

# JOURNAL

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for Advancing Justice

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Justice



# **JOURNAL**

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## **for Advancing Justice**

Volume I

### **Identifying and Rectifying Racial, Ethnic, and Gender Disparities in Treatment Courts**

National Association of Drug Court Professionals  
Alexandria, Virginia

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# JOURNAL

for Advancing Justice

## VOLUME I

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The National Association of Drug Court Professionals (NADCP) is the premier training, membership, and advocacy organization for the treatment court model, which now includes over 3,000 programs found in every state and four territories of the United States, and over 20 countries. Since 1994, NADCP and its divisions—the National Drug Court Institute, the National Center for DWI Courts, and Justice For Vets—have trained hundreds of thousands of professionals spanning the legal, clinical, psychosocial, and law enforcement fields.

NADCP regularly publishes cutting-edge, research-based materials—including the groundbreaking *Adult Drug Court Best Practice Standards*—and the association works tirelessly to improve the response of the American justice system to people with substance use and mental health disorders.

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## **Journal for Advancing Justice**

The *Journal for Advancing Justice* provides justice and public health professionals, policymakers and other thought leaders, academics, scholars, and researchers a forum to share evidence-based and promising practices at the intersection of the justice and public health systems.

The journal strives to bridge the gap between what has proven effective and what is often considered business as usual.

Although the *Journal for Advancing Justice* emphasizes scholarship and scientific research, it also provides practitioner-level solutions to many of the issues facing the justice system. To that end, the journal invites scholars and practitioners alike to submit articles on issues of interest impacting global justice systems, particularly where they collaborate with public health systems.

Advancing Justice was created by leaders of the treatment court movement at the National Association of Drug Court Professionals (NADCP). Through NADCP, Advancing Justice harnesses three decades of credibility, expertise, and leadership responsible for the creation of more than 3,000 treatment courts throughout the world. With a constituency of thousands of justice and public health professionals spanning every intercept point in the justice system, from entry to reentry, Advancing Justice is positioned to lead a new era of global reform.

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## INTRODUCTION

***There is a higher court than courts of justice and that is the court of conscience. It supersedes all other courts.***

– Mahatma Gandhi

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Treatment courts were created to improve a troubled criminal justice system, not to mirror its worst attributes; yet racial, ethnic, and gender disparities exist in many treatment courts, reflecting and possibly exacerbating systemic injustices. In the United States, African American individuals are underrepresented in drug courts by approximately 15 to 20 percentage points compared with the arrestee, probation, and incarcerated populations, and Hispanic or Latino individuals are underrepresented by approximately 10 to 15 percentage points (Marlowe, Hardin, & Fox, 2016). Among those who gain entry to drug courts, African American, Hispanic, and female participants are less likely than Caucasian males to graduate successfully from many programs (Finigan, 2009; Marlowe, 2013; Marlowe et al., 2016). In some studies, differences in graduation rates have been as large as 25 to 40 percentage points (e.g., Belenko, 2001; Dannerbeck, Harris, Sundet, & Lloyd, 2006; Shaffer, 2006).

In 2010, the board of directors of the National Association of Drug Court Professionals (NADCP) issued a unanimous resolution directing treatment courts to determine whether racial or ethnic disparities exist in their programs and to take reasonable corrective measures to eliminate any disparities that are identified (NADCP, 2010). In 2013, NADCP released Volume I of the *Adult Drug Court Best Practice Standards* (Standards), and it released Volume II two years later. The Standards place further obligations on drug courts to monitor their programs at least annually for evidence of racial or ethnic disparities and to adjust their eligibility criteria, assessment procedures, and

treatment services, as indicated, to eliminate disparities that are detected (NADCP, 2013, 2015).

Thus far, progress toward meeting these obligations has been unsatisfactory. Many treatment courts cannot accurately report whether disparities exist in their programs because they do not collect or analyze relevant information (Marlowe et al., 2016). Where research has been conducted, most investigators have focused on characterizing the nature of disparities rather than identifying effective methods to eliminate them. Worse, some research findings have been misinterpreted to justify undue complacency. Numerous studies have found, for example, that disparities were not a function of race or ethnicity per se, but rather were influenced by other variables that are often correlated with race or ethnicity, such as participants' age, employment status, educational background, criminal history, or substance use diagnosis (e.g., Dannerbeck et al., 2006; DeVall & Lanier, 2012; Howard, 2016; McKean & Warren-Gordon, 2011). Some treatment court professionals may misconstrue these findings to suggest that disparities do not exist, thus absolving treatment courts of responsibility for addressing the problem. To the contrary, these findings point to promising strategies that treatment courts might employ to reduce disparities, such as providing remedial vocational and educational services.

This inaugural issue of NADCP's *Journal for Advancing Justice* (JAJ) is dedicated to understanding and eradicating unfair disparities in treatment courts and the broader justice system. Contained in the pages that follow are cutting-edge findings

from the largest multisite studies conducted to date on racial, ethnic, and gender disparities in treatment courts. In addition, outcomes are reported from experimental and quasi-experimental evaluations of culturally proficient interventions designed to neutralize barriers faced by some racial and ethnic groups in treatment courts and blunt the piercing impact of racial discrimination and implicit cultural biases.

In the first article, Timothy Ho, Shannon Carey, and Anna Malsch report findings from a meta-review of racial, ethnic, and gender disparities in 142 treatment courts serving more than 20,000 participants. Beyond documenting the existence of disparities, this landmark study identifies a range of programmatic policies and procedures that are associated with better outcomes and smaller discrepancies for racial, ethnic, and gender groups. Less disparity was observed, for example, in programs that offer family counseling services, include representatives from participants' community of origin on the treatment court team, and avoid the counterproductive effects of terminating participants for new drug possession offenses or technical violations. These important findings point to concrete strategies that treatment courts can employ to rectify injustices and enhance equity and fairness in their programs.

