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# Combating Methamphetamine Use in the Community

## The Efficacy of the Drug Court Model

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Methamphetamine use was historically a problem facing Western states; however, in recent years it has methodically spread throughout the nation. Methamphetamine use impacts communities, families, and the criminal justice system in a variety of ways. As such, many jurisdictions are developing policies to reduce the sale and consumption of this drug as well as increase penalties for its use. The question of whether methamphetamine users can be safely and effectively treated in the community is unresolved. This study explores whether community-based drug courts are a reasonable option for treating this population. Results of the study indicate that drug of choice does not influence outcome in a drug court setting. Policy implications are discussed.

***Keywords:*** *methamphetamines; drug courts; substance abuse treatment; rehabilitation*

Methamphetamine (meth) use is perceived to be one of the fastest growing drug problems in America. Historically, meth was considered a problem only for Western states and rural areas, however, evidence of its spread can be found throughout the country. For example, admissions to substance abuse treatment for meth users nationwide increased from 10 per 100,000 in 1992 to 52 per 100,000 in 2002. In the Midwest, 7 of the 12

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states experienced an increase in admission rates in 2002 (Substance Abuse and Mental Health Services Administration [SAMSHA], 2004). The Drug Abuse Warning Network also found a 67% increase in the number of meth-related emergency room episodes between 1994 and 2001 (SAMSHA, 2002). Given that more than 8 million people have at least tried meth (Wright & Sathe, 2006), there is a growing fear that we are becoming entrenched in a nationwide "meth epidemic."

Although it is not clear whether meth is more addictive than other drugs, there is evidence to suggest that meth users may progress along a continuum of addiction more quickly (Castro, Barrington, Walton, & Rawson, 2000). In contrast to drugs such as marijuana and alcohol that may be initially distasteful, meth users are more likely to find the drug "instantly pleasurable" (Weisheit & Fuller, 2004, p. 8). Immediate effects include feelings of euphoria, a decreased need for sleep, and an increased energy (Herz, 2000). The instant desire for meth, along with its longer lasting effects, may help explain why meth use is pervasive among a variety of individuals (Rawson, Anglin, & Ling, 2002).

Meth use is a serious concern for law enforcement agencies and correctional officials. A recent telephone survey conducted by the National Association of Counties (NACo) of 500 law enforcement officials in 44 states found that nearly half of the counties surveyed reported meth as their primary drug problem. Furthermore, approximately 50% of the sample reported that "1 in 5 inmates are incarcerated because of meth related crimes and seventeen percent report that 1 in 2 inmates are incarcerated because of meth related crimes" (Hansell, 2006, p. 3).

To combat the use and production of meth, many states and the federal government have begun to enact specific legislation. Most of the counties surveyed by the NACo indicated they had existing legislation or were in the process of developing laws to make it more difficult to obtain the ingredients necessary to produce meth (Hansell, 2006). At the same time, the federal government, via the Combat Methamphetamine Epidemic Act of 2005, placed restrictions on the sale of ingredients used to manufacture meth and increased penalties for smuggling and trafficking the drug (Yeh & Doyle, 2005).

Parallels can be seen between the current response to meth and the response to the rise in crack cocaine use during the 1980s. As communities became increasingly concerned about the crack cocaine epidemic, legislation was enacted establishing tougher penalties for drug users convicted of abusing or trafficking drugs (see Currie, 1998; Fagan, 1994; Walker, 1994). The subsequent war on drugs resulted in a tremendous burden placed on the

criminal justice system, including the correctional system (see Belenko, Peugh, Califano, Usdansky, & Foster, 1998).

As the concern surrounding meth use escalates, it is important to consider viable options for treating this population rather than simply revisiting the failed drug policies of the 1980s (see, e.g., Belenko, Mara-Drita, & McElroy, 1992; Fagan, 1994). An alternative strategy may be community-based drug courts, which merge the treatment and supervision of drug offenders. Although drug courts have been the subject of many empirical studies, few, if any, evaluations have explored the impact of drug court programming on meth users.

