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How Does the Association between Social Support and Drug Court Completion Vary by Drug of Choice?

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ABSTRACT

HOW DOES THE ASSOCIATION BETWEEN SOCIAL SUPPORT AND DRUG COURT COMPLETION VARY BY DRUG OF CHOICE?

BY

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Drug courts are a common way of handling drug-related cases in the criminal justice system, with the goal of treating the clients' substance dependency and related criminal behavior. Despite their popularity and effectiveness, some clients are not successful in drug court. Therefore, to improve drug court and client success, this study examines how social support and drug of choice impact drug court completion and how drug of choice moderates the association between social support and drug court completion. Utilizing logistic regression to analyze data from three Indiana problem-solving courts that serve drug-involved offenders, this study finds mixed effects on how social support impacts drug court completion. Formal social support has a significant yet negative effect on completion, while informal social support does not have a significant effect on drug court completion. Furthermore, it finds that drug of choice is a significant predictor of drug court completion, and drug of choice also moderates the relationship between formal social support and drug court completion.

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ACCEPTANCE

This dissertation was prepared under the direction of the candidate's Thesis Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Master of Science in Criminal Justice in the Andrew Young School of Policy Studies of Georgia State University.

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CHAPTER I: INTRODUCTION

Drug courts are designed to address drug-involved offenders (Belenko, 2001). Drug courts developed in response to the influx of drug cases and the rising U.S. prison population (U.S. Government Accountability Office [GAO], 2011; Gottfredson, Kearley, Najaka, & Rocha, 2007; Kaplan, Miller, & Wood, 2018). Since the first drug court formed in 1989, they have increased drastically in number, with 3,057 U.S. drug courts operating in 2014 (Marlowe, Hardin, & Fox, 2016). There are various types of drug courts that target specific groups and individuals, but the majority serve adult drug-abusing offenders (Marlowe et al., 2016).

Adult drug courts vary in eligibility requirements and structure, but they all aim to prevent drug use and criminal behavior among clients (Belenko, 1998). To ensure that clients abstain from these acts, drug courts require clients to attend treatment and undergo frequent drug testing, while holding them accountable to the drug court requirements. Complying with the requirements and demonstrating progress results in rewards, while failing to abide by the requirements results in sanctions. Continuous failure to follow the requirements can lead to dismissal from drug court, but the reasons for dismissal may vary by court (McRee & Drapela, 2012; Shannon, Jones, Newell, & Payne, 2018; Francis & Reynolds, 2015).

Clients that complete drug court have been shown to benefit more from the program than those who are terminated. For instance, the literature reveals that graduates are less likely to recidivate than non-graduates (Gallagher, 2014). Additionally, not completing drug court carries the possibility of receiving longer and harsher sentences, and it also may result in the cessation of treatment and services the clients need (Fulkerson, Keena, & O'Brien, 2013; Sevigny, Fuleihan, & Ferdik, 2013). However, it has been noted that participating in drug court, regardless of completing, still has its advantages (Belenko, 1998; Belenko, 2001; Francis & Reynolds,

2015), and there is considerable evidence that drug courts overall are effective, especially compared to the traditional criminal justice way of handling drug-involved offenders (Belenko, Fabrikant, & Wolff, 2011; Jones, Kemp, & Chan, 2013). For instance, drug courts have been found to reduce recidivism (Mitchell, Wilson, Eggers, & MacKenzie, 2012; GAO, 2011), drug use (Belenko, 1998; Belenko, 2001; Rossman, Roman, Zweig, Rempel, & Lindquist, 2011), and criminal justice costs (GAO, 2011; Georgia Department of Audits and Accounts Performance Audit Operations, 2010; Marlowe, 2010).

Although the advantages of drug court are evident, all the factors that may influence clients' success are not. Understanding these factors is imperative in ensuring that clients graduate and receive the full benefits of drug court. Thus, this study investigates how the factors of social support and drug of choice affect drug court completion, and how drug of choice may moderate the association between social support and drug court completion. The data used to explore these associations were collected in 2014-2015 from three Indiana courts that handle drug-abusing offenders. The findings from this study provide insightful information that can lead to improvements in drug court, drug treatment, and criminal justice policies and practices.

CHAPTER 2: LITERATURE REVIEW

Given that the drug court model reflects a therapeutic jurisprudence framework, which "is concerned with the degree to which legal systems and actors yield therapeutic outcomes for criminal justice participants," drug courts are inherently more supportive than the traditional way of handling drug-abusing offenders (Kaplan et al., 2018, pp. 14-15). However, few studies have examined whether receiving support impacts drug court clients' likelihood of completion. Therefore, social support literature among similar populations will be discussed below after a description of the theory is provided.

Following the review of literature on social support, literature on clients' drug of choice will be summarized since drug of choice is also a factor examined in this study. There are no prior studies that have investigated how drug of choice moderates the association between social support and drug court completion, but a study that examined the associations between social support, drug types, and treatment completion will be briefly discussed after the section summarizing the drug of choice literature.

Social Support Theory

Social support may come from various sources and in different forms (Pettus-Davis, 2014; Pettus-Davis, Howard, Roberts-Lewis, & Scheyett, 2011; Strauss & Falkin, 2001; Hupcey, 1998; Lewandowski & Hill, 2009). Providers of social support can be categorized into formal and informal (Cullen, 1994). Formal support providers are defined as institutions and their actors, such as the criminal justice system, clinicians, and schools, whereas informal support providers are understood as those "who do not receive pay to provide services or support," such as mentors, family, and friends (Pettus-Davis et al., 2011, p. 480; Colvin, Cullen, & Vander Ven, 2002; Cullen, 1994).

Social support can be further disaggregated by type, with four categories commonly indicated in social support literature: informational, emotional, appraisal, and instrumental support (Brooks, Lòpez, Ranucci, Krumlauf, & Wallen, 2017). Informational support includes advice and guidance (Tracy, Munson, Peterson, & Floersch, 2010; Nurullah, 2012; Orford et al., 1998), and emotional support is demonstrated through care and encouragement (Pettus-Davis, 2014; Tracy et al., 2010; Orford et al., 1998; Nurullah, 2012). Appraisal support comes through affirmation and feedback (Langford, Bowsher, Maloney, & Lillis, 1997; Malecki & Demaray, 2003), whereas instrumental support is provided through tangible goods and services, such as money, transportation, and housing (Pettus-Davis, 2014; Orford et al., 1998; Woo, Stohr, Hemmens, Lutze, Hamilton & Yoon, 2016).

These types and sources of support can affect whether social support is positive or negative (Mendoza, Perry, Derrick, Nochajski, & Farrell, 2015; Martinez & Abrams, 2013; Lewandowski & Hill, 2009). For instance, a family member that engages in drug use may provide housing to a recovering drug abuser; however, if the family member uses drugs at home, the recovering drug abuser is exposed to an environment that is unsupportive of recovery, thus rendering the instrumental support as negative (Brown & Riley, 2005). Therefore, the quality of support can vary, especially for offenders whose social networks often consist of both positive and negative support providers (Pettus-Davis et al., 2011; Pettus-Davis, 2014).

Furthermore, social support providers may view their support as positive, while recipients may view it as negative or mixed support (Hupcey, 1998). To explain this occurrence, positive social support can be considered stressful and overwhelming based on how the recipient perceives the support (Pettus-Davis et al., 2011; Barringer, Hunter, Salina, & Jason, 2017). This perception can depend on various factors, including the recipient's relationship with the provider

and what they believe is the provider's intent for supplying such support (Spohr, Livingston, Taxman, & Walters, 2019; Mendoza et al., 2015).

As suggested by the preceding review, the conceptualization and operationalization of social support varies, with no uniform definition existing across the social support literature (Hupcey, 1998; Woo et al., 2016). However, the criminal justice literature often defines social support as "the perceived or actual instrumental and/or expressive provisions supplied by the community, social networks, and confiding partners" (Cullen & Wilcox, 2010, p. 246; Lin, 1986). This definition of social support was cited by Francis Cullen (1994) during his introduction of this theory to the field.

Social support theory holds that crime is less likely to occur when there is an abundance of positive social support (Woo et al., 2016; Orrick, Worrall, Morris, Piquero, Bales, & Wang, 2011; Cullen, Wright, & Chamlin, 1999; Cao, Zhao, Ren, & Zhao, 2010; Pratt & Kunzi, 2010; Colvin et al., 2002; Martinez & Abrams, 2013). Social support can prevent and reduce crime by assisting in the attainment of instrumental and expressive needs (Colvin et al., 2002), mitigating the effects of criminogenic strains (Pratt & Kunzi, 2010), and increasing the availability and strength of social controls (Cullen, 1994; Pratt & Kunzi, 2010). Furthermore, social support theory argues that when a supportive society, community, and criminal justice system exist, crime will be prevented or reduced and that when families receive and provide support, crime is less likely to occur (Cullen, 1994). Social support theory also posits that individuals are less likely to engage in crime when they have more support within their social network, especially from law abiding and conforming individuals (Cullen, 1994).

Based on the theory of social support, it can be inferred that drug court clients with greater social support will perform better in drug court and thus be more likely to graduate than

those who lack social support. Scholars have investigated this relationship, but a consensus has yet to be determined, due to the lack of research. However, scholars have examined the effects of social support among populations of offenders and drug abusers, with the overall literature suggesting that these populations have better criminal justice, treatment, and social outcomes when they receive support.

Social Support among Offenders

Regarding offenders, social support theory has been investigated among probationers, prison releasees, and inmates. Probationers, for instance, who have positive social support from family, friends, and/or significant others have lower levels of criminal risk and substance use and are more likely to initiate treatment (Spohr, Suzuki, Marshall, Taxman, & Walters, 2016; Spohr et al., 2019). Studies report similar findings among prison releasees, as those with more family support are less likely to recidivate, use substances, and be reconvicted (La Vigne, Shollenberger, & Debus, 2009; La Vigne, Visher, & Castro, 2004; Spjeldnes, Jung, Maguire, & Yamatani, 2012). Additionally, releasees who report higher levels of family support are shown to be more successful in terms of holding employment, abstaining from drug and criminal activity, forming new friendships, and finding stable housing (Nelson, Deess, & Allen, 2011). Interviews with releasees corroborate the importance of social support upon reentry, with prison releasees reporting that support from family, friends, and their parole officer was integral to their post-release success (La Vigne et al., 2009). Inmates have also been shown to benefit from informal support (Woo et al., 2016; Mears, Cochran, Siennick, and Bales, 2012). Specifically, an association has been found between prison visits and lower levels of inmate misconduct (Woo et al., 2016) and recidivism (Mears et al., 2012).

Research examining the effects of social support, however, have also had null and counterintuitive positive results (Jiang, Fisher-Giorlando, & Mo, 2005; Spohr et al., 2016; Orrick et al., 2011; Taylor, 2016; Mowen & Visher, 2015; Jacoby & Kozie-Peak, 1997; Breese, Ra'el, & Grant, 2000). For instance, inmates who are visited by their children have been found to have higher rates of drug and property rule violations, and probationers who report a higher quantity of support providers were found to have more days of substance use (Jiang et al., 2005; Spohr et al., 2016). Additionally, some studies have shown that social support is unrelated to criminal risk, drug use, crime, and recidivism among probationers and releasees (Spohr et al., 2016; Mowen & Visher, 2015; Orrick et al., 2011; Breese et al., 2000). Despite these null and negative findings regarding social support, there is evidence that social support has a positive influence on offenders.

Social Support among Drug Users

Research examining the effects of social support among drug users suggests positive effects on relapse (Havassy, Hall, & Wasserman, 1991; Havassy, Wasserman, & Hall, 1995; McMahon, 2001; Rosenberg, 1983). Specifically, studies have found that emotional support (Havassy et al., 1995), family and friend support, and a higher quantity of support providers, are associated with less relapse (Rosenberg, 1983). Additionally, having a partner who is highly supportive of abstaining from drug use has been found to reduce the risk of relapse (Havassy et al., 1991).

In addition to relapse, social support is associated with the frequency and severity of drug use, along with treatment retention and completion. For example, Timko et al. (2017) found that less frequent, but more severe, drug use is associated with receiving support from antisocial individuals, and Dobkin, Civita, Paraherakis, and Gill (2002) found that higher perceived

functional support was associated with a reduction in alcohol use severity. Dobkin and colleagues' (2002) study, along with others (Siddall & Conway, 1988; McPherson, Boyne, & Willis, 2017; Lewandowski & Hill, 2009), also found social support is associated with treatment retention and completion. Therefore, these studies indicate that social support can reduce drug use severity, as well as treatment attrition and failure.

Conversely, social support may not always have the expected effect, or any effect, on substance users (Brown & Riley, 2005; Dobkin et al., 2002; Havassy et al., 1995; Havassy et al., 1991; Knight, Logan, & Simpson, 2001; McMahon, 2001; Rosenberg, 1983). For instance, some studies have found that users who report receiving financial support are less likely to complete treatment (Lewandowski & Hill, 2009) and that those who report low levels of family support are more likely to complete treatment (Westreich, Heitner, Cooper, Galanter, & Guedj, 1997). Furthermore, some studies have found no association between social support and the frequency of drug use (Brown & Riley, 2005) or the likelihood of treatment completion (Knight et al., 2001). Additionally, instrumental, emotional, and negative support have been shown to have no relation to relapse or risk of relapse (Havassy et al., 1995; Havassy et al., 1991). Overall, past studies reveal that functional support and support from family and friends benefit drug abusers, emotional support and support from significant others have mixed findings, and financial and instrumental support have null effects.

Social Support among Drug Court Clients

Social support has a strong conceptual link to drug courts, in that the drug court model emphasizes treatment and support to its clients. However, few studies have investigated whether social support improves the outcomes of drug court clients (Garrity, Prewitt, Joosen, Tindall, Webster, Hiller, & Leukefeld, 2006; Mendoza et al., 2015; Zehm, 2006). From these studies, the

effects of emotional, instrumental, and informational support on stress, treatment completion, and the number of warrants received have been examined. Emotional and instrumental support have been found to reduce client stress (Garrity et al., 2006), but also have no effect on treatment completion (Zehm, 2006). Informational support, however, has been shown to decrease the likelihood of treatment completion and increase the number of bench warrants received, which are the result of failing to appear in court (Zehm, 2006). The bench warrant finding is unanticipated and is perhaps due to clients receiving negative or unhelpful informational support.

Conversely, the number of bench warrants has been shown to decrease for clients "who reported that they had people in their lives who helped them handle difficult situations without using drugs and people who praised them for not using" (Zehm, 2006, p. 21). In addition, this type of support for abstinence was associated with treatment completion and fewer new offenses (Zehm, 2006).

The number of directive and unconditional support providers has also been investigated to determine whether having more providers for these types of support impact alcohol use (Mendoza et al., 2015). Directive support providers are people that clients can rely on to thoughtfully inform them of ways to improve, and unconditional support providers are people that completely accept the clients for who they are. The quantity of these two types of support providers was found to have different effects on alcohol use. Specifically, Mendoza and colleagues (2015) found that an increase in unconditional support providers was associated with a decrease in the number of alcoholic drinks consumed and in the frequency at which they were consumed. An increase in directive support providers, however, was found to increase alcohol use (Mendoza et al., 2015). Based on the discussed studies above, social support may have both positive, negative, and null effects on drug court clients.

Social Support and Drug Court Completion

A limited number of studies have specifically examined the relationship between social support and drug court completion (Contrino, Nochajski, Farrell, & Logsdon, 2016; Cosden et al., 2010; Frei, 2014; Senjo & Leip, 2001). These studies suggest that receiving support from family (Contrino et al., 2016), friends (Contrino et al., 2016; Cosden et al., 2010), or the judge (Senjo & Leip, 2001) can improve drug court outcomes. However, family support may not always impact completion, as Cosden and colleagues (2010) find that graduates and non-graduates had similar levels of family support. These findings also suggest that support received from friends influences completion more than family support since Cosden et al. (2010) did find that a significantly higher percentage of graduates report friend support than non-graduates. Cosden and colleagues (2010), however, suggest that having prosocial support providers is what is important to completion, instead of the distinction between support from family and friends.

Instead of investigating the providers of support, Frei (2014) examined the effects of various types of social support on drug court completion. Using a sample of opioid users in a Medication-Assisted Drug Treatment Court, Frei (2014) found that clients with higher levels of positive social interaction and prosocial support systems were more likely to complete drug court, as well as clients with higher levels of emotional and affectionate support. However, the levels of instrumental support did not significantly impact clients' likelihood of drug court completion (Frei, 2014).

Although the prior literature examining the effects of social support on drug court completion is limited, these studies seem to indicate that there is a relationship between social support and drug court completion. These studies, however, do have limitations. For instance, Contrino et al. (2016) and Senjo and Leip (2001) examined only one drug court, and Cosden et

al. (2000) investigated just two courts within the same county. Therefore, many of these studies lack generalizability and external validity. In addition, Contrino et al.'s study suffers from sample bias, since they only asked graduates, rather than both graduates and non-graduates, if they felt that support from their family and friends was an important factor in their completion, and Cosden et al.'s (2010) study retrospectively surveyed participants near the end of their time in drug court and lacked casual methodology. Despite the limitations of these studies, they still provide insightful information on the relationship between social support and drug court completion.

Drug of Choice and Drug Court Completion

Numerous studies in the drug court literature have investigated whether drug of choice impacts drug court completion. Some studies have found that drug of choice is not a factor affecting completion (Listwan, Shaffer, & Hartman, 2009; Butzin, Saum, & Scarpitti, 2002; Gallagher, 2013; Shaffer, Hartman, Listwan, Howell, & Latessa, 2011), but other studies reveal that it can, indeed, impact the likelihood of completing drug court (Dannerbeck, Harris, Sundet, Lloyd, 2006). In particular, one study found that "participants who used 'harder drugs,' such as heroin or cocaine, were at higher risk for failing drug court programs compared to those who used 'softer drugs,' such as marijuana" (Hickert, Boyle, & Tollefson, 2009, p. 153). Similarly, Rempel and DeStefano (2002) found that clients who preferred heroin were significantly more likely to drop out of the mandatory drug treatment court than those who preferred crack, marijuana, and other drugs.

The effects of cocaine on drug court completion have also been explored in the drug court literature, with studies revealing that preferring crack cocaine can lower the likelihood of drug court completion (Miller & Shutt, 2001; Saum, Scarpitti, & Robbins, 2001). Gallagher and

colleagues (2015), who investigated the effects of cocaine use on drug court completion (without differentiating between powder and crack cocaine), found that clients who prefer cocaine are two and a half times more likely *not* to complete the drug court program than those who prefer other drugs. Rempel and DeStefano (2002), in contrast, found that having crack as a drug of choice is associated with drug court retention, and Shaffer and colleagues (2011) found that those with a drug of choice of crack/cocaine were not significantly less likely to complete drug court compared to those with a drug of choice of alcohol and marijuana. Therefore, the literature is mixed on how cocaine as a drug of choice can impact completion.

Completion among clients who prefer methamphetamine and alcohol has also been explored in the drug court literature. DeVall and Lanier (2012), for instance, report that white participants whose drug of choice was methamphetamine were more likely to graduate than clients who preferred marijuana. Perhaps this finding is the result of inappropriate treatment and supervision targeted to clients who prefer marijuana. Primary marijuana users are more likely to have lower risk and need levels than 'hard' drug users, which would lead to poorer outcomes for marijuana users if treatment intensity and supervision is nonresponsive to their specific risks and needs. Preferring alcohol as a drug of choice, compared to other drugs (cocaine/crack, marijuana, heroin, and opiates) was also found to be associated with completion (Mendoza, Trinidad, Nochajski, & Farrell, 2013). In summary, drug of choice appears to be a key factor in understanding drug court outcomes, but more research is needed to understand how dependence on specific drugs differentially affects drug court outcomes, including the likelihood of successful program completion.

Drug of Choice, Social Support, and Drug Court Completion

*The Association between Drug of Choice and Social Suppor*t

The association between drug of choice and social support is ambiguous. Drug of choice may impact the level of social support received, and the amount of social support may also impact a user's drug of choice. The literature on these associations is limited. However, it can be theorized that drug users who prefer a certain type of drug receive less support from their family, friends, or significant others. For instance, if a certain drug is more addicting or more stigmatized, this may lead to less informal social support. Furthermore, given that research has shown an association between social support and drug use, or the lack of, (Caldwell et al., 2006; Knight, Broome, Cross, & Simpson, 1998), it can also be speculated that there is an association between social support and drug preference. Studies have shown that juveniles who begin using drugs have a lack of social support, so perhaps they also lean to a specific type of drug during this time (Knight et al., 1998). Again, the exact directional relationship between drug of choice and social support is currently unknown.

The Association between Drug of Choice, Social Support, and Drug Court Completion

The effect that clients' drug of choice has on the association between social support and drug court completion is also not known. However, one study on cocaine and alcohol dependent users in an outpatient treatment program found that family support was more influential on treatment completion for cocaine-dependent users than it was for alcohol-dependent users (Conner, Shea, McDermott, Grolling, Tocco, & Baciewicz, 1998). Although not conducted on drug court clients, the study suggests that the drug of choice may affect the association between social support and drug court completion. Therefore, future research is warranted to understand the association between social support, drug of choice, and drug court completion.

Current Study

This study examines associations that have been inconsistently investigated in prior studies, aiming to fill a gap in the drug court literature. Specifically, this study examines the effects of social support on drug court completion. Furthermore, this study examines whether clients' drug of choice moderates the relationship between social support and drug court success. These analyses will be conducted using logistic regression. The data that will be used for these analyses were collected from three problem-solving courts in Indiana that handle drug offender cases.

Hypotheses

Based on social support theory and studies that have investigated the effect of social support on drug court clients, drug users, and offenders, this study hypothesizes that clients who experience more social support will be more likely to complete drug court. Additionally, this study hypothesizes that clients' drug of choice will impact how social support affects the likelihood of completion since substance abuse recovery will vary by specific types of abused drugs.

CHAPTER 3: METHODOLOGY

Data

This study utilizes secondary data collected April 2014 to December 2015 from three problem-solving courts in Indiana that serve drug-involved offenders[1] (Dollar, Ray, Hudson, & Hood, 2018). These courts were started between 2004-2010 and vary in location and population, with urban, suburban, and rural coverage (Dollar et al., 2018). The participants were interviewed twice in a private room by a member of the court staff that was not involved in their case. They were first interviewed after their initial appearance in the problem-solving court, and 109 clients were surveyed during these baseline interviews. The second time clients were interviewed was three months into their program, and only 81 participants were interviewed during this time. Due to the smaller sample size, this study only utilized baseline data.

Variables of Interest

The dependent variable for this study is drug court outcome, operationalized as a dichotomous variable measuring whether or not the clients completed drug court (*completed* = 1, terminated = 0).

Social support is a focal construct in this study, and it is measured through both formal and informal social support. The formal social support measure was operationalized as the mean of clients' responses to the following statements using a Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree): "Your judge helps you succeed" and "Your case manager helps you succeed." Therefore, the formal social support variable measures clients' perceptions of how their judge and case manager(s) support them.

[1] The original data were collected through a study funded by the Bureau of Justice Assistance (see Dollar, Ray, Hudson, and Hood 2018). I thank Dr. Bradley Ray for sharing this data for this thesis.

In this study, informal social support is measured using the Multidimensional Scale of Perceived Social Support (MSPSS) shown in Table 1 below. (Zimet, Dahlem, Zimet, & Farley, 1988). The MSPSS has been shown to have internal reliability, test-retest reliability, and construct validity (Zimet et al., 1988), and it has also been used on both drug users (Risser, Cates, Rehman, & Risser, 2010) and offender populations (Lemieux, 2002; Asberg & Renk, 2014; Singer, Bussey, Song, & Lunghofer, 1995).

Table 1: Multidimensional Scale of Perceived Social Support (MSPSS)

Family
My family really tries to help me.
I get the emotional help and support I need from my family.
I can talk about my problems with my family.
My family is willing to help me make decisions.
Friends
My friends really try to help me.
I have friends with whom I can share my joys and sorrows.
I can talk about my problems with my friends.
I can count on my friends when things go wrong.
Significant Other
There is a special person who is around when I am in need.
There is a special person with whom I can share my joys and sorrows.
I have a special person who is a real source of comfort to me.
There is a special person in my life who cares about my feelings.

*Responses range from 1 (Strongly Disagree) to 5 (Strongly Agree)[2]

From the MSPSS, support received from family, friends, and significant others is used to operationalize informal social support. There are four statements that pertain to each of these support providers, and the mean score of all these four statements is taken to measure support from these three types of providers. Furthermore, a mean score of all twelve statements is taken

[2] The original MSPSS is measured on a 1-7 Likert scale, but the MSPSS survey administered to the study participants only allowed them to respond on a 1-5 Likert scale.

to measure clients' overall informal social support received. A higher mean on all informal social support variables indicates higher social support.

The statements in the MSPSS primarily measure general and emotional social support, but there are some statements that arguably measure informational, instrumental, and appraisal support. For instance, the statement "my family really tries to help me" can be understood as instrumental, informational, or appraisal support, or just general social support. Therefore, the types of social support cannot be investigated in this study since the informal social support measures derive from clients' responses to the MSPSS.

Clients' drug of choice, which is the drug clients prefer to use, is an independent variable in some of the analyses in this study and a moderating variable in others (Shaffer et al., 2011). This question is based on responses to the question "What was your drug of choice when you were using?" Some clients reported two drugs of choice, so a hierarchal approach was taken when recoding this variable. That is, opioids ranked above stimulants, followed by alcohol and marijuana.

The control variables in this study consist of sociodemographic variables (race, gender, employment status, relationship status, age, and educational attainment) and other relevant covariates (living with family, friends, or a significant other, risk score, number of prior arrests, self-control, and experiencing coercion, procedural justice, and reintegrative shaming). The three courts were also controlled for in this study. Both race (*white* = 1, nonwhite = 0) and gender (*male* = 1, female = 0) are operationalized as dichotomies. For race, nonwhites are grouped together due to the small numbers in the sample. Employment status (*employed* = 1, not employed = 0) and relationship status (*single* = 1, not single = 0) are also treated as dichotomous variables. Age and educational attainment are continuous variables, and educational attainment is

the highest level of education that clients have completed, which ranges from eighth grade to a graduate degree[3].

This study also looked at whether the clients *lived with family, friends, or a significant other*, compared to not living with any of the three types of potential informal support providers. Furthermore, their risk level was obtained from the Indiana Risk Assessment System (IRAS), which measures clients' needs and risks of reoffending, with a higher score indicating that clients are more at risk for reoffending (Indiana Risk Assessment System [IRAS], 2010; Dollar et al., 2018). The self-reported number of prior arrests measures client criminal history.

The other four control variables (coercion, procedural justice, reintegrative shaming, and self-control) used in this study are all scales, and these scales, or ones very similar, have all been used in prior research (Fu, Chow, & Lam, 2008; Poythress, Petrila, McGaha, & Boothroyd, 2002; Ahmed, 2001; Grasmick, Tittle, Bursik, & Arneklev, 1993. The statements for all four of the scales used in this study are listed in Appendix A.

The coercion scale measures whether clients felt coerced into entering drug court, with a higher score implying that clients felt coerced. For this scale, seven of the nine statements had to be reverse coded to ensure their direction indicated coercion. The Cronbach's alpha for this scale demonstrates that the statements on this scale have strong internal consistency, and thus, this scale is reliable ($\alpha = 0.90$). The procedural justice scale measures whether clients felt they were treated fairly and respectfully in court, mainly by the judge, on the day they were interviewed. A higher score on this scale indicates that clients believed they were treated fairly and respectfully. The Cronbach's alpha for this scale also reveals that this scale is reliable ($\alpha = 0.90$).

[3] No one in the study had less than an eighth-grade education. The coding of this variable started at eight, for eighth grade, and ended at seventeen, for a graduate degree.

To measure whether clients felt they were being shamed during drug court, the scale of reintegrative shaming was used. Nine of the fifteen statements on this scale were reverse coded, so a higher score would indicate that clients felt shamed during their time in drug court. Lastly, self-control was measured, with a high score indicating high self-control. All of the items on this scale were reverse coded because this scale originally measured low self-control (Grasmick, Tittle, Bursik, & Arneklev, 1993). Both the reintegrative shaming scale and the self-control scale showed good internal consistency in this study ($\alpha = 0.87$).

Research Design

A series of logistic regression analyses were performed to investigate the effect of social support on drug court completion and how drug of choice moderates this relationship. The first set of analyses examines the effects of formal, family, friend, significant other, and overall social support on drug court completion. The second set performs interaction analyses to examine how these associations vary by drug of choice (Kam & Franzese, 2007). To discuss the findings from these analyses, odds ratios and predicted probabilities are reported. Additionally, for the purpose of this study, a 0.1 level of significance is adopted due to the low sample size.

CHAPTER 4: RESULTS

Utilizing logistic regression, this study examined how social support impacts drug court completion, as well as how drug of choice moderates the relationship between social support and completion. The findings from these analyses are discussed below, after a description of the sample is provided. The sections describing the results are divided into two sections, one that discusses the main effect models and one that discusses the interactive models involving drug of choice as a moderator.

Sample Description

As shown in Table 2 below, about half of the clients completed drug court (45%). Additionally, the average overall, significant other, family, and formal social support scores are relatively high, with scores higher than 4, out of 5, and the average friend social support score is 3.66 out of 5. Alcohol (32%) and opioids (32%) are both the most preferred drugs of choices, followed by stimulants (23%), marijuana (13%). Most of the clients are male (67%) and white (92%), with 35 years being the average age. The clients in the sample are also mostly single (72%) and about half (46%) are employed. Furthermore, the average risk score is 21, and the average number of prior arrests is 6.42.

Table 2: Descriptive Statistics

This table depicts the mean, standard deviation, and range for all the variables used in this study.