Most studies to date have examined disparities in the context of adult criminal drug courts, raising questions as to whether comparable problems exist in other types of treatment courts. In the second paper, Philip Breitenbucher, Russ Bermejo, Colleen Killian, Nancy Young, Lisa Duong, and Ken DeCerchio examine racial and ethnic disparities in 11 family treatment courts serving more than 3,500 children in out-of-home foster or kinship care. Case analyses of programs producing exemplary outcomes for African American and multiracial children highlight the importance of employing racially diverse staff on the treatment court team, delivering specialized outreach services in participants' homes, co-locating recovery coaches at the court, and delivering family thera-

py, mental health, and trauma-informed services for guardians and caregivers.

In the third paper, Lisa Shannon, Afton Jackson Jones, Shondrah Nash, Jennifer Newell, and Connie Payne examine graduation rates and two-year recidivism outcomes in a representative statewide sample of more than 500 drug court participants. Lower graduation rates for African American participants were attributable to variables that are often correlated with race, including participants' age, education, marital status, employment background, and psychological health. The findings point to promising strategies for improving outcomes among non-Caucasian participants, including offering vocational and educational training, mental health treatment, and family or marital counseling.

In the fourth paper, John Gallagher and Anne Nordberg synthesize findings from focus groups conducted with 70 African American drug court participants. The goal was to hear from participants in their own words how they perceive drug court and why they believe African Americans may be less likely than Caucasians to enter or succeed in the programs. Although it is often assumed that participants appreciate the chance to receive treatment in drug courts but may resent being subjected to increased surveillance and sanctions for program infractions, the investigators found virtually the opposite results. Focus group participants reported highly favorable views about court hearings, drug testing, and other accountability mechanisms, but held largely negative opinions about treatment and treatment providers. Most participants viewed the treatment they received as being irrelevant to their needs. They felt that treatment focused excessively on presumed symptoms of addiction (which many participants denied experiencing) and ignored more pressing concerns such as unemployment, low education, and mental health symptoms. Treatment providers were also viewed as being largely disrespectful, untrustworthy, and more interested in enforcing obedience to program rules than encouraging

therapeutic progress. These findings raise serious concerns that some drug courts may not be delivering culturally congruent services or focusing on participants' pressing treatment goals.

It is one thing to identify racial, ethnic, and gender disparities, but quite another to design and evaluate interventions to rectify those disparities. In the fifth article, Douglas Marlowe, Lisa Shannon, Bradley Ray, Darryl Turpin, Guy Wheeler, Jennifer Newell, and Spencer Lawson report findings from two pilot studies examining a culturally proficient curriculum for young African American men in drug court. The curriculum—Habilitation Empowerment Accountability Therapy (HEAT)—incorporates participants' African American cultural heritage and life experiences with racism and discrimination as core elements of the intervention. The results reveal promising improvements in counseling attendance and graduation rates for these young men. Further research is needed to evaluate HEAT in larger clinical trials.

The final paper, by Nicole Waters, Nicole Cochran, Cynthia Lee, and Kathryn Holt, reports findings from a randomized controlled experiment of a trauma-focused intervention—Helping Men Recover—among primarily Hispanic male drug court participants. Although most trauma-informed treatments have been developed and evaluated for women, evidence suggests that Hispanic men may experience among the highest rates of trauma exposure and trauma symptoms of any demographic group in treatment courts (e.g., Miles, Marshall, & Schell, 2008). The most striking finding from the study is that rates of self-reported trauma exposure and trauma symptoms increased over the course of treatment. This unexpected result suggests the intervention may sensitize participants to the destructive effects of trauma on their current life circumstances, bring repressed traumatic memories to conscious awareness (where they can be processed), and/or encourage participants to report trauma symptoms more faithfully. Further work is needed to determine whether greater awareness of trauma

sequelae can lead to better long-term outcomes for these men.

Treatment courts are, first and foremost, courts and the fundamental principles of due process and equal protection apply to their operations. Best practice standards published by NADCP require treatment courts to examine racial, ethnic, and gender disparities in their programs and to implement remedial measures, where indicated, to eliminate those disparities (NADCP, 2010, 2013, 2015). Any program that tolerates or, worse, exacerbates unfair disparities in the criminal justice system tarnishes the treatment court model and is unworthy of the name. There can be no therapeutic progress without justice and there can be no justice without therapeutic progress. Merging treatment and justice is the *sine qua non* of treatment courts, the guiding philosophy for the field, and a sacred obligation of all professionals working in these programs. Hopefully, the research findings reported in this issue of JAJ will aid the treatment court field in meeting its most basic obligations and achieving its highest aspirations.

– Douglas B. Marlowe, JD, PhD

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## RESEARCH REPORTS

# Racial and Gender Disparities in Treatment Courts: Do They Exist and Is There Anything We Can Do to Change Them?

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## Abstract

*There is widespread evidence of significant racial disparities in America's criminal justice system. The explanations for these statistics are varied but reflect a complex web of possible root causes including rates of criminal activity, practices and decisions of law enforcement, and policies and laws. Theoretically, it is reasonable to assume that treatment courts are reflective of the larger system in which they sit. Given limited but suggestive findings that racial disparities do indeed exist within the treatment court arena, there is continued call for further research that specifically includes race and gender in rigorous studies on treatment courts. There is also an ethical call from the field obligating treatment courts to examine further any disparities and to implement practices to combat them. This study is a step toward understanding the extent of race and gender disparities in treatment courts and whether any specific treatment court practices are related to increasing or decreasing disparities.*

*Individual-level data on adult treatment court participants, including participant demographics, as well as data on program practices were available for 142 treatment courts. These data were merged and used to examine three primary research questions related to racial and gender disparities.*

- 1. Are there disparities in who gets into treatment courts? (That is, is there a discrepancy between the demographic composition of treatment court participants and the composition of the overall probation population in each jurisdiction?)*
- 2. Are there disparities in treatment court graduation rates across different demographic characteristics?*

**3. What treatment court practices are associated with reduced disparities in graduation rates between demographic groups?**