## Literature Review

Drug courts first emerged in the late 1980s partially in response to the war on drugs. One of the consequences of the war on drugs was an overburdened court system and, consequentially, a taxed correctional system. During this time, drug offenders cycled between the community and prison but were rarely provided with any type of substance abuse treatment. As prison populations rapidly increased, so did the call for alternative strategies for dealing with drug offenders. Together, these forces were the catalyst for the development of community-based drug courts (Listwan, Sundt, Holsinger, & Latessa, 2003). A strong body of evidence suggesting that intensive drug treatment can successfully reduce drug use and criminality (Anglin & Hser, 1990; French, Zarkin, Hubbard, & Valley, 1993; Prendergast, Anglin, & Wellisch, 1995; Van Stelle, Mauser, & Moberg, 1994), combined with immense political support for the drug court model, led to a rapid expansion in drug courts nationwide. Today, there are more than 1,000 drug courts operating in 48 states (Office of Justice Programs Drug Court Clearinghouse and Technical Assistance Project, 2004) having served an estimated 229,000 offenders[1] (Belenko, 2002).

Although drug courts often differ by agency and jurisdiction, there are several key components central to this model. The National Association of Drug Court Professionals (NADCP, 1997) identified several key components, including the integration of judicial case processing with drug treatment services via a nonadversarial approach.[2] Drug court programs are not required to adhere to these components per se; however, these components are intended to provide a framework for the specialized courts. Essentially, the drug court model can be viewed as integrating treatment and supervision through a collaborative relationship among the court, probation, and treatment providers.

Drug courts have been the subject of numerous empirical evaluations that are generally supportive of the model. Most studies find reduced recidivism rates among drug court participants (Brewster, 2001; Gottfredson, Najaka, & Kearley, 2003; Jensen & Mosher, 2006; Peters & Murrin, 2000; Truitt et al., 2002) and graduates (Dynia & Sung, 2000; Peters, Haas, & Murrin, 1999; Vito & Tewksbury, 1998). Multisite evaluations have provided further evidence of the effectiveness of drug courts with reductions in recidivism ranging from 17% to 30% (Martinez & Eisenberg, 2003; Rempel et al., 2003; Shaffer, Listwan, Latessa, & Lowenkamp, 2007). Finally, meta-analytic reviews have also been supportive of drug courts, with average effect sizes ranging from 9% to 24% (Aos, Phipps, Barnoski, & Lieb, 2001; Lowenkamp, Holsinger, & Latessa, 2005; Wilson, Mitchell, & MacKenzie, 2002).

Although drug courts have enjoyed considerable empirical, anecdotal, and political support, there is a growing call to assess whether drug courts impact different types of offenders equally (Goldkamp, 1999; Longshore et al., 2001). This is particularly important in light of research that has found that there is no difference in outcomes among drug court participants and nonparticipants (Deschenes & Greenwood, 1994, Granfield, Eby, & Brewster, 1998, Listwan et al., 2003; Wolfe, Guydish, & Termondt, 2002) or that drug court participants have higher recidivism rates in contrast to nonparticipants (Miethe, Lu, & Reese, 2000).

One issue that has received some preliminary attention is drug of choice. Stoops, Tindall, Mateyoke-Scrivner, and Leukefeld (2005) examined differences between drug court participants who had ever used meth and participants that had never used meth. They found that meth users were more likely to have tried multiple illicit substances and to use multiple substances in a single day. In terms of criminal behavior, participants who had ever used meth were more likely to self-report theft, selling drugs other than marijuana, and breaking and entering into someone's home or vehicle. However, those who had ever used meth had significantly fewer "weapons charges, probation violations, nonsupport, and other charges on their criminal records" (p. 267). These findings suggest that drug court participants who had any history of using meth may have more serious substance use histories but less serious criminal records.