Descriptive Statistics

	Mean	Std. Dev.	Range
Dependent Variable			
Completed Drug Court	44.90%		[0, 1]
Independent Variables and Interaction Variables			
Overall Social Support	4.12	0.62	[2.42, 5]
Significant Other SS	4.40	0.65	[2, 5]
Family SS	4.31	0.79	[1, 5]
Friend SS	3.66	1.00	[1, 5]

Formal Social Support	4.25	0.67	[2, 5]
Drug of Choice			[1, 4]
Opioids	31.63%		[0, 1]
Stimulants	23.47%		[0, 1]
Alcohol	31.63%		[0, 1]
Marijuana	13.27%		[0, 1]
Sociodemographic Variables			
White	91.84%		[0, 1]
Male	67.35%		[0, 1]
Age	34.87	10.46	[18, 68]
Employed	45.92%		[0, 1]
Educational Attainment	12.38	1.68	[8, 17]
Single	72.45%		[0, 1]
Living with family, friends, or s.o.	54.08%		[0, 1]
Predictor Variables			
Risk	20.76	7.03	[2, 37]
Number of Prior Arrests	6.42	6.64	[0, 40]
Coercion	-2.30	0.83	[-3.67, 0.33]
Procedural Justice	6.19	1.18	[1.17, 7]
Reintegrative Shaming	-0.92	0.59	[-1.80, 0.73]
Self-Control	-2.73	0.36	[-3.83, -2]
Control Variables			
Courts			[1, 3]
Court A	40.82%		[0, 1]
Court B	28.57%		[0, 1]
Court C	30.61%		[0, 1]
Observations: 98			

Main Effect Models

The results of the main effect models (Models 1 and 2) are presented in Table 3 below, and there was no concern of multicollinearity, as measured from the variance inflation factor (VIF). These models were used to investigate the effects of social support, drug of choice, and other predictor variables. Model 1 examines the effect of overall social support, whereas Model 2 examines social support disaggregated by the source of support (i.e., family, friends, and significant others). The effects of gender, race, and risk on drug court completion will first be

discussed, followed by the effects of informal social support, formal social support, and drug of choice.

Table 3: Logistic Regression Results (Coefficients and Odds Ratios) for Models 1 and 2

This table consists of the results obtained from Model 1 and Model 2, the main effect models.

	Model 1				Model 2			
	B	Std. Err.	95% C.I.	Odds Ratio	B	Std. Err.	95% C.I.	Odds Ratio
Overall SS	0.06	0.46	[-0.84, 0.96]	1.06				
Significant Other SS					0.69	0.55	[-0.40, 1.77]	1.99
Family SS					-0.28	0.44	[-1.15, 0.58]	0.75
Friend SS					-0.20	0.28	[-0.75, 0.35]	0.82
Formal SS	-1.12**	0.51	[-2.13, -0.12]	0.32**	-1.21**	0.51	[-2.21, -0.21]	0.30**
Drug of Choice (Ref = Opioids)								
Stimulants	-0.44	0.80	[-2.01, 1.14]	0.65	-0.35	0.84	[-2.01, 1.30]	0.70
Alcohol	-1.39*	0.75	[-2.85, 0.08]	0.25*	-1.45*	0.76	[-2.93, 0.03]	0.23*
Marijuana	-0.15	0.87	[-1.86, 1.55]	0.86	-0.02	0.89	[-1.77, 1.74]	0.98
White	-1.64*	0.89	[-3.39, 0.11]	0.19*	-1.64*	0.91	[-3.43, 0.15]	0.19*
Male	0.94	0.58	[-0.20, 2.08]	2.55	1.08*	0.60	[-0.09, 2.25]	2.95*
Age	-0.02	0.03	[-0.07, 0.03]	0.98	-0.02	0.03	[-0.07, 0.03]	0.98
Employed	0.28	0.61	[-0.92, 1.47]	1.32	0.40	0.64	[-0.87, 1.66]	1.48
Educational Attainment	0.02	0.14	[-0.26, 0.30]	1.02	-0.01	0.14	[-0.29, 0.27]	0.99
Single	-0.78	0.56	[-1.88, 0.32]	0.46	-0.65	0.62	[-1.86, 0.56]	0.52
Living with family, friends, or s.o.	0.38	0.56	[-0.72, 1.47]	1.46	0.28	0.57	[-0.84, 1.41]	1.33
Risk	-0.06*	0.04	[-0.13, 0.01]	0.94*	-0.07*	0.04	[-0.14, 0.01]	0.94*
Number of Prior Arrests	0.03	0.04	[-0.06, 0.11]	1.03	0.03	0.05	[-0.06, 0.12]	1.03
Coercion	0.08	0.34	[-0.58, 0.74]	1.08	0.12	0.36	[-0.60, 0.83]	1.12
Procedural Justice	-0.18	0.27	[-0.70, 0.35]	0.84	-0.25	0.30	[-0.84, 0.34]	0.78
Reintegrative Shaming	-0.91	0.63	[-2.13, 0.32]	0.40	-0.99	0.63	[-2.22, 0.25]	0.37
Self-Control	-0.22	0.87	[-1.92, 1.48]	0.80	-0.20	0.92	[-2.00, 1.60]	0.82
Court (Ref = A)								
Court B	-0.31	0.66	[-1.61, 0.99]	0.73	-0.17	0.65	[-1.45, 1.11]	0.84
Court C	-0.39	0.63	[-1.63, 0.86]	0.68	-0.33	0.65	[-1.60, 0.93]	0.72
Constant	7.40**	3.23	[1.07, 13.73]	1,634.91**	7.72**	3.37	[1.11, 14.33]	2,247.87**
	98 Observations				98 Observations			
	Hosmer-Lemeshow chi2(8) = 4.21				Hosmer-Lemeshow chi2(8) = 2.16			
	Prob > chi2 = 0.8380				Prob > chi2 = 0.9758			

Note: B = coefficient; C.I. = Confidence Interval; The Std. Error and C.I. are for the coefficient

*** p<0.01, ** p<0.05, * p<0.1

Model 1

The Effects of Gender, Race, and Risk

The results from Model 1 reveal that gender is not a statistically significant predictor in drug court completion. However, race is statistically significant, with the results showing that being white is negatively associated with completion. In particular, being white, on average, decreases the probability of completion from 0.72 to 0.42, a change of 0.3 ($p < 0.05$).

Risk score is also significantly negatively related to drug court completion. On average, holding other variables at their observed values, increasing risk score by 1 decreases the probability of completion by 0.01 ($p < 0.1$). Furthermore, changing from the lowest reported risk score of 2 to the highest of 37 decreases the probability of completion by 0.41 ($p < 0.1$).

The Effect of Informal Social Support on Completion

Informal social support, operationalized as overall social support from the MSPSS, is not significantly related to drug court completion, as depicted in Table 3. However, the direction of effect is positive overall social support.

The Effect of Formal Social Support on Completion

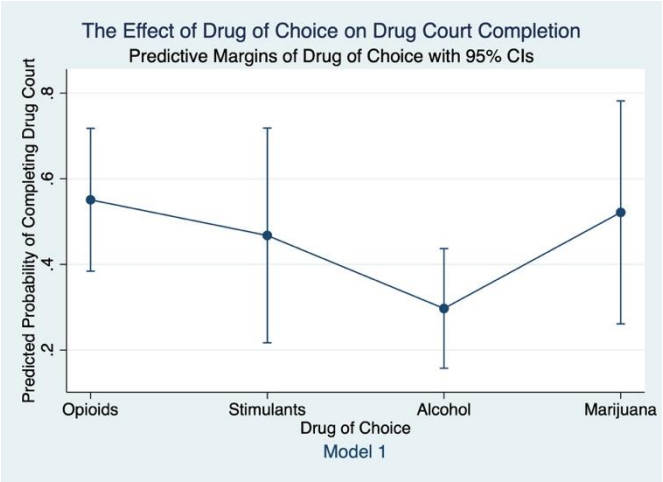
Formal social support is significantly related to drug court completion, with the likelihood of drug court completion counterintuitively decreasing as formal social support increases. Specifically, increasing formal social support by 1 decreases the probability of completion by 0.20 ($p < 0.1$). Furthermore, changing formal social support from the 5^{th} percentile of a score of 3 to the 95^{th} percentile of a score of 5 decreases the probability of completing drug court from 0.72 to 0.3, a change of 0.43 ($p < 0.1$).

The Effect of Drug of Choice on Completion

As depicted in Figure 1, drug court clients who prefer alcohol have the lowest predicted probability of completion, compared to clients who prefer stimulants, opioids, and marijuana. To be specific, the average probability of completion is lowest (0.30) for clients who prefer alcohol, followed by stimulants (0.47), marijuana (0.52), and opioids (0.55). However, only a significant difference in the likelihood of completing exists for those whose drug of choice is alcohol compared to opioids, with a change in probability of completion of 0.25 ($p < 0.05$).

Figure 1: The Effect of Drug of Choice on Drug Court Completion

This figure depicts the effect of drug of choice on drug court completion.



Model 2

The Effects of Gender, Race, and Risk

Contrary to the results of Model 1, Model 2 finds a significant relationship between gender and drug court completion, in that being male is positively associated with completion ($p < 0.1$). Specifically, the probability of completion is 0.31 for females and 0.51 for males, an increase of 0.20 ($p < 0.05$).

Model 2, however, does find similar results as Model 1 for race, in which the likelihood of completion is lower for whites. On average, the results from Model 2 reveal that the

probability of completion is 0.42 for whites and 0.72 for non-whites, a decrease of 0.30 ($p < 0.05$).

The finding that a higher risk score decreases the probability of completion holds in Model 2 as well. Holding other variables at their observed values and increasing risk score by 1 decreases the probability of completion by 0.01, on average ($p < 0.1$). Additionally, changing from the lowest reported risk score of 2 to the highest of 37 decreases the probability of completion by 0.42 ($p < 0.1$).

The Effect of Informal Social Support on Completion

The effects of family, friends, and significant other social support are not significantly related to drug court completion, as shown Table 3. However, the direction of effect is negative for family and friend social support and positive for significant other social support.

The Effect of Formal Social Support on Completion

The finding that formal social support is significantly negatively related to drug court completion holds in Model 2 as well. In particular, the probability of completion decreases by 0.20 when formal social support increases by 1 ($p < 0.05$), and it decreases by 0.44 when formal social support changes from a score of 3 to a score of 5 ($p < 0.05$).

The Effect of Drug of Choice on Completion

Model 2 results are similar to those of Model 1. In both models, the probabilities of completion for each drug of choice are mostly the same and a significant difference in the likelihood of completion exists for those whose drug of choice is alcohol compared to opioids ($p < 0.05$). In Model 2, however, clients who prefer marijuana are more likely to complete drug court than those who prefer alcohol ($p < 0.01$). Specifically, the probability of completion is 0.54

for clients with a drug of choice of marijuana, compared to 0.29 for clients who prefer alcohol. This difference was not found to be significant in Model 1.

