Roper (Eds.), *Drug courts: A new approach to treatment and rehabilitation* (pp. 234–246). New York: Springer.
- Messina, N., Farabee, D., & Rawson, R. (2003). Treatment responsivity of cocaine-dependent patients with antisocial personality disorder to cognitive-behavioral and contingency management interventions. *Journal of Consulting & Clinical Psychology*, 71, 320–329.
- Petry, N.M., Kolodner, K.B., Li, R., Peirce, J.M., Roll, J.M., Stitzer, M.L., et al. (2006). Prize-based contingency management does not increase gambling. *Drug & Alcohol Dependence*, 83, 269–273.
- Petry, N.M., Peirce, J.M., Stitzer, M.L., Blaine, J., Roll, J.M., Cohen, A., et al. (2005). Effect of prize-based incentives on outcomes in stimulant abusers in outpatient psychosocial treatment programs. *Archives of General Psychiatry*, 62, 1148–1156.
- Roll, J.M., Prendergast, M.L., Sorenson, K., Prakash, S., & Chudzynski, J.E. (2005). A comparison of voucher exchanges between criminal justice involved and noninvolved participants enrolled in voucher-based contingency management drug abuse treatment programs. *American Journal of Drug & Alcohol Abuse*, 31, 393–401.



## **BEHAVIOR MODIFICATION 101 FOR DRUG COURTS: MAKING THE MOST OF INCENTIVES AND SANCTIONS**

Rossman, S.B., & Zweig, J.M. (2012, May). *What have we learned from the Multisite Adult Drug Court Evaluation? Implications for practice and policy*. Alexandria, VA: National Association of Drug Court Professionals. Retrieved from <http://www.nadcp.org/sites/default/files/nadcp/Multisite%20Adult%20Drug%20Court%20Evaluation%20-%20NADCP.pdf>.

Senjo, S.R., & Leip, L.A. (2001). Testing and developing theory in Drug Court: A four-part logit model to predict program completion. *Criminal Justice Policy Review*, *12*, 66–87.

Sigmon, S.C., & Stitzer, M.L. (2005). Use of a low-cost incentive intervention to improve counseling attendance among methadone-maintained patients. *Journal of Substance Abuse Treatment*, *29*, 253–258.

Stitzer, M. L. (2008). Motivational incentives in drug courts. In C. Hardin & J.N. Kushner (Eds.), *Quality improvement for drug courts: Evidence-based practices* (pp. 97–105). Alexandria, VA: National Drug Court Institute.

Wodahl, E.J., Garland, B., Culhane, S.E., & McCarty, W.P. (2011). Utilizing behavioral interventions to improve supervision outcomes in community-based corrections. *Criminal Justice & Behavior*, *38*, 386–405.

Zweig, J.M., Lindquist, C., Downey, P.M., Roman, J., & Rossman, S.B. (2012). Drug court policies and practices: How program implementation affects offender substance use and criminal behavior outcomes. *Drug Court Review*, *8*(1), 43–79.



**NDCI**  
**NATIONAL DRUG**  
**COURT INSTITUTE**

*The Professional Services Branch of NADCP*

1029 N. Royal Street, Suite 201  
Alexandria, VA 22314

Tel: 703.575.9400

Fax: 703.575.9402

 [ALLRISE.ORG](http://ALLRISE.ORG)

## Appendix B

### NPC Research Sample of Drug Court Reward and Sanction Guidelines

#### Examples of Rewards and Sanctions Used By Other Drug Courts

Drug Court Responses to Participant Behavior (Rewards and Sanctions) Ideas and Examples:

The purpose of rewards and sanctions in drug court programs is to help shape participant behavior in the direction of drug court goals and other positive behaviors. That is, to help guide offenders away from drug use and criminal activity and toward positive behaviors, including following through on program requirements. Drug court teams, when determining responses to participant behavior, should be thinking in terms of behavior change, not punishment. The questions should be, “What response from the team will lead participants to engage in positive, pro-social behaviors?”

Sanctions will assist drug court participants in what not to do, while rewards will help participants learn they should do. Rewards teach that it can be a pleasant experience to follow through on program requirements and in turn, to follow through on positive life activities. It is important to incorporate both rewards and sanctions.

Below are some examples of drug court team responses, rewards and sanctions that have been used in drug courts across the United States.