Whereas Stoops et al. (2005) focused on the characteristics of different types of drug offenders, others have examined the relationship between drug of choice and program completion or recidivism for drug court participants. There is some evidence that drug of choice is related to program completion. Individuals who were referred for cocaine use (Hartley &

Phillips, 2001) or who identified crack as their drug of choice (Miller & Shutt, 2001; Schiff & Terry, 1997) were less likely to graduate from drug courts. This link is important given the findings that suggest drug court graduates are less likely to recidivate than drug court failures (Loman, 2004; Martinez & Eisenberg, 2003). Harrell, Roman, and Sack (2001) explicitly explored the link between drug of choice and recidivism. Although they failed to find a relationship between drug of choice and rearrest, they did find that heroin users were more likely to self-report criminal behavior. More recently, Shaffer's (2006) meta-analysis examined the link between drug of choice and drug court effectiveness. The study found drug courts that primarily serve offenders identifying meth as their drug of choice achieved greater reductions in recidivism than those that served offenders identifying alcohol, marijuana, or crack cocaine as their primary drug of choice.

Huddleston (2005) has proposed that drug courts can be an effective strategy for communities experiencing problems with meth. In his review, he referenced three drug courts that primarily serve meth users. The Butte County (CA) Drug Court identified 87% of their participants as meth users, with 15% reconvicted during the follow-up period. Similarly, roughly 60% of the Orange County (CA) Superior Drug Court participants test positive for meth use and 26% of its graduates recidivated. Finally, an evaluation of the Salt Lake County (UT) Felony Drug Court, which primarily serves meth users, found that drug court participation significantly reduced drug arrests. Although Huddleston's review provides support for the notion that drug courts are effective with meth users, none of the studies reviewed explicitly compared outcomes of meth users with those of nonmeth users, nor did they distinguish regular meth users from experimental or sporadic meth users.

The current study seeks to add to the existing literature by examining the recidivism rates of meth users as compared to nonmeth users being served by a community-based drug treatment court. It builds on previous research in two ways. First, it uses drug of choice to distinguish between meth users and nonmeth users. This distinction is an improvement over previous research because the meth group is limited to those who prefer meth rather than including those who may have tried meth a single time. By using drug of choice as a grouping variable, it is likely that the meth group is more homogenous than if groups had been divided between ever used or never used. Second, the current study explores differences in outcomes between the two groups. By comparing these two groups on measures of arrest and program completion, this study is able to better assess whether drug of choice, namely meth, mediates the efficacy of the drug court model.

# Method

## Sample

Participants included individuals who entered the drug court between March 1999 and June 2002.[3] The adult felony drug court served those convicted of a felony drug or drug related offense(s). The drug court program under study was a court-supervised, comprehensive outpatient treatment program for selected chemically dependent defendants. The program combined accelerated case management, ongoing court involvement, and community-based drug treatment. Before acceptance, defendants completed an intake and screening process with the treatment provider. Defendants accepted into the program were required to plead guilty but still received representation throughout their participation in the court. Successful completion and "graduation" from the program resulted in having the guilty plea set aside and the charges dismissed. Failure or dismissal from the program resulted in the case proceeding to sentencing on the basis of the guilty plea.

Once admitted to the drug court program, participants received a combination of services and interventions designed to increase offender accountability, decrease the likelihood of recidivism, and reduce drug dependence. These services and interventions included regular drug testing, periodic one-on-one contact with the drug court judge in the form of status review hearings, and placement in community-based drug treatment programming. In addition, offenders placed in the drug court program received a sentence to probation or intensive supervision probation.

The drug court program was designed to provide community-based substance abuse treatment coupled with close supervision and frequent urinalyses. The treatment protocol included a four-phase, highly structured, outpatient treatment program lasting a minimum of 1 year, which could be extended depending on individual progress. Each phase lasted approximately 3 months and consisted of specified treatment objectives, therapeutic and rehabilitative activities, and specific requirements for movement into the next phase. Phase 1 included urinalysis at least two times per week and participation in cognitive self-change, substance abuse education, and process groups. Phase 2 required urinalysis at least once a week and participation in individual sessions and cognitive and substance abuse relapse packets. Phase 3 included urinalysis at least once a week and individualized treatment focusing on living in recovery. Finally, Phase 4 required the completion of a treatment plan, which focused on using all of the program tools to establish a long-term recovery plan. During this phase, participants were

subjected to urinalysis at least once a week. Throughout each phase, counselors assisted participants in obtaining education and skills assessments and provided referrals for vocational training, education, and/or job placement services.