*This study found that males were somewhat underrepresented, by roughly 9%, (or females were overrepresented) in who gets into treatment courts compared with the general probation population. It also found that, although Whites were slightly overrepresented in treatment courts compared with their respective probation population, the proportion of Black individuals in treatment courts (except reentry courts) was representative. In reentry courts, the percentage of Black participants was significantly higher than the percentage of probationers who were White, most likely due to the overrepresentation of Black individuals in American prisons.*

*The analysis comparing the rates of male and female participants graduating from treatment courts found no significant or meaningful differences. However, the comparison of graduation rates across race showed that Hispanic/Latino participants tended to have similar graduation rates as White participants, while Black participants had lower graduation rates than White participants even after controlling for education, employment, prior arrests, drug(s) used, and age.*

*Using treatment court process data about practices performed by the 142 treatment courts, the study conducted exploratory analyses to determine if any of these practices were related to racial disparities in graduation rates. One practice, the provision of family/domestic counseling, was significantly related to lower racial disparity. Family counselors can obtain insight into the specific environment and circumstances each participant is experiencing, which may lead to better decisions for the team in responding effectively to each participant's behavior, as well as increase support for the participant in his or her natural environment. In addition, family counseling is compatible with culturally specific values related to the importance of family.*

**Keywords:** racial disparity, gender disparity, ethnicity, drug court, treatment court, best practice

## INTRODUCTION

There is widespread evidence that significant racial disparities exist in America's criminal justice system (Cole, 1999; Petersilia, 1983; The Sentencing Project, 2008). Racial disparity—that is, the discrepancy between the proportion of a racial or ethnic group within the system and the proportion of that same group in the general population—has been documented at each stage in the criminal justice process. Members of certain racial groups are more likely to be arrested, to be convicted, and to receive harsh sentences (The Sentencing Project, 2008). Black males are 6 times more likely to be incarcerated than White males, and 2.5 times more likely than Hispanic/Latino males. The explanations for these statistics are varied but reflect a complex web of possible root causes including rates of criminal activity, practices and decisions of law enforcement, and policies and laws. A specific concern lies in *unwarranted* racial disparities when people in the criminal justice system are treated differently because of their race or ethnicity, whether based on explicit racism, implicit bias, or other factors indirectly related to race or ethnicity.

A substantial body of research demonstrates that treatment court programs<sup>1</sup> are effective in reducing recidivism, increasing psychosocial benefits, and facilitating cost savings for communities (Koetzle-Shaffer, 2011; Marlowe, Hardin, & Fox, 2016; Mitchell, Wilson, Eggers, & MacKenzie, 2012; Wilson, Mitchell, & MacKenzie, 2006). Within the context of these findings has been a pervasive albeit inconclusive discussion regarding racial disparities; it poses the question of whether or not such disparities exist in treatment courts as well as proposing the possibility that treatment courts may impact the racial disparities that are already well documented in the greater criminal justice system.

1. The terms *treatment courts* and *treatment court programs* are used in this article to encompass all types of court programs that stem from the drug court model; they include adult drug treatment courts, DUI courts, reentry courts, family drug treatment courts, juvenile drug treatment courts, and mental health courts.

Theoretically at least, it is reasonable to assume that treatment courts are reflective of the larger system in which they sit. This line of thinking prompts two questions: (1) Do the same racial disparities that exist in the larger criminal justice system also exist in treatment courts, and (2) are treatment courts in a position to reduce or eliminate these disparities in the larger system by providing access to appropriate treatment and other needed services? Wolf (2009) suggests that the question of disparities should be asked at all steps in the treatment court process. It is possible that disparities exist in *access* to treatment courts, via a program's eligibility or exclusion criteria. For example, some treatment courts exclude high-risk offenders or individuals with multiple prior offenses, which could exclude minorities at a different rate than nonminorities due to their overrepresentation in the criminal justice system in general. On the other hand, a treatment court may overrecruit minorities and consequently increase their involvement in the criminal justice system. The *assessment* and *treatment* aspects of a treatment court's process may also reflect or affect racial disparities via the presence, or lack, of culturally specific and competent treatment services. *Experiences* in a treatment court program, related to court appearances and the determination of sanctions and rewards, may similarly reflect or be impacted by cultural competence and sensitivity. Finally, the question of disparities must be assessed in the *outcomes* of treatment courts: Do different racial and ethnic groups graduate at different rates?

In 2010, the board of directors of the National Association of Drug Court Professionals (NADCP) passed a resolution directing treatment courts to determine whether unwarranted racial disparities existed in their programs, and if they did, to implement measures to eliminate the disparities. The board encouraged treatment courts to track whether participants had equal access to the program, received equivalent services, and graduated at equal rates from the program. Eight years later,

although there is no shortage of anecdotal accounts of the prevalence and impact of racial disparities within treatment court programs, there is yet to be a substantial empirical evidence base from which to draw confident conclusions and take action.

Research in this area over the past decade has produced limited and varied results. Some studies have concluded that treatment courts benefit racial minorities (Mauer, 2009; Wright, 2006), and some have concluded that treatment courts embody and worsen the racial disparities that already exist (National Association of Criminal Defense Lawyers, 2009). Several studies have suggested that racial disparities do indeed exist in treatment courts. Gallagher (2013) analyzed records of 376 treatment court participants in urban Texas and found that 65% of White participants graduated compared with 52% of Hispanics/Latinos and only 45% of Blacks. Similarly, in a study of 10 treatment courts in Missouri, Dannerbeck, Harris, Sundet, and Lloyd (2006) found that 28% of Black participants graduated compared with 55% of White participants. Huddleston, Marlowe, and Casebolt (2008) examined the representation of racial minorities in treatment courts compared with other groups in the criminal justice system. They found that the proportion of Black individuals was 7 percentage points lower in treatment courts than in the arrestee and probation/parole populations and 20 percentage points lower than in jails/prisons. The proportion of Hispanic/Latino participants in treatment courts was equivalent to the probation/parole population and 6 to 10 percentage points lower than in jails/prisons. These disparities in representation suggest that treatment courts may be underserving Blacks and Hispanics/Latinos.

In contrast, some researchers have concluded that racial disparities do not exist or that treatment courts have actually reduced the disparities present in other criminal justice arenas. A national study (Mauer & Huling, 1995) reported that the number of Blacks in state prisons for drug crimes

declined by 22% since treatment court programs began in 1989. Further, after examining other possible explanations such as a reduction in drug use among Blacks, the authors suggest that the role of treatment courts in diverting participants and offering treatment was likely responsible for this reduction.

Also unclear in the literature is whether the racial disparities that some studies have identified are indeed about race itself or about other differences, such as type of drug(s) used or economic status, that relate to race but are actually stronger predictors of outcomes (Dannerbeck et al., 2006). In their statewide study in Missouri, in which significantly greater proportions of White participants graduated from treatment courts than Black participants, Dannerbeck and her colleagues also found that a greater proportion of Black participants reported a host of other challenges such as unemployment, low socioeconomic status, and lower levels of family support as well as a greater prevalence of cocaine use. After controlling for these variables, race was no longer a predictor of successful program completion.

Although the topic of racial disparities has long been part of an active conversation among treatment court professionals and scholars, Marlowe (2013) asserts that a majority of the conclusions are anecdotal rather than evidence based. He suggests that there are only the following handful of empirical findings on which to base the current state of knowledge: (1) Blacks are underrepresented in adult treatment courts; (2) Black and Hispanic/Latino participants are less likely than White participants to successfully complete some treatment court programs (but not others), and this disparity in graduation rate is not necessarily due to race but rather to other factors that are correlated with race; and (3) graduation rates among Black and Hispanic/Latino participants can be increased by offering more culturally specific and competent services, vocational training, and treatment services that focus on the specific drug being used.

In the 2016 edition of *Painting the Current Picture: A National Report on Drug Courts and Other Problem-Solving Courts in the United States*, Marlowe et al. (2016) reported findings from the 2014 national survey of problem-solving courts,<sup>2</sup> and the conclusions echo those of Marlowe in 2013. Blacks were significantly underrepresented compared with arrestee, probation, parole, and incarcerated populations. Hispanics/Latinos were slightly underrepresented in treatment courts compared with both the general and criminal justice populations. On the other hand, Whites were overrepresented in treatment courts compared with criminal justice populations and with the general population. One key caveat applies to these findings. Information regarding arrestee eligibility for treatment court was not taken into account and therefore it is not possible to determine whether the disparities were due to disproportionate exclusion of Blacks and Hispanic/Latinos, or a reflection of some other factor such as varying rates of substance abuse disorders or differences in charging and sentencing. However, even if the other factors were responsible for the differential outcomes, the impact was still disproportionate for certain groups.

The 2014 survey findings also found disparities in graduation rates. The average graduation rate for Blacks was 39% and for Hispanic/Latinos was 32% compared with the overall national treatment court graduation rate of 58%. It is important to note, however, that only 41% of courts had data on graduation rates of Black participants and only 35% had data on Hispanic/Latino participants, which may mean these graduation rates were not nationally representative.

Rising above any individual or group of research findings is the decisive conclusion that there is a need for better, more consistent collection and tracking of race data in treatment courts. Marlowe et al. (2016) reported that only 75% of the courts surveyed for the 2014 national survey had data

available on race and ethnicity in the general probation population. In 2016, the Urban Institute surveyed state criminal justice data and reported that 40 states (80%) reported race but only 15 of those states (30%) reported ethnicity. When ethnicity data are not collected, ethnic groups such as Hispanics/Latinos are often counted as White, which exaggerates the proportions of Whites in the criminal justice system and consequently minimizes the disparities between that group and other racial groups in the system.

Further, given the suggestive findings that racial disparities do indeed exist, both in admission to and the successful completion of treatment courts, there is a continued call for further research in treatment courts that specifically includes race, ethnicity, and gender. There is also an ethical call from the field obligating treatment courts to examine further any disparities and to implement practices to combat them. This study is the next step toward understanding the extent of race and gender disparities in treatment courts and whether there are any program practices that might result in lower disparities.

## **METHODS**

### **Research Questions**

Individual-level data on treatment court participants, including participant demographics, as well as data on program practices and procedures were available in 142 treatment courts (adult treatment courts, DUI courts, and reentry courts)<sup>3</sup> from studies conducted from 2005 through 2016. For this study, these data were merged and used to examine three primary research questions related to racial and gender disparities.

- 1.** Are there disparities in who gets into treatment courts? (That is, is there a discrepancy between

2. *Problem-solving courts* is another term for treatment courts.

3. DUI courts, also called DWI courts, target individuals charged or convicted with driving under the influence of alcohol or drugs. Reentry courts focus on individuals returning from extended incarceration.

the demographic composition of treatment court participants and the composition of the overall probation population in each jurisdiction?)

2. Are there disparities in treatment court graduation rates across different demographic characteristics?
3. What treatment court practices are associated with reduced disparities in graduation rates between demographic groups?

## **Data Sources**

This study used multiple data sources to answer these research questions, including treatment court program data on demographics and completion status, probation records on the demographic composition of the general probation population for each jurisdiction during the time period of each treatment court study, and program practice data from process evaluations. The program practices were collected to help assess what treatment court factors might contribute to differences (or to reduced differences) in completion rates for different programs.

First, we collected the demographic characteristics (gender and race/ethnicity) of the overall probation population for the same jurisdiction as each of the 142 treatment courts. These data were from the year in which the final evaluation report was written for each treatment court (roughly the same years as the treatment court participants were in the programs). We obtained aggregate data on the proportions of gender and race/ethnicity in the probation population for the jurisdiction of each treatment court by sourcing publicly available data found on government websites or by contacting local government officials and requesting the data. Although the eligibility requirements for each treatment court may not be identical to the determinants that place an individual on probation in each jurisdiction, the majority of these treatment courts take individuals who would otherwise be on probation (some after a jail sentence) or who are on probation while in treatment court. This analysis makes the broad assumption that

the gender and racial/ethnic composition of the participants in treatment court should reflect the makeup of individuals in the general probation population. The limitations of this approach are described in the limitations section of this article. Demographic data for the general probation population were available for gender in 82% of sites and for race in 87% of sites.

We gathered treatment court participant demographic and graduation data from programs in the course of multiple evaluations conducted between 2005 and 2016 and merged them into an overall data set. Sources of the original evaluation data included electronic program databases and/or paper files, depending on the data available in each jurisdiction at the time of the evaluation. Specifically, participant data collected included race/ethnicity, gender, and age at treatment court entry, employment status (at entry), educational attainment (at entry), drug(s) used, and the number of arrests 2 years prior to treatment court entry. Although data on race/ethnicity, gender, and age were available for virtually all participants in all treatment courts, less data were available for employment status (36%), educational attainment (34%), drug use (60%), and prior number of arrests (68%). Furthermore, because sites operationalized employment status and educational attainment differently, only broad categories for these two constructs could be used. We dichotomized employment status by whether the participant was employed or unemployed at the time of treatment court entry, and educational attainment by whether the participant was a high school graduate or equivalent (e.g., GED) or not at the time of treatment court entry.

Finally, we collected the practices of each treatment court through process evaluation activities, including online assessments, site visits with observations of court sessions and staffing meetings, and interviews with team members and other key partners. The program practices collected included best practices described in the *Adult Drug Court Best Practice Standards*, Volumes I and II, published

by the National Association of Drug Court Professionals (NADCP, 2013, 2015).

## Sample

The final analytic sample consisted of 20,800 treatment court participants across 142 treatment courts. These programs include 105 (74%) adult treatment courts, 30 (21%) DUI courts, 6 (4%) reentry courts, and 1 hybrid drug/DUI Court (which, for the purposes of analysis, was combined with the adult treatment courts). Although the 142 treatment courts were spread across the United States (including one U.S. territory), most were in the West ( $n = 69$ , 49%) or Midwest ( $n = 59$ , 42%), while a smaller number were in the South ( $n = 12$ , 8%), and only one court (1%) was in the Northeast.<sup>4</sup> More than one third of the sites ( $n = 55$ , 39%) were classified as rural jurisdictions while the remainder were classified as urban jurisdictions ( $n = 87$ , 61%).<sup>5</sup> Although more than one third of the programs were classified as rural, these programs tended to be smaller than those in urban areas, so less than one sixth (just 16%) of the participants in the sample were from rural sites. There was wide variation in the number of participants per treatment court, ranging from 10 to 1,939 participants (median, 52 participants). Courts with very small numbers were effectively dropped from some analyses.

Treatment court participants' ages ranged from 17 to 82 years, with an average age of 32 years. A majority of the treatment court participants were White (64%) and male (67%).<sup>6</sup> Black participants constituted 22% of all treatment court participants in the sample, and Hispanic/Latino participants constituted 10%. However, there was wide variation in the demographic composition of specific treatment courts. For example, almost one third

(32%) of treatment courts did not have any Black participants while one DUI court had more than 96% of participants identified as Black. Additionally, a similar proportion of courts (35%) did not have any Hispanic/Latino participants while two courts had 80% of participants identified as Hispanic/Latino. Less than 4% of the sample was identified as "other race." For courts with available data, approximately half of the participants (51%) were employed at the time of treatment court entry, and 59% had attained a high school diploma or equivalent prior to their program involvement. Data on drug(s) used were missing for more than one third of the sample (40%), as not all treatment courts tracked this information in their data files. For the participants with drug use data available, the most common drugs used were amphetamines (32%) and marijuana (22%), followed by cocaine (16%), alcohol (14%), and opiates (14%). The number of prior arrests within 2 years of treatment court entry (a measure of recent criminal activity) ranged from 0 to 22, with an average of 2 arrests per participant. Approximately 1 in 10 participants (10%) did not have an arrest within 2 years prior to treatment court entry because many treatment courts were post-conviction programs (including reentry courts),<sup>7</sup> and many jurisdictions referred potential participants from probation due to technical violations that happened several years after the original arrest. Demographics of the sample are presented in Table 1.

Based on the results of the 2014 national survey of problem-solving courts (Marlowe et al., 2016), the demographics (gender and race/ethnicity) in the sample for this study are largely congruent with the national treatment court population. The national sample was 32% female, 67% White, 17% Black, and 10% Hispanic/Latino, whereas the sample for this study was 32% female, 64% White, 22% Black, and 11% Hispanic/Latino.

4. Regions as defined by the United States Census Bureau [https://www.census.gov/geo/reference/gtc/gtc\\_census\\_divreg.html](https://www.census.gov/geo/reference/gtc/gtc_census_divreg.html)

5. Urban or rural classification schemes are defined by the Centers for Disease Control and Prevention.

6. Gender was coded as male or female. The majority of program data sets did not track other types of gender identification.

7. In post-conviction programs, including reentry courts, participants may have been incarcerated prior to program participation and therefore were less likely to have committed crimes during that period.

**Table 1. Demographics of Treatment Court Participants**

Demographic	N	%
<b>Race</b>		
White	13,313	64%
Black	4,476	22%
Hispanic/Latino	2,252	11%
Other	759	3%
<b>Gender</b>		
Male	14,134	68%
Female	6,814	32%
<b>Primary Drug Used</b>		
Amphetamines	4,096	32%
Marijuana	2,571	22%
Cocaine	1,956	16%
Alcohol	1,696	14%
Heroin/opiates	1,204	14%
Other substance	507	2%
<b>Educational Attainment</b>		
Less than high school	7,770	41%
High school graduate or equivalent	11,270	59%
<b>Employment Status</b>		
Employed (full or part time)	9,977	51%
Unemployed	9,502	49%
<b>Region</b>		
West	11,893	57%
South	2,922	14%
Midwest	6,074	28%
Northeast	80	1%
<b>Court Type</b>		
Adult drug	16,772	80%
DUI	3,124	15%
Reentry	1,157	5%
<b>Geographic Location</b>		
Urban	17,588	84%
Rural	3,420	16%

## ANALYTICAL METHODS

**Study Question 1: Are there disparities in who gets into treatment courts? (Is there a discrepancy between the demographic composition of treatment court participants and the composition of the overall probation population in each jurisdiction?)**

We addressed this question first by examining the demographic composition of participants in treatment court compared with the demographic composition of individuals on probation in the same jurisdiction. To assess whether the demographic composition of treatment court participants was different than that of the overall probation population of each treatment court jurisdiction, we compared the percentage of the probation population that was Black with the percentage of treatment court participants that were Black. We could not compare the proportion of Hispanic/Latino individuals in the overall probation population with the proportion of Hispanic/Latino individuals in each treatment court sample because counties and states used differing accounting methods for the Hispanic/Latino probation population, and (as mentioned previously) probation data designating individuals as Hispanic/Latino did not exist in many jurisdictions. We used a similar methodology to assess whether there were discrepancies in gender in treatment court compared with the overall probation population.

The percentage difference between the racial and gender composition of the overall probation population of each treatment court jurisdiction and the composition of each treatment court participant pool was weighted by the number of participants in each treatment court. In other words, courts with larger numbers of participants had more influence on the reported results. We then calculated an average to determine if there was an overall difference in the cross-site probation population and treatment court participants across all programs.

**Study Question 2: Are there disparities in treatment court graduation rates across different demographic characteristics?**

For the second research question, to assess disparities in graduation rates across racial/ethnic and gender characteristics, we performed nested analyses where treatment court participants were grouped according to the treatment court they attended. This procedure resulted in larger programs having more influence on the significance of the cross-site results. We performed a multi-level logistic regression to determine the degree of disparity in graduation rate (the dependent variable) after including race/ethnicity (White, Black, Hispanic/Latino, and other), gender, age, employment status, educational attainment, and number of arrests 2 years prior to treatment court entry.

**Study Question 3: What treatment court practices are associated with reduced disparities in graduation rates between demographic groups?**

To assess whether treatment court practices might influence disparities in graduation rates across race, for each program we calculated a “disparity index” that compared the graduation rates of Black and White treatment court participants.<sup>8</sup> We then compared these disparity indices across treatment courts according to their engagement in best practices. For each best practice, we used an independent t-test to compare disparity indices between treatment courts that met or did not meet each best practice.

## RESULTS

**Study Question 1: Are there disparities in who gets into treatment courts? (Is there a discrepancy between the demographic composition of treatment court participants and the composition of the overall probation population in each jurisdiction?)**

8. This index was not created for other races/ethnicities as there was not a large enough sample for each practice across enough programs for valid analysis.

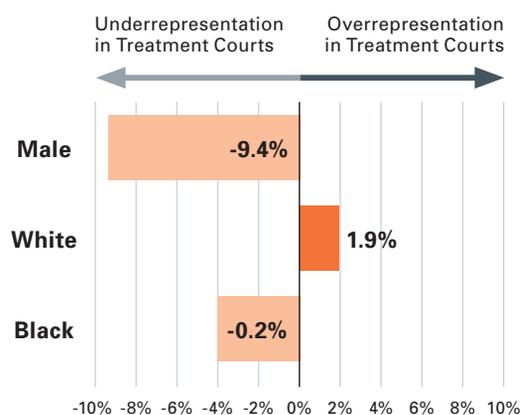
To answer this question we compared the demographic composition of the overall probation population of each treatment court jurisdiction and the composition of the treatment court being evaluated. Across 117 sites where gender statistics were available for the general probation population, the average percentage of males in the probation population was 77%; across the 124 sites where racial data were available for the overall probation population, the average percentage of Whites was 74% and the average percentage of Blacks 12%. However, there was much variation in the individual racial composition of the probation population across sites: The percentage of Whites in individual jurisdictions ranged from 4% to 100%, and the percentage of Blacks in individual jurisdictions ranged from 0% to 86%. Reliable estimates could not be computed for Hispanics/Latinos because of the manner in which some jurisdictions collected data on race and ethnicity in the overall probation population. In fact, in some states and jurisdictions, data on Hispanic/Latino ethnicity were missing entirely.<sup>9</sup>

We calculated a “difference score” between the proportion of gender and racial categories for the probation population and treatment court participants at each jurisdiction. For example, if the general probation population in one treatment court jurisdiction had 50% males, but the treatment court serving that jurisdiction was 60% male, the discrepancy between the probation population and treatment court participants for males was 10% (60% minus 50%).

After computing difference scores for each site, for the combined analyses across sites we calculated a weighted average based on the total number of treatment court participants at each site. Figure 1 displays the average difference scores between the

probation population and its associated treatment court. Males were underrepresented in treatment courts by an average of 9.4%.<sup>10</sup> Whites were overrepresented by an average of 1.9%.<sup>11</sup> Black individuals showed fairly equal representation between the probation population of each treatment court jurisdiction and the composition of treatment court participants, with an average of 0.2% underrepresentation.<sup>12</sup>

**Figure 1. Average Percent Difference Between Probation Population and Treatment Court Participants**



There was variation in the amount of overrepresentation or underrepresentation between the probation population and treatment court participants in different court types. Figure 2 illustrates the average difference by court type. Although males were underrepresented in treatment courts overall, Figure 2 shows that this trend was largely driven by adult drug courts, where males were underrepresented by 10.9% compared with DUI courts, where they were underrepresented at a lower rate (3.2%). Also, although Black individuals were slightly underrepresented in adult drug courts (1.1%) and DUI courts (3.2%), they were overrepresented in reentry courts (17.0%). This

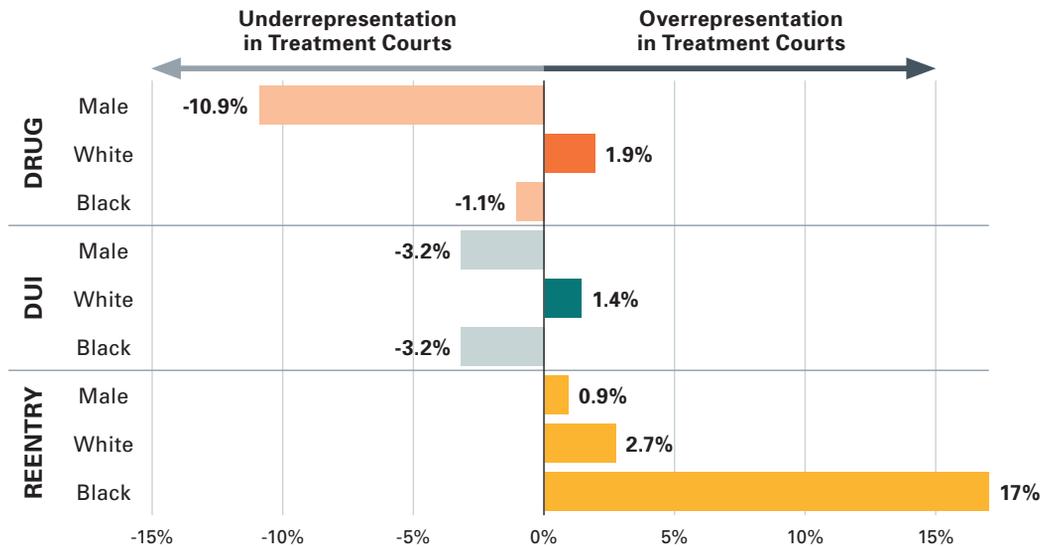
9. The Urban Institute has created a website showing how frequently Latino ethnicity is missing in every state across five categories: prison population, prison population by offense, arrests, probation population, and parole population. [http://apps.urban.org/features/latino-criminal-justice-data/?utm\\_source=iContact&utm\\_medium=email&utm\\_campaign=Justice%20Policy%20Update&utm\\_content=Justice+Policy+Update+-+special+](http://apps.urban.org/features/latino-criminal-justice-data/?utm_source=iContact&utm_medium=email&utm_campaign=Justice%20Policy%20Update&utm_content=Justice+Policy+Update+-+special+)

10. 95% CI = 6.5 < μ < 12.3

11. 95% CI = -0.3 < μ < 4.1

12. 95% CI = -1.6 < μ < 1.9)

**Figure 2.** Average Percent Difference Between Probation Population and Treatment Court Participants by Court Type

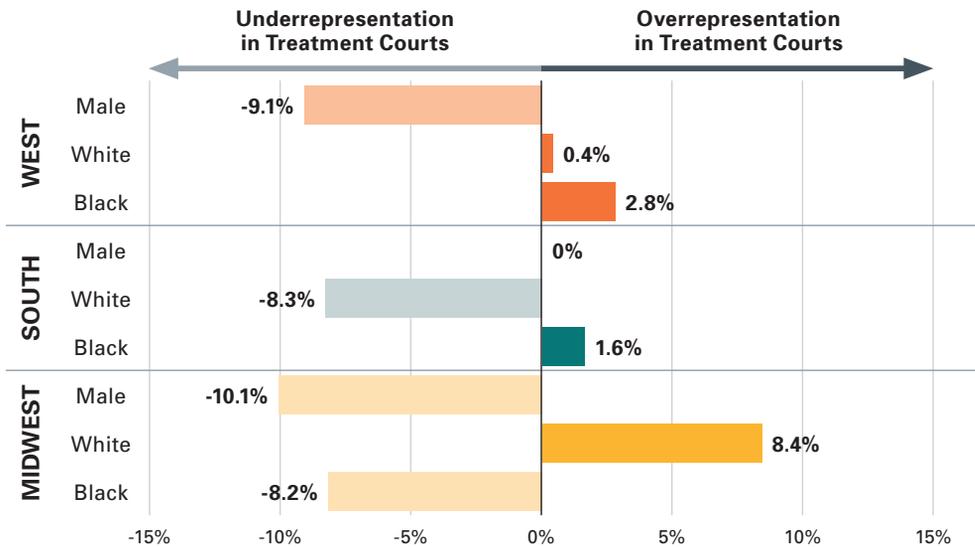


overrepresentation in reentry courts is not surprising given that reentry court participants are referred from prison and Black individuals are highly overrepresented in jails and prisons (Nellis, 2016).

We examined the amount of overrepresentation and underrepresentation between the overall probation population and treatment court participants by the geographic region in which each treatment court operated. Figure 3 displays the average overrepresentation and underrepresentation of males, White, and Black participants across

geographic regions. There were not enough courts in the Northeast in the sample to include data for this analysis. Males were underrepresented similarly in the West (9.1%) and Midwest (10.1%) but could not be computed in the South, where there were no data available for gender in the probation population for these courts. Black participants were slightly overrepresented in treatment courts in the West (2.8%) and South (1.6%), although these differences were too small to be meaningful. However, in the Midwest, Blacks were underrepresented by 8.2%.

**Figure 3. Percent Difference Between Probation Population and Treatment Court Participants by Region**



We also examined differences between the probation population and each treatment court in urban and rural regions, but the results did not differ demonstrably. Underrepresentation of males averaged 9.1% in urban courts and 10.1% in rural courts. Overrepresentation of Whites averaged 2.0% in urban courts and 1.3% in rural courts. Finally, there was no meaningful difference in representation for Black individuals, who were underrepresented an average of 0.2% in both urban and rural courts.

**Study Question 2: Are there disparities in treatment court graduation rates across different demographic characteristics?**

Out of a total of 20,800 participants across all treatment courts, 17,630 had data indicating whether or not they successfully completed the program. The remaining participants were either active in the program at the time the data were collected or were discharged for other reasons, such as medical issues. Overall, 50.3% successfully completed the treatment court, and 49.7% exited before completion (graduation).

Table 2 shows the graduation rates for all treatment court participants by race/ethnicity, gender, educational attainment, employment status, and drug(s) used. In addition, graduation rates are presented for all treatment courts combined and for adult drug courts, DUI courts, and reentry courts separately. Generally, White participants had the highest graduation rates across all racial groups, although not significantly higher than Hispanic/Latino participants.<sup>13</sup> Females graduated at slightly higher rates than males, although the difference was not significant. Those who were employed<sup>14</sup> and who completed high school<sup>15</sup> (or the equivalent) had significantly higher graduation rates than their counterparts who were neither employed nor had a high school degree.

13.  $\chi^2(3) = 324.63, p < .001, \text{Cramer's } V = .137$

14.  $\chi^2(1) = 434.85, p < .001, \text{Cramer's } V = .261$

15.  $\chi^2(1) = 114.61, p < .001, \text{Cramer's } V = .138$

**Table 2. Graduation Rates by Participant Demographic Characteristics**

	All Treatment Courts N = 17,630	Adult Drug Courts Only N = 14,600	DUI Courts Only N = 2,363	Reentry Courts Only N = 667
<b>Overall Graduation Rate</b>	50.3%	48.8%	63.1%	36.3%
<b>Race</b>				
White	54.7%	52.8%	75.5%	37.4%
Black	37.9%	36.2%	45.9%	31.7%
Hispanic/Latino	49.2%	45.7%	69.4%	46.8%
Other	54.2%	53.9%	59.9%	33.3%
<b>Gender</b>				
Male	49.9%	48.1%	63.9%	34.9%
Female	51.3%	50.3%	61.3%	44.1%
<b>Employment Status at Entry</b>				
Employed	69.3%	65.2%	81.7%	a--
Unemployed	43.4%	39.3%	63.8%	a--
<b>Educational Level at Entry</b>				
HS Graduate/equivalent	64.9%	62.7%	77.5%	33.8%
Non HS graduate	51.0%	52.7%	56.1%	27.7%
<b>Primary Drug Used</b>				
Marijuana	49.5%	48.4%	62.2%	35.9%
Alcohol	61.0%	61.2%	61.5%	51.2%
Cocaine	44.5%	46.7%	40.1%	28.7%
Methamphetamine	52.6%	53.6%	81.8% <sup>b</sup>	38.9%
Heroin	38.7%	33.4%	44.8%	41.0%
Other Drug	47.9%	48.6%	45.7%	30.0%

<sup>a</sup> Employment data were not available for the participants in reentry courts.

<sup>b</sup> Just 22 DUI court participants reported using methamphetamines, and 18 graduated.

An examination of type of drugs used by race/ethnicity showed some significant correlations: White participants were more likely to use methamphetamine than other races; Black participants were more likely to use marijuana, cocaine, and

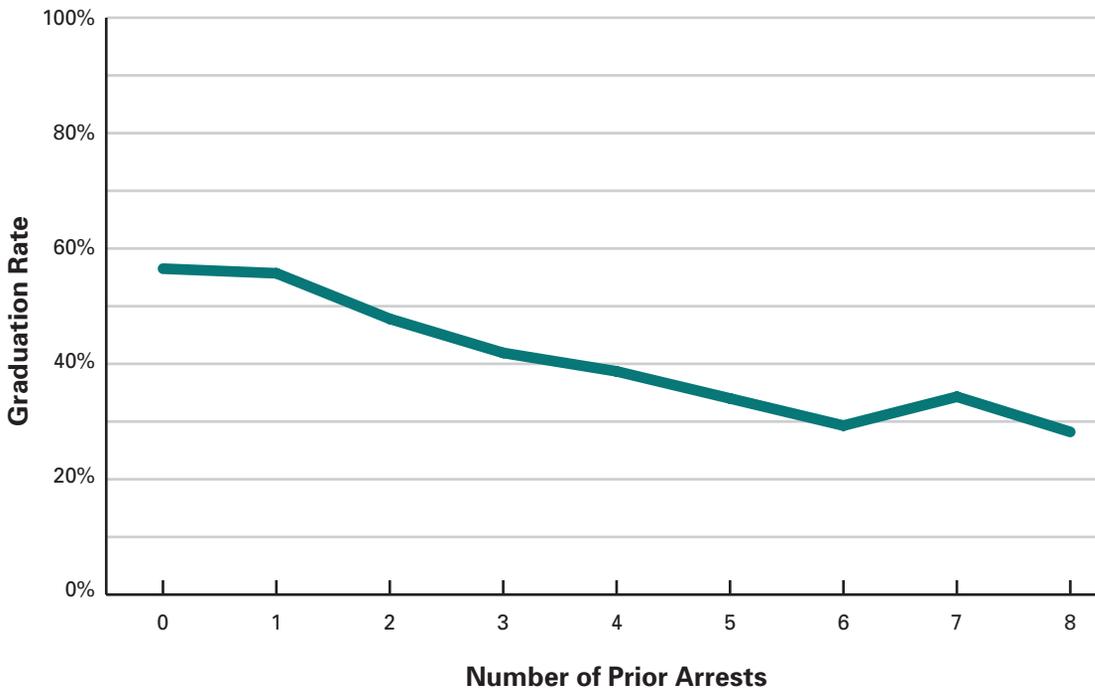
heroin than Whites; and Hispanic/Latino participants were more likely to use alcohol than White participants or Black participants, while rates of heroin use for Hispanics/Latinos were equivalent to that of Black participants.

In addition, our analyses showed that older participants were significantly more likely to graduate than younger participants,<sup>16</sup> and participants with more arrests in the 2 years prior to drug court entry were significantly less likely to graduate than those with fewer prior arrests.<sup>17</sup>

Figure 4 displays the graduation rate for individuals by the number of arrests 2 years prior to program entry. There is a fairly linear relationship between prior arrests and graduation rate with graduation rate decreasing as number of priors increases. Graduation rate levels out somewhat after four or more arrests. Roughly 60% of those individuals with one or no arrests in the 2 years prior to entry graduated, while less than 40% of those with four or more prior arrests graduated.

Figure 5 displays the percentage of participants who successfully completed treatment court categorized by participant race and by treatment court type to provide a graphic representation of one of the key findings listed in Table 2. DUI courts had the highest graduation rates across all racial groups. White participants had the highest graduation rates overall and in DUI courts, while Black participants had the lowest graduation rates overall and in all courts. This trend was especially salient in DