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Examining the impact of drug court participation for moderate and high risk offenders

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EXAMINING THE IMPACT OF DRUG COURT PARTICIPATION

FOR MODERATE AND HIGH RISK OFFENDERS

by

Kara Kobus

Bachelor of Arts
University of Nevada, Las Vegas
2007

A thesis submitted in partial fulfillment
of the requirements for the

Master of Arts Degree in Criminal Justice
Department of Criminal Justice
Greenspun College of Urban Affairs

Graduate College
University of Nevada, Las Vegas
May 2009

UMI Number: 1472421

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The Thesis prepared by

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Entitled

Examining the Impact of Drug Court Participation for Moderate and

High Risk Offenders

is approved in partial fulfillment of the requirements for the degree of

Master of Arts in Criminal Justice

Examination Committee Chair

Dean of the Graduate College

Examination Committee Member

Examination Committee Member

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ABSTRACT

Examining the Impact of Drug Court Participation for Moderate and High Risk Offenders

by

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Dr. Deborah K. Shaffer, Committee Chair
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University of Nevada, Las Vegas

The purpose of this study was to examine the impact of drug court participation among moderate and high risk offenders. While studies have found that intensive programs, such as drug courts, are more effective when focusing their services on high risk offenders, few studies have examined the relationship between offender risk and drug court effectiveness. Using the Level of Service Inventory-Revised (LSI-R) as a measure of offender risk, the study employed a quasi-experimental design to compare outcomes of drug court participants (n= 228) and a matched sample of probationers (n=252). The analyses showed that drug court participants had lower rates of recidivism than probationers, but failed to find a difference in the impact of the drug court across moderate and high risk offenders.

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ACKNOWLEDGEMENTS

The completion of this thesis has been a long and grueling process that would not have been possible without the encouragement, support and guidance of many people, who deserve my utmost thanks and appreciation. First and foremost I would like to thank Dr. Deborah K. Shaffer for all of her help, guidance, and support throughout this entire process, I could not have accomplished this without her. I would like to extend my thanks and appreciation to my committee members, Dr. Terry Miethe, Dr. Tamara Madensen, and Larry Ashley for their advice and input. I would also like to extend my gratitude to Dr. Shelly J. Listwan for providing me her data and for always being available to assist me in any way. I must also thank my family for all of their love and support throughout this process and for always being my biggest fans, your love is what allowed me to get through this. Thank you to Josh for putting up with me and always telling me to breathe. Finally, I would like to thank Paula Kutneski for her advice and wisdom, and for being my rock throughout graduate school.

CHAPTER 1

INTRODUCTION

For the last several decades, a movement towards treating rather than incarcerating

non-violent drug involved offenders has emerged. This movement towards treatment has

gained national support. Following Martinson's "nothing works" phenomena (1974),

research began documenting the positive effects of rehabilitation and community

treatment for non-violent drug offenders (Andrews et al., 1990; Cullen & Gilbert, 1982).

Support for treatment led to the passage of several policies providing support and funding

for the treatment of drug offenders. The Drug Abuse Prevention, Treatment, and

Rehabilitation Act of 1979 and the 1986 and 1988 Anti-Drug Abuse Acts increased the

funds available for substance abuse treatment and research for prevention efforts

(National Institute on Drug Abuse, 2006). The 1988 Anti-Drug Abuse Act created the

White House Office of National Drug Control Policy (ONDCP), which helped to

establish policies, goals, and guidelines for the Nation's drug control efforts (ONDCP,

2007). These policies led to the development and support of several community-based

interventions to treat drug offenders including therapeutic communities and drug courts.

Drug Courts

Drug courts have become a popular method of community-based treatment for the

drug-involved offenders. The drug court is a unique system characterized by a

collaborative effort from a team of professionals, including a drug court judge, probation, and treatment staff who work together to create an environment that promotes public safety, participation and compliance (NADCP, 1997). The drug court judge is greatly involved in the rehabilitation process and is in charge of monitoring participants' progress (Inciardi, McBride, & Rivers, 1996). Progress is monitored by frequent court appearances, as well as individual and group treatment sessions and weekly drug testing. Compliance with program rules is promoted by holding participants accountable for their actions through a system of rewards and punishers. Drug courts provide intensive services to drug offenders through a court supervised program, providing individual counseling, educational services, mental health services, vocational training, status review hearings, prosocial support, and aftercare services (Peters & Murrin, 2000).

Research on Drug Courts

Drug courts have enjoyed empirical support (Banks & Gottfredson, 2004; Belenko, 1999; Belenko, 2002; Brewster, 2001; Goldkamp & Weiland, 1993; Gottfredson, Kearly, Najaka, & Rocha, 2005; Listwan et al., 2003; Wolfe, Guydish, & Termondt, 2002), however, the meta-analyses have revealed that drug courts reduce recidivism by an average of 10 percent (Aos, Phipps, Barnoski, & Lieb, 2001; Lowenkamp, Holsinger, & Latessa, 2005; Wilson, Mitchell, & Mackenzie 2006). Research has shown that the most effective correctional programming can reduce recidivism by 26 to 30 percent (Andrews et al., 1990; Dowden & Andrews, 1999, 2000, 2004). These reductions in recidivism have been attributed to correctional programs following the principles of effective interventions to provide quality treatment to offenders. Given these findings, it is important to explore why drug courts are not more effective.

The Risk Principle

One possible explanation may be that drug courts fail to adhere to the risk principle (Marlowe et al., 2006). In this context, risk refers to the likelihood of recidivism. The risk principle states that offenders' risk level should be matched with intensity of services, meaning the most extreme or intense services should be reserved for those offenders most likely to reoffend (Andrews et al., 1990). Several studies on risk level and correctional program effectiveness reveal that intensive programs that focus on higher risk offenders are more effective than those that focus intense services on low risk offenders (Andrews & Bonta, 1998; Andrews & Dowden, 1999; Lipsey & Wilson, 1998). There is also evidence to suggest that violating the risk principle, by treating low risk offenders with intensive services, can reduce program effectiveness (Bonta,Wallace-Capretta, & Rooney, 2000; Lowenkamp & Latessa, 2005).

Theoretically, drug courts are thought to provide more intensive services compared to other forms of community-based treatment (Belenko, 2001; Longshore et al., 2001; Marlowe et al., 2006). Because of the assumed intensity of treatment, drug courts should be targeting higher risk offenders. Drug courts that fail to match treatment services with risk level or that target lower risk offenders may undermine their effectiveness. Research has found some support for the risk principle in drug court settings (Lowenkamp, Holsinger & Latessa, 2005; Marlowe et al., 2006).

Current Study

The current study will build on past research by examining how the impact of drug court participation varies across moderate and high risk offenders. Prior research that has

examined the offender risk within drug courts has failed to use a comprehensive measure of risk. Measures such as DSM-IV criteria and prior criminal history have been used as measures of risk. The problem with these measures is that they do not encompass all of the factors that are predictive of risk. Therefore, the current study will employ a more comprehensive measure of risk, using the Level of Service Inventory- Revised (LSI-R), to examine the relationship between offender risk and drug court effectiveness.

CHAPTER 2

LITERATURE REVIEW

Though intended to reduce drug use and drug-related crime, the "War on Drugs" in

the 1980s had a number of unintended consequences on the criminal justice system,

including increasingly backlogged court dockets and overcrowded prisons (Belenko,

2001; Listwan, Sundt, Holsinger, & Latessa, 2003). Contributing to these problems was

the lack of drug treatment services within prison settings which led to a continuous cycle

of drug offenders moving in and out of the system. As the criminal justice system became

overburdened, it was recognized that a faster method of processing for drug offenders

was needed. Also, simply moving these offenders through the system was not sufficient,

rather treatment was also needed to reduce substance abuse and other related criminal

behaviors. This growing recognition along with increased public support for treatment,

led to the creation of the first drug court in Miami, Florida in 1989 (Belenko, 2002).

Intended to divert drug offenders from prison, drug courts were designed to keep

offenders in the community while providing intensive monitoring and treatment (Nolan,

2002).

Although the need to provide treatment to drug offenders was not a new idea, drug

courts offered a unique approach to serving this population. Prior to drug courts,

treatment and supervision of drug offenders occurred independently of one another. As a

result, treatment programs often lacked methods to ensure client compliance while

supervision agencies lacked the ability to monitor participants' treatment progress (Belenko, 1999). The drug court model improved upon past attempts by offering a more structured approached that merged community supervision and treatment with closer judicial monitoring (Belenko, 1999, 2002; NADCP, 1997).

Early drug courts enjoyed immense political and financial support resulting in their rapid growth (Nolan, 2002). To help guide the development and operations of future drug courts, the National Association of Drug Court Professionals (NADCP) identified 10 key components of the model. These include:

- Drug courts integrate alcohol and other drug treatment services with justice system case processing
- Using a nonadversarial approach, prosecution and defense counsel promote public safety while protecting participants' due process rights
- Eligible participants are identified early and promptly placed in the drug court program
- Drug courts provide access to a continuum of alcohol, drug, and other related treatment and rehabilitation services
- Abstinence is monitored by frequent alcohol and other drug testing
- A coordinated strategy governs drug court responses to participants' compliance
- Ongoing judicial interaction with each drug court participant is essential
- Monitoring and evaluation measure the achievement of program goals and gauge effectiveness
- Continuing interdisciplinary education promotes effective drug court planning, implementation, and operations
- Forging partnerships among drug courts, public agencies, and community-based organizations generates local support and enhances drug court effectiveness (NADCP, 1997)

Although drug courts have varied in the extent to which they have adopted the 10 key components, the model can generally be characterized as promoting collaboration between various parties in the criminal justice system, providing intensive treatment

services, and promoting compliance through regular monitoring. Each of these elements is discussed below.

<div align="center">The Drug Court Model</div>

Collaboration

The drug court team is a collaboration of criminal justice and treatment professionals who work in concert to support participants' treatment progress, promote accountability and compliance with program rules, and provide a safe treatment environment. The team, comprised of the drug court judge, treatment providers, prosecutors and defense attorneys, and probation officers, also assists in monitoring participants' progress throughout the program (Listwan, Shaffer & Latessa, 2002). This partnership between these parties creates a structured treatment program that is constantly court supervised and is dependent on the personal involvement of the drug court judge (Fielding, Tye, Ogawa, Imam, & Long, 2002).

The role of the drug court judge stands in stark contrast to the role of judges in traditional court process. Often viewed as the leader of the drug court, a typical drug court judge is actively engaged with drug court staff and participants. In addition to overseeing the judicial processing and status hearings of each participant, the drug court judge also monitors treatment progress and issues rewards and consequences for behaviors (Belenko, 1998; Marlowe et al., 2006; NADCP, 1997).

Drug court participants have attributed their success in drug courts to the involvement of the drug court judge (Cooper, 1997; Goldkamp, White, & Robinson, 2002; Satel, 1998; Saum, Scarpitti, Butzin, Perez, Jennings, & Gray, 2002). In a survey gauging participant perceptions in drug court, Cooper (1997) found that over 70 percent of

participants perceived the judge as a very important factor in their success during treatment. Similarly, in a client satisfaction survey among over 300 Delaware drug court participants, the majority of participants said the judge had a positive influence on their treatment progress (Saum et al., 2002).