The sample consisted of individuals who were admitted to the program and received drug court services, including, but not limited to, drug treatment and court supervision ($N = 250$). The group is a consecutive sample of all persons accepted into the drug court between March 1999 and June 2002. Within this group of drug court participants, individuals were those identified as meth users ($n = 129$) and nonmeth users ($n = 101$).[4] Drug of choice was determined through self-disclosure during an intake process with the caseworker. Table 1 describes the overall sample of individuals processed through the court. The two groups are similar on several key demographic variables such as race, employment, education, marital status, and prior record. Specifically, clients in both groups were more likely to be Caucasian, unemployed, high school graduates, and not married. The vast majority, more than 90% in both groups, were likely to have a criminal history that included drugs or drug-related criminal behavior. However, one important difference emerged with regard to gender. Women were significantly more likely to report meth use as their drug of choice as compared to other types of drugs.

## Measures

*Independent variables.* To explore the predictors of outcome, the study examined the effects of several independent variables. Of primary interest was whether the impact of drug court programming was mitigated by drug of choice. To assess this issue, the study explored whether being identified as a meth user versus a nonmeth user affected various outcomes (meth is the reference category). Also of interest was whether social demographic variables influenced the probability of future offending or predicted the likelihood of success. As such, four demographic classifications were used in these analyses: gender, employment status, education level, and martial status.[5] The variables were dichotomized for the multivariate analysis (0 = women, 0 = unemployed, 0 = less than high school, 0 = not married). Similarly, given that each participant was at risk for differing periods, the analysis included a measure of time at risk as a control.

*Dependent variables.* The impact of the drug court was assessed by examining criminal behavior through arrest for any charge and whether the

**Table 1**
**Frequency and Percentage Distribution of Drug Court Participants' Intake Information**

| | Methamphetamine | | Nonmethamphetamine | |
|---|---|---|---|---|
| Characteristic | *N* | % | *N* | % |
| Primary drug of choice | | | | |
| Marijuana | 0 | 0.0 | 56 | 55.4 |
| Alcohol | 0 | 0.0 | 17 | 16.8 |
| Cocaine | 0 | 0.0 | 8 | 7.9 |
| Methamphetamine | 129 | 100.0 | 0 | 0.0 |
| Heroin | 0 | 0.0 | 13 | 12.9 |
| Other | 0 | 0.0 | 7 | 7.0 |
| Gender | | | | |
| Male | 67 | 52.3 | 66 | 66.7 |
| Female | 61 | 47.7 | 33 | 33.3 |
| ($\chi^2 = 4.720$; $p = .03$) | | | | |
| Race | | | | |
| Caucasian | 128 | 100.0 | 98 | 99.0 |
| African American | 0 | 0.0 | 1 | 1.0 |
| Employment | | | | |
| 35 hr or more | 43 | 33.6 | 36 | 36.0 |
| 15–34 hr | 15 | 11.7 | 17 | 17.0 |
| 14 hr or less | 5 | 1.0 | 1 | 1.0 |
| Unemployed | 65 | 50.8 | 46 | 46.0 |
| Education | | | | |
| Less than high school | 35 | 27.6 | 20 | 19.8 |
| High school | 58 | 45.7 | 51 | 50.5 |
| Some college | 34 | 26.8 | 30 | 29.7 |
| Marital status | | | | |
| Not married | 93 | 72.7 | 74 | 73.3 |
| Married | 35 | 27.3 | 27 | 26.7 |
| Prior record | | | | |
| Yes | 128 | 100.0 | 96 | 97.0 |
| Prior record with drugs | | | | |
| Yes | 120 | 93.8 | 94 | 94.9 |
| Frequency of drug use | | | | |
| Daily | 39 | 72.2 | 34 | 85.0 |
| 1 time per week | 7 | 13.0 | 2 | 5.0 |
| < 1 time per week | 8 | 14.8 | 4 | 10.0 |
| Age of first use | | | | |
| 7–13 years old | 20 | 36.4 | 14 | 35.0 |
| 14–18 years old | 24 | 43.6 | 18 | 45.0 |
| 19–23 years old | 7 | 12.7 | 6 | 15.0 |
| 24 and older | 4 | 7.3 | 2 | 5.0 |

arrest was drug related.[6] We also explored factors related to program completion given its relationship to recidivism. Information regarding arrest was collected in October and November 2002, allowing for an average follow-up time of 886 days (2.4 years). Arrest for any charge and arrest for a drug-related offense were measured as dichotomous variables, as was program completion.