#### ***Rewards***

No cost or low cost rewards:

- Applause and words of encouragement from drug court judge and staff.
- Have judge come off the bench and shake participant’s hand.
- Photo taken with Judge.
- A “Quick List or Rocket Docket” Participants who are doing well get called first during court sessions and are allowed to leave when done.
- A white board or magnetic board posted during drug court sessions where participants can put their names when they are doing well. There can be a board for each phase so when participants move from one phase to the next, they can move their names up a phase during the court session.
- Decrease frequency of program requirements as appropriate—fewer self-help (AA/NA) groups, less frequent court hearings, less frequent drug tests.
- Lottery or fishbowl drawing. Participants who are doing well have their names put in the lottery. The names of these participants are read out in court (as acknowledgement of success) and then the participant whose name is drawn receives a tangible reward (candy, tickets to movies or other appropriate events, etc.).
- Small tangible rewards.
- Bite size candies.
- Key chains, or other longer lasting tangible rewards to use as acknowledgements when participants move up in phase.

Higher cost (generally tangible) rewards:

- Fruit (for staff that would like to model a healthy diet!).
- Candy bars.
- “The Basket” which is filled with candy bars—awarded during the drug court session when participant is doing everything “right”.
- Coffee bucks.
- Gift certificates for local stores.
- Scholarships to local schools.
- Tokens presented after specified number of clean days given to client by judge during court and judge announces name and number of clean days.
- Swimming passes to local pool.

### ***Responses to (and Sanctions for) Non-Compliant Behavior***

- Require participants to write papers or paragraphs appropriate to their non-compliant behavior and problem solve on how they can avoid the non-compliant behavior in the future.
- “Showing the judge’s back.” During a court appearance, the judge turns around in his or her chair to show his/her back to the participants. The participant must stand there waiting for the judge to finish their interaction. (This appears to be a very minor sanction but can be very effective!)
- Being reprimanded by the judge.
- “Sit sanctions.” Participants are required to come to drug court hearings (on top of their own required hearings) to observe. Or, participants are required to sit in regular court for drug offenders and observe how offenders are treated outside of drug court.
- Increasing frequency of drug court appearances.
- Increasing frequency of self-help groups (for example, 30 AA/NA meetings in 30 days or 90 AA/NA meetings in 90 days).
- Increasing frequency of treatment sessions.
- Use of behavior contracts.
- One day or more in jail. (Be careful, this is an expensive sanction and is not always the most effective!)
- “Impose/suspend” sentence. The judge can tell a participant who has been non-compliant that he or she will receive a certain amount of time in jail (or some other sanction) if they do not comply with the program requirements and/or satisfy any additional requirements the staff requests by the next court session. If the participant does not comply by the next session, the judge imposes the sentence. If the participant does comply by the next session, the sentence is “suspended” and held over until the next court session, at which time, if the participant continues to do well, the sentence will continue to be suspended. If the participant is non-compliant at any time, the sentence is immediately imposed.
- Community service. The best use of community service is to have an array of community service options available. If participants can fit their skills to the type of service they are providing, and if they can see the positive results of their work, they will have the opportunity to learn a positive lesson on what it can mean to give back to their communities. Examples of community service that other drug courts have used are: helping to build houses for the homeless (e.g., Habitat for Humanity), delivering meals to hungry families, fixing bikes or other recycled items for charities, planting flowers or other plants, cleaning

and painting in community recreation areas and parks. Cleaning up in a neighborhood where the participant had caused harm or damage in the past can be particularly meaningful to the participants.

- Rather than serve jail time, or do a week of community service, the participant works in the jail for a weekend.

## **SAMPLE OF DRUG COURT REWARD AND SANCTION GUIDELINES**

*Scenario One: Testing positive for a controlled substance*

Court Response:

- Increased supervision/reporting
- Increased urinalysis
- Community service
- Remand with a written assignment
- Incarceration (graduated)
- Discharge from the program

Treatment Response:

- Review treatment plan for appropriate treatment services.
- Write an essay about your relapse and things you will do differently.
- Write and present a list of why you want to stay clean and sober.
- Write and present a list of temptations (people, objects, music, and locations) and what you plan to put in their place.
- Make a list of what stresses you and what you can do to reduce these stresses.
- Residential treatment for a specified period of time (if continual positive tests).
- Additional individual sessions and/or group sessions.
- Extension of participation in the program.
- Repeat Program Phase.

### **REWARDS**

If the participant complies with the program, achieves program goals and exhibits drug-free behavior, he/she will be rewarded and encouraged by the court through a series of incentives. Participants will be able to accrue up to 50 points to become eligible to receive a reward. After accruing 50 points, the participant will start over in point accrual until he/she reaches 50 points again. The points are awarded as follows:

Achievement	Points Awarded
• Step Walking (12 step)	3
• All Required AA/NA Meetings Attended	1
• AA/NA Sheet turned in on time	1
• Attended all required treatment activities at the program	1
• Phase Change	5
• 3 Month Chip	2
• 6 Month Chip	4

• 9 Month Chip	6
• 1 Year Chip	8
• Obtained a job (part time)	3
• Obtained a job (full time)	5
• Graduated from Vocational Training	5
• Obtained a GED	5
• Graduated from Junior College	5
• Obtained a Driver's License	4
• Bought a car	4
• Obtained Safe Housing (Renting)	4
• Obtained Safe Housing (Buying)	5
• Taking Care of Health Needs	3
• Finding a Sponsor	3
• Helping to interpret	1
• Promotion/raise at work	3
• Obtaining MAP/Medi-Cal/Denti-Cal	3
• Parenting Certificate	2
• Judge's Discretion	1 to 5

Incentive items that are given to the participants (upon availability) include but are not limited to:

- Bus passes.
- A donated bicycle that may be kept for the duration of time in drug court. After completion of drug court, the bicycle must be returned. (A terminated participant must return the bicycle forthwith.)
- Pencils, key chains: awarded for Phase Changes.
- Personal hygiene products.
- Framing any certificate of completion from other programs, or certificates showing length of sobriety.
- Haircuts.
- Eye wear.
- Movie passes.
- Food coupons.

## References

- Austin, P. C. (2008). A critical appraisal of propensity-score matching in the medical literature between 1996 and 2003. *Statistics in Medicine*, 27(12), 2037-2049.
- Barnoski, R. (2004). *Outcome evaluation of Washington State's research-based programs for juvenile offenders*. Olympia: Washington State Institute for Public Policy.
- Burrus SW, Mackin JR, Finigan MW. Show me the money: Child welfare cost savings of a family drug court. *Juvenile and Family Court Journal*. 2011;62(3):1-14.
- Carey, S.M., Mackin, J.R., & Finigan, M.W., (2012). What works? The ten key components of drug court: research-based best practices. *Drug Court Review, Vol III, issue I*.
- Carey SM, Sanders MB, Waller MS, Burrus SW, Aborn JA. (2010) *Jackson County Community Family Court Process, Outcome, and Cost Evaluation Final Report*. NPC Research. .
- Carey, S. M., Finigan, M. W., Waller, M. S., Lucas, L. M., & Crumpton, D. (2005). *California drug courts: A methodology for determining costs and benefits, Phase II: Testing the methodology, final report*. Submitted to the California Administrative Office of the Courts, November 2004. Submitted to the USDOJ Bureau of Justice Assistance in May 2005.
- Cox, G., Brown, L., Morgan, C. & Hansten, M. (2001). *Drug court evaluation project*. Seattle, WA: Alcohol and Drug Abuse Institute, University of Washington
- Crea, T. M., Usher, C. L., & Wild-re, J. B. (2009). Implementation -delity of Team Decision making. *Children & Youth Services Review*, 31, 119.124.
- Drug Court Clearinghouse and Technical Assistance Project. (1999). *Looking at a decade of drug courts*. Washington, DC: American University, U.S. Department of Justice.
- Edwards, L.P. & Ray, J.A. (2005). Judicial perspectives on family drug treatment courts. *Juvenile and Family Court Journal*, 56, 1-27.
- Fox, A., & Wolf, R. V. (2004). *The Future of Drug Courts*. Center for Court Innovation, Submitted to the Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice
- Gao, S. & Fraser, M. W. (2010). *Propensity score analysis: Statistical methods and applications*. Thousand Oaks: SAGE Publications.
- Glick H, Doshi JA, Sonnad SS, Polsky D. *Economic evaluation in clinical trials*. Oxford University Press; 2007.
- Gold MR, Siegel JE, Russell LB, Weinstein MC. *Cost-effectiveness in health and medicine*. New York: Oxford University Press; 1996.
- Huxham, C., and Vangen, S., (2005). *Managing to collaborate: The theory and practice of collaborative advantage*. New York, Routledge.

Latessa, E.J., and Lowenkamp, C. (2006). What works in reducing recidivism? *University of St. Thomas Law Journal*, 3(3), 521-535.

Lipsky, M. (1980) *Street-level Bureaucracy: The Dilemmas of Individuals in Public Service*, New York, Russell Sage Foundation.

Magura, S. & Laudet, A.B. (1996). Parental substance abuse and child maltreatment: Review and implications for intervention. *Children and Youth Services Review*, 18,192-220.

Manning WG, Mullahy J. Estimating log models: to transform or not to transform? *J Health Econ.* Jul 2001;20(4):461-494.

Marlowe, D.B. (2012) *Targeting the Right Participants in Adult Drug Courts*. National Drug Court Institute. Practitioner Fact Sheet.

Melde, C., Esbensen, F., & Tusinski, K. (2006). Addressing program fidelity using onsite observations and program provider descriptions of program delivery. *Evaluation Review*, 30(6), 714-740.

Mitchell, O., Wilson, D., Egger, A., & McKenzie, D., (2012). Assessing the effectiveness of drug courts on recidivism: A meta-analytic review of traditional and non-traditional drug courts. *Journal of Criminal Justice*, 40, pgs 60–71

Murphy, D. and Lutze, F. (2009). Police-Probation Partnerships: Professional Identity and the Sharing of Coercive Power. *Journal of Criminal Justice*, 37 (1), pg 65-76.

Murphy, J., Jellnick, M., Quinn, D., Smith, G., Poitras, F.G., & Goshko, M. (1991). Substance abuse and serious child mistreatment: Prevalence, risk and outcome in a court sample. *Child Abuse and Neglect*, 15, 197-211.

National Association of Drug Court Professionals (1997). *Defining Drug Courts: The Key Components*. National Center on Addiction and Substance Abuse. (1999). *No safe haven: Children with substance abusing parents*. New York, NY: Columbia University.

National Institute of Justice. (2006). *Drug courts: The second decade*. Washington D.C.: National Institute of Justice, Office of Justice Programs.

Oliveros, A., & Kaufman, J. (2011). Addressing substance abuse treatment needs of parents involved with the child welfare system. *Child Welfare*, 90, 25–41.

Park RE. Estimation with heteroscedastic error terms. *Econometrica*. 1966;34(4):888.

Rhine, E.E., Mawhorr, T.L., & Parks, E.C. (2006). Implementation: The bane of effective correctional programs. *Criminology & Public Policy*, 5(2), 347-358.



- Rosenbaum, P. R., & Rubin, D. B. (1985). Constructing a control group using multivariate matched sampling methods that incorporate the propensity score. *The American Statistician*, 39(1), 33-38.
- Washington State Department of Social and Health Services. n.d.; <http://www.dshs.wa.gov>.
- Washington State Institute for Public Policy. (2003). *Washington state's drug courts for adult defendants: Outcome evaluation and cost-benefit analysis*. Olympia, WA: Barnoski, R. & Aos, S.
- Wenzel, S.L., Longshore, D., Turner, S., & Ridgely, S.M. (2001). Drug courts: A bridge between criminal justice and health services. *Journal of Criminal Justice*, 29, p. 241-253.
- Worsel, S.D., Green, B.L., Furrer, C.J., Burrus, S.W.M. & Finigan, M.W. (2007). *Family treatment drug court evaluation: Final report*. Portland, OR: NPC Research.
- The Urban Institute. (1999). *Review of specialized family drug courts: Key issues in handling child abuse and neglect cases*. Washington, DC: Harrell, A. & Goodman
- United States Government Accountability Office. (2005). *Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes* (GAO Publication No. GAO-05-219). Washington, DC: United States Government Accountability Office.
- United States Government Accountability Office. (2011). *Adult drug courts: Studies show courts reduce recidivism, but DOJ could enhance future performance measure revision efforts* (GAO Publication No. GAO-12-53). Washington, DC: United States Government Accountability Office.
- van Wormer, J. (2010). *Understanding Operational Dynamics of Drug Courts*. Unpublished Dissertation. Washington State University.
- Zeller D, Hornby H, Ferguson A. (2007) *Evaluation of Maine's family treatment drug courts: A preliminary analysis of short- and long-term outcomes*. Portland, ME..
- Zweig, J.M., Lindquist, C., Downey, P.M., Roman, J., & Rossman, S.B. (2012). Drug court policies and practices: How program implementation affects offender substance use and criminal behavior outcomes. *Drug Court Review*, 8(1), 43–79.