Summary of Main Effect Models

Inconsistent with the hypotheses, the main effect models reveal that informal social support is not significantly related to drug court completion and formal social support is significantly negatively related to completion. Additionally, drug of choice, race, and risk are significant predictors of completion, while the effects of gender are inconsistent.

Interaction Models

The models reported in Tables 4 through 6 examine how the effect of the various social support scales on drug court completion varies by drug of choice. A summary of the results from all the eight models is shown in Appendix B. Multicollinearity was assessed in each of these models from the variance inflation factor (VIF), and there was no concern of multicollinearity.

Moderating Effects of Drug of Choice

Model 3 Results

Model 3, reported in Table 4, interacts overall informal social support with drug of choice and does not reveal a significant interaction.

Table 4: Logistic Regression Results (Coefficients and Odds Ratios) for Model 3

This table consists of the results obtained from Model 3.

	Model 3			
	B	Std. Err.	95% C.I.	Odds Ratio
Overall SS	-0.01	0.69	[-1.37, 1.35]	0.99
Formal SS	-1.11**	0.52	[-2.13, -0.08]	0.33**
Drug of Choice X Overall SS (Ref = Opioids)				
Stimulants X Overall SS	-0.76	1.59	[-3.88, 2.35]	0.47
Alcohol X Overall SS	0.59	1.02	[-1.41, 2.59]	1.80
Marijuana X Overall SS	-0.22	1.13	[-2.44, 2.00]	0.80

Drug of Choice (Ref = Opioids)				
Stimulants	2.62	6.44	[-10.00, 15.24]	13.74
Alcohol	-3.66	4.33	[-12.15, 4.83]	0.03
Marijuana	0.93	5.01	[-8.90, 10.76]	2.53
White	-1.41	0.91	[-3.19, 0.38]	0.24
Male	0.98	0.62	[-0.23, 2.19]	2.67
Age	-0.02	0.03	[-0.07, 0.03]	0.98
Employed	0.13	0.65	[-1.14, 1.39]	1.14
Educational Attainment	0.02	0.15	[-0.27, 0.30]	1.02
Single	-0.72	0.58	[-1.87, 0.42]	0.49
Living with family, friends, or s.o.	0.48	0.60	[-0.70, 1.67]	1.62
Risk	-0.06*	0.04	[-0.13, 0.01]	0.94*
Number of Prior Arrests	0.03	0.05	[-0.06, 0.12]	1.04
Coercion	0.06	0.33	[-0.59, 0.71]	1.06
Procedural Justice	-0.20	0.27	[-0.73, 0.32]	0.82
Reintegrative Shaming	-1.00	0.63	[-2.24, 0.23]	0.37
Self-Control	-0.43	0.85	[-2.10, 1.23]	0.65
Court (Ref = A)				
Court B	-0.35	0.72	[-1.77, 1.06]	0.70
Court C	-0.41	0.70	[-1.78, 0.96]	0.66
Constant	6.89	4.19	[-1.33, 15.11]	983.17
		98 Observations		
		Hosmer-Lemeshow chi2(8) = 4.05		
		Prob > chi2 = 0.8523		

Note: B = coefficient; C.I. = Confidence Interval; The Std. Error and C.I. are for the coefficient

*** p<0.01, ** p<0.05, * p<0.1

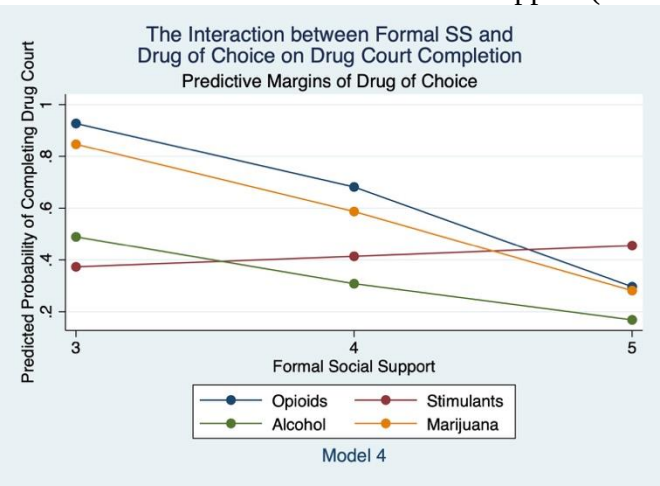
Model 4 Results

Models 4 examines formal social support interacted with drug of choice and includes the overall social support variable in the model. The results, reported in Table 5, reveal a significant negative relationship between formal social support and drug court completion. Specifically, for clients who prefer opioids, the predicted probability of completion decreases from 0.93 when they have a formal social support score of 3, to 0.30, when the have a formal social support score

of 5[4]. Conversely, the predicted probability of completion increases from 0.37, with formal social support at a score of 3, to 0.46, with formal social support score of 5, for clients with a drug of choice of stimulants. This is shown in Figure 2 below.

Figure 2: The Interaction between Drug of Choice and Formal Social Support on Drug Court Completion (Model 4)

This figure depicts the predicted probabilities of drug court completion for clients with specific drug of choices and levels of formal social support (Model 4).



Model 5 Results

Model 5 also examines formal social support interacted with drug of choice, but it includes the variables that measure support from family, friends, and significant others, rather than the overall social support variable. The interaction is significant in Model 5, and the results are similar to those of Model 4 described above. The results from Model 5 can be viewed in Table 5.

[4] A score of 3 and 5 are used because the 5th percentile is 3 and the 95th percentile is 5.

Table 5: Logistic Regression Results (Coefficients and Odds Ratios) for Models 4 and 5

This table depicts the results obtained from Models 4 and 5.

	Model 4				Model 5			
	B	Std. Err.	95% C.I.	Odds Ratio	B	Std. Err.	95% C.I.	Odds Ratio
Overall SS	0.01	0.46	[-0.88, 0.91]	1.01				
Significant Other SS					0.73	0.59	[-0.43, 1.89]	2.07
Family SS					-0.36	0.46	[-1.27, 0.55]	0.70
Friend SS					-0.19	0.29	[-0.76, 0.38]	0.83
Formal SS	-2.04**	0.81	[-3.62, -0.46]	0.13**	-2.17***	0.80	[-3.74, -0.60]	0.11***
Drug of Choice X Formal SS (Ref = Opioids)								
Stimulants X Formal SS	2.25**	1.03	[0.22, 4.28]	9.49**	2.26**	1.00	[0.30, 4.23]	9.62**
Alcohol X Formal SS	1.07	1.09	[-1.07, 3.21]	2.91	1.14	1.07	[-0.95, 3.24]	3.14
Marijuana X Formal SS	0.41	1.11	[-1.77, 2.60]	1.51	0.61	1.09	[-1.52, 2.74]	1.84
Drug of Choice (Ref = Opioids)								
Stimulants	-10.39**	4.54	[-19.29, -1.48]	0.00**	-10.34**	4.41	[-18.99, -1.69]	0.00**
Alcohol	-6.24	4.52	[-15.10, 2.62]	0.00	-6.60	4.36	[-15.14, 1.94]	0.00
Marijuana	-2.16	4.58	[-11.14, 6.82]	0.12	-2.83	4.36	[-11.38, 5.72]	0.06
White	-1.74*	0.94	[-3.58, 0.10]	0.18*	-1.76*	0.95	[-3.63, 0.11]	0.17*
Male	0.88	0.59	[-0.27, 2.03]	2.41	1.05*	0.59	[-0.10, 2.21]	2.87*
Age	-0.01	0.03	[-0.06, 0.04]	0.99	-0.01	0.03	[-0.07, 0.04]	0.99
Employed	0.29	0.58	[-0.85, 1.42]	1.33	0.42	0.60	[-0.76, 1.60]	1.52
Educational Attainment	0.10	0.14	[-0.17, 0.37]	1.10	0.07	0.14	[-0.20, 0.34]	1.07
Single	-1.02*	0.56	[-2.11, 0.06]	0.36*	-0.85	0.63	[-2.08, 0.38]	0.43
Living with family, friends, or s.o.	0.16	0.59	[-0.99, 1.32]	1.18	0.09	0.61	[-1.10, 1.28]	1.09
Risk	-0.08*	0.04	[-0.16, 0.00]	0.93*	-0.08*	0.04	[-0.16, 0.00]	0.92*
Number of Prior Arrests	0.01	0.04	[-0.07, 0.10]	1.01	0.02	0.04	[-0.07, 0.10]	1.02
Coercion	0.27	0.35	[-0.40, 0.95]	1.32	0.28	0.39	[-0.48, 1.04]	1.32

Procedural Justice	-0.15	0.32	[-0.77, 0.47]	0.86	-0.22	0.33	[-0.87, 0.44]	0.80
Reintegrative Shaming	-0.99	0.67	[-2.30, 0.32]	0.37	-1.04	0.67	[-2.35, 0.27]	0.35
Self-Control	-0.22	0.92	[-2.02, 1.59]	0.81	-0.17	0.96	[-2.05, 1.71]	0.85
Court (Ref = A)								
Court B	-0.41	0.70	[-1.78, 0.95]	0.66	-0.27	0.69	[-1.63, 1.09]	0.76
Court C	-0.44	0.64	[-1.69, 0.80]	0.64	-0.38	0.66	[-1.67, 0.91]	0.68
Constant	11.54***	4.16	[3.38, 19.70]	102,847.57***	11.93***	4.07	[3.95, 19.90]	151,377.67***
	98 Observations				98 Observations			
	Hosmer-Lemeshow chi2(8) = 7.95				Hosmer-Lemeshow chi2(8) = 8.83			
	Prob > chi2 = 0.4386				Prob > chi2 = 0.3565			

Note: B = coefficient; C.I. = Confidence Interval; The Std. Error and C.I. are for the coefficient

*** p<0.01, ** p<0.05, * p<0.1

Model 6 Results

Model 6 investigates the interaction between significant other social support and drug of choice, and these results are depicted in Table 6. This association is insignificant.

Model 7 Results

Model 7, reported in Table 6, interacts family social support with drug of choice. This interaction is not significant.

Model 8 Results

Model 8 investigates the interaction between friend social support and drug of choice, and the interaction is not significant. These results are depicted in Table 6.

Table 6: Logistic Regression Results (Coefficients and Odds Ratios) for Models 6, 7, and 8

This table depicts the results obtained from Models 6, 7, and 8.

	Model 6				Model 7				Model 8			
	B	Std. Err.	95% C.I.	Odds Ratio	B	Std. Err.	95% C.I.	Odds Ratio	B	Std. Err.	95% C.I.	Odds Ratio
Significant Other SS	0.61	0.64	[-0.64, 1.87]	1.84	0.75	0.59	[-0.40, 1.91]	2.12	0.72	0.58	[-0.43, 1.86]	2.05
Family SS	-0.53	0.48	[-1.46, 0.40]	0.59	-0.67	0.57	[-1.78, 0.44]	0.51	-0.33	0.44	[-1.19, 0.53]	0.72
Friend SS	-0.22	0.29	[-0.78, 0.35]	0.80	-0.16	0.28	[-0.72, 0.39]	0.85	0.27	0.55	[-0.82, 1.36]	1.31
Formal SS	-1.24**	0.50	[-2.22, -0.26]	0.29**	-1.20**	0.54	[-2.25, -0.14]	0.30**	-1.09**	0.52	[-2.11, -0.06]	0.34**
Drug of Choice X Significant Other SS (Ref = Opioids)												
Stimulants X Significant Other SS	-0.48	1.10	[-2.64, 1.68]	0.62								
Alcohol X Significant Other SS	1.32	1.03	[-0.70, 3.34]	3.74								
Marijuana X Significant Other SS	1.28	0.90	[-0.49, 3.05]	3.59								
Drug of Choice X Family SS (Ref = Opioids)												
Stimulants X Family SS					0.08	1.39	[-2.64, 2.80]	1.08				
Alcohol X Family SS					0.72	0.62	[-0.50, 1.94]	2.06				
Marijuana X Family SS					0.35	1.31	[-2.23, 2.92]	1.41				
Drug of Choice X Friend SS (Ref = Opioids)												
Stimulants X Friend SS									-0.79	0.91	[-2.57, 0.99]	0.45
Alcohol X Friend SS									-0.30	0.75	[-1.77, 1.17]	0.74
Marijuana X Friend SS									-0.99	0.76	[-2.48, 0.50]	0.37
Drug of Choice (Ref = Opioids)												
Stimulants	1.72	4.81	[-7.72, 11.16]	5.58	-0.68	6.28	[-12.99, 11.62]	0.50	2.57	3.52	[-4.33, 9.48]	13.12
Alcohol	-7.14	4.63	[-16.21, 1.93]	0.00	-4.46	2.74	[-9.82, 0.91]	0.01	-0.15	2.97	[-5.97, 5.68]	0.86
Marijuana	-5.77	4.14	[-13.90, 2.35]	0.00	-1.50	5.98	[-13.22, 10.23]	0.22	4.01	3.13	[-2.12, 10.14]	55.14
White	-1.47	0.96	[-3.34, 0.41]	0.23	-1.55	0.98	[-3.47, 0.37]	0.21	-1.38	0.91	[-3.15, 0.40]	0.25

Male	1.08*	0.60	[-0.10, 2.25]	2.93*	1.11*	0.60	[-0.08, 2.29]	3.02*	1.14*	0.64	[-0.11, 2.38]	3.12*
Age	-0.02	0.03	[-0.08, 0.03]	0.98	-0.02	0.03	[-0.08, 0.03]	0.98	-0.02	0.03	[-0.08, 0.03]	0.98
Employed	0.32	0.71	[-1.07, 1.72]	1.38	0.38	0.68	[-0.96, 1.72]	1.46	0.32	0.64	[-0.93, 1.57]	1.38
Educational Attainment	-0.04	0.15	[-0.33, 0.25]	0.96	-0.02	0.14	[-0.31, 0.26]	0.98	-0.03	0.15	[-0.32, 0.27]	0.98
Single	-0.41	0.64	[-1.66, 0.84]	0.66	-0.64	0.61	[-1.84, 0.57]	0.53	-0.72	0.65	[-2.00, 0.56]	0.49
Living with family, friends, or s.o.	0.46	0.60	[-0.71, 1.64]	1.59	0.39	0.60	[-0.79, 1.56]	1.47	0.28	0.59	[-0.87, 1.43]	1.32
Risk	-0.06	0.04	[-0.13, 0.02]	0.94	-0.07*	0.04	[-0.14, 0.01]	0.94*	-0.07*	0.04	[-0.15, 0.00]	0.93*
Number of Prior Arrests	0.03	0.05	[-0.06, 0.12]	1.03	0.03	0.05	[-0.06, 0.12]	1.03	0.04	0.04	[-0.04, 0.13]	1.05
Coercion	-0.03	0.36	[-0.75, 0.68]	0.97	0.05	0.36	[-0.66, 0.77]	1.06	0.16	0.37	[-0.57, 0.90]	1.18
Procedural Justice	-0.32	0.31	[-0.92, 0.28]	0.73	-0.27	0.31	[-0.87, 0.34]	0.76	-0.29	0.31	[-0.90, 0.32]	0.75
Reintegrative Shaming	-0.84	0.67	[-2.15, 0.47]	0.43	-0.90	0.65	[-2.17, 0.37]	0.41	-1.07*	0.64	[-2.32, 0.18]	0.34*
Self-Control	-0.32	0.98	[-2.24, 1.59]	0.72	-0.25	0.96	[-2.14, 1.64]	0.78	-0.25	0.89	[-2.00, 1.50]	0.78
Court (Ref = A)												
Court B	-0.33	0.67	[-1.64, 0.98]	0.72	-0.27	0.67	[-1.59, 1.04]	0.76	0.10	0.75	[-1.36, 1.57]	1.11
Court C	-0.33	0.70	[-1.71, 1.04]	0.72	-0.45	0.67	[-1.77, 0.86]	0.64	-0.18	0.71	[-1.57, 1.20]	0.83
Constant	9.16**	3.87	[1.58, 16.74]	9,509.60**	9.01**	4.10	[0.97, 17.05]	8,193.48**	5.65	3.84	[-1.88, 13.19]	285.54
	98 Observations Hosmer-Lemeshow chi2(8) = 5.92 Prob > chi2 = 0.6563				98 Observations Hosmer-Lemeshow chi2(8) = 3.58 Prob > chi2 = 0.8930				98 Observations Hosmer-Lemeshow chi2(8) = 6.87 Prob > chi2 = 0.5503			

Note: B = coefficient; C.I. = Confidence Interval; The Std. Error and C.I. are for the coefficient

*** p<0.01, ** p<0.05, * p<0.1

Summary of Interaction Models

The interaction models show that drug of choice does not moderate the relationship between *informal* social support (overall, family, significant, other, and friend social support) and drug court completion. Thus, just as informal social support does not directly affect drug court completion, it does not significantly vary in its effect by the type of drug clients prefer.

Drug of choice, however, does significantly affect the relationship between *formal* social support and drug court completion.

CHAPTER 5: DISCUSSION

This study used data from three problem-solving courts in Indiana to investigate the effects of social support and drug of choice on drug court completion, and how drug of choice moderates the association between social support and drug court completion. The hypotheses of this study were that social support would increase the likelihood of drug court completion and that the effects of social support on completion would vary by drug of choice.

Instead, this study found that informal social support did not significantly impact completion, whereas formal social support negatively affected completion. The null findings for informal social support may be due to the MSPSS mostly measuring emotional and overall social support, instead of instrumental, informational, and appraisal support, or perhaps they are due to this study not being able to analyze the quality of the relationships between the support providers and the clients. However, Frei (2014) examined overall and emotional social support and found that they both significantly affect completion. Additionally, Cosden et al.'s (2010) study did not examine types of support or social support quality and still found significant effects between informal social support and drug court completion. Therefore, these contradictory findings are interesting and warrant further research on the relationship between informal social support and drug court outcomes.

The unanticipated findings of formal social support negatively affecting completion are also interesting and contradictory to Senjo and Leip's (2001) findings. Perhaps clients felt that their case manager(s) and judge would ensure their graduation of drug court because they were highly supportive of them, or perhaps the clients became dependent on their case manager(s) and judge's support that they lacked self-reliance. Furthermore, the formal social support that clients received could have lessened overtime, which this study did not examine. These potential

explanations for this relationship are, however, speculative as this study was not able to examine these factors.

Regarding the interactive hypotheses, the effect of informal social support on drug court completion did not vary by drug of choice. These null effects may be due to the insignificant relationship between social support and drug court completion found in the main models. Drug of choice, however, did moderate the relationship between formal social support and drug court completion, with the results revealing that clients who prefer stimulants, compared to those who prefer opioids, have a 0.16 higher predicted probability of completing drug court when they perceive high formal social support (a score of 5)[5]. Overall, these findings show that an increase in formal social support affects the likelihood of completion differently for clients who prefer specific types of drugs.

For the main effect of drug of choice, alcohol has the lowest predicted probability of drug court completion, which is an unanticipated finding that contradicts Mendoza et al.'s (2013) finding that clients with alcohol as a drug of choice have greater odds of completing drug court than clients who preferred other drugs. Perhaps the difference in findings is because Mendoza et al. (2013) treated drug of choice as a dichotomous variable, either clients preferred alcohol (83.6%) or other drugs (16.4%), while this study looked at four different drugs of choices, with only 31.63% of clients preferring alcohol. Additionally, this study contained users who preferred methamphetamine, which was coded as stimulants along with cocaine, but Mendoza et al.'s (2013) study did not consist of clients who preferred methamphetamine. Another possibility is that drug courts are better suited for clients who prefer illegal substances since drug courts were formed to handle the influx of drug cases in the 1980s (GAO, 2011). However, this is just

[5] These are the results from Model 4. The findings are similar for Model 5. See Table 5 for both Model 4 and 5 results.

speculation since the drug court literature has not thoroughly investigated how each specific drug of choice can impact the likelihood of completion.

Regarding the other predictor variables, being female and white decreases the likelihood of completing drug court. This finding on gender suggests that drug courts may not be responsive to female treatment needs. However, it does contradict prior studies that found that females are more likely than males to graduate from drug court (Gill, 2016; Gray & Saum, 2005). Furthermore, the finding that whites are less likely to complete drug court also contradicts prior literature (Gill, 2016; Gray & Saum, 2005; DeVall & Lanier, 2012; Mateyoke-Scrivner, Webster, Staton, & Leukefeld, 2004), but it should be noted that very few clients in this sample are not white (8.16%).