# Results

## Drug Use History

During the intake process, treatment personnel conducted an interview with individuals to determine their eligibility for drug court. During this process they inquired about the client's drug use. Both the meth and nonmeth groups reported daily use of their primary drug of choice. Similarities between the groups are also found in terms of their reported first use. Approximately 45% of both groups reported that their use of drugs (although not necessarily their current drug of choice) began when they were between the ages of 14 and 18. Many of the participants started using drugs before age 14, with more than 30% of both groups reporting that their use began between the ages of 7 and 13.

## Outcome Information

At the time of this study, the drug court had been in operation for 4 years. As such, the sample includes individuals who were still receiving drug court services (23%), had graduated successfully (approximately 40% to 43%), and were unsuccessfully terminated (approximately 30% to 33%) from the program.

Of primary interest was whether clients identified as meth users differed significantly on various indicators of criminality. The results of these analyses are summarized in Table 2. The two groups were similar when an arrest for any new offense was examined. These data revealed that 34% of the meth users and 41% of the nonmeth users were rearrested.

While immediate measures of drug use were not available, we examined whether either group experienced arrests for drug-related offenses to assess possible differences in drug-using behavior between the groups. There were no significant differences between the two groups. Of those who were arrested, 41% of the meth group and 49% of the nonmeth group were arrested for a drug-related charge.

**Table 2**
**Frequency and Percentage Distribution of Participants' Outcome Information**

| | Methamphetamine | | Nonmethamphetamine | |
|---|---|---|---|---|
| Characteristic | *N* | % | *N* | % |
| Current Status | | | | |
| Currently enrolled | 27 | 23.5 | 21 | 23.6 |
| Graduated | 50 | 43.5 | 41 | 46.1 |
| Discharged | 38 | 33.0 | 27 | 30.0 |
| Rearrested for a new offense | | | | |
| Yes | 43 | 33.9 | 41 | 41.4 |
| No | 84 | 66.1 | 58 | 58.6 |
| Rearrest charge (of those rearrested) | | | | |
| Drug related | 18 | 40.9 | 20 | 48.8 |
| Trafficking | 1 | 2.3 | 1 | 2.4 |
| Theft | 9 | 20.5 | 7 | 17.1 |
| Violent | 2 | 4.5 | 2 | 4.9 |
| Probation violation | 5 | 11.4 | 8 | 19.5 |
| Other | 9 | 20.5 | 3 | 7.3 |
| Level of initial rearrest | | | | |
| Felony | 34 | 77.3 | 29 | 70.7 |
| Misdemeanor | 10 | 22.7 | 12 | 29.3 |
| Arrested multiple times | | | | |
| Yes | 22 | 20.8 | 18 | 23.7 |
| *M* | 1.9 | | 1.9 | |
| Follow-up period (days) | | | | |
| *M* | 878.8 | | 895.1 | |
| *SD* | 380.8 | | 378.3 | |

In addition to examining whether the meth group was more or less likely to be arrested than the nonmeth group, we explored whether the mean number of arrests differed between the two groups. This analysis allowed us to determine whether drug of choice was a predictor in the number of arrests the client experienced during the follow-up period. The results were not statistically significant, as both groups experienced an average of 1.9 arrests during the 2.5-year follow-up period.

## Multivariate Analyses

Several multivariate models were calculated to determine the significant predictors of recidivism and the odds of failure for both groups under consideration. Regression analyses help pinpoint the effects of each measure

**Table 3**
**Logistical Regression Predicting Arrest**

| Variable | B | *SE* | Wald | *df* | Significance |
|---|---|---|---|---|---|
| Gender | .759 | .340 | 4.972 | 1 | .026* |
| Marital status | –.585 | .378 | 2.401 | 1 | .121 |
| Education | –.295 | .366 | .647 | 1 | .421 |
| Employment | –1.987 | .347 | 32.890 | 1 | .000* |
| Drug of choice | –.354 | .328 | 1.158 | 1 | .282 |
| Time at risk | .001 | .000 | 3.267 | 1 | .071 |

*$p < .05$.

relative to other measures included in the model. Three models were created exploring the predictors of arrest, arrest for a drug-related charge, and program completion.