Treatment Services

While the treatment services provided by drug courts may vary, the services usually include individual and/or group counseling, relapse prevention, medical care, and general detoxification (NADCP, 1997). Most drug courts have a variety of treatment services available to them (Taxman & Bouffard, 2002) and many employ services from the community that are readily available to clients (NADCP, 1997; Taxman & Bouffard, 2002). Although the exact nature of treatment varies across drug courts, the treatment provided is typically thought to be more intensive than the treatment normally provided to probationers (Belenko, 2001; Longshore, Turner, Wenzel, Morral, Harrell, McBride et al., 2001). The various services are provided by the drug court to improve the quality of life for offenders and promote a sober living environment.

Monitoring

Drug courts use a number of other mechanisms to ensure abstinence and promote accountability among participants including regular status review hearings, drug testing, and rewards and sanctions. Status review hearings are usually held every two to four weeks and attended by the drug court team and participants. During a typical hearing, the judge reviews offenders' progress in treatment, abstinence, and adherence to general program rules in a formal setting (Festinger et al., 2002). In addition to being used as a

method of supervision, status review hearings are also used as a forum for providing feedback to participants in the form of rewards and sanctions (Marlowe et al., 2006).

Relatively little is known about the actual impact of status hearings on drug court outcomes. Marlowe et al. (2003) used an experimental design to assess the impact of bi-weekly and "as needed" status hearings on outcome and recidivism for misdemeanor drug court participants. In contrast to the bi-weekly meetings, the "as needed" hearings were held only when staff identified a problem or need. No significant differences were found across a variety of outcome measures including attendance at counseling sessions, drug test results, self-reported drug and alcohol use, and other reported criminal behavior, between participants attending bi-weekly status hearings and those attending as needed hearings. A follow-up study assessing the impact of status hearings in drug court for felony offenders had similar results (Marlowe, Festinger, & Lee, 2004).

In addition to status review hearings, drug court participants are typically subjected to regular and frequent drug testing. The frequency of drug testing is more intense during the first several months of treatment and varies across different drug courts. The rate of testing ultimately depends on the participants' progress throughout treatment (NADCP, 1997). According to the Drug Courts Program Office, regular drug testing, "coupled with immediate program responses, forces defendants to address their substance abuse problems immediately and continuously" (Robinson & Jones, 2000, p. 1). Not only does frequent testing provide the participant with immediate information regarding their progress, but also allows them to be active and involved in treatment process (NADCP, 1997).

Like regular probation, drug courts utilize sanctions in response to positive drug tests or other non-compliant behaviors. Sanctions, such as fines, increased drug testing, and program termination, are generally given for missed treatment sessions, positive drug tests or other program violations. In contrast to regular probation, however, drug courts are often more likely to use rewards to reinforce compliant behavior (Lindquist, Krebs, & Lattimore, 2006). A variety of rewards may be utilized including praise and encouragement, advancement to the next phase of treatment, gift certificates, and graduation ceremonies to reinforce treatment progress and program compliance (Wilson, Mitchell, & MacKenzie, 2006).

Research on the impact of rewards and sanctions in the drug court setting is relatively rare. Harrell and Roman (2001) evaluated the impact of a graduated sanctions program in Washington D.C., comparing recidivism among offenders receiving graduated sanction to offenders receiving standard sanctions. They discovered that offenders receiving graduated sanctions were less likely to use drugs and less likely to be rearrested following sentencing than those receiving standard sanctions.

By providing close community supervision and monitoring, along with treatment, drug courts are thought to provide more intensive services compared to other forms of community-based programs (Belenko, 2001; Longshore et al., 2001; Marlowe et al., 2006). Designed to reduce drug abuse and subsequent criminal behavior, drug courts have been the focus of much empirical research. The research on drug courts has generally revealed that drug courts are successfully reducing recidivism and drug use.

Early research, however, was mixed with some studies finding null (Belenko, Fagan, & Dumanovsky, 1994; Deschenes & Greenwood, 1994) or negative effects (Miethe, Lu,

& Reese, 2000). Belenko (2001), however, has criticized early research for methodological limitations and ignoring the "black box" of drug courts. Specifically, he notes that some of the past research on drug courts failed to differentiate between in-program versus post-program recidivism, had relatively short follow-up periods, and employed small sample sizes. Furthermore, very few evaluations examined the impact of program characteristics as well as offender attributes on program outcome. Recent research has sought to address these limitations and has provided relatively consistent support for drug courts. This research will be discussed in further detail below.

Research on Drug Courts

Research has evaluated the effectiveness of drug courts by exploring both retention rates and reductions in recidivism among program participants (Banks & Gottfredson, 2004; Belenko, 2002; Brewster, 2001; Gottfredson, Kearly, Najaka, & Rocha, 2005; Listwan et al., 2003). Drug courts have been found to have higher retention and completion rates when compared to traditional probation (Belenko, 1998; Gotfredson et al., 2003; Peters & Murrin, 2000; Peters, Haas, & Murrin, 1999; Vito & Tewskbury, 1998; Wolfe, Guydish, & Termondt, 2002). Specifically, the Drug Courts Program office reports that retention rates in drug courts are nearly double the rates found in traditional treatment programs (Drug Courts Program Office, 1998).

Increased retention rates are important considering the link between successful program completion and recidivism, with drug court graduates often having lower recidivism rates than non-graduates. For instance, Vito and Tewskbury (1998) found that graduates from a Kentucky drug court were far less likely to be reconvicted than

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nongraduates. More specifically, 13 percent of graduates were reconvicted, compared to nearly 60 percent of non-graduates. Similarly, in their evaluation of two Florida drug courts, Peters and Murrin (2000) found that graduates were significantly less likely to be rearrested than non-graduates at both the 12 and 30-month follow-up periods. Finally, the Government Accountability Office (2005) found that that post-program recidivism was consistently lower for drug court graduates than non-graduates in their review of 23 drug court studies.

In addition to comparing graduates to non-graduates, research has also explored the outcomes of drug court participants relative to non-drug court participants. These studies have generally found that drug court participants have better outcomes when compared to probationers (Brewster, 2001; Goldkamp & Weiland, 1993; Peters, Haas, & Murrin, 1999; Spohn, Piper, Martin, & Frenzel, 2001). In one of the few experimental studies of drug courts, Gottfredson et al. (2003) evaluated the effectiveness of the Baltimore City Drug Treatment Court. Offenders who were eligible for the drug court were randomly assigned to either the drug court or to "treatment as usual" (p. 178). The results showed that drug court participants were significantly less likely to recidivate than comparison group members. Specifically, 66 percent of drug court participants were rearrested compared to 81 percent of the comparison group. The actual number of rearrests for drug court participants were 30 percent lower than for comparison group members and drug court participants were less likely to be rearrested for a drug offense.

Meta-analyses of drug courts further provide support for the model. In a meta-analysis of the cost and benefits of 26 drug courts, Aos et al. (2001) found that drug courts, on average, reduced recidivism 8 percent. Similarly, a meta-analysis conducted

by Lowenkamp, Holsinger and Latessa (2005) revealed an average of a 7.5 percent reduction in recidivism across the 22 studies. More recently, Wilson, Mitchell and Mackenzie (2006) conducted a meta-analysis on 55 studies and found a 26 percent reduction in recidivism. However, this effect size dropped to 14 percent when only including studies that employed an experimental design. In an effort to explore factors associated with effectiveness, both Wilson et al. (2006) and Lowenkamp et al. (2005) have examined the impact of programmatic and offender characteristics. While many of the studies reviewed failed to describe the specific characteristics of the drug court, both studies found drug courts that employed a single treatment provider were more effective than those utilizing multiple providers. When exploring offender characteristics, Lowenkamp et al. concluded that drug courts serving younger and higher-risk participants were more effective, with reductions in recidivism up to 25 percent among those programs.

These findings suggest that although drug courts are generally effective in reducing recidivism, their effectiveness may vary by the types of offenders served and the types of services being offered. This provides further evidence for the need to get inside the "black box" of drug courts as called for by Belenko (2001) and Goldkamp et al. (2001). In an effort to better understand how and when drug courts work best, recent studies have examined the programmatic aspects and features of the drug court (Festinger et al., 2002; Marlowe et al., 2003), as well as the relationship between offender characteristics and outcomes (Dannerbeck, Harris, Sundet, & Lloyd, 2006; Gray & Saum, 2005).

Studies have begun to explore features of the drug court, including the role of sanctions and the provision of treatment services, to examine characteristics associated

with successful outcomes. For instance, Goldkamp et al. (2001) examined the effect of general and jail sanctions on drug court outcomes for the Las Vegas and Portland drug courts and discovered that standard and jail sanctions were correlated with both completion and rearrest. Specifically, over one quarter (27%) of the Portland participants who were assigned to a jail sanction within their first year graduated within two years of entering the program, compared to 65 percent of those not given a jail sanction. In Las Vegas, only 12 percent of those assigned to jail as a sanction in the first year graduated, compared to 44 percent of those not assigned a jail sanction. Among both drug courts, participants with more sanctions were more likely to be rearrested.

Additionally, the impact of treatment exposure on participant outcome was examined and revealed that positive outcomes were associated with a greater treatment dosage. For example, Goldkamp and his colleagues (2001) examined the effects of treatment exposure between Las Vegas and Portland drug court participants. They discovered that in both drug courts, participants who were exposed to more treatment within the first year, were more likely to graduate and were less likely to be rearrested than participants were exposed to less treatment (Goldkamp et al., 2001).

Beyond characteristics of the drug court model, research has explored the relationship between offender characteristics and drug court outcomes. For instance, Dannerbeck et al. (2006) explored the relationship between race and drug court outcomes. The researchers discovered significant differences between outcomes among Caucasian and African American participants. They found that Caucasian participants had more successful outcomes compared to African American participants. Specifically, 55 percent

of Caucasian participants graduated, compared to 28 percent of African Americans participants (Dannerbeck et al., 2006).

In addition to examining the influence of race, the role of gender in drug courts has also been explored. When comparing the experiences of drug court men to drug court women, research suggests that women have better outcomes. For example, Gray & Saum (2005) found that women were more likely to complete a drug court program compared to men, while Hartman et al. (2007) found that women were significantly less likely to be charged with a new offense than men. The findings have been a bit more mixed when comparing drug court women to probation women. Harrell, Roman, and Sack (2001) examined the impact of drug court on female participants compared to females who were processed traditionally. Although they found no significant differences in official arrest rates between both groups, they did find that the female drug court participants were far less likely to self-report drug use and crime than the females traditionally processed. In contrast, Shaffer, Hartman, and Listwan (In press) found that drug court women were significantly less likely to recidivate compared to probation women.

Apart from the issue of demographics, studies have also examined drug court outcomes across different types of offenders, including methamphetamine users versus other types of drug users. Listwan, Shaffer, and Hartman (2008), for example, compared the outcomes of methamphetamine users and non-methamphetamine users in a drug court setting. Failing to find a significant difference in recidivism, they concluded that drug courts may serve both types of offenders equally well. Similarly, Bouffard and Richardson (2007) found no significant differences in outcomes among methamphetamine involved drug court participants compared to participants using other

types of drugs. However, they found significantly lower recidivism rates among methamphetamine involved drug court participants compared to similar offenders on parole. These studies reveal that drug courts may be an effective form of treatment for different types of offenders.

