

Georgia State University

**ScholarWorks @ Georgia State University**

---

Public Health Theses

School of Public Health

---

Summer 7-28-2017

## **A Comparison of Parent and Child Mental Health Outcomes, Parenting Skills and Family Functioning of Adult Treatment Court and Family Treatment Court Participants**

Carolyn Malone

Follow this and additional works at: [https://scholarworks.gsu.edu/iph\\_theses](https://scholarworks.gsu.edu/iph_theses)

---

### **Recommended Citation**

Malone, Carolyn, "A Comparison of Parent and Child Mental Health Outcomes, Parenting Skills and Family Functioning of Adult Treatment Court and Family Treatment Court Participants." Thesis, Georgia State University, 2017.

[https://scholarworks.gsu.edu/iph\\_theses/553](https://scholarworks.gsu.edu/iph_theses/553)

This Thesis is brought to you for free and open access by the School of Public Health at ScholarWorks @ Georgia State University. It has been accepted for inclusion in Public Health Theses by an authorized administrator of ScholarWorks @ Georgia State University. For more information, please contact [scholarworks@gsu.edu](mailto:scholarworks@gsu.edu).

A Comparison of Parent and Child Mental Health Outcomes, Parenting Skills and Family Functioning of Adult Treatment Court and Family Treatment Court Participants

By

Carolyn Ann Malone

July 28, 2017

**Background:** Parental substance use puts children at risk for poor outcomes. Estimates indicate that 66% of substantiated cases of maltreatment are of parents with substance use disorders (SUD). Some parents with SUD have the opportunity to be treated through two accountability courts including Drug Courts (DC) and family treatment courts (FTC).

**Purpose:** Little is known about the children of parents who participate in treatment through DC's via the criminal justice system. This study examined differences in parents and their children who receive treatment through FTC's and DC's with the notion that DC's could serve as an important treatment venue for improving child outcomes, which is a major focus of FTCs.

**Methods:** The data used for these analyses are the baseline data of a quasi-experimental study involving two DC's and two FTC's across Georgia. The intervention included the implementation of evidence-based parenting and trauma services at one drug court and at one family treatment court, while the other courts served as controls. At each court, participants, one other caregiver, and one child were invited to participate in the project by completing an annual assessment. This included computerized surveys and a videotaped play and talking activity with each adult with the child. Measures included demographics, parenting behaviors, mental health measures, social support, and child mental health measures. All data used in the analyses were collected at baseline and thus prior to intervention. Participants were 80 DC triads and 25 FTC triads (DCP, another caregiver, and child).

**Results:** Compared to DC, FTC clients were more likely to be female ( $p = <.0001$ ), white ( $p = <.0001$ ), and had a lower income ( $p = .014$ ). They also had younger children ( $p = .05$ ) and were more likely to have custody of those children ( $p = .0015$ ). Parents in FTCs compared to those in DC reported greater social support ( $p = .05$ ) and better family functioning ( $p = .03$ ). Parents in DCs reported poorer parental involvement and poorer monitoring of children than FTCs, but no differences in positive parenting ( $p = .13$ ), inconsistent discipline ( $p = .27$ ), or child abuse potential (total risk  $> 9$ ,  $p = .42$ ; total risk  $> 12$ ,  $p = .37$ ). Regarding mental health, DC clients reported a greater number of symptoms or poor mental health than FTC. No differences were found for education level ( $p = .96$ ), parent-child communication skills ( $p = .38$ ), post-traumatic stress symptom severity ( $p = .62$ ), or child behavior problems.

**Conclusion:** These data show some differences between FTC participants and DC participants that can affect child outcomes. FTC parents were more involved in their children's lives and DC parents had greater mental health problems that could interfere with parenting. Interventions are needed, especially for DC client to strengthen the parent-child relationship and improve parenting outcomes.

A Comparison of Parent and Child Mental Health Outcomes, Parenting Skills and Family Functioning of Adult Treatment  
Court and Family Treatment Court Participants

By

Carolyn Ann Malone

July 28, 2017

B.S., Ithaca College

A Thesis Submitted to the Graduate Faculty  
of Georgia State University in Partial Fulfillment  
of the  
Requirements for the Degree

MASTER OF PUBLIC HEALTH

ATLANTA, GEORGIA

30303

APPROVAL PAGE

A Comparison of Parent and Child Mental Health Outcomes, Parenting Skills and Family Functioning of Adult Treatment Court and Family Treatment Court Participants

By

Carolyn Ann Malone

July 28, 2017

Approved:

Daniel J. Whitaker, PhD

Committee Chair

Wendy P. Guastaferrro, PhD

Committee Member

July 28, 2017

Date

## Author's Statement Page

In presenting this thesis as a partial fulfillment of the requirements for an advanced degree from Georgia State University, I agree that the Library of the University shall make it available for inspection and circulation in accordance with its regulations governing materials of this type. I agree that permission to quote from, to copy from, or to publish this thesis may be granted by the author or, in her absence, by the professor under whose direction it was written, or in his absence, by the Associate Dean, School of Public Health. Such quoting, copying, or publishing must be solely for scholarly purposes and will not involve potential financial gain. It is understood that any copying from or publication of this dissertation which involves potential financial gain will not be allowed without written permission of the author.

Carolyn Ann Malone

Signature of Author (electronically signed)

## TABLE OF CONTENTS

TABLES.....	2
4	
I.    Demographic and Family Structure Characteristics of Drug Courts (DC) and Family Treatment Courts (FTC).....	24
II.   Drug Court Participants (DCP) in Drug Courts (DC) and Family Treatment Courts (FTC) Characteristics on Parenting Skills Measures, Mental Health and Child Mental Health Outcomes.....	25
INTRODUCTION and REVIEW OF THE LITERATURE .....	8
2.1 Context of Study.....	8
2.2 Impact of Substance Use Disorder on Families .....	9
2.3 Treatment of Parental Substance Abuse.....	9
2.31 Drug Courts and Family Treatment Courts.....	10
2.32 Program Effectiveness.....	12
2.4 The Current Project.....	13
METHODS AND PROCEDURES.....	14
3.1 Participant Recruitment and Sample.....	14
3.12 Assessment Protocol.....	15
3.2 Measures.....	16
3.21 Parenting Skills.....	16
3.22 Family Protective Factors.....	17
3.23 Parent Mental Health.....	17
3.24 Child Mental Health.....	18
3.25 Demographic Variables.....	18
RESULTS.....	19
4.1 Demographics and Family Composition.....	19
4.2 Parenting.....	19
4.3 Parent Mental Health Outcomes.....	20
4.3 Child Mental Health Outcomes.....	20

DISCUSSION AND CONCLUSION.....20

5.1 Discussion of Research Question.....20

5.3 Research Direction.....22

5.5 Limitations .....23

Conclusions.....23

REFERENCES.....26

Substance abuse is a public health problem of great significance. Approximately 21 million people in the United States have substance use disorders (SAMHSA, 2012). The lifetime prevalence of SUD is 9.9% (Grant, Saha, Ruan, et al., 2016). Substance use problems start in adolescence. The lifetime prevalence of alcohol use for adolescents age 13-18 is estimated at 8% for alcohol disorders and 2-3% for illicit drug use disorders (Merikangas et al., 2010; Swendsen et al., 2012; SAMSHA, 2011). Both drug and alcohol use disorders are about twice as prevalent in males as females (Compton et al., 2007). However, rates of specific drugs such as cocaine and psychotherapeutic drugs are higher in females (Cotto et al., 2010). A variety of risk factors relate to increased SUD including demographics such as race/ethnicity, sex, age, education level, and socioeconomic status (Patel, Chisholm, Parikh, Charlson, Degenhardt, et al., 2016); biological factors such as effects of stress, sensitivity to corticosterone secretion, dopaminergic neurons (Piazza & Le Moal, 1996); and neighborhood factors such as family conflict and social support (Godley, Kahn, Dennis, Godley & Funk, 2005). Unfortunately, this diversity creates even more opportunity to affect negative change, especially in families.