For the model predicting arrest, the value of the model chi-square was 59.57, which was statistically significant. As noted in Table 3, the analysis revealed that gender and employment status were significantly related to arrest. In particular, men and those who were unemployed were more likely to be arrested. Noteworthy is the finding that drug of choice was not significantly related to arrest. Consistent with the bivariate analyses, this model suggested that drug of choice among this sample does not substantially influence the odds of being arrested.

The results of the model predicting an arrest for a drug-related offense revealed different findings. The model chi square of 11.1 was not statistically significant at less than the .05 level. As illustrated in Table 4, only gender was significantly related to the dependent variable of an arrest for a drug-related charge. Specifically, women were more likely to be arrested for a drug-related charge.

Finally, for the model predicting program completion, the model chi-square of 65.8 was statistically significant. As noted in Table 5, the analysis revealed that education, employment status, and time at risk were significantly related to program completion. In particular, those with less than a high school education and those who were unemployed were less likely to complete the drug court program. The variable time at risk was significantly associated with program completion, indicating that those who failed to complete the program were discharged more quickly. This model suggested that drug of choice among this sample does not substantially influence the odds of successful completion.

**Table 4**
**Logistical Regression Predicting Arrest for a Drug-Related Offense**

| Variable | B | *SE* | Wald | *df* | Significance |
|---|---|---|---|---|---|
| Gender | –1.127 | .520 | 4.700 | 1 | .030* |
| Marital status | –1.102 | .647 | 2.903 | 1 | .088 |
| Education | –.187 | .541 | .119 | 1 | .730 |
| Employment | –.861 | .599 | 2.067 | 1 | .151 |
| Drug of choice | –.522 | .490 | 1.135 | 1 | .287 |
| Time at risk | –.001 | .001 | 2.075 | 1 | .150 |

*$p < .05$.

## Discussion

The current study builds on existing research by exploring whether drug of choice predicts successful outcomes in a community-based drug court. The drug court model is based on the premise that a flexible approach to the treatment of drug-addicted offenders, in combination with increased court involvement and oversight of the offender's behavior, will reduce the likelihood of recidivism. Less clear, however, is whether this approach is reasonable for clients who use particular types of drugs, in this case, meth. To assess this question, two indicators of criminal behavior were assessed: arrest and arrest for a drug-related charge. The recidivism rates between meth users and nonmeth users were similar to one another for both arrests (34% vs. 41%) and drug-related arrests (41% vs. 49%).

The study further explored the role of drug of choice in predicting recidivism (e.g., arrest, arrest for a drug-related charge, and program completion) through the multivariate analysis. Consistent with the bivariate findings, in each of the models, drug of choice failed to be a significant predictor of outcome. The findings suggest that the drug court had a similar impact on both meth and nonmeth users. Arguably, the lack of differences between the two groups is an important finding, namely, that meth users did no worse than nonmeth users.

Several other findings warrant consideration. Gender was significant in the bivariate analysis and in two of the three models predicting outcome. Specifically, whereas men were more likely to be arrested overall, we found women were more likely to be meth users and they were more likely to be arrested for a drug-related charge. These findings suggest the need for further inquiry into the impact of drug courts among women generally and among women meth users more specifically (see Hartman, Listwan, and

**Table 5**
**Logistical Regression Predicting Program Completion**

| Variable | B | *SE* | Wald | *df* | Significance |
|---|---|---|---|---|---|
| Gender | .520 | .436 | 1.426 | 1 | .232 |
| Marital status | .256 | .467 | .300 | 1 | .584 |
| Education | –1.119 | .501 | 4.996 | 1 | .025* |
| Employment | –3.554 | .619 | 32.940 | 1 | .000* |
| Drug of choice | –.044 | .428 | .011 | 1 | .918 |
| Time at risk | –.003 | .001 | 9.688 | 1 | .002* |

*$p < .05$.