Limitations

This study does not come without its limitations. For instance, there are factors that have been shown to impact drug court completion that this study was not able to control for, such as the clients' severity of addiction (Gill, 2016; Shah, DeMatteo, Keesler, Davis, Heilbrun, & Festinger, 2015), age of onset drug use (DeVall & Lanier, 2012), depression (Evans, Li, & Hser, 2009; Mendoza et al., 2013), number of drug court sanctions (Gill, 2016; Wu, Altshuler, Short, & Roll, 2012; Guydish, 2002), and number of failed drug tests (Deschenes, Ireland, & Kleinpeter, 2009; Gallagher et al., 2015; Gill, 2016; Sechrest & Shicor, 2001). Of these variables, depression, drug court sanctions, and failed drug tests may also be correlated with drug court completion, the dependent variable, and social support, the independent variable, causing omitted variable bias.

Additionally, this study utilizes baseline data. It does not examine changes in support throughout clients' time in drug court, and it also lacks a causal study design. The sample for this

study was also not random, and a control group was not used (Dollar et al., 2018). Another potential limitation of this study is that the sample may also not be representative of the overall drug court client population since most of the clients in the study are white (91.84%). The scales measuring social support were also limited in their actual range, in relation to their possible range. Therefore, the variation on these scales is more limited.

Furthermore, this study relies on self-reported data for certain variables, such as age, educational attainment, and the number of prior arrests. Age, in particular, is not very reliably measured. Two variables measuring age existed in the dataset, but each of these variables reported inconsistent values. This study went with the self-reported variable for age, rather than the administrators' report of age, due to other errors in the administrator data that raised concerns with reliability. Lastly, the sample size of this study is relatively low, which contributes to lower statistical power for the models and can result in a lack of statistical findings.

Future studies should address these limitations, and they should also examine how different types of social support may affect drug court completion and whether the providers of these various types of social support are involved in drugs or illegal activity. This study was not able to differentiate among the various types of social support since informal social support was measured from the MSPSS, and formal social support was measured by only one question. Additionally, this study did not have information about the quality of the relationships between the recipients and the providers or whether the providers of social support were law-abiding citizens, factors that can impact how social support affects the recipients (Spohr et al., 2016; Spjeldnes & Goodkind, 2009; La Vigne et al., 2004; Martinez & Abrams, 2013; Pettus-Davis, Veeh, Davis, & Tripodi, 2018). Therefore, future studies should investigate how all types of

social support can impact drug court completion and also assess the quality of the relationships between the social support providers and clients.

Policy Implications

The findings from this study provide important insights for drug courts. For instance, the finding that drug court clients who prefer alcohol are significantly less likely to complete drug court than clients who prefer illicit drugs suggests that drug courts may not properly address or be suited for alcohol abusers. Based on this finding, drug courts could take additional measures to ensure their programs are suitable for all substance-involved offenders, regardless of their drug of choice, or these offenders could be recommended to DUI court, rather than drug court, if appropriate.

The finding that formal social support can negatively affect drug court completion suggests that judges and case managers may not be providing the type of support that clients need or can benefit the most from. This finding, however, is unanticipated and should be taken with caution, especially since the specific forms of formal support were not investigated. Therefore, this relationship should be further explored before this finding influences drug court practices.

Another unexpected finding from this study is the null effects of informal social support on drug court completion. These null findings suggest that informal social support is not critical to drug court completion. However, informal social support may be integral to clients' post-drug court success, so perhaps clients would benefit from receiving social support. This potential relationship between informal social support and post-drug court success was not explored in this study, but future research should investigate this relationship.

Lastly, the finding that having opioids as a drug of choice negatively affects the relationship between formal social support and completion, compared to stimulants, which positively affects the relationship between formal social support and completion is insightful to the drug court literature. Due to this finding, drug courts should remain aware of clients' drug of choice and how much support they perceive is being provided by their judge and case manager(s). For instance, drug courts should ensure that clients who prefer stimulants feel highly supported by their judge and case manager(s) when they first begin drug court.

Conclusion

This study contributed to the drug court literature by examining the relationship between social support and drug court completion with a new dataset, and it also explored a relationship that has yet to be investigated in the drug court literature. The findings of this study reveal that informal social support does not affect drug court completion, while formal social support negatively affects drug court completion. Furthermore, the results from this study indicate that clients who prefer alcohol have a lower likelihood of completion, compared to clients who prefer illegal substances, such as opioids. Lastly, this study shows that the effect of formal social support on drug court completion varies by drug of choice. Overall, this study had findings that were unanticipated and contradictory to previous studies, suggesting that research should continue investigating the factors affecting drug court completion, but it also provides insightful information that can be useful to drug courts, drug treatment, and the criminal justice system.

APPENDIX A

Coercion

I felt free to do what I wanted when deciding to be in drug court.
I chose to be in drug court.
It was my idea to be in drug court.
I had a lot of control over whether I was in drug court.
I had more influence than anyone else on whether I was in drug court.
I had enough of a chance to say whether I wanted to go to drug court.
My opinion about going to drug court didn't matter.
I got to say what I wanted about going to drug court.
No one seemed to want to know whether I wanted to come into drug court.

Procedural Justice

At court today, did you have enough opportunity to tell the judge what you think he/she needed to hear about your personal and legal situation?
At court today, did the judge seem genuinely interested in you as a person?
At court today, did the judge treat you respectfully?
At court today, did the judge treat you fairly?
Are you satisfied with how the judge treated you and dealt with your case today?
Are you satisfied with the decisions made about your case today?

Reintegrative Shaming

Were you treated in drug court as though you were likely to commit another offense?
Did people in drug court say that it was not like you to do something wrong?
Have people made it clear to you that you can put the whole thing behind you?
Did people during drug court make negative judgments about what kind of person you are?
During drug court did people indicate that they accepted you as basically law abiding?
Did you learn from drug court that there are people who care about you?
During drug court were you treated as though you were a criminal?
During drug court did any of the people who are important to you reject you because of your offense?
At the end of drug court today did people indicate that you were forgiven?
During drug court did people suggest that they loved you regardless of what you did?
During drug court did people talk about aspects of yourself which they like?
Did others at the drug court say that you had learned your lesson and now deserved a second chance?
During drug court were you treated as though you were a bad person?
Were you treated as a trustworthy person in drug court?
Do you feel that others will not let you forget what you have done?

Self-Control

I often act on the spur of the moment without stopping to think.
I don't devote much thought and effort to preparing for the future.
I often do whatever brings me pleasure here and now, even at the cost of some distant goal.
I'm more concerned with what happens to me in the short run than in the long run.
I frequently try to avoid projects that I know will be difficult.
When things get complicated, I tend to quit or withdraw.
The things in life that are easiest to do bring me the most pleasure.
I dislike really hard tasks that stretch my ability to the limit.
I like to test myself every now and then by doing something a little risky.
Sometimes I will take a risk just for the fun of it.
I sometimes find it exciting to do things for which I might get in trouble.
Excitement and adventure are more important to me than security.
If I had a choice, I would almost always rather do something physical than something mental.
I almost always feel better when I am on the move than when I am sitting and thinking.
I like to get out and do things more than I like to read or contemplate ideas.
I seem to have more energy and a greater need for activity than most other people my age.
I try to look out for myself first, even if it means making things difficult for other people.
If things I do upset people, it's their problem not mine.
I will try to get the things I want even when I know it's causing problems for other people.
I lose my temper pretty easily.
Often, when I'm angry at people I feel more like hurting them than talking to them about why I am angry.
When I'm really angry, other people better stay away from me.
When I have a serious disagreement with someone, it's usually hard for me to talk calmly about it without getting upset.

APPENDIX B

This table is a summary of the coefficients and standard errors for all the significant values found in all the 8 models.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Overall SS	ns		ns	ns				
Significant Other SS		ns			ns	ns	ns	ns
Family SS		ns			ns	ns	ns	ns
Friend SS		ns			ns	ns	ns	ns
Formal SS	-1.12**	-1.21**	-1.11**	-2.04**	-2.17***	-1.24**	-1.20**	-1.09**
	(0.51)	(0.51)	(0.52)	(0.81)	(0.80)	(0.50)	(0.54)	(0.52)
Drug of Choice (Ref = Opioids)								
Stimulants	ns	ns	ns	-10.39**	-10.34**	ns	ns	ns
				(4.54)	(4.41)			
Alcohol	-1.39*	-1.45*	ns	ns	ns	ns	ns	ns
	(0.75)	(0.76)						
Marijuana	ns	ns	ns	ns	ns	ns	ns	ns
Drug of Choice X Overall SS (Ref = Opioids)								
Stimulants X Overall SS			ns					
Alcohol X Overall SS			ns					
Marijuana X Overall SS			ns					
Drug of Choice X Formal SS (Ref = Opioids)								
Stimulants X Formal SS				2.25**	2.26**			
				(1.03)	(1.00)			
Alcohol X Formal SS				ns	ns			
Marijuana X Formal SS				ns	ns			
Drug of Choice X Significant Other SS (Ref = Opioids)								
Stimulants X Significant Other SS						ns		
Alcohol X Significant Other SS						ns		
Marijuana X Significant Other SS						ns		
Drug of Choice X Family SS (Ref = Opioids)								
Stimulants X Family SS							ns	
Alcohol X Family SS							ns	
Marijuana X Family SS							ns	
Drug of Choice X Friend SS (Ref = Opioids)								
Stimulants X Friend SS								ns

Alcohol X Friend SS								ns
Marijuana X Friend SS								ns
White	-1.64*	-1.64*	ns	-1.74*	-1.76*	ns	ns	ns
	(0.89)	(0.91)		(0.94)	(0.95)	(0.96)	(0.98)	(0.91)
Male	ns	1.08*	ns	ns	1.05*	1.08*	1.11*	1.14*
	(0.58)	(0.60)	(0.62)	(0.59)	(0.59)	(0.60)	(0.60)	(0.64)
Age	ns	ns	ns	ns	ns	ns	ns	ns
Employed	ns	ns	ns	ns	ns	ns	ns	ns
Educational Attainment	ns	ns	ns	ns	ns	ns	ns	ns
Single	ns	ns	ns	-1.02*	ns	ns	ns	ns
				(0.56)				
Living with family, friends, or s.o.	ns	ns	ns	ns	ns	ns	ns	ns
Risk	-0.06*	-0.07*	-0.06*	-0.08*	-0.08*	ns	-0.07*	-0.07*
	(0.04)	(0.04)	(0.04)	(0.04)	(0.04)		(0.04)	(0.04)
Number of Prior Arrests	ns	ns	ns	ns	ns	ns	ns	ns
Coercion	ns	ns	ns	ns	ns	ns	ns	ns
Procedural Justice	ns	ns	ns	ns	ns	ns	ns	ns
Reintegrative Shaming	ns	ns	ns	ns	ns	ns	ns	-1.07*
								(0.64)
Self-Control	ns	ns	ns	ns	ns	ns	ns	ns
Court (Ref = Court A)								
Court B	ns	ns	ns	ns	ns	ns	ns	ns
Court C	ns	ns	ns	ns	ns	ns	ns	ns
Constant	7.40**	7.72**	ns	11.54***	11.93***	9.16**	9.01**	ns
	(3.23)	(3.37)		(4.16)	(4.07)	(3.87)	(4.10)	
Observations	98	98	98	98	98	98	98	98

Note: The coefficients are reported; Robust standard errors in parentheses; ns = Not Significant

*** p<0.01, ** p<0.05, * p<0.1

APPENDIX C

This table shows the correlation coefficients between the variables used in this study.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Completion (1)	1.00									
Overall SS (2)	-0.02	1.00								
Significant Other SS (3)	-0.00	0.78*	1.00							
Family SS (4)	-0.03	0.80*	0.67*	1.00						
Friend SS (5)	-0.01	0.72*	0.27*	0.24*	1.00					
Formal SS (6)	-0.20*	0.33*	0.39*	0.38*	0.05	1.00				
Drug of Choice (7)	0.05	0.02	0.05	0.01	-0.00	-0.02	1.00			
White (8)	-0.09	-0.10	-0.11	-0.18	0.02	-0.04	-0.25*	1.00		
Male (9)	0.15	0.15	0.05	0.19*	0.09	0.14	-0.03	0.10	1.00	
Age (10)	-0.09	0.04	0.10	-0.02	0.03	-0.06	0.13	-0.03	0.08	1.00
Employment Status (11)	-0.01	-0.02	-0.07	0.08	-0.06	0.15	0.12	0.19*	0.02	-0.05
Education (12)	-0.08	-0.00	0.04	-0.01	-0.02	-0.07	0.10	0.06	-0.13	0.10
Single (13)	-0.16	0.09	-0.02	0.17	0.05	0.11	-0.15	-0.09	-0.04	-0.14
Living with family, friend, or s.o. (14)	0.08	-0.09	0.02	0.03	-0.21*	0.25*	0.09	0.02	0.07	-0.05
Risk (15)	-0.25*	0.11	0.13	0.17	-0.03	0.26*	-0.09	-0.12	0.01	0.06
Prior Arrest (16)	0.05	-0.08	-0.15	-0.07	0.01	-0.15	-0.16	0.10	-0.09	-0.04
Coercion (17)	0.11	-0.12	-0.21*	-0.14	0.03	-0.38*	0.13	-0.17	0.04	0.03
Procedural Justice (18)	-0.10	0.30*	0.40*	0.21*	0.13	0.58*	-0.03	0.01	0.03	0.04
Reintegrative Shaming (19)	0.01	-0.39*	-0.41*	-0.33*	-0.19*	-0.56*	0.00	0.13	0.03	-0.01
Self-control (20)	0.03	-0.19*	-0.17	-0.17	-0.10	-0.11	-0.07	-0.10	-0.09	-0.25*
Court (21)	-0.05	0.06	-0.02	0.02	0.12	0.07	-0.14	0.01	-0.12	-0.13

*Shows significance at 0.05 level

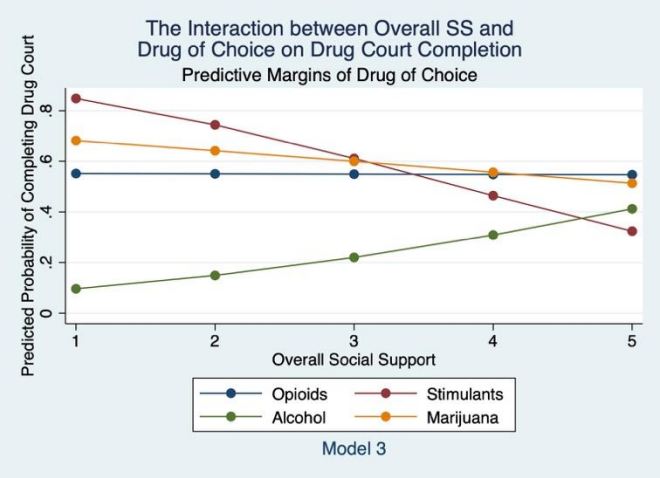
	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)
Employment Status (11)	1.00										
Education (12)	0.00	1.00									
Single (13)	-0.09	0.03	1.00								
Living with family, friend, or s.o. (14)	0.23*	-0.03	-0.20*	1.00							
Risk (15)	0.00	0.13	0.12	-0.01	1.00						
Prior Arrest (16)	0.00	-0.01	-0.06	-0.21*	-0.11	1.00					
Coercion (17)	-0.04	0.15	0.10	-0.07	-0.00	-0.01	1.00				
Procedural Justice (18)	0.11	-0.12	-0.09	0.22*	0.13	-0.19	-0.40*	1.00			
Reintegrative Shaming (19)	-0.16	0.15	0.13	-0.19*	-0.05	0.20*	0.33*	-0.62*	1.00		
Self-control (20)	-0.31*	-0.15	0.07	-0.06	-0.09	0.09	0.02	-0.23*	0.10	1.00	
Court (21)	0.12	-0.05	0.10	-0.07	0.09	-0.02	-0.02	0.09	-0.17	0.02	1.00

*Shows significance at 0.05 level

APPENDIX D

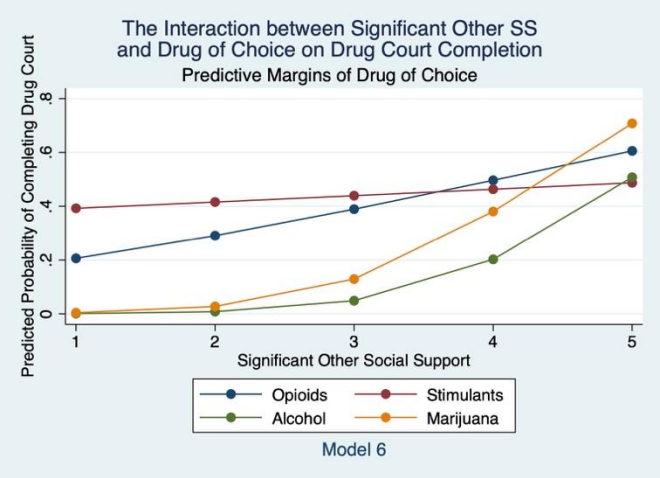
The Interaction between Drug of Choice and Overall Social Support on Drug Court Completion (Model 3)

This figure depicts the predicted probabilities of drug court completion for clients with specific drug of choices and levels of overall social support (Model 3). The 5th percentile score for overall social support is 3.08, and the 95th percentile score is 5.



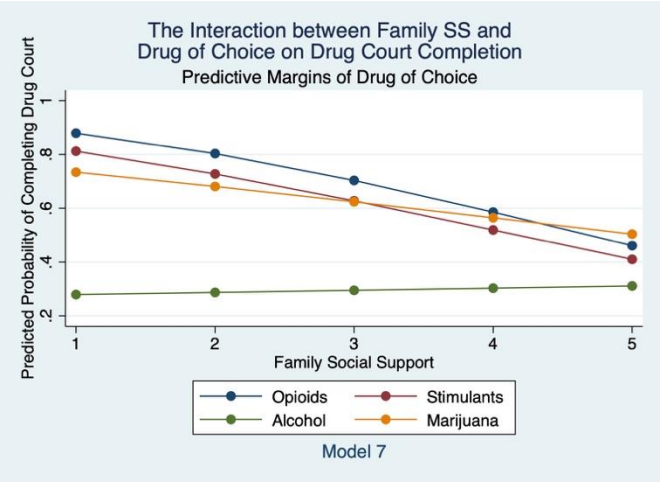
The Interaction between Drug of Choice and Significant Other Social Support on Drug Court Completion (Model 6)

This figure depicts the predicted probabilities of drug court completion for clients with specific drug of choices and levels of significant other social support (Model 6). The 5th percentile score for significant other social support is 3, and the 95th percentile score is 5.



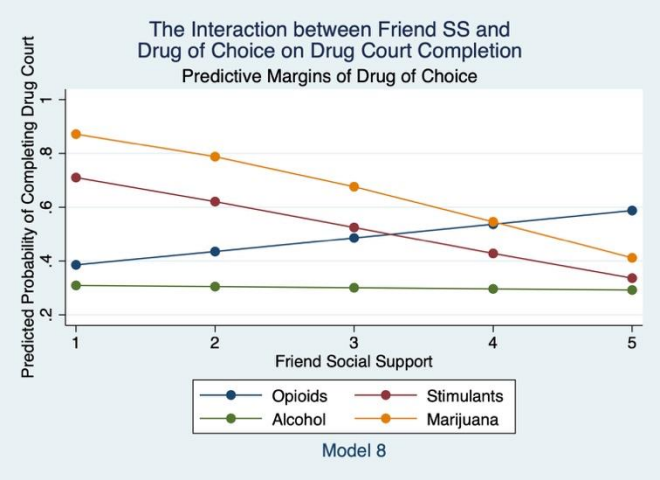
The Interaction between Drug of Choice and Family Social Support on Drug Court Completion (Model 7)

This figure depicts the predicted probabilities of drug court completion for clients with specific drug of choices and levels of family social support (Model 7). The 5th percentile score for overall social support is 2.5, and the 95th percentile score is 5.



The Interaction between Drug of Choice and Friend Social Support on Drug Court Completion (Model 8)

This figure depicts the predicted probabilities of drug court completion for clients with specific drug of choices and levels of friend social support (Model 8). The 5th percentile score for friend social support is 1.73, and the 95th percentile score is 5.



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