The role of participant risk level and its relationship to drug court outcomes has also been studied. As noted previously, Lowenkamp et al. (2005) found that drug courts serving higher risk offenders were more effective than those serving lower risk offenders. This finding is consistent with the risk principle which states that the intensity of services should be matched to the risk level of participants. Building on the issue of status hearings previously discussed, Festinger et al. (2002) and Marlowe et al. (2006) further explored this issue by matching offender risk level to intensity of services. Festinger et al. (2002) examined the impact of frequency of judicial status hearings on participant outcome for different types of offenders. Among participants who met the DSM-IV criteria for antisocial personality disorder (APD), those attending more frequent judicial status hearings had longer periods of abstinence compared to those who received fewer hearings. In contrast, fewer hearings were associated with better outcomes among those participants not identified as APD. A follow-up study by Marlowe et al. (2006) had similar findings. Using APD or a history of drug treatment as a measure of risk, Marlowe and his colleagues found that higher risk participants who were matched to services were less likely to return drug-positive urine and were more likely to graduate than higher risk participants who were not matched. These findings suggest that drug courts may be more effective when they match higher risk participants to more intensive services.

The research presented above indicates that drug courts may not be equally effective for all types of offenders. Instead, participants' experiences and outcomes may vary depending on demographic characteristics, substance use severity, and their risk of recidivism. These findings are consistent with the broader literature on effective interventions which suggests that treatment services should be cognizant of offender risk, needs, and responsivity. The importance of offender risk will be further discussed below.

Effective Programming and Offender Risk

Gendreau (1996) identified several principles of effective interventions based on his reviews of the literature on offender treatment, meta-analyses, and individual studies. These principles state that treatment services should be both intensive and behavioral in nature, should target the criminogenic needs of offenders, and that offenders should be matched to therapists and programs. The principles also suggest that programs should use contingencies and behavioral strategies in a fair but firm manner, and programs should be designed to disrupt anti-social networks. It is also important that therapists are adequately trained and supervised and able to relate to offenders in an interpersonal way. Finally, the principles contend that relapse prevention strategies should be provided, and high levels of advocacy and brokerage should be attempted.

The three major ideas emerging from the principles of effective interventions are the risk, need, and responsivity principles. The risk principle has two components. First, it states that criminal behavior can be predicted, and second, that the level of treatment services should be matched with the level of offender risk (Andrews & Bonta, 2006). Therefore, the most intensive services should be reserved for the highest risk offenders,

while low-risk offenders require minimal services, if any. The needs principle states that programs should use criminogenic needs as treatment targets. For example, programs that target substance abuse or anti-social personality will be more effective than programs that target non-criminogenic needs such as self-esteem or anxiety (Andrews, Bonta, & Hodge, 1990). Finally, the responsivity principle is focused on treatment delivery and states that the style and method of delivery should be geared towards the offenders' learning style. Research suggests that programs following these principles are more effective at reducing recidivism than those that do not (Andrews et al., 1990; Andrews, Bonta and Hodge, 1990; Bonta et al., 2000; Lowenkamp & Latessa, 2005).

In order to correctly identify the risk level of the offender and to match the appropriate services, research has revealed several key risk factors that are predictive of future criminal behavior. In their review of the literature, Andrews and Bonta (2006) specifically identify eight factors predictive of recidivism. These include a history of antisocial behavior, antisocial personality, antisocial cognitions, and antisocial associates. They also include family/martial circumstances, school and work, leisure and recreation, and substance abuse. While all eight of these factors are predictive, meta-analyses indicate that antisocial behavior, antisocial personality, antisocial cognitions, and antisocial associates are consistently the strongest predictors (Bonta, Law, & Hanson, 1998; Gendreau, Little, & Groggin, 1996; Lipsey & Derzon, 1998; Simourd & Andrews, 1994).

The relationship between these risk factors and criminal behavior can be understood within the context of social learning theory (Andrews & Bonta, 2006), which explains how behaviors are acquired, maintained, and extinguished. The theory contends that the

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learning of any behavior takes place through continuous interaction with one's environment (Bandura, 1977). The basic idea underlying this criminological theory is that the learning of criminal behavior results from same learning process that produces conforming behavior. The distinction in learning deviant or conforming behavior, however, is dependent on the nature of the influences on behavior (Akers & Sellers 2004). In other words, the probability that a person will engage in criminal behavior is dependent on the association with antisocial or prosocial peers, definitions favorable or unfavorable to violating the law, exposure to criminal or anti-criminal models, and the extent to which behavior is either rewarded or punished (Lee, Akers & Borg, 2004).

Social learning theory, then, can explain the relationship between the risk factors identified above and recidivism. For example, having a history of antisocial behavior is predictive of future criminal behavior when its consequences operate as reinforcers. Similarly, antisocial associates provide individuals with models whose values and beliefs are favorable to crime and allow for antisocial behavior to be imitated and reinforced. Antisocial associates may also model and reinforce antisocial attitudes which allow for the rationalization and justification of deviant behaviors. Antisocial personality traits like "weak self-control and anger management skills and poor problem solving skills," often work in conjunction with these other factors (Andrews & Bonta, 2006, p. 68). Finally, prosocial or antisocial models, as well as reinforcement of prosocial or antisocial behaviors, can be provided through family and marital circumstances, school, work, leisure and recreation activities.

Drawing on a social learning perspective to explain the relationship between each of the risk factors and recidivism has implications for treatment decisions that are consistent

with the risk principle. Individuals identified as low risk should, by definition, be engaged in a number of prosocial activities and have positive models in their lives. Subjecting these individuals to intensive treatment services may result in removing them from the very environment and activities that keep them at low risk for recidivism. Placing a low risk offender into an intensive treatment program, such as a drug court, may result in limited exposure to prosocial models who provide anti-criminal values and beliefs and reinforcement of prosocial behaviors while actually increasing their exposure to antisocial models and behaviors. This increased exposure to antisocial others may increase their propensity towards recidivism. In contrast, high risk offenders are presumed to have limited accessibility to prosocial influences. Providing intensive services to these individuals may limit their exposure to antisocial others while providing opportunities to learn and be reinforced for prosocial behaviors. For example, intensive programs such as drug courts may provide the treatment and skills needed to maintain employment, a sober living environment, and prevent subsequent criminal behavior.

Research has been supportive of the risk principle (Andrews & Bonta, 1998; Andrews & Dowden, 2006; Lovins, Lowenkamp, Latessa, & Smith, 2007; Marlowe et al., 2006). For instance, Bonta et al. (2000) evaluated the effectiveness of a cognitive behavioral program compared to prison and found that high-risk offenders receiving treatment had lower recidivism rates than their prison counterparts. At the same time, they found lower risk offenders receiving treatment recidivated at a higher rate than high-risk treatment participants. Similarly, Lowenkamp and Latessa (2005) found that residential programs treating low risk offenders increased recidivism by up to 29 percent while decreasing recidivism among high risk offenders. A meta-analysis by Andrews and Dowden (2006)

of over 300 studies revealed "solid support for the risk principle," with a modest treatment effect for the higher risk offenders and little to no effect for those who were low risk (p. 96).

Current Study

The risk principle may help explain why drug courts have relatively small effects on recidivism (Aos et al., 2001; Lowenkamp et al., 2005; Wilson et al.,2006). Originally designed to divert offenders from prison, drug courts generally provide more intensive services than standard probation. However, there is some concern that drug courts may simply be engaging in net-widening by serving offenders who would otherwise be on probation rather than actually diverting offenders from prison (Banks & Gottfredson, 2002; Hoffman, 2002). In part, this may be the result of concerns about treating higher risk offenders in the community and may lead to drug courts violating the risk principle.

Relatively limited research exists on the effectiveness of drug courts across low, moderate, and high risk offenders. Prior research in this area suggests that drug courts may be more effective for higher risk participants (see Lowenkamp et al., 2005; Marlowe et al., 2006). However, these studies are limited by not using a comprehensive measure of risk. As previously indicated, Marlowe et al. measured risk as meeting the DSM-IV criteria for antisocial personality disorder or having prior treatment history, while Lowenkamp et al. measured risk as having a criminal history. Neither of these measures fully encompass the risk factors identified by the meta-analyses (Bonta, Law, & Hanson, 1998; Gendreau, Little, & Groggin, 1996; Lipsey & Derzon, 1998; Simourd & Andrews, 1994).

The current study will build on past research by examining the relationship between offender risk and drug court effectiveness by using the Level of Service Inventory-Revised (LSI-R; Andrews & Bonta, 1995) as a measure of risk. The LSI-R is an empirically validated risk assessment tool that includes risk factors across several domains including criminal history, education and employment, financial circumstances, family and marital situation, accommodations or housing, leisure and recreation, companions, drug and alcohol abuse, emotional and personal characteristics, and attitudes and orientations (Flores et al., 2006; Kelly & Welsh, 2008). Using this comprehensive measure of risk, the current study seeks to answer the following research questions:

1. *Do drug court participants have lower rates of recidivism than probationers?*

2. *Does the impact of drug court participation vary across offender risk levels?*

CHAPTER 3

METHODS AND DATA

Using a secondary dataset, this study explored whether the impact of drug court

participation varied across risk levels. Based on previous research, it was hypothesized

that drug court participants would have lower rates of recidivism than probationers. It

was also hypothesized that drug court participation would have a greater impact for high

risk participants than moderate risk participants. The methods used to test these

hypotheses are described below.

Research Design

The current study utilized a quasi-experimental design to assess the impact of drug

court participation. Experimental designs are ideal for social science research because

they allow for adequate control of factors that can affect the internal validity in studies

(Hagan, 2006). Using experimental designs helps control for rival causal factors that

may influence the effect of treatment by utilizing randomization techniques to distribute

the sample between treatment and control groups. However, while randomization is

preferred, it is rarely feasible in evaluation research and quasi-experimental designs are

often utilized instead. The current study used a non-equivalent matched comparison

group to help ensure the groups are similar in an effort to avoid the influence of rival

causal factors on the effect of treatment (Campbell & Stanley, 1963).

Sample

The sample was selected from a larger statewide evaluation of drug courts in Idaho and consisted of a total of 480 offenders.[1] The treatment group (N=228) included individuals who entered the Ada County, Idaho drug court between July of 2002 and July of 2005. The comparison group (N=252) was comprised of a matched sample of probationers in the same county. The comparison group consisted of men and women who were eligible for the drug court, but did not receive its services. The comparison group was matched to the drug court group on the basis of LSI-R and substance abuse assessment scores (Listwan, Borowaik & Latessa, 2008).

Program Setting

The Ada County drug court, located in Boise, Idaho, is a post-adjudication, comprehensive outpatient, court-supervised program (Listwan & Latessa, 2003; Listwan et al., 2008; Shaffer et al., In press). The program began accepting clients in January 1999 and has since serviced 782 participants. To be eligible for this program, offenders must have been charged with a felony offense, but cannot have more than one prior conviction for a felony possession charge (Listwan et al., 2008). Offenders who have been convicted of sex or dealing offenses, a history of violent crime, not accepting of guilt, identified as being too low risk, or residing outside of the county are ineligible for the program.

The program, designed to last a minimum of one year, consists of four phases. Within each phase, offenders are subjected to weekly urinalysis, participate in individual and

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[1] Originally, the sample was comprised of 517 offenders. However, data on the key independent variables were missing for 37 cases; these cases were dropped from the analyses.

group sessions, attend substance abuse education, and engage in other rehabilitative activities. Each phase lasts approximately three months. Phase one consists of at least two weekly urinalyses and participation in cognitive self-change, substance abuse education, and process groups. In phase two, offenders are drug tested at least once a week, participate in individual counseling sessions, and complete cognitive and substance abuse relapse packets. Phase three consists of at least one weekly urinalysis and individualized treatment concentrated on living and recovery. The final phase (Phase four) requires the completion of the treatment plan, which is focused on using program tools geared towards long-term recovery and at least one weekly urinalysis.

Graduation requirements from the drug court include the completion of all treatment requirements and 6 months of clean drug tests. Participants lacking a high school education are required to obtain a GED or demonstrate they are taking the steps towards obtaining it (by taking classes and exams). Finally, participants must have full-time employment or be enrolled in school full-time, and have fully paid any restitution owed. Previous research has indicated the Ada County Drug Court has a 42 percent graduation rate (Listwan & Latessa, 2003).

Measures

Independent Variable

The independent variables for this study were drug court participation (group membership) and risk of recidivism. Group membership (0=probation;1=drug court) was explored to determine whether drug court participation reduced recidivism. The risk level was measured by the Level of Service Inventory-Revised (LSI-R). As previously

noted, the LSI-R is a 54 item risk and needs assessment that measures factors across ten different criminogenic domains including criminal history, education and employment, financial circumstances, family and marital situation, accommodations or housing, leisure and recreation, companions, drug and alcohol abuse, emotional and personal characteristics, and attitudes and orientations (Flores et al., 2006; Kelly & Welsh, 2008). Scores on the assessment range from 0 to 54 with higher scores representing an increased likelihood of recidivism. The LSI-R has been found to be a valid predictor of recidivism (Andrews & Bonta, 1995; Gendreau, Little & Groggin, 1996; Flores et al., 2006) across gender[2] (Lowenkamp, Holsinger & Latessa, 2001), and race and ethnicity (Holsinger, Lowenkamp & Latessa, 2004; Schlager & Simourd, 2007). It has also been validated for violent offenders (Simourd & Malcom, 1998) and drug offenders (Kelly & Welsh, 2008).

Statewide LSI-R guidelines were used when selecting offenders for the program. Those scoring between 25 and 41 points were targeted for participation in the drug court, while discretion was used for those scoring outside that range (Listwan et al., 2008).[3] The LSI-R scores for this study were broken down into two categories (Moderate=0; High=1).[4] The cutoff score for the moderate group was 33 and those scoring 34 and above were considered high risk. The use of these cutoff points were supported by the statewide evaluation which found a significant increase in recidivism among offenders scoring 34 and above when compared to those scoring below a 34 (Listwan et al., 2008).

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[2] Though there is empirical evidence suggesting the LSI-R is valid for women offenders, Holfreter and Cupp (2007) suggest a need for continued research on its use with female offenders.

[3] Offenders scoring below 14 were systematically excluded from the drug court.

[4] The developers of the LSI-R break categories down into low, medium and higher risk (Andrews & Bonta, 1995). However, due to the relatively small sample size and the distribution of the data, only two categories (Moderate and High) will be used in this study.

Dependent Variable

The dependent variable for this study was recidivism. Recidivism was measured by court filing post-intake. This was defined as all new charges presented to the court by the prosecutor for processing (0=no; 1=yes). Because a court filing requires prosecutorial action, it provides a more conservative measure of recidivism than arrest and may help minimize false positives (Listwan et al., 2008). Offenders were followed for an average of 879 days, with a range from 354 days to 1458 days.

Control Variables

Since this study employed a quasi-experimental design, it was also important to control for several demographic factors including gender, age, race, education, and marital status that may predict recidivism. Previous research has shown that gender (Belknap & Holsinger, 2006; Butzin, Saum, & Scarpitti, 2002; Steffensmeier & Allan, 1996; Wolfe et al., 2002) and age are significant factors in predicting recidivism (Butzin et al., 2002; Farrington, 1986; Steffensmeier, Allan, Harer, & Streifel, 1989). Gender was coded as 1= male and 0= female. Age was treated as a dichotomous variable and the cases were split based on the mean age of 30 (0=below 31; 1= 31 and above). Prior research has also found that race is predictive of recidivism, with white offenders less likely to recidivate compared to other offenders (Brewster, 2001; Hawkins, Laub Lauritsten, & Cothern, 2000; Laub, 1983; Miethe et al., 2001). Race was collapsed into two categories (0= white; 1=non-white) because the distribution across categories of race was minimal.

Prior research has found that participants with at least a high school degree are more likely to graduate from a drug court than those who do not have a high school degree

(Hartley & Phillips, 2001). Education was measured by whether or not a participant graduated high school (0=yes; 1=no). Also, individuals who are married have been found to be more likely to complete the program than participants who are not married (Mateyoke-Scrivner, Webster, Stanton, & Leukefeld, 2004). Marital status was measured by whether or not a participant is married (0=married; 1=not married). Finally, time at risk was controlled for because the length of follow up varied. Participants with longer follow up periods have a greater likelihood of recidivating (Banks & Gottfredson, 2004; Listwan et al., 2003). Time at risk was a continuous variable defined as the number of days between date of intake and the records check.

Analytical Procedures

The analysis for this study was comprised of several steps. First, a bivariate analysis was conducted to gain an initial assessment of the distributions for each variable across groups (Drug court and Probation). Chi-square tests were performed to test for significant differences between the groups. Next, the relationship between group membership and recidivism was assessed for three different groups: (1) the total sample, (2) moderate risk offenders, and (3) high risk offenders. The chi-square test for independence was computed to analyze the influence of group membership on recidivism. Because the independent and dependent variables were dichotomous in nature, Cramer's phi-coefficient was used to determine the effect size, or the magnitude of the association (Rosenthal, 1996). To ease interpretation, the Binomial Effect Size Display (BESD) was computed to more clearly describe the meaning of the effect size (Rosenthal & Rubin, 1982). The BESD presents the effect size as the "difference in outcome rates" between

the treatment and comparison groups assuming a base rate of 50 (Randolph &

Edmondson, 2005, p. 2).[5] The following formula was used to calculate the BESD:

$$BESD = 50 \pm (\phi/2)$$

To test for significant differences between groups, confidence intervals for each group

were calculated around the phi coefficient. The following formula was used to calculate

95 percent confidence intervals (CI):

$$CI = \phi \pm (1.96) \left(\frac{1}{\sqrt{n-3}} \right)$$

The final analytic technique used in this study was a multivariate logistic regression.

This technique was used to control for age, race, gender, marital status, education, and

time at risk. The multivariate logistic regression was calculated for three different groups:

(1) the total sample, (2) the moderate risk group, and (3) the higher risk group. To better

illustrate the influence of each predictor, the regression equation from each model was

used to calculate the probabilities of recidivism for the typical case. Specifically, beta

coefficients were converted into log-odds probabilities for each significant variable.[6]

Probabilities were calculated for significant variables in each model. The remaining

variables were estimated at the mean value of the independent variable for each equation.

The results of these analyses will be discussed in the next chapter.

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[5] For the current study, a base rate of 50% recidivism was assumed.
[6] Means were used to represent the typical case.

CHAPTER 4

RESULTS

Sample Characteristics

Table 1 describes the characteristics of the sample by group. As illustrated in table 1, slightly more than half of the treatment group (52.6%) and a vast majority (68.3%) of the comparison group consisted of males. Sex was statistically significant, with a chi-square value of 12.26. More than half of the sample in both groups were younger (30 or below) and the vast majority across both groups were white. While age was not statistically significant, race was with a chi-square value of 23.54. Among the drug court participants, 77.4 percent were not married, compared to 91.3 percent of the comparison group. Drug court participants were more likely to report having graduated high school (75.4%) compared to probationers (64.3%). Both marital status and education were statistically significant. A vast majority of drug court participants were moderate risk (68.4%), compared to three quarters of the comparison group (75.8%). The average length of follow up for the drug court participants was 888 days and 861 days for probationers.

Table 1

Descriptive Statistics of Treatment and Comparison Groups

| | Treatment Group | | Comparison Group | |
	N	(%)	N	(%)
Gender*				
Male	120	(52.6)	172	(68.3)
Female	108	(39.2)	80	(31.7)
χ^2=12.26				
Age				
Young	128	(56.1)	146	(58.4)
Old	100	(43.9)	104	(41.6)
Race*				
White	192	(96.0)	210	(83.3)
Non-White	8	(4.0)	44	(16.7)
χ^2=18.18				
Married*				
Yes	48	(22.6)	22	(8.7)
No	164	(77.4)	230	(91.3)
χ^2=17.39				
High school Graduate*				
Yes	172	(75.4)	162	(64.3)
No	56	(24.6)	95	(35.7)
χ^2=7.04				
LSI-R Score				
Moderate	156	(68.4)	191	(75.8)
High	72	(31.6)	61	(24.2)
Mean Time at Risk	888.1		860.5	

*p <.05

Bivariate Analyses

Of primary interest in this study was whether the relationship between drug court

participation and recidivism varied by offender risk level. As can be seen in table 2,

statistically significant differences were found between the treatment and comparison

groups. Specifically, for the total sample, 33 percent of the drug court participants compared to nearly 60 percent of the comparison group received a new court filing. The model was statistically significant with a chi-square value of 32.38.

Table 2

Bivariate Analysis: Group Membership and Recidivism by Risk Level

| | Treatment | | Comparison | |
	N	(%)	N	(%)
Total Sample				
Court filing*				
Yes	74	(32.6)	136	(59.1)
No	153	(67.4)	94	(40.9)
$\chi^2=32.38$				
Moderate risk				
Court filing*				
Yes	41	(26.5)	94	(53.4)
No	114	(73.5)	82	(46.6)
$\chi^2=24.80$				
Higher risk				
Court filing*				
Yes	33	(45.8)	42	(77.8)
No	39	(54.2)	12	(22.2)
$\chi^2=13.07$				

*$p <.05$

When exploring drug court effectiveness by risk level, statistically significant differences were found for both the moderate risk and high groups. More specifically, 27 percent of moderate risk drug court clients, compared to 53 percent of probationers were charged with a new offense (see Table 2). For the high risk group, drug court clients were far less likely to be charged with a new offense than probationers (46% vs. 78%).

Phi coefficients were calculated for each group as a measure of association between group membership and recidivism. As illustrated in Table 3, a statistically significant phi coefficient of .266 was calculated for the total sample. A statistically significant phi coefficient of .274 for the moderate risk group was calculated. Finally, for the high risk group, a statistically significant effect size of .322 was calculated.

Table 3

Confidence Intervals Around Phi

	ϕ	95% C.I.	
		Lower	Upper
Total Sample	.266*	.174	.358
Moderate risk	.274*	.171	.371
Higher risk	.322*	.157	.470

*p<.05

To test for significant differences between the total sample, moderate, and high risk groups, confidence intervals around the effect sizes were calculated. The confidence intervals for the three effect sizes overlapped, indicating no significant difference between the groups (see table 3). The findings suggest no significant differences in the impact of the drug court across the groups.

The BESD is used to better illustrate the impact of the drug court for each group (see Table 4).

Table 4

Binomial Effect Size Display

	BESD	
	Drug Court	Probation
Total Sample	36.7	63.3
Moderate risk	36.3	63.7
Higher Risk	33.9	66.1

The BESD calculation reveals, for the total sample, that the drug court group would have a 36.7 percent recidivism rate and the comparison group would have a 63.3 percent recidivism rate, assuming a 50 percent base rate. Similar to the total sample, the BESD indicated a 36.3 percent recidivism rate for moderate risk drug court participants and a 63.7 percent recidivism rate for moderate risk probationers. Finally, for the high risk group, the drug court participants would have a 33.9 percent recidivism rate while the comparison group would have a 66.1 percent recidivism rate.

Multivariate Logistic Regression

While the bivariate analyses indicate that drug court participation is related to a reduced recidivism rates, it is important to control for other factors also associated with recidivism. In order to control for factors, multivariate logistic regression analyses were performed for all three groups (total sample, moderate risk, and higher risk).[7] The results of each regression model were used to calculate the probabilities of recidivism. The results for the total sample are discussed first.

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[7] The results reported here do not include a measure of substance abuse severity. There was a lack of variation on the measure and subsequent analyses indicated its inclusion did not improve the regression models.

As illustrated in table 5, treatment group, age, sex, risk level, and time at risk were significant predictors of recidivism. More specifically, the model showed that the odds of a comparison group member recidivating were 82 percent higher than the odds of a drug court participant recidivating. Also, being young (below the age of 30) increased the odds of recidivism by 44 percent and being male increased the odds by nearly 70 percent. Higher risk offenders were nearly three times more likely to recidivate, and the odds of recidivism increased by .2 percent for every unit increase in length of follow-up.[8] The model was statistically significantly with a chi-square value of 87.27.

Table 5

Logistic Regression for Total Sample

	B	S.E.	Wald	DF	Sig.	Exp(B)
Tx Group*	-1.738	.265	42.925	1	.000	.176
Age*	-.584	.221	6.975	1	.008	.558
Sex*	.515	.233	4.869	1	.027	1.674
Race	.046	.352	.017	1	.895	1.048
High School	.118	.246	.232	1	.630	1.126
Marriage	-.378	.311	1.477	1	.224	.685
Risk Level*	.996	.255	15.280	1	.000	2.707
Time at Risk*	.002	.000	30.442	1	.000	1.002
Constant*	-1.382	.468	8.711	1	.003	.251

*p<.05
Note: Model χ^2 = 87.24*; Log Likelihood= 504.516

The influence of risk on recidivism in the general model provides further evidence for the need to consider the impact of drug court participation among moderate and high risk offenders separately. The logistic regression model for the moderate risk group was

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[8] One unit increase in length of follow up is equivalent to one day.

statistically significant with a chi-square value of 61.34. In this model, group

membership, age, and time at risk were statistically significant predictors (see Table 6) of

recidivism. The odds of recidivating for all three variables are almost identical to those in

the total sample model. Being a comparison group member increases the odds of

recidivating by 83 percent, being younger increases the odds by 46 percent, and the odds

of recidivism increase by .3 percent for every unit increase in the length of follow up.

Table 6

Logistic Regression for Moderate Risk

	B	S.E.	Wald	DF	Sig.	Exp(B)
Tx Group*	-1.772	.325	29.664	1	.000	.170
Age*	-.621	.264	5.544	1	.019	.537
Sex	.503	.281	3.212	1	.073	1.654
Race	-.086	.426	.040	1	.841	.918
High School	.250	.311	.648	1	.421	1.284
Marriage	-.365	.374	.949	1	.330	.694
Time at Risk*	.003	.001	29.500	1	.000	1.003
Constant*	-1.766	.560	9.945	1	.002	.171

*p<.05
Note: Model χ^2= 61.34*; Log Likelihood= 358.125

As with the previous analyses, the logistic regression model for the high risk group

was statistically significant with a chi square value of 19.66. However, in contrast to

those models, only a single variable, group membership, was significantly related to

recidivism (see Table 7). The change in these odds were almost identical (81%) to those

in the total sample model.

Table 7

Logistic Regression for High Risk

	B	S.E.	Wald	DF	Sig.	Exp(B)
Tx Group*	-1.670	.479	12.177	1	.000	.188
Age	-.551	.421	1.714	1	.190	.576
Sex	.553	.435	1.616	1	.204	1.738
Race	.140	.693	.041	1	.840	1.150
High School	.029	.419	.005	1	.945	1.029
Marriage	-.491	.567	.750	1	.386	.612
Time at Risk	.001	.001	2.501	1	.114	1.001
Constant	.650	.881	.544	1	.461	1.915

*p<.05

Note: Model χ^2=19.66*; Log Likelihood= 142.642

The probabilities of recidivism were calculated for the significant variables in each logistic regression model. For the overall sample, those who are in the comparison group, those who were male, younger, higher risk and remained at risk longer had a higher probability of receiving a new court filing (See Figure 1). Specifically, probationers had a 61 percent probability of recidivating compared to a 21 percent probability for drug court participants. Offenders below the age of 31 and those who were males had about a 45 percent probability for recidivism compared to offenders who were females and over 31 (32%). High risk offenders had a 50 percent probability of recidivism compared to a 27 percent probability for moderate risk offenders in the sample. Offenders who were at risk for 3 years had a much larger probability of recidivism (50%) compared to offenders who were followed for only one year (18%).

Figure 1. Estimated Probabilities of Recidivism for the Total Sample
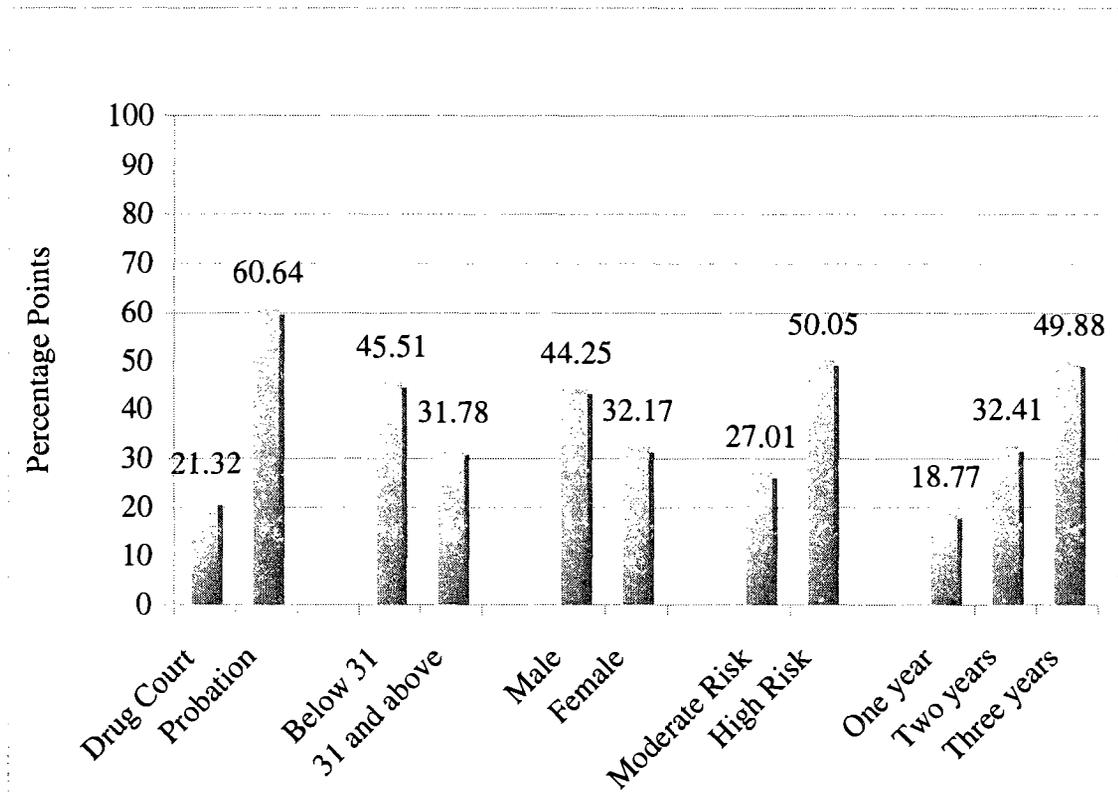
For the moderate risk model, those in the comparison group, those who were young, and those who remained at risk longer had a higher probability of receiving a new court filing (See Figure 2). Those who were on probation had a 65 percent probability of recidivating, compared to a 24 percent probability for those in the drug court. Also, the probability for recidivism significantly increased when comparing a one year follow-up period (16%) to a three year follow-up period (63%).

Figure 2. Estimated Probabilities of Recidivism for Moderate Risk Offenders
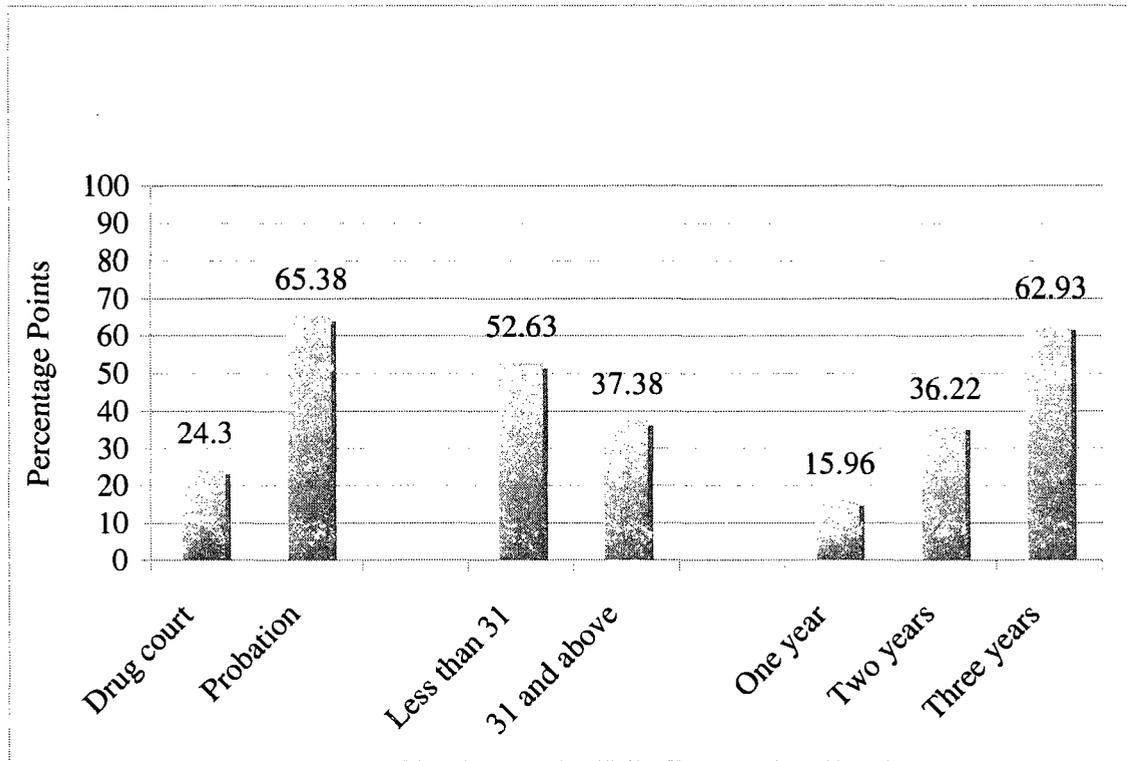
For the higher risk model, treatment group remained the only significant variable for predicting recidivism. The probability of a higher risk drug court participant recidivating (39%) was far less likely than the probability of a comparison group member recidivating (77%) (See Figure 3).

Figure 3. Estimated Probabilities for High Risk Offenders
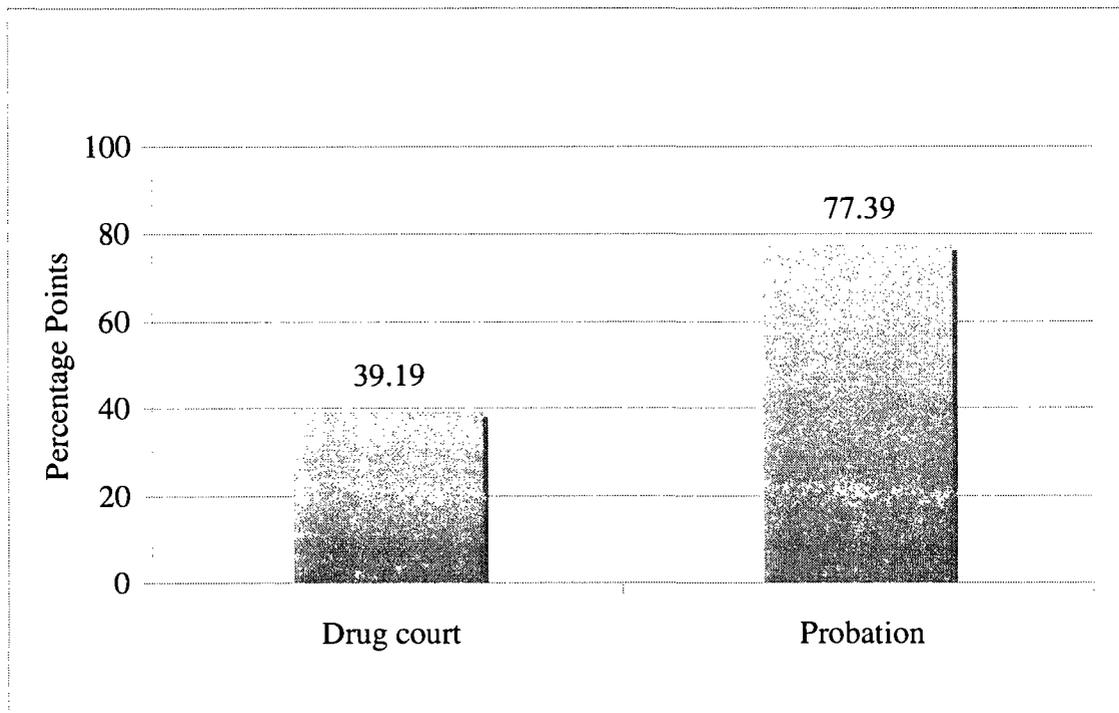
In sum, it was found that drug court participation significantly reduced the likelihood

of recidivism compared to probation for both moderate and high risk offenders.

Statistically significant phi coefficients were found for both the moderate and high risk

groups, and the BESD calculations revealed lower recidivism rates for drug court

participants compared to probationers. The calculation of confidence intervals revealed

no significant differences in the impact of drug court across the groups. The models for

the logistic regression revealed that several factors were predictive of recidivism,

however, treatment group was the only significant predictor across all three models. The

implications of these results as well as limitations of the study will be discussed in the

next chapter.

CHAPTER 5

DISCUSSION

Previous research has shown support for drug courts and their ability to reduce

recidivism among participants and graduates. While studies have found that intensive

programs, such as drug courts, are more effective when focusing their services to high

risk offenders, few studies, have examined the relationship between the risk level of

offender and drug court effectiveness. The primary purpose of this study was to examine

whether the impact of drug court participation varies across different risk levels of

offenders. Specifically, this study examined recidivism among drug court participants and

probationers. It was expected that drug court participants would have lower recidivism

rates than probationers. It was also hypothesized that the impact of drug court on

recidivism would be greater among higher risk offenders than for moderate risk

offenders. A discussion of this study's findings and its implications is presented in detail

below.

Summary of Findings

Consistent with prior research and the hypothesis, the bivariate analysis for the total

sample showed that drug court participants were less likely to recidivate than those

receiving standard probation (Banks & Gottfredson, 2004; Belenko, 2002; Brewster,

2001; Goldkamp & Weiland, 1993; Gottfredson, Kearly, Najaka, & Rocha, 2005;

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Listwan et al., 2003). As expected, roughly 60 percent of the comparison group had a new charge filed, compared to only 33 percent of the drug court participants having a new charge filed. A phi coefficient of .266 was calculated, indicating a moderate treatment effect (see Rea & Parker, 1992). The BESD calculations indicated a 36.7 percent recidivism rate for the drug court and a 63.3 percent recidivism rate for the comparison group. These findings provide support for the hypothesis and provide further evidence of the ability of drug court to reduce recidivism.

The bivariate analyses for the moderate risk and higher risk samples yielded interesting findings. The results showed that for both levels of risk, drug court participants are far less likely to recidivate than probationers. Moderate risk drug court participants were far less likely (27%) than probationers (53%) to recidivate. High risk drug court participants were also significantly less likely to recidivate (46%) than their high risk probation counterparts (78%). Consistent with prior studies, this suggests that the substance abuse treatment and intensive supervision provided by the drug court is effective at preventing or delaying future criminal behavior among higher risk offenders (Lowenkamp, Holsinger, & Latessa, 2005; Marlowe et al., 2006). Cramer's Phi was calculated to assess the magnitude of association between drug court participation and recidivism. A statistically significant treatment effect of .274 was found for the moderate risk sample while a significant effect size of .322 was found for the high risk sample. The BESD calculations for both groups showed higher recidivism rates among probationers compared to drug court participants.

It was initially expected that drug court participation would have the greatest effect for higher risk offenders. To test this, confidence intervals around the effect sizes were

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calculated. The confidence intervals around the effect sizes overlapped, indicating no significant differences in the impact of the drug court across moderate and high risk participants. This finding is somewhat contradictory to prior findings which suggest drug courts are more effective for high risk participants. In part, this finding could be due to the fact that the drug court did not serve any low risk offenders. Instead, the drug court targeted moderate and high risk offenders. The failure to find a significant difference in its impact may also indicate that the drug court is in fact providing the appropriate level of service to the risk level of the offender. It can also be speculated that the failure to find significant differences is the result of a relatively small sample size. Once the sample was split into moderate and high risk groups, the sample distribution among the different categories was relatively small. Finally, this finding could also be due to the fact that other variables not captured in the bivariate analyses may have an influence on the effect of treatment. It is important to note that although the confidence intervals overlapped, a rather substantial effect size was achieved for each group indicating the drug court is effective.

The logistic regression findings provide further evidence of the drug court's impact on recidivism. The regression models controlled for group membership, several demographic variables, and for time at risk. These analyses revealed that several factors were significantly associated with recidivism. More specifically, in the overall sample, treatment group, age, gender, risk level, and time at risk were correlated with recidivism, which is consistent with past research (Banks & Gottfredson, 2004; Brewster, 2001; Dannerbeck et al., 2006; Listwan et al., 2003; Miethe et al., 2000; Peters & Murrin, 2000; Truitt et al., 2002). Since these variables were significant predictors of recidivism, drug

courts should consider these factors when developing treatment plans for participants in order to reduce the likelihood of future criminal behavior.

When looking at the logistic regression performed for the moderate risk group, the variables treatment group, age, and time at risk were still associated with recidivism. In examining the analysis for the higher risk sample, only the treatment group was significant variable associated with recidivism. It can be speculated that this may be due to the fact that the variables controlled for in this analysis are the very factors that put these offenders at a high risk for recidivating. Since these variables are already characteristics of these high risk offenders, it is possible that treatment plays the most significant role in high risk offenders recidivating. In sum, it was found that when controlling for all other factors, treatment group was the only variable that was consistently significant across the three models. This finding further suggests that treatment matters, especially for higher risk offenders.

Limitations

There are several limitations to be noted with this study. Since random assignment to treatment and control groups was not possible, the study employed a quasi-experimental design. Although offenders in the treatment and comparison groups were matched based on LSI-R and substance abuse scores, it was not possible to match on all variables. As a result there are significant differences between the groups in terms of demographics. While these differences were statistically controlled in the multivariate analyses, it is likely that there are other differences that were not controlled. one potential difference involves the issue of motivation. Given the voluntary nature of the drug court,

it is possible that drug court participants were more motivated to change behavior than the probationers. Without a measure of motivation, it is difficult to assess whether this variable had an influence on the outcome.

The use of secondary data for this study is an important limitation to note. Because the data were originally collected for another purpose, only the variables included in that study could be utilized. The issue of representativeness of the sample must also be considered. The state of Idaho is mostly rural and the sample consisted of mostly white individuals, which may limit the generalizability of the results.

Another limitation of this study is the risk level of offenders. Since the Ada County drug court excludes offenders who are considered low risk based on the LSI-R, this study was not able to compare the impact of the drug court across low and high risk participants. Rather, the participants in the study were considered moderate and higher risk. This makes it difficult to truly test the risk principle with regards to low risk offenders in drug court. The failure to find a significant difference in the impact of drug court across different risk offenders may be a result of the limited range of risk level in the sample. Related to this issue, data on treatment dosage were unavailable limiting the ability to assess the level of services provided and whether they were matched to the offenders' risk level.

A final limitation lies in the measurement of the intensity of services provided by drug courts. While research assumes that drug courts provide more intensive services than other forms of community-based interventions, this study had no true measure of the actual level of intensity of the services provided to the drug court clients. Therefore, the impact of treatment intensity on the outcome cannot specifically be examined.

Conclusions and Implications

Despite these limitations, the findings from this study provide further support for the effectiveness of drug courts and their ability to reduce recidivism. As a whole, participants in the drug court were far less likely to recidivate than a matched group of probationers. Although the results did not support the hypothesis related to offender risk level, the results suggest that drug court treatment matters, especially for higher risk offenders. These findings may also provide Ada County with some assurance that the program is indeed able to serve both moderate and high risk offenders effectively.

Future research should continue to explore the issue of risk level and drug court effectiveness. Although the results of this study are promising regarding the effectiveness of the drug court model, the overlapping confidence intervals warrants more research in exploring the impact of drug courts on different types of offenders. While previous research has found a link between the risk principle and program effectiveness, limited research exists on the risk principle as it relates to drug court services. Continued research related to offender risk level and drug court outcomes would provide further insight into the specific offender characteristics that are related to successful outcomes in drug court.

Research should also continue to explore other offender characteristics predictive of success in drug courts. Consistent with prior research, the findings of this study showed that drug court participants over the age of 31 and female participants were more likely to be successful. Research should further examine these factors and why these differences exist to effectively treat offenders with differing needs. By identifying offender

characteristics that affect drug court outcomes, drug courts can better maximize their effectiveness.