Shaffar, 2007). Finally, previous research has also suggested that women from all social backgrounds may be attracted to meth given the desirable effects of increased energy and weight loss (Rawson et al., 2002). As such, future research should explore whether gender combined with social class and drug of choice influences outcomes in drug courts.

Education and employment were significant predictors of recidivism and program completion. Those who were unemployed were more likely to be arrested and less likely to graduate. Individuals with less than a high school education were more likely to experience difficulty when measured by program completion. The previously mentioned findings indicate that drug courts should pay close attention to the way individuals of different statuses and backgrounds respond to treatment. The implication is that drug courts are not a one-size-fits-all solution to the drug problem. Drug courts need to recognize that drug offenders have varying needs and difficulties, which must be managed to reduce their criminal behavior.

There are several methodological issues that should be considered. First, determination of the drug of choice was self-reported through semistructured interviews with the client. The self-classification of client's drug of choice does not preclude the fact that those who are categorized as nonmeth users may have used meth before. However, the use of self-reported drug of choice as a grouping variable helps ensure that our point of comparison is between those who regularly use meth and those who prefer other substances such as alcohol, marijuana, or heroin.

A second limitation concerns the lack of assessment data. Although the use of drug of choice allows for a distinction to be made between those who regularly use meth and those who do not, we do not have explicit data on the severity of substance use. It is important to note, however, that the groups are similar in terms of the frequency of their drug use and their age

of first drug use. Both of these measures provide support for the idea that the groups are likely similar in terms of their level of addiction. However, future research should consider this issue further.

Third, it is also important to acknowledge that our bivariate models have limited statistical power.[7] The low level of statistical power may explain our failure to find a significant difference in recidivism between the two groups despite a 7-point difference in arrest rates and an 8-point difference in drug-related arrest rates. This limitation, however, is tempered in two ways. First, the multivariate analyses, which had sufficient statistical power, failed to detect a significant relationship between drug of choice and recidivism. Second, despite the failure to find a significant relationship, our findings suggest that drug courts should be considered an option for meth users.

A fourth limitation is that, although the drug court provides similar types of treatment as drug courts across the nation, we do not have detailed treatment data. As such, we are unable to report the impact of treatment dosage on outcome. Finally, it is important to note that the drug court described in this study is located in a Northwestern state that is relatively rural in nature. The clients served by this drug court are potentially different from clients served in other drug courts.

Despite these limitations, the current study has several implications. First, although the growing concern surrounding meth use could lead to the development of punitive-based strategies, our findings suggest such a response may not be necessary. Instead, they lend further support to previous research suggesting meth users are responsive to treatment (Hser, Huang, Chou, Teruya, & Anglin, 2003; Rawson et al., 2004). Second, rather than viewing meth offenders as a unique group, our findings concur with previous research (see Bouffard and Richardson, 2007) that finds they may be similar to other types of drug-addicted offenders. As such, they should be treated similarly, with an emphasis on supervision and treatment rather than incarceration. Together, these implications suggest that officials should consider drug courts as an option when discussing policies for how to effectively deal with the "growing meth epidemic."

## Notes

1. These figures are current through 2000.

2. These components include the following: the early identification and placement of eligible participants; a continuum of alcohol, drug, and other related treatment services; the use of frequent drug testing to monitor abstinence; the use of rewards and punishments in response to participants' behaviors; and continued judicial monitoring of offenders.

3. The court began accepting clients in October 1998.

4. Twenty cases were excluded from the analysis because data on primary drug of choice were missing.

5. Race was excluded given that only one person in the sample was non-White.

6. Drug-related refers to any charge associated with drug use or possession. Charges included: drug abuse, drug possession, drug trafficking, driving under the influence, and possession of drug paraphernalia.

7. A post hoc analysis of statistical power indicates 32% power for chi-square analysis and 96% power for regression analyses using six predictors. The statistical power was calculated using the GPOWER statistical power analysis calculator created by Faul and Erdfelder (1992).

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