Substance use disorders cause great harm to an individual's physical and mental health. There are short- and long-term adverse outcomes associated with substance use and the accompanying impaired decision-making that follows. Depending on the drug of choice, and frequency/quantity of use, short-term effects (with possible long-term consequences) include unwanted sexual activity, spread of sexually transmitted diseases, violence, physical injury such as suicide, drugged driving, and overdose (Degenhardt & Hall, 2012). Consequences of long-term use include the development of long-term chronic diseases, comorbidities including mental illness as well as compromised relationships (Degenhardt & Hall, 2012). Deaths from prescription opioid overdose, an important outcome in urban and rural areas worldwide, has been increasing as well as overdose-related hospitalization (Martins, Sampson, Cerda, & Galea, 2015).

With such a large and diverse population affected by substance use, these disorders have large annual costs for society; counting only lost productivity, health care and crime, substance use disorders cost \$700 billion per year (SAMHSA, 2013; Volkow, Koob, & McLellan, 2016). Of this total cost, more than \$61 billion is the annual cost of drug-related crime.

## **Impact of SUD on Families**

In addition to the adverse outcomes for users, substance abuse also affects the family members of the user. SUD among parents is particularly important from a public health perspective because of its prevalence and the strong negative effects on the children of the user (Mallett, Rosenthal, & Keys, 2005). Data from National Survey on Drug Use and Health (NSDUH) indicated that 11.9% of children live with at least one parent with alcohol or drug use disorders (NSDUH, 2009). Parental SUD has been strongly linked to mental health and behavioral problems in children (Calhoun, Conner, Miller, & Messina, 2015). Parental substance abuse can have long lasting impacts on children's emotional, mental, and physical health from exposure pre-birth to adulthood. Perhaps the most vulnerable time to be exposed to one or multiple substances is during development in utero; research has shown prenatal substance exposure may be associated with atypical brain development, cognitive impairments including delayed language (Irner, 2012), heart defects, hearing and vision problems, stillbirth, miscarriage, and infant mortality (Dore, Doris, & Wright, 1995). As children age, this prenatal drug exposure may be associated with an increased risk for negative health behaviors and outcomes. These include delayed development, poor regulation of emotional and social functioning, poor memory, delinquency, aggression, hyperactivity, depression, anxiety, and substance abuse (Calhoun, Conner, Miller, & Messina, 2015; Dunn, Tarter, Mezzich, Vanyukov, Kirisci, & Kirillova, 2002; Imer, 2012; Makris et al., 2010; Neger & Prinz, 2015; Niccols, Milligan, Sword, Thabane, Henderson, & Smith, 2012; Park & Schepp, 2015). At every point of their lives, children are negatively impacted by parental substance use.

In addition to the impacts of parental SUD alone, poor parenting, which is common among parents with SUD, can magnify poor outcomes for children. According Calhoun, Conner, Miller, and Messina (2015) as well as Miller (1999), parents who abuse substances supervise their children less and parent more harshly using heavy punishment. Parents who abuse substances also engage in dysfunctional interactions and parenting behaviors, which lead to children's misbehavior including aggression (Fals-Stewart W, Kelley ML, Fincham FD, Golden J, Logsdon T, 2004; Calhoun, Conner, Miller, & Messina, 2015). These misbehaviors and improper ways of handling them may increase an already stressful and unstable home, not ideal for recovery.

In addition to poor child outcomes and poor parenting, parents with SUD are at increased risk of child maltreatment (Calhoun, Conner, Miller, & Messina, 2015). There are many risk factors for child maltreatment, including socioeconomic status, biological factors, mental illness, child disability, etc. (Putnam-Hornstein, Needell, King, & Johnson-Motoyama, 2013;

Belsky, 1993), but parental substance abuse is one of the strongest risk factors (Cash, & Wilke, 2003; Chaffin, Kelleher, & Hollenberg, 1996; Kelleher, Chaffin, & Fischer, 1994), and the combination of parental SUD and child maltreatment is associated with poor child outcomes in virtually every realm – health, well-being, academic, employment and social (Bauman & Levine, 1986; Bennett, Wolin, & Reiss, 1988; Magura & Laudet, 1996). Parents with SUD are much more likely to be reported for child abuse or neglect and be involved in the child welfare system. Estimates indicate that 66% of substantiated cases of maltreatment are of parents with SUD (Semidei, Radel, & Nolan, 2001). Between 50 and 80% of children involved in the welfare system have a drug-dependent parent (Dakof, Cohen, Henderson, Duarte, Boustani, Blackburn, et al., 2010), and thus substance use treatment has become a focal point of the child welfare services (Azzi-Lessing & Olsen, 1996; Grella, Hser, & Huang, 2006; Young, Boles & Otero, 2007). Addiction impairs judgment and decision-making. The addiction needs may become a higher priority than the child’s needs for safety and security. This can lead to child neglect, a failure to satisfy the child’s basic needs, which in turn, can result in harm (Dunn, Tarter, Mezzich, Vanyukov, Kirisci, & Kirillova, 2002). Thus, it is clear that addressing parental SUD is a key component of improving child and family outcomes.

### **Treatment of parental SUD**

A fraction of parents with SUD are treated through involvement in the child welfare system and subsequent referrals, which can include treatment and case management programs to support family recovery and prevent harm. Child welfare systems have an explicit focus on children’s safety, health, and well-being, but the parent’s recovery can be seen as a key in reaching those goals. According to the Surgeon General’s Report of 2016 only about 1 in 10 people with a substance use disorder receive any type of treatment (U.S. Department of Health and Human Services & Office of the Surgeon General, 2016). Further, about two-thirds of substance abusing caregivers involved in the child welfare system were offered services or treatment (Staudt & Cherry, 2015). This leaves a significant percentage of parents with a confirmed problem and seemingly easy access to treatment, without access. In addition, many parents with SUD never come to the attention of the child welfare system; some receive treatment through other systems including the community based mental health systems and criminal justice systems that may not focus on the well-being of the child. Depending on the system that provides service, there will be more or less of a focus on parenting and children’s issues.

Parents with SUD who receive treatment via the criminal justice system (e.g., because they have been arrested for drug-related crime) will likely experience almost no focus on family or child outcomes. In contrast, parents with SUD who receive treatment via the child welfare system (because they have been reported for abuse or neglect) will experience a stronger focus on how SUD impacts their parenting and their children.

Many parents with SUD are treated through accountability courts (Child & McIntyre, 2015; Wilson, Mitchell, & MacKenzie, 2006; Worcel, Furrer, Green, Burrus, & Finigan, 2008). Two types of accountability courts are most relevant here. Drug Courts (DC) are part of the criminal justice system and treat adults arrested for non-violent drug-related crimes. Family Treatment Courts (FTC) are part of the child welfare system and focus on treating parenting SUD for goal of improving child welfare or reuniting children and parents. These two accountability courts both treat adults with SUD, and both treat parents with SUD but one (FTC) has an explicit focus on child well-being, while the other (DC) does not.

While many studies have examined outcomes of children whose parents are involved in family treatment courts (Bruns, Pullmann, Weathers, Wirschem, & Murphy, 2012; Green, Furrer, Worcel, Burrus, & Finigan, 2007; Worcel, Furrer, Green, Burrus, & Finigan, 2008), little is known about the children of parents treated DC. One of the goals of this thesis is to examine differences in parents and their children who receive treatment through family drug court and Drug Courts. Understanding the similarities and differences may provide information about utilizing DC as a venue to reach children and improve child outcomes.

#### *Drug Courts and Family Treatment Courts.*

Individuals convicted of non-violent drug-related crimes may be offered alternatives to incarceration, one of which is participation in Drug Court (DC). The DC model developed because there was a great dissatisfaction with the tendency for offenders to end up in jail numerous times for different crimes (Mitchell, Wilson, Eggers, & MacKenzie, 2012; Sevigny, Fuleihan, & Ferdik, 2013). The root cause of some of this frequent crime by repeat offenders was substance use and abuse. It was then understood that this cycle of drug use and related crime would continue unless the offenders substance use problem was addressed (Mumola, & Karberg, 2006; Sevigny, Fuleihan, & Ferdik, 2013). Recent studies show there are over 2,400 DCs in the United States (Huddleston & Marlowe, 2011), but with estimates showing more than 1 million offenders with substance

use disorders pass through the criminal justice system each year, unavailability is a limitation (U.S. Department of Health and Human Services & Office of the Surgeon General, 2016). Structured assessments typically determine whether an offender is a good candidate for a court treatment program, and DC teams work collaboratively with community resources to support each participant during their recovery (Wilson, Mitchell, & MacKenzie, 2006). DC programs focus on resiliency, accountability, habit management, and fostering protective factors for self-sufficiency by structuring treatment requirements such as securing housing and a job, drug screening tests and monitoring of counseling sessions and applying sanctions when clients fail to keep commitments (Banks & Gottfredson, 2003; Logan, Williams, Leukefeld, & Minton, 2000). The success of DC programs is supported by studies that show significantly lower re-arrest rates of DC participants compared to controls (Brown, 2010, Wilson, Mitchell, & MacKenzie, 2006). However, because DCs are part of the criminal justice system, there is typically little or no focus on the family members and children who, as described above, can be greatly affected by the participant's drug use.

In contrast to DC programs, FTC programs treat parents with drug-related problems who are reported for suspected abuse or neglect, but not arrested for a crime. Similar to the cycle of drug use and crime supporting efforts to develop DCs, the cycle of drug use and child maltreatment was recognized and used to develop FTCs. In general, the need for substance abuse treatment is great and outweighing the availability in the United States. With around 21 million adults requiring treatment, FTCs were adapted from the DC model in order to meet some of that need, specifically parents (Fay-Ramirez, 2015; SAMHSA, 2012).

Latest research shows there are over 300 specialty FTCs in the United States (Fay-Ramirez, 2015). FTCs were designed to address parental drug use with an additional focus on protecting their children (Child & McIntyre, 2015; Gifford, Eldred, Vernerey, & Sloan, 2014b; Green, Furrer, Worsel, Burrus, & Finigan, 2009). Many participants in FTCs have had their children temporarily removed, and so FTCs aim to curb drug use, and to rebuild the relationship between the parent and child to promote reunification (Center for Substance Abuse Treatment, 2004). FTCs aim to end addiction, but unlike DCs, focus heavily on rebuilding stable and healthy foundations for families in order to reunify children with their parents or other caregivers after child safety and permanency are established (Child & McIntyre, 2015). The involvement of social services and coordinated plan by FTC is imperative in the success of this rebuilding process (Gifford et al., 2014b).

### *Program Effectiveness*

There is evidence that speaks to the effectiveness of DC's and of FTC's (Brown, 2010; Gifford et al., 2014(a); Gifford et al., 2014(b); Green et al., 2009; Holloway, Bennett, & Farrington, 2006; Lloyd, 2015; Shaffer, 2011; Sloan, 2014; Mitchell, Wilson, Eggers, & MacKenzie, 2012; Sevigny, Fuleihan, & Ferdik, 2013; Wilson, Mitchell, & MacKenzie, 2006). Meta-analytic reviews found that the effectiveness of DC has reduced recidivism, Shaffer (2011) showed by about 9% on average and another showed a 14% reduction compared to control/comparison group offenders (Latimer, Morton-Bourgon, & Chretien, 2006). A meta-analysis including 154-court evaluation studies showed a reduction in general and drug-related recidivism rates of 38-50% for DC participants compared to other drug court types including DWI Courts and Juvenile Drug Courts (Mitchell, Wilson, Eggers, & MacKenzie, 2012). Even high-risk clients who attended DC had reduced reoffending leading to arrests compared to high-risk clients on probation (Koetzle, Listwan, Guastaferrro, & Kobus, 2013). In another study, which evaluated the effects of participation using propensity score matching, enrolling in a DC, even without completing, reduced, re-arrest rates (Gifford et al., 2014a). Other reviews and meta-analyses have found similar positive results in reducing offending (Holloway et al., 2006; Sevigny et al., 2013; Wilson et al. 2006)

The population of DC's are diverse, but there are some predictors of graduation or dropout of the program. According to Hickert, Boyle, & Tollefson (2009), females, older participants, as well as the amount of familial support involved in recovery generally correlated positively with graduating from the program. The same study found support for criminal history and "harder" drugs of choice being predictors of program dropout and rearrests (Hickert, Boyle, & Tollefson, 2009; Sevigny et al., 2013). One meta-analytic review found that out of the 92 DC is evaluated, 85% of the courts were at least 60% male (Mitchell, Wilson, Eggers, & MacKenzie, 2012). A majority null, and some mixed results were found on the outcomes of possible predictors including education level, race/ethnicity, or employment at arrest in DC's (Hickert, Boyle, & Tollefson, 2009). In addition, higher rates of graduation were found in courts that accepted only non-violent offenders (Mitchell et al., 2012). Latimer et al. (2006) found several variables including participants age, length of the program, follow-up period used to measure recidivism, affected the results. This variability in programs can create a similar problem in studies of the effectiveness of FTCs. Holloway et al. (2006), supported by others, found that high-intensity program were more effective in reducing criminal behavior (Sevigny et al., 2013).

Clear conclusions about the impact of FTCs are difficult to make because there are not many effectiveness studies. However, collectively, results indicate more positive outcomes of FTCs compared to non-served groups on treatment outcomes including likelihood of entering treatment, completing treatment and key child welfare variables including reunification and termination of parental rights (Gifford et al., 2014b; Green, Furrer, Worcel, Burrus, & Finigan, 2009; Lloyd, 2015; Worcel, Furrer, Green, Burrus, & Finigan, 2008). One quasi-experimental study examining child welfare outcomes and program and outcome costs (Burrus, Mackin, Finigan, 2011) found that 28% more parents completed treatment via FTC compared to non-served control group and the proportion of reunifications were 35% higher in program families. These types of positive outcomes are supported by the current literature (Bruns, Pullmann, Weathers, Wirschem, & Murphy, 2012; Gifford et al., 2014b; Green, Furrer, Worcel, Burrus, & Finigan, 2007; Green et al., 2009; Worcel et al., 2008). In one study, over half of the parents were reunited with their children and were nearly 90% compliant when participating in support group sessions (Child & McIntyre, 2015). Another quasi-experimental study found that children of parents in FTC's compared to children of untreated parents, were 1.9 times more likely to be returned home (Bruns et al., 2012). Examining effectiveness in FTCs in North Carolina, Gifford, Eldred, Vernerey, & Sloan (2014b) found similar positive outcomes relative to parental completion of their FTC program including reduced lengths of stay in foster care compared to referred and enrolled samples (Gifford, et al., 2014b). In addition to family preservation outcomes, there is evidence that FTC's reduce rearrests for new drug violations (Bruns et al., 2012).

### **The Current Project**

There is minimal research on DC participants and their families. Nationally, in 2008, 50% of participants in DC had children (Rossman, Roman, Zweig, Rempel, & Linqvist, 2011) under the age of 18, and 20% of those had primary care responsibilities. Most research done has focused on specific criminal justice outcomes of participants dealing with substance abuse, but not specifically on outcomes related to families involved in drug treatment programs. DC focus on improving adult outcomes and the impact on client's children and family members has received very little attention. However, DCs could be an important venue for engaging families. DCs typically focus on coping with stresses and rebuilding relationships as part of treatment, but services that target parenting behaviors and child outcomes could be an important addition. It is clear that some participants in DC's have children and that their involvement in recovery is important for long-term outcomes of family well-

being and sobriety (Bruns, Pullmann, Weathers, Wirschem, & Murphy, 2012), thus targeting children may help both the child and client.

Very little is known about DC clients are parents, including their parenting status, and behaviors and practices. Because FTCs already work with parents to address substance use and parenting needs, it make sense to compare to two groups. This is a descriptive thesis aimed at exploring differences in DC and FTC parents on a range of variables. The study uses data from an ongoing evaluation to compare parents involved in DC and FTC on demographics and family variables; parenting behaviors, mental health variables that can affect parenting, and child outcome variables. Understanding if the two groups differ may provide information about working with parents in DC relatively to parents in FTC.

## **Methods**

The data for this thesis was collected as part of the grant titled *Enhancing Safety and Well-being of Children of Drug Court Programs*. All research done followed the protocol approved by the Georgia State University Institutional Review Board.

This data used for these analyses are the baseline data from a quasi-experimental study involving two Drug Courts and two family treatment courts across the state of Georgia. The intervention included offering evidence-based parenting and trauma services as one drug court and one family treatment court, while the other courts served as controls. At each court, participants and their families (one other caregiver and one child) were invited to participate in the evaluation by completing an annual assessment. The annual assessment included computerized surveys for both adults and children who were 8 years or older, and having the adults and child engage in play or discussion activities while being videotaped by the research team.

### **Participant Recruitment and Sample**

Drug Court Participant. Eligibility for enrollment was determined by the status of the drug court participant in the drug treatment program. Drug court programs treatment is typically arranged in several phases that participants complete. The goal of the initial phase of treatment is detoxification and stabilization, and thus participants were not recruited until they exited the initial phase. There was variation among the four courts in the length of the initial phase, but at each, recruitment began once clients completed from the initial phase. Drug court participants were recruited either at the court or at the treatment center.

Members of the research team conducted short presentations on the project, and described study participation. Interest forms were distributed and collected at the end of the presentation. Participants indicated whether they were the primary caregiver for child or not, and interested or not in being contacted for the study. Only clients who were primary caregivers were eligible for the study. After the presentation, the research team was available to answer specific questions.

All clients who were eligible and indicated an interest were contacted and eligibility was confirmed. At that point, the research team also assessed the availability and interest of recruiting a co-parent (an additional caregiver), and a child to participate in the study. Co-parents could be spouses, boy/girlfriends, client's relatives, or virtually anyone who served a consistent parenting role to the client's child. Co-parents were contacted, often by phone, or asked to contact the research team. Children were recruited primarily through the drug court client or the co-parent.

#### *Assessment Protocol*

After recruitment, the research team contacts participants via phone or e-mail once they indicated they were interested in participating. Once a research coordinator successfully scheduled an assessment with the participant(s), a day before the assessment a confirmation call was made to confirm the assessment date and address. Assessments primarily took place in participants' homes, and typically, two research assistants would be present. The Drug Court Participant (DCP) and other caregiver were read an IRB approved consent form to participant in the research study. If a child participated, an adult with legal custody or guardianship signed a parental permission form for the child to participate. Children older than six were presented age appropriate assent form and verbally agreed to participate in the assessment.

The survey was presented on a laptop or tablet with headphones for privacy, via an Audio Computer-Assisted Self-Interview (ACASI). To promote accuracy in self-report, participants were instructed to be as honest as possible and were reassured that research data would not be shared with the drug court program. Upon completion of the survey, adult participants received a \$75 gift card. Children who completed a survey (eight years and older) were given a \$20 gift card for participating. An observational assessment of parent-child interaction was conducted, in which each parent was videotaped interacting with the child; the observational data are not part of this research project so is not discussed further.

### *Sample*

The sample recruited and used in this paper included 80 clients from DC and 25 clients from a FTC. Each of these totals include two courts each, where 32 clients were in the control DC and 48 clients were in the intervention DC. The FTC category included 18 clients in the control FTC and 7 clients in the intervention FTC. In addition this sample was recruited from 407 total participants from all four courts, only 164 participants were eligible (they were a parent/caregiver to a child under 18 years old), and 105 enrolled and had completed their baseline survey to be included in this data analysis.

### **Measures**

The survey was given via the Audio Computer-Assisted Self-Interview Software (ACASI) and measured, parenting skills and family functioning, child mental health and well-being, family structure, and other demographics.

#### *Parenting Skills*

Parenting skills were assessed by the Alabama Parenting Questionnaire (Frick, 1991) a 42-item APQ measures five dimensions of parenting of 6-18 year olds: (1) involvement with children (10 items), (2) positive parenting (6 items), (3) poor supervision and monitoring (10 items), (4) inconsistent discipline (6 items), and (5) use of corporal punishment (3 items). “Other discipline” is not a scale, but 7 items provide individual question answers in this category. All items are answered on a 5 point response scale where 1 = “Never” and 5 = “Always.” The items on each subscale were summed to obtain a total score. Greater scores in dimensions 3, 4, and 5 indicate poor parenting, and greater scores in dimensions 1 and 2 indicate good parenting practices.

The Brief Child Abuse Potential Inventory (Ondersma, Chaffin, Mullins, & LeBretin, 2005) is an abbreviated form of the Child Abuse Potential Inventory (Milner, 1994). The BCAP is an actuarial risk assessment tool that contains 33 items. Seven factors form the Total Abuse Risk Scale (24 items), and the Lie (6 items) and Random Responding (3 items) items form a Validity Scale. The subscales of the BCAP are: (1) Distress Factor (e.g., “I often feel very upset”); (2) Family Conflict (e.g., “My family has problems getting along”); (3) Happiness (reversed) (e.g., “I am a happy person”); (4) Rigidity (e.g., “Children should never disobey”); (5) Feelings of Persecution (e.g., “People have caused me a lot of pain”); (6) Loneliness (e.g., “I often feel very alone”); (7) Financial Insecurity (e.g., “I sometimes worry that I will not have enough to eat”); and (8) the Total

Abuse Risk Scale (24 items). For the current analyses, we used the cut-points of the Total Abuse Risk Scale identified by Ondersma and colleagues (Ondersma et al., 2005) for increased risk for child abuse (9 or greater) and high risk for child abuse (12 or greater).

Parent child communication was assessed with the Parent-Child Communication (PCC)-scale – Parent Adult Report, an adaptation of the Revised Parent-Adolescent Communication Form of the Pittsburgh Youth Study (Conduct Problems Prevention Research Group (CPPRG), 1994; Loeber, Farrington, Stouthamer, & VanKammen, 1998; Thornberry, Huizinga, & Loeber, 1995). The PCC contains 20 items and assesses primary caregivers' perceptions of their openness to communication and their children's communication skills. The answers are coded along 5-point scales where 1 represents "almost never" and 5 represents "almost always," and a total sum was used for analyses. We used an overall communication score, which consisted of 20 items averaged to form a single score representing more positive parent-child communication.

#### *Family Protective Factors*

Three other family/parenting constructs were measured via the protective factors survey (Counts, Buffington, Chang-Rios, Rasmussen, & Preacher, 2010): family functioning/resiliency (5 items, e.g., “My family pulls together when things are stressful”), social support (3 items, e.g., “When I am lonely, there are several people I can talk to”), and concrete support (3 items, e.g., “I would have no idea where to turn if my family needed food or housing”). Family functioning measures the stability and cohesion of the family to work through crises. It also addresses problem-solving techniques within families. Social support is the perceived help that may be obtained from family, friends, neighbors in times of need to help deal with stress. Concrete support measures tangible goods and services that a family may have access to in a time of need. Greater scores within these 3 constructs show positive results for family functioning/resiliency and support.

#### *Parent Mental Health*

The Brief Symptom Inventory (BSI) measures a range of mental health symptoms including somatization, obsessive-compulsive, interpersonal sensitivity, depression, anxiety, hostility, phobic anxiety, paranoid ideation, psychoticism (Derogatis & Melisaratos, 1983). This measure was normed on patient and non-patient adolescents and adults 13 years and older. Three global scales of the BSI measure broader functioning: the Global Severity Index (GSI) measures overall psychological distress

level, the Positive Symptom Distress Index measured symptom intensity and the Positive Symptom Total (PST) measures the number of reported symptoms. This self-report survey of 53 items uses 5-point Likert scale responses and responses are converted to t-scores to describe the level of symptoms relative to a normed population.

Symptoms of post-traumatic stress disorder were measured via the Posttraumatic Stress Diagnostic Scale (PDS). The PDS measures severity of symptoms and functioning in patients identified as suffering from PTSD related to a single identified traumatic event (Foa, 1995). Total symptoms and total severity are measured with 49-items. The PDS assesses all DSM-IV criteria for PTSD (criteria A-F). Of four sections, the PDS has a trauma checklist (section 1), description of most impactful traumatic event (section 2), frequency of 17 PDS symptoms and severity (section 3), and symptom interference (section 4). Here, we present data on total symptoms and symptom severity.

#### *Child Mental Health*

The Behavior Assessment System Children– Parent Rating Scale (BASC) (Reynolds & Kamphaus, 2006) measured mental health and well-being of children in this study. The BASC is a standardized, normed scale, and yield t-scores for several global scales: internalizing behaviors, externalizing behaviors, behavioral symptom index, and adaptive functioning. The internalizing behaviors scale includes items on anxiety (14 items), depression (14 items), and somatization (12 items). The externalizing behavior index include items on aggression (11 items), hyperactivity (10 items), and conduct problems (9 items). The adaptive behaviors scale includes items assessing activities of daily living (8 items), adaptability (8 items), leadership (8 items), social skills (8 items), and functional communication (12 items). Las, the behavioral symptoms index includes items assessing attention problems (6 items), learning problems, atypicality (13 items), and withdrawal (12 items). Greater scores represent higher levels of maladjustment and may be behaviors to monitor before they become severely problematic.

#### *Demographic Variables*

Included in Table 1 are demographic variables across the Drug Courts and family treatment courts. Due to small sample size continuous variables grouped into categories. Participants were 80 DC triads and 25 FTC triads (DCP, another caregiver, and child). During the time this data was collected, 407 total DCP were pitched to across courts, 164 were parents and eligible to participate in the study, and 110 participants decided to enroll in the study or were in the process of consenting to participate.

Eighty Variables included were race (White, black, other), number of adults living in the household (1, 2, 3+), level of education reached (less than high school (HS), HS graduate, Some College), income (Below \$35,000 and above \$35,000), and dichotomous variables include sex (male/female), ethnicity (Latino-Y/N), social services they receive (Any/None), custody (Any/None).

## Results

### Demographics and Family Composition

Foremost, differences in demographics and family composition by participant court type were examined. All results shown in Table 1. DC participants were more likely to be black than FTC clients (Fisher's exact,  $p < .001$ ). DC clients were majority male (63%) whereas FTC clients were majority female (92%) (Fisher's exact,  $p < .001$ ). DC participants were more likely to have a higher income ( $p = .014$ ) and were less likely to receive public assistance ( $p < .0001$ ). No differences were found between court types in education level ( $p = .96$ ) or employment status ( $p = .25$ ). DC participants were less likely to have custody of the child than FTC participants were ( $p = .0015$ ), and they had fewer children ( $p = .05$ ), but lived with a greater number of adults in the home ( $p = .026$ ).

### Parenting

T-tests were used to examine the differences in mean total risk scores (PDS, BASC, BCAP, PCC, BSI) as well as the subscales within the assessment tool (APQ, BASC, BCAP, PFS) between the DC and FTC clients. The results are shown in Table 2. Compared to DC, FTC clients reported greater involvement in their children's lives ( $M=41.74$  vs.  $37.32$ ,  $p < .01$ ), and better monitoring skills ( $M=14.70$  vs  $19.79$ ,  $p < .01$ ). The groups were not different on any of the other parenting measures including positive parenting, discipline use, or corporal punishment.

No differences were found between DC and FTC parents for scores on the BCAP risk ( $p$ 's =  $.42$  and  $.37$ ), or the Parent Child Communication measure ( $p = .38$ ).

FTC parents reported greater functioning/resiliency ( $p = .03$ ) compared to DC participants. For support, FTC clients reported greater social support than DC clients did ( $p = .05$ ), but there was no differences between the two groups in reported concrete support ( $p = .60$ ).

### *Parent mental health outcomes*

On the BSI, differences were found on each of the global scales with the DC group indicated greater severity of symptoms (GSI,  $p = .05$ ), a greater number of symptoms ( $p = .03$ ) and greater distress ( $p = .006$ ). Looking at the individual subscales of the BSI, DC participants reported significantly greater psychoticism, somatization, and depression than FTC, but the groups were not significantly different on any other scales (hostility, phobic anxiety, obsessive-compulsive, anxiety, paranoia, interpersonal sensitivity), though it is worth noting that on all scales, DC were nominally worse off than FTC.

No statistically significant differences regarding the trauma indices. DC and FTC participants did not differ in either trauma symptoms ( $p = .88$ ) or symptom severity ( $p = .62$ ). Additionally, FTC court participants did not statistically differ from DC in terms of number of traumatic events ( $p = 3.8$ ).

### *Child mental health outcomes*

There were no differences between groups on any of the major mental health subscales of the BASC including internalizing, externalizing, the behavioral symptom index, or adaptive functioning (all  $p > .21$ ).

## **Discussion**

The goal of this study was to compare parental mental health outcomes, parenting skills, family functioning and child mental health of clients in drug courts, with parents in family treatment courts. This paper describes where parents stand on the measures listed above, at the start of their treatment in these courts to assess their needs. Though both samples are parents with substance use problems whose children may be affected by parental substance abuse, the former (drug court clients) receive very little attention on family issues as part of court-supervised treatment. Comparing these two groups of parents may shed light on the needs of DC families relative to FTC with regard to parenting skills and adult and child mental health.

These findings indicate some important differences between DC and FTC parents on demographic variables and family structure, parenting skills, parental mental health, and child mental health, but there were also many variables on which the groups did not significantly differ. FTC participants were primarily women with custody of their children receiving public assistance, whereas DC clients were primarily men many of whom did not have custody. In terms of overall functioning, FTC clients reported higher family functioning and greater social support, but less concrete support and live with fewer other adults.

These demographic and family structure differences may be a function of the child welfare and criminal justice system populations: most child welfare clients are women (Bruns, Pullmann, Weathers, Wirschem, & Murphy, 2012; Child & McIntyre, 2015), and most of the criminal justice population is men (Glaze & Parks, 2011). These differences in demographics and family structure may relate to the reported differences in parental involvement, including lower levels of monitoring. In this sample, FTC parents are simply around their children more than DC parents are. Besides involvement and monitoring, however, no other differences between groups were found for parenting skills, communication, or child abuse potential.

These findings are important because they support the idea that DC participants have similar needs as FTC regarding family functioning including support regarding their children. FTC participants are in some ways in a better situation with their kids, as far as involvement and monitoring. This stability may partially be a result of the ‘treatment’ they have already received from the FTC program before our survey; however, this means parents in DC would greatly benefit from these services as well.

These findings add to current literature as one of the first to directly compare parents in DC with parents in FTC. There is minimal research on families in DC because the focus is on the sobriety and outcomes of the individual and not on their children’s outcomes. This is an important addition to research because it shows the needs of DC participants are comparable to FTC participants, and could lead to services for families of parents in DC.

DC parents reported greater levels of mental health problems than FTC clients did, but no difference was found in children’s mental health. This has implications for parenting because this population is already at a high risk of child maltreatment because of their SUD; mental health problems can exacerbate parenting difficulties. Services to teach proper and positive parenting skills would be valuable if incorporated into DC programs, but should also consider the mental health services needed by parents. This is an additional challenge that needs management to increase possible positive long-term outcomes. In addition to these mental health needs, DC participants and FTC participants were similar in the trauma symptoms and symptom severity they had experienced. Substance use, mental health problems, and trauma are highly associated and exacerbate each other. Given this information and the comparability of these two populations, support for adaptations of some aspects of the FTC model is recommended. DCs would also benefit from the treatment and service models addressing trauma

and positive relationships that are prevalent within FTCs. Even though there is only preliminary research on the effectiveness of FTCs, there is extensive literature supporting the success of DCs in reducing recidivism and reoffending. Because of the similarities in the populations participating in these courts, further services targeting mental health, especially concerning trauma experienced, can improve the effectiveness researchers have found preliminarily in FTCs and more conclusively in DCs already.

Given that these self-report surveys are taken after participants have already entered the drug treatment program and finished their inpatient treatment, the model of the FTC itself may influence the findings listed above. Additionally, the innate bias that exists with self-report measures is important to consider. For example, these caregivers are assessing their own parenting through these questions and may not have an accurate perception of their skills. The model also influences the decisions of parents who are in FTCs in terms of motivation to graduate by using the advantage regarding their child's placement. This positive reward and incentive may be a more effective model with FTC populations than jail sanctions less commonly used in FTCs than DCs for failing regular drug screenings, for example. With rewards being visitations and custody, for example, it is predictable that these parents could be spending more time with their children.

#### Research Directions

The next steps that should be taken are to replicate this study with a larger and comparable sample size; this will allow further exploration into the lives of these families struggling with the effects of parental SUD. With the commonality of a SUD across court types, most of the relationships between these variables are predictable including parental mental health problems being present and traumatic events having occurred. The presence of mental health problems, SUD, and poor monitoring should have revealed more behavioral issues in the children of these populations, but instead they were comparable to a normed population. Additionally, there were some variables, including parenting and communication skills and risk for child abuse, that were expected to be higher in DC compared to FTC given the demographic differences, but were instead alike.

The high levels of parent mental health issues should be continuously monitored, destigmatized especially in predominantly male DCs, and managed during the recovery process for long-term health. With the screenings and other services offered by these court programs to support sobriety, mental health services should be a priority. Mental health will

affect the individuals' life as well as those around them and a healthy mind will influence the way these participants parent and interact with their children. Given that these findings indicate these children have the same behavioral problems across court types and as normed populations, it is notable that this is not consistent with other research findings. Most have shown children raised in homes of parents with SUD are more likely to have mental disorders, SUD themselves, and psychological dysregulation (Biederman, Faraone, Monuteaux, & Feighner, 2000; Clark & Sayette, 1993; Dunn, et al., 2002).

### Limitations

Although the current study includes some findings worthy of note, there are several limitations and weaknesses. This study has a small sample and unequal number with FTC having less than a third of the DC population. Second, all data reported here are self-report, which are subject to a number of biases including recall biases and social desirability. Because all participants here were in court-supervised treatment programs, participants may have been especially motivated to 'fake good', and thus results may be more positive than would be expected. Indeed, reported parenting levels were positive (DC Involvement  $M=37.32$ , FTC Involvement  $M=41.74$ ). Another weakness is that only bivariate analyses were done, and the interrelationships between variables (e.g., parenting and mental health) was beyond the scope of this analysis. Differences in parenting skills may be a function of measured (e.g., time spent with child) or unmeasured variables that future research should investigate. Finally, all clients who participants were already enrolled in treatment at the time of baseline, so any treatment effects would be captured in baseline data. In particular, clients in FTCs may already have received some parenting programming as part of their treatment.

### Conclusion

Research should continue to be done involving families involved in both these courts in order to continuously improve the FTC, DC, and other Drug Court program models, but specifically DC where more is unknown. Given that this is a descriptive thesis and there is no causality or even interrelationships between variables in the analyses above, these data inform literature on the demographics, mean parenting skills level and mental health and well-being of participants and family members involved in these courts. In order to build more support for successful sobriety and protect participants' children from intentional and unintentional harm, DC programs are in need of family-focused services and support.

Table I. Demographic and Family Structure Characteristics of Drug Courts (DC) and Family Treatment Courts (FTC).

Court Type	DC (N=80)		FTC (N=25)		p-value ( $\alpha=.05$ )	$\chi^2$
	<i>n</i>	%	<i>n</i>	%		
Age M( <i>sd</i> )	35.48(8.44)		27.64(6.19)		.0001	
Sex					<.0001 †	
Male	51	63.4	2	8.0		
Female	29	36.3	23	92.0		
Race					<.0001 †	
White	35	53.8	24	96.0		
Black	43	43.8	1	4.0		
Other	2	2.5	0	0		
Latino					.29 †	.63
Yes	4	5.0	2	8.0		
No	76	95.0	23	92.0		
Education Level					.96	.08
< HS	14	17.5	5	20.0		
HS Graduate	26	32.5	8	32.0		
Some College	40	50.0	12	48.0		
Employment Status					.25	2.74
Unemployed	8	10.0	4	16.0		
<30 hrs/ wk	25	31.25	11	44.0		
+ 30 hrs/wk	47	58.75	10	40.0		
Annual Household Income					.014	8.51
<\$35,000	49	61.25	23	92.0		
>\$35,000	25	31.25	2	8.0		
missing	6	7.50	0	0		
Total # of Adults in Home					.026	9.28
1	14	17.50	9	36.0		
2	32	40.0	12	48.0		
3+	15	18.75	4	16.0		
Missing	19	23.75	0	0		
Receiving Public Services					<.0001	21.88
None	58	72.5	5	20.0		
Any	22	27.5	20	80.0		
<b>Family Structure</b>						
Total # of Children <18	143		59		0.05*	
Age						
0-2	20	13.9	17	28.8		
3-5	15	10.5	8	13.6		
6-11	52	36.4	26	44.1		
12-18	56	39.2	8	13.6		
Custody Status					0.0015	10.06
None	34	42.5	2	8.0		
Any	46	57.5	23	92.0		

Table II. Drug Court Participants (DCP) in Drug Courts (DC) and Family Treatment Courts (FTC) Characteristics on Parenting Skills Measures, Mental Health and Child Mental Health Outcomes

Court Type	DC (N=80)		FTC (N=25)		p-value ( $\alpha=.05$ )	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
<b>Parenting Skills Measures</b>						
Involvement	37.32	6.96	41.74	5.9	0.01	0.66
Positive Parenting	26.52	3.2	27.74	2.68	0.13	0.40
Poor Monitoring	14.91	4.8	10.79	2.06	<.0001 <sup>†</sup>	0.95
Inconsistent Discipline	12.94	4.41	14.26	5.11	0.27	0.29
Corporal Punishment	4.35	1.64	3.79	0.92	0.06 <sup>†</sup>	0.37
Other Discipline	17.38	2.72	17.63	2.79	0.72	0.09
<b>BCAP</b>						
Total Risk > 9	0.24	0.43	0.16	0.37	0.42	0.19
Total Risk > 12	0.15	0.36	0.08	0.28	0.37	0.20
<b>Parent Child Communication</b>	3.19	0.44	3.26	0.27	0.38 <sup>†</sup>	0.17
<b>Parent Mental Health</b>						
Global Severity Index	57.9	10.85	53.04	10.53	0.05	0.45
PST Sum	58.89	10.13	53.64	10.8	0.03	0.51
Positive Symptom Distress Index	54.7	9.35	48.88	7.72	0.006	0.65
Psychoticism	61.35	10.82	55.08	10.59	0.01	0.58
Somatization	53.01	9.51	47.92	7.61	0.02	0.56
Depression	56.0	10.95	51.2	9.2	0.05	0.45
Hostility	55.53	10.24	52.56	9.34	0.20	0.30
Phobic Anxiety	56.38	9.75	52.28	7.93	0.06	0.44
Obsessive-Compulsive	57.48	10.65	55.68	10.94	0.47	0.17
Anxiety	54.48	10.69	51	11.24	0.16	0.32
Paranoid Ideation	57.86	10.46	53.4	9.41	0.06	0.44
Interpersonal Sensitivity	57.28	10.57	53.36	10.45	0.11	0.37
<b>Trauma Symptoms</b>						
Total Symptoms	5.45	5.09	5.28	4.42	0.88	0.03
Symptom Severity	8.13	8.92	7.16	6.72	0.62	0.12
Number Traumatic Events	3.40	2.34	3.8	2.18	0.45	0.17
<b>Protective Factors</b>						
Overall Family Function	26.33	6.49	28.77	3.84	0.03 <sup>†</sup>	0.41
Social Support	18.34	3.92	19.73	2.29	0.05 <sup>†</sup>	0.39
Concrete Support	17.09	4.46	17.68	4.96	0.60	0.13
<b>Child Mental Health Outcomes</b>						
Externalizing	51.49	10.64	53.5	13.97	0.51	0.18
Internalizing	48.62	9.32	51.06	11.2	0.35	0.25
Behavioral Symptoms Index	50.58	9.59	54.06	12.8	0.21	0.33
Adaptive Skills	47.3	11.12	48.89	9.4	0.58	0.15

Pooled. † Fisher's. †Satterthwaite. *BCAP = Brief Child Abuse Potential Inventory.*

- Azzi-Lessing, L., & Olsen, L. J. (1996). Substance abuse-affected families in the child welfare system: New challenges, new alliances. *Social Work, 41*(1), 15-23.
- Banks, D., & Gottfredson, D. C. (2003). The effects of drug treatment and supervision on time to rearrest among Drug Court participants. *Journal of Drug Issues, 33*(2), 385-412.
- Bauman, P. S., & Levine, S. A. (1986). The development of children of drug addicts. *International Journal of the Addictions, 21*(8), 849-863.
- Belsky, J. (1993). Etiology of child maltreatment: A developmental Ecological analysis. *Psychological bulletin, 114*(3), 413.
- Bennett, L. A., Wolin, S. J., & Reiss, D. (1988). Cognitive, behavioral, and emotional problems among school-age children of alcoholic parents. *The American journal of psychiatry, 145*(2), 185.
- Biederman, J., Faraone, S. V., Monuteaux, M. C., & Feighner, J. A. (2000). Patterns of alcohol and drug use in adolescents can be predicted by parental substance use disorders. *Pediatrics, 106*(4), 792-797.
- Bruns, E. J., Pullmann, M. D., Weathers, E. S., Wirschem, M. L., & Murphy, J. K. (2012). Effects of a multidisciplinary family treatment drug court on child and family outcomes: Results of a quasi-experimental study. *Child maltreatment, 17*(3), 218-230.
- Burrus, S. W., Mackin, J. R., & Finigan, M. W. (2011). Show me the money: Child welfare cost savings of a family drug court. *Juvenile and Family Court Journal, 62*(3), 1-14.
- Calhoun, S., Conner, E., Miller, M., & Messina, N. (2015). Improving the outcomes of children affected by parental substance abuse: A review of randomized controlled trials. *Substance abuse and rehabilitation, 6*, 15.
- Cash, S. J., & Wilke, D. J. (2003). An ecological model of maternal substance abuse and child neglect: issues, analyses, and recommendations. *American Journal of Orthopsychiatry, 73*(4), 392.
- Center for Substance Abuse Treatment. (2004). Family dependency treatment courts: Addressing child abuse and neglect cases using the drug court model. *Bureau of Justice Assistance: Washington, DC*.
- Chaffin, M., Kelleher, K., & Hollenberg, J. (1996). Onset of physical abuse and neglect: Psychiatric, substance abuse, and social risk factors from prospective community data. *Child abuse & neglect, 20*(3), 191-203.
- Child, H., & McIntyre, D. (2015). Examining the Relationships between Family Drug Court Program Compliance and Child Welfare Outcomes. *Child welfare, 94*(4).
- Clark, D. B., & Sayette, M. A. (1993). Anxiety and the development of alcoholism. *The American Journal on Addictions, 2*(1), 59-76.
- Compton, W. M., Thomas, Y. F., Stinson, F. S., & Grant, B. F. (2007). Prevalence, correlates,

disability, and comorbidity of DSM-IV drug abuse and dependence in the United States: results from the national epidemiologic survey on alcohol and related conditions. *Archives of general psychiatry*, 64(5), 566-576.

- Conduct Problems Prevention Research Group (CPPRG). (1994). *Parent-Child Communication, (Child)*.
- Cotto, J. H., Davis, E., Dowling, G. J., Elcano, J. C., Staton, A. B., & Weiss, S. R. (2010). Gender effects on drug use, abuse, and dependence: a special analysis of results from the National Survey on Drug Use and Health. *Gender medicine*, 7(5), 402-413.
- Counts, J. M., Buffington, E. S., Chang-Rios, K., Rasmussen, H. N., & Preacher, K. J. (2010). The development and validation of the protective factors survey: A self-report measure of protective factors against child maltreatment. *Child abuse & neglect*, 34(10), 762-772.
- Dakof, G. A., Cohen, J. B., Henderson, C. E., Duarte, E., Boustani, M., Blackburn, A., ... & Hawes, S. (2010). A randomized pilot study of the Engaging Moms Program for family drug court. *Journal of substance abuse treatment*, 38(3), 263-274.
- Degenhardt, L., & Hall, W. (2012). Extent of illicit drug use and dependence, and their contribution to the global burden of disease. *The Lancet*, 379(9810), 55-70.
- Derogatis, L. R., & Melisaratos, N. (1983). The brief symptom inventory: an introductory report. *Psychological medicine*, 13(03), 595-605.
- Dore, M. M., Doris, J. M., & Wright, P. (1995). Identifying substance abuse in maltreating families: A child welfare challenge. *Child abuse & neglect*, 19(5), 531-543.
- Dunn, M. G., Tarter, R. E., Mezzich, A. C., Vanyukov, M., Kirisci, L., & Kirillova, G. (2002). Origins and consequences of child neglect in substance abuse families. *Clinical Psychology Review*, 22(7), 1063-1090.
- Fals-Stewart W, Kelley ML, Fincham FD, Golden J, Logsdon T. (2004). Emotional and behavioral problems of children living with drug-abusing fathers: comparisons with children living with abusing and non-substance-abusing fathers. *J Fam Psychol*, 18(2), 319-330.
- Fang, X., Brown, D. S., Florence, C. S., & Mercy, J. A. (2012). The economic burden of child maltreatment in the United States and implications for prevention. *Child abuse & neglect*, 36(2), 156-165.
- Fay-Ramirez, S. (2015). Therapeutic jurisprudence in practice: changes in family treatment court norms over time. *Law & Social Inquiry*, 40(1), 205-236.
- Foa EB. *Posttraumatic Stress Diagnostic Scale Manual*. National Computer Systems Inc; 1995.
- FRIENDS National Resource Center for Community-Based Child Abuse Prevention and the University of Kansas Institute for Educational Research and Public Service. (2005). *Protective Factors Survey*.
- Frick, P. J. (1991). The Alabama parenting questionnaire. *Unpublished rating scale, University of Alabama*.

- Gifford, E. J., Eldred, L. M., McCutchan, S. A., & Sloan, F. A. (2014). The effects of participation level on recidivism: a study of drug treatment courts using propensity score matching. *Substance abuse treatment, prevention, and policy*, 9(1), 40.
- Gifford, E. J., Eldred, L. M., Vernerey, A., & Sloan, F. A. (2014). How does family drug treatment court participation affect child welfare outcomes?. *Child abuse & neglect*, 38(10), 1659-1670.
- Glaze, L. E., & Parks, E. (2011). Correctional populations in the United States, 2011. *Population*, 6(7), 8.
- Grant, B. F., Saha, T. D., Ruan, W. J., Goldstein, R. B., Chou, S. P., Jung, J., ... & Hasin, D. S. (2016). Epidemiology of DSM-5 Drug Use Disorder: Results From the National Epidemiologic Survey on Alcohol and Related Conditions–III. *JAMA psychiatry*, 73(1), 39-47.
- Green, B. L., Furrer, C. J., Worsel, S. D., Burrus, S. W., & Finigan, M. W. (2009). Building the evidence base for family drug treatment courts: Results from recent outcome studies. *Drug Court Review*.
- Green, B. L., Furrer, C., Worcel, S., Burrus, S., & Finigan, M. W. (2007). How effective are family treatment drug courts? Outcomes from a four-site national study. *Child Maltreatment*, 12(1), 43-59.
- Grella, C. E., Hser, Y. I., & Huang, Y. C. (2006). Mothers in substance abuse treatment: Differences in characteristics based on involvement with child welfare services. *Child abuse & neglect*, 30(1), 55-73.
- Godley, M. D., Kahn, J. H., Dennis, M. L., Godley, S. H., & Funk, R. R. (2005). The stability and impact of environmental factors on substance use and problems after adolescent outpatient treatment for cannabis abuse or dependence. *Psychology of Addictive Behaviors*, 19(1), 62.
- Gottfredson, D. C., Najaka, S. S., & Kearley, B. (2003). Effectiveness of Drug Courts: Evidence from a randomized trial. *Criminology & Public Policy*, 2(2), 171-196.
- Hickert, A. O., Boyle, S. W., & Tollefson, D. R. (2009). Factors that predict drug court completion and drop out: Findings from an evaluation of Salt Lake County's adult felony drug court. *Journal of Social Service Research*, 35(2), 149-162.
- Holloway, K. R., Bennett, T. H., & Farrington, D. P. (2006). The effectiveness of drug treatment programs in reducing criminal behavior: A meta-analysis. *Psicothema*, 18(3).
- Howell, B. Krisberg, J. D. Hawkins, & J. J. Wilson (Eds.). Sourcebook on serious, violent and chronic juvenile offenders (pp. 213-237). Thousand Oaks, CA: Sage.
- Huddleston, W., & Marlowe, D. B. (2011). Painting the current picture. *Alexandria, VA: National Drug Court Institute*.
- Irner, T. B. (2012). Substance exposure in utero and developmental consequences in adolescence: a systematic review. *Child Neuropsychology*, 18(6), 521-549.

- Kelleher, K., Chaffin, M., Hollenberg, J., & Fischer, E. (1994). Alcohol and drug disorders among physically abusive and neglectful parents in a community-based sample. *American Journal of Public Health, 84*(10), 1586-1590.
- Koetzle, D., Listwan, S. J., Guastaferrro, W. P., & Kobus, K. (2013). Treating high-risk offenders in the community: The potential of drug courts. *International journal of offender therapy and comparative criminology*.
- Latimer, J., Morton-Bourgon, K., & Chrétien, J. A. (2006). *A meta-analytic examination of drug treatment courts: Do they reduce recidivism?* (pp. 1-24). Department of Justice, Research and Statistics Division.
- Lloyd, M. (2015). Family drug courts: Conceptual frameworks, empirical evidence, and implications for social work. *Families in Society: The Journal of Contemporary Social Services, 96*(1), 49-57.
- Loeber, R., Farrington, D. P., Stouthamer-Loeber, M., & Van Kammen, W. B. (1998). Antisocial behavior and mental health problems: Explanatory factors in childhood and adolescence. Mahwah, NJ: Lawrence Erlbaum.
- Logan, T. K., Williams, K., Leukefeld, C., & Minton, L. (2000). A drug court process evaluation: Methodology and findings. *International Journal of Offender Therapy and Comparative Criminology, 44*(3), 369-394.
- Magura, S., & Laudet, A. B. (1996). Parental substance abuse and child maltreatment: Review and implications for intervention. *Children and Youth Services Review, 18*(3), 193-220.
- Makris, N., Seidman, L. J., Valera, E. M., Biederman, J., Monuteaux, M. C., Kennedy, D. N., et al. (2010). Anterior cingulate volumetric alterations in treatment-naïve adults with ADHD: A pilot study. *Journal of Attention Disorders, 13*, 407-413.
- Mallett, S., Rosenthal, D., & Keys, D. (2005). Young people, drug use and family conflict: Pathways into homelessness. *Journal of adolescence, 28*(2), 185-199.
- Martins, S. S., Sampson, L., Cerdá, M., & Galea, S. (2015). Worldwide prevalence and trends in unintentional drug overdose: a systematic review of the literature. *American journal of public health, 105*(11), e29-e49.
- Merikangas, K. R., He, J. P., Burstein, M., Swanson, S. A., Avenevoli, S., Cui, L., & Swendsen, J. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry, 49*(10), 980-989.
- Merikangas, K. R., & McClair, V. L. (2012). Epidemiology of substance use disorders. *Human genetics, 131*(6), 779-789.
- Miller, B. A., Smyth, N. J., & Mudar, P. J. (1999). Mothers' alcohol and other drug problems and their punitiveness toward their children. *Journal of studies on alcohol, 60*(5), 632-642.
- Mitchell, O., Wilson, D. B., Eggers, A., & MacKenzie, D. L. (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*(1), 60-71.

- Milner, J. S. (1994). Assessing physical child abuse risk: The child abuse potential inventory. *Clinical Psychology Review, 14*(6), 547-583.
- Mumola, C. J., & Karberg, J. C. (2006). Drug use and dependence, state and federal prisoners, 2004 (pp. 1-12). Washington, DC: US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics.
- National Survey on Drug Use and Health. (2009). Children living with substance-dependent or substance-abusing parents: 2002 to 2007 (National Survey on Drug Use and Health Report).
- Neger, E, Prinz R. Interventions to address parenting and parental substance abuse: Conceptual and methodological considerations. *Clinical Psychology Review* [serial online]. July 1, 2015;39:71-82.
- Niccols, A., Milligan, K., Sword, W., Thabane, L., Henderson, J., & Smith, A. (2012). Integrated programs for mothers with substance abuse issues: A systematic review of studies reporting on parenting outcomes. *Harm reduction journal, 9*(1), 1.
- Ondersma, S. J., Chaffin, M. J., Mullins, S. M., & LeBreton, J. M. (2005). A brief form of the Child Abuse Potential Inventory: Development and validation. *Journal of Clinical Child and Adolescent Psychology, 34*(2), 301-311.
- Park, S., & Schepp, K. G. (2015). A systematic review of research on children of alcoholics: Their inherent resilience and vulnerability. *Journal of Child and Family Studies, 24*(5), 1222-1231.
- Patel, V., Chisholm, D., Parikh, R., Charlson, F. J., Degenhardt, L., Dua, T., ... & Lund, C. (2016). Addressing the burden of mental, neurological, and substance use disorders: key messages from Disease Control Priorities. *The Lancet, 387*(10028), 1672-1685.
- Piazza, P. V., & Le Moal, M. (1996). Pathophysiological basis of vulnerability to drug abuse: role of an interaction between stress, glucocorticoids, and dopaminergic neurons. *Annual review of pharmacology and toxicology, 36*(1), 359-378.
- Putnam-Hornstein, E., Needell, B., King, B., & Johnson-Motoyama, M. (2013). Racial and ethnic disparities: A population-based examination of risk factors for involvement with child protective services. *Child Abuse & Neglect, 37*(1), 33-46.
- Reynolds, C.R. and Kamphaus, R.W. (2006). BASC-2: Behavior Assessment System for Children, Second Edition. Upper Saddle River, NJ: Pearson Education, Inc.
- Rossmann, S. B., Roman, J. K., Zweig, J. M., Rempel, M., & Lindquist, C. H. (2011). The multi-site Drug Court evaluation: Executive summary. Washington, DC: Urban Institute.
- SAMHSA. Results from the 2010 National Survey on Drug Use and Health: Summary of National Findings vol NSDUH Series H-41, HHS Publication No. (SMA) 11-4658. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2011.
- Shaffer, D. K. (2011). Looking inside the black box of drug courts: A meta-analytic review. *Justice Quarterly, 28*(3), 493-521.

- Semidei, J., Radel, L. F., & Nolan, C. (2001). Substance abuse and child welfare: Clear linkages and promising responses. *Child Welfare, 80*(2), 109.
- Sevigny, E. L., Fuleihan, B. K., & Ferdik, F. V. (2013). Do drug courts reduce the use of incarceration?: A meta-analysis. *Journal of Criminal Justice, 41*(6), 416-425.
- Somers, J. M., Currie, L., Moniruzzaman, A., Eiboff, F., & Patterson, M. (2012). Adult treatment court of Vancouver: an empirical evaluation of recidivism. *International Journal of Drug Policy, 23*(5), 393-400.
- Staudt, M., & Cherry, D. (2009). Mental health and substance use problems of parents involved with child welfare: Are services offered and provided?. *Psychiatric Services, 60*(1), 56-60.
- Swendsen J, Burstein M, Case B, Conway K, Dierker L, He J, Merikangas KR. The use and abuse of alcohol and illicit drugs in US adolescents: results from the National Comorbidity Survey-Adolescent Supplement. *Archives of General Psychiatry.*
- Suchman, N. E., DeCoste, C., Leigh, D., & Borelli, J. (2010). Reflective functioning in mothers with drug use disorders: Implications for dyadic interactions with infants and toddlers. *Attachment & human development, 12*(6), 567-585.
- Thornberry, T., Huizinga, D., & Loeber, R. (1995). The prevention of serious delinquency and violence: Implications from the program of research on the causes and correlates of delinquency. *In J.C.*
- U.S. Department of Health and Human Services. (2005). National Household Survey on Drug Abuse. Washington, DC: HHS Substance Abuse and Mental Health Services Administration.
- U.S. Department of Health and Human Services, Office of the Surgeon General. (2016). Facing Addiction in America: The Surgeon General's Report on Alcohol, Drugs, and Health.
- Volkow, N. D., Koob, G. F., & McLellan, A. T. (2016). Neurobiologic advances from the brain disease model of addiction. *New England Journal of Medicine, 374*(4), 363-371.
- Wilson, D. B., Mitchell, O., & MacKenzie, D. L. (2006). A systematic review of drug court effects on recidivism. *Journal of Experimental Criminology, 2*(4), 459-487.
- Worcel, S. D., Furrer, C. J., Green, B. L., Burrus, S. W., & Finigan, M. W. (2008). Effects of family treatment drug courts on substance abuse and child welfare outcomes. *Child Abuse Review, 17*(6), 427-443.
- Young, N. K., Boles, S. M., & Otero, C. (2007). Parental substance use disorders and child maltreatment: Overlap, gaps, and opportunities. *Child maltreatment, 12*(2), 137-149.