Finally, an examination of the actual intensity of drug court treatment is necessary to accurately determine the impact of treatment intensity on outcome. While it has been assumed that drug courts are more intensive than other community-based interventions, there is scant empirical research testing this assumption. It would be useful to examine the different levels of treatment intensity not only to provide more support for the matching of services to offender risk level, but to also determine the types of services that should be provided to offenders with differing needs. Information about the nature of services in drug court would provide better insight into the relationship between the level of services and drug court effectiveness.

REFERENCES

Akers, Ronald L. (1985). *Deviant behavior: A social learning approach.* Wadsworth Publishing: Belmont.

Akers et al. (1979). *Social learning and deviant behavior: A specific test of a general theory. American Sociological Review, 44,* 636-655.

Akers, R.L. & Sellers, C.S. (2004). *Criminological theories: Introduction, evaluation and application* (4th ed.). New York: Oxford University Press.

Andrews, D.A., & Bonta, J. (1998). *The psychology of criminal conduct.* Cincinnati, OH: Anderson Publishing.

Andrews, D.A., & Dowden, C. (2006). Risk principle of case classification in correctional treatment: A meta-analytic investigation. *International Journal of Offender Therapy and Comparative Criminology, 50,* 88-100.

Andrews, D.A., & Dowden, C. (1999). A meta-analytic investigation into effective correctional intervention for female offenders. *Forum on Corrections Research, 11,* 18-21.

Andrews, D.A., Bonta, J., & Hodge, R.D. (1990). Classification for effective rehabilitation: Rediscovering psychology. *Criminal Justice and Behavior, 17,* 19-52.

Andrews, D.A., Zinger, I., Hodge, R.D., Bonta, J., Gendreau, P., Cullen, F.T. (1990). Does correctional treatment work? A clinically relevant and physiologically informed meta-analysis. *Criminology, 28,* 369-404.

Aos, S., Phipps, P., Barnoski, R., & Lieb, R. (2001). The comparative costs and benefits of programs to reduce crime. Washington State Institute for Public Policy.

Bandura, A. (1977). *Social learning theory.* Prentice Hall: Englewood Cliffs, NJ.

Banks, D., & Gottfredson, D.C. (2004). Participation in drug treatment court and time to rearrest. *Justice Quarterly, 21,* 637- 658.

Belenko, S. (1999). Research on drug courts: A critical review, 1999 Update. *National Drug Court Institute Review, 2,* 1-57.

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

Belenko, S. (2002). Drug courts. In Leukefeld, C.G., Tims, F., & Farabee, D. (Eds.), *Drug offenders: policies and issues,* 301-318. New York: Springer Publishing.

Belenko, S., Fagan, J.A., & Dumanovski, T. (1994). The effects of legal sanctions on recidivism in special drug courts. *The Justice System Journal, 17,* 53-79.

Belknap, J., & Holsinger, K. (2006). The gendered nature of risk factors for delinquency. *Feminist Criminology, 1,* 48-71.

Bonta, J., Law, M., & Hanson, R.K. (1998). The prediction of criminal and violent recidivism among mentally disordered offenders: A meta-analysis. *Psychological Bulletin, 123,* 123-142.

Bouffard, J.A., & Richardson, K.A. (2007). The effectiveness of drug court programming for specific types of offenders: Methamphetamine and DWI offenders versus other drug-involved offenders. *Criminal Justice Policy Review, 18,* 274-294.

Brewster, M.P. (2001). An evaluation of the Chester County (PA) drug court program. *Journal of Drug Issues, 31,* 177-206.

Butzin, C.A., Saum, C.A., & Scarpitti, F.R. (2002). Factors associated with a drug treatment court diversion program. *Substance Use and Misuse, 37,* 1615-1633.

Campbell, D.T., Stanley, J.C. (1963). Experimental and quasi-experimental designs for research. Houghton Mifflin Company: Boston.

Cooke, D.J., & Philip, L. (2000). To treat or not to treat? An empirical perspective. In Hollin, C.R. (Ed). (2001). *Handbook of offender assessment and treatment.* John Wiley & Sons Ltd: England.

Cooper, C.S. (1997). 1997 Drug court survey report: Executive summary. Drug Court Clearing House and Technical Assistance Project, Office of Justice Programs, U.S. Department of Justice.

Cullen, F.T., & Gilbert, K.E. (1982). *Reaffirming rehabilitation.* Anderson Publishing Co.: Cincinnati, OH.

Dannerbeck, A., Harris, G., Sundet, P., & Lloyd, K. (2006). Understanding and responding to racial differences in drug court outcomes. *Journal of Ethnicity in Substance Abuse, 5,* 1-22.

Deschenes, E,P., & Greenwood, P.W. (1994). Maricopa County's drug court: An innovative program for first time drug offenders on probation. *Justice System Journal, 17,* 99-115.

Dowden, C., & Andrews, D.A. (1999). What works for female offenders: A meta-analytic review. *Crime and Delinquency, 45,* 438-452.

Dowden, C., & Andrews, D.A. (2000). Effective correctional treatment and violent reoffending. *Canadian Journal of Criminology, 42,* 449-467.

Dowden, C., & Andrews, D.A. (2004). The importance of staff practice in delivering effective correctional treatment: A meta-analytic review of core correctional practice. *International Journal of Offender Therapy and Comparative Criminology, 48,* 203-214.

Farrington, D.P. (1986). Age and crime. *Crime and Justice, 7,* 189-250.

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

Fielding, J.E. et al. (2002). Los angeles county drug court programs: Initial results. *Journal of Substance Abuse Treatment, 23,* 217-224.

Finigan, M. W., Carey, S. M., & Cox, A. (2007). Impact of a mature drug court over 10 years of operation: Recidivism and costs (Final report). Portland, OR: NPC Research.

Flores, A.W., Lowenkamp, C.T., Smith, P., & Latessa, E.J. (2006). Validating the Level of Service Inventory-Revised on a sample of federal probationers. *Federal Probation, 70,* 44-48.

Gendreau, P., Little, T., & Goggin, C. (1996). A meta-analysis of the predictors of adult offender recidivism: What works! *Criminology, 34,* 575–607.

Gendreau, P.C. (1996). The principles of effective intervention with offenders. In A.T. Harland (Ed.), *Choosing Correctional Options that Work: Defining the Demand and Evaluating the Supply.* Thousand Oaks, CA: Sage.

Golkamp, J.S. & Weiland, D. (1993) Assessing the Impact of Dade County's Felony Drug Court. National Institute of Justice Research Brief. Washington DC: US Department of Justice.

Goldkamp, J.S., White, M.D., & Robinson, J.B. (2001). Do drug courts work? Getting inside the drug court black box. *Journal of Drug Issues, 31,* 27-72.

Gottfredson, D.C., Kearley, B.W., Najaka, S.S., & Rocha, C.M. (2005). The Baltimore City Drug Treatment Court: 3-Year self-Report Outcome Study. *Evaluation Review, 29*, 42-64.

Government Accountability Office (2005). *Adult drug courts: Evidence indicates recidivism reductions and mixed results for other outcomes.* Retrieved on January 28, 2009, from www.gao.gov/new.items/d05219.pdf

Gray, A.R., & Saum, C.A. (2005). Mental health, gender and drug court completion. *American Journal of Criminal Justice, 30*, 55-69.

Harrell, A., Roman, J., & Sack, E. (2001). Drug court services for female offenders, 1996-1999: Evaluation of the Brooklyn Treatment Court. [Technical Report].

Hartman, J.L., Listwan, S.J., & Shaffer, D.K. (2007). Methamphetamine users in a community-based drug court: Does gender matter? *Journal of Offender Rehabilitation, 45*, 109-130.

Hawkins, D.F., Laub, J.H., Lauritsten, J.L., & Cothern, L. (2000). Race, ethnicity, and serious violent juvenile offending. *Office of Juvenile Justice and Delinquency Prevention.* Retrieved on November 2, 2008 from http://www.ncjrs.gov/pdffiles1/ojjdp/181202.pdf.

Hoffman, M.B. (2000). The rehabilitative ideal and the drug court reality. *Federal Sentencing Reporter, 14,* 172-178.

Holsinger, A.M., Lowenkamp & Latessa (2006). Exploring the validity of the level of service inventory-revised with Native American offenders. *Journal of Criminal Justice, 34*, 331-337.

Holtfreter, K., & Cupp, R. (2007). Gender and risk assessment: The empirical status of the LSI-R for women. *Journal of Contemporary Criminal Justice, 23*, 363-382.

Inciardi, J.A., McBride, D.C., & Rivers, J.E. (1996). *Drug Control and the Courts.* Thousand Oaks, CA: Sage.

Kelly, C.E., & Welsh, W.N. (2008). The predictive validity of the level of service inventory revised for drug involved offenders. *Criminal Justice and Behavior, 35*, 819-832.

Langan, P.A., & Levin, D.J. (2002). Recidivism of prisoners released in 1994. *Federal Sentencing Reporter, 15*, 58-65.

Laub, J.H. (1983). Urbanism, race and crime. *Journal of Research in Crime and Delinquency, 20*, 183-198.

Lee, G., Akers. R.L., & Borg, M.J. (2004). Social learning and structural factors in adolescent substance use. *Western Criminology Review, 5*, 17-34.

Lindquist, C.H., Krebs, C.P., & Lattimore, P.K. (2006). Sanctions and rewards in drug court programs: Implementation, perceived efficacy, and decision making. *Journal of Drug Issues, 22,* 119-146.

Lipsey, M.W. (1998) Effective Intervention for Serious Juvenile offenders: A synthesis of Research. In Loeber, R., & Farrington, D.P. (Eds.). *Serious and Violent Juvenile Offenders: Risk Factors and Successful Interventions.* Thousand Oaks, CA: Sage Publishing.

Lipsey, M.W., & Derzon, J.H. (1998). Predictors of violent or serious delinquency in adolescence and early adulthood: A synthesis of longitudinal research. In Loeber, R., & Farrington, D.P. (Eds.), *Serious and Violent Juvenile offenders: Risk factors and successful interventions* (pp. 86-105). Thousand Oaks, CA: Sage.

Lipsey, M.W., & Wilson, D.B. (1998). Effective interventions for serious juvenile offenders: A synthesis of research. In Loeber, R., & Farrington, D.P. (Eds.). *Serious and violent juvenile offenders: Risk factors and successful interventions* (pp. 313-345). London: Sage.

Listwan, S.J., Borowiak, J., & Latessa, E.J. (2008). *An examination of Idaho's felony drug courts: Findings and recommendations.* Kent, OH: Kent State University, Department of Justice Studies.

Listwan, S.J., & Latessa, E.J. (2003) The Kootenai and Ada county drug courts: Outcome evaluation findings. Kent, OH: Kent State University, Department of Justice Studies. Retrieved on 10/16/2008 from www.uc.edu/criminaljustice/ProjectReports/Final_report_Ada_and_Kootenai_Co. pdf -

Listwan et al. (2003). The Effect of drug Court Programming on Recidivism: the Cincinnati Experience. *Crime and Delinquency, 49,* 389-411.

Listwan, S.J., Shaffer, D.K., & Hartman, J.L. (2008). Combating methamphetamine use in the community. *Crime and Delinquency. Retrieved from* http://cad.sagepub.com/cgi/rapidpdf/0011128707307221v1

Listwan, S.J., Shaffer, D.K., & Latessa, E.J. (2002). The drug court movement: Recommendations for improvement. *Corrections Today 64,* 52-54, 120, 123.

Lovins, L.B., Lowenkamp, C.T., Latessa, E.J., & Smith, P. (2007). Application of the risk principle to female offenders. *Journal of Contemporary Criminology, 23,* 383-398.

Lowenkamp, C.T., Holsinger, A.M., & Latessa, E.J. (2001). Risk/need assessment, offender classification and the role of child abuse. *Criminal Justice and Behavior, 28*, 543-563.

Lowenkamp, C.T., Holsinger, A.M., & Latessa, E.J. (2005). Are Drug Courts Effective? A Meta-Analytic Review. *Journal of Community Corrections, 28,* 5-10.

Lowenkamp, C.T., & Latessa, E.J. (2004). Understanding the risk principle: How and why correctional interventions can harm low risk offenders. *Topics in Community Corrections, 3-8.*

Lowenkamp. C.T., & Latessa, E.J. (2005). Increasing the Effectiveness of Correctional Programming Through the Risk Principle: Identifying Offenders for Residential Placement. *Criminology and Public Policy, 4, 263-290.*

Marlowe, D.B., Festinger, D.S., & Lee, P.A. (2004). The judge is a key component of drug court. *Drug Court Review, 4,* 1-34.

Marlowe, D.B., Festinger, D.S., Lee, P.A., Schepise, M.M., Hazzard, J.E.R., Merrill et al. (2003). Are judicial status hearings a key component of drug court? During treatment data from a randomized trial. *Criminal Justice and Behavior, 30,* 141-162.

Marlowe, D.B., Festinger, D.S., Dugosh, K.L., Lee, P.A., & Benasutti, K.M. (2006). Adapting judicial supervision to the risk level of drug offenders: Discharge and 6-month outcomes from a prospective matching study. *Drug and Alcohol Dependence, 88,* 4-13.

Mateyoke-Scrivner, A., Webster, J.M., Stanton, M., & Leukefeld, C. (2004). Treatment retention predictors of drug court participants in a rural state. *The American Journal of Drug and Alcohol Abuse, 30,* 605-625.

Miethe, T.D., Lu, H., & Reese, E. (2000). Reintegrative shaming and recidivism risks in drug court: Explanations for some unexpected findings. *Crime and Delinquency, 46,* 522-541.

NADCP. (1997). Defining Drug Courts: The Key Components. Washington , D.C.: Office of Justice Programs, U.S. Department of Justice.

National Institute on Drug Abuse. (2006). Congressional and legislative activities. Retrieved on March 23, 2009, from http://www.nida.nih.gov/about/legislation/Chronology.html

Office of National Drug Control Policy. (2007). Drug Courts. Retrieved on 10/15/08 from http://www.whitehousedrugpolicy.gov/enforce/drugcourt.html.

Peters, R.H., & Murrin., M.R. (2000). Effectiveness of Treatment-Based Drug Courts in Reducing Criminal Recidivism. *Criminal Justice and Behavior, 20, 72-96.*

Randolph, J.J., & Edmondson, R.S. (2005). Using the binomial effect size display (BESD) to present the magnitude of effect sizes to the evaluation audience. *Practical Assessment, Research and Evaluation 10,* 1-7. Retrieved on March 18, 2009 from: http://pareonline.net/pdf/v10n14.pdf

Rea, L.M., & Parker, R.A. (1992). *Designing and conducting survey research.* San Francisco: Jossey-Bass.

Robinson, J.J., & Jones, J.W. (2000). Drug testing in a drug court environment: Common issues to address. U.S. Department of Justice, Drug Courts program office. Retrieved on January 23, 2009 from www.ncjrs.gov/pdffiles1/ojp/181103.pdf

Rosenthal, J.A. (1996). Qualitative descriptors of strength association and effect size. *Journal of Social Service Research, 21,* 37-59.

Rosenthal, J.A., & Rubin, D.B. (1982). A simple, general purpose display of magnitude of experimental effect. *Journal of Educational Psychology, 74,* 166-169.

Sample, L.L., & Bray, T.M. (2006). Are sex offenders different? An examination of rearrest patterns. *Criminal Justice Policy Review, 17,* 83-102.

Satel, S.L. (1998). Observational study of courtroom dynamics in selected drug courts. *National Drug Court Institute Review, 1,* 43-72.

Saum, C.A., Scarpitti, F.R., & Robbins, C.A. (2001). Violent offenders in drug court. *Journal of Drug Issues, 31,* 107-128.

Saum, C.A. et al. (2002). Drug court participants' satisfaction with treatment and the court experience. *Drug Court Review, 4,* 39-81.

Schlager, M.D., & Simourd, D.J. (2007). Validity of the level of service inventory revised (LSI-R) among african american and hispanic male offenders. *Criminal Justice and Behavior, 34,* 545-555.

Shaffer, D.K., Hartman, J.L., & Listwan, S.J. (In Press). Drug abusing women in the community: The impact of drug court involvement on recidivism. *Journal of Drug Issues.*

Simourd, D.J., & Andrews, D.A. (1994). Correlates of delinquency: A look at gender differences. *Forum on Corrections Research, 6,* 26-31.

Simourd, D.J., & Malcom, P.B. (1998). Reliability and validity of the Level of Service Inventory-Revised among federally incarcerated sex offenders. *Journal of Interpersonal Violence, 13*, 261-274.

Spohn, C., Piper, R.K., Martin, T., & Frenzel., E.D. (2001). Drug Courts and recidivism: The results of an evaluation using two comparison groups and multiple indicators of recidivism. *Journal of Drug Issues, 31*, 149-176.

Steffensmeier, D., & Allan, E. (1996). Gender and crime: Toward a gendered theory of female offending. *Annual Review of Sociology, 22*, 459-487.

Steffensmeier, D.J., Allan, E.A., Harer, M.D., & Streifel, C. (1989). Age and the distribution of crime. *Journal of Sociology, 94*, 803-831.

Truitt, L., Rhodes, W.M., Hoffmann, M.G., Sheeherman, A.M., Jalber, S.K., Kane, M. et al. (2002). Evaluating treatment drug courts in Kansas City, Missouri and Pensacola, Florida: Executive Summary. [Unpublished Report]. Retrieved on 10/10/08 from, www.abtassociates.com/reports/ES-eval_treatment.pdf -

Taxman, F.S., & Bouffard, J. (2002). Treatment inside the drug treatment court: The who, what, where and how of treatment services. *Substance Use and Misuse, 37*, 1665-1688.

Vito, G., & Tewksbury, R.A. (1998). The impact of treatment: The Jefferson County (Kentucky) drug court program. *Federal Probation, 62*, 46-52.

Wilson, D.B., Mitchell, O., & Mackenzie, D.L. (2006). A Systematic Review of Drug Court Effects on Recidivism. *Journal of Experimental Criminology, 2*, 459-487.

Wolfe, E., Guydish, J., & Termondt, J. (2002). A drug court outcome evaluation comparing arrests in a two-year follow-up period. *Journal of Drug Issues, 32*, 1155-1172.

APPENDIX I

Level of Service Inventory-Revised

Name:_____   Identifying Number:_____

Date of Birth:____/____/____   Sex: M   F   Date:____/____/____

Referral Source:_____ Reason for Referral:_____

Disposition:_____ Present Offenses:_____

The LSI-R is a quantitative survey of attributes of offenders and their situations relevant to the decisions regarding level of service. The LSI-R is composed of 54 items. Items are either in a "yes-no" format, or in a "0-3" rating format, based on the following scale:

3: A satisfactory situation with no need for improvement

2: A relatively satisfactory situation, with some room for improvement evident

1: A relatively unsatisfactory situation with a need for improvement

0: A very unsatisfactory situation with a very clear and strong need for improvement

Place an "X" over the appropriate response for each question, whether it be a simple "yes" or "no", or a rating number. The answers will transfer through to the scoring sheet beneath for quick tallying of the LSI-R score. Be sure to see the manual for guidelines on rating and scoring. For missing information, circle the question number.

Criminal History

No	Yes	1.	Any prior adult convictions? Number:____
No	Yes	2.	Two or more prior convictions?
No	Yes	3.	Three or more prior convictions?
No	Yes	4.	Three or more present offenses? Number:____
No	Yes	5.	Arrested under age 16?
No	Yes	6.	Ever incarcerated upon conviction?
No	Yes	7.	Escape history from a correctional facility?
No	Yes	8.	Ever punished for institutional misconduct? Number:____
No	Yes	9.	Charge laid or probation/parole suspended during prior community supervision?
No	Yes	10.	Official record of assault/violence?

Education/Employment

When in labor market:

No	Yes	11.	Currently unemployed?
No	Yes	12.	Frequently unemployed?
No	Yes	13.	Never employed for a full year?
No	Yes	14.	Ever fired?

School or when in school:

No	Yes	15.	Less than regular grade 10?
No	Yes	16.	Less than regular grade 12?
No	Yes	17.	Suspended or expelled at least once?

For the next three questions, if the offender is a homemaker or pensioner, complete #18 only. If the offender is in school, working, or unemployed, complete #18, #19 and #20. If the offender is unemployed, rate 0.

3	2	1	0	18.	Participation/performance
3	2	1	0	19.	Peer interactions
3	2	1	0	20.	Authority interactions

Financial

3	2	1	0	21.	Problems
No	Yes		22.	Reliance upon social assistance

LSI-R: The Level of Service Inventory • Revised

by D. A. Andrews, Ph.D., and James L. Bonta, Ph.D.

> Remember, the rating scale is as follows:
> 3: A satisfactory situation with no need for improvement
> 2: A relatively satisfactory situation with some room for improvement evident
> 1: A relatively unsatisfactory situation with a need for improvement
> 0: A very unsatisfactory situation with a very clear and strong need for improvement

Question Numbers

Family/Marital

		Question Number
Dissatisfaction with marital or equivalent situation	3 2 1 0	23.
Non-rewarding, parental	3 2 1 0	24.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	3 2 1 0	25.
Criminal-Family/Spouse	No Yes	26.

Accommodation

▓▓▓▓▓▓▓▓▓▓▓▓▓▓	3 2 1 0	27.
3 or more address changes last year	No Yes	28.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	29.

Leisure/Recreation

Absence or recent participation in an organized activity	No Yes	30.
Could make better use of time	3 2 1 0	31.

Companions

▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	32.
Some criminal acquaintances	No Yes	33.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	34.
Few anti-criminal acquaintances	No Yes	35.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	36.

Alcohol/Drug Problem

▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	37.
Drug problem, ever	No Yes	38.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	3 2 1 0	39.
Drug problem, currently Specify type of drug: _____	3 2 1 0	40.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	41.
Marital/Family	No Yes	42.
School/Work	No Yes	43.
Medical	No Yes	44.
Other indicators. Specify:	No Yes	45.

Emotional/Personal

▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	46.
Severe interference, active psychosis	No Yes	47.
Mental health treatment, past	No Yes	48.
Mental health treatment, present	No Yes	49.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	50.

Attitudes/Orientation

▓▓▓▓▓▓▓▓▓▓▓▓▓▓	3 2 1 0	51.
Unfavorable toward convention	3 2 1 0	52.
▓▓▓▓▓▓▓▓▓▓▓▓▓▓	No Yes	53.
Poor, toward supervision	No Yes	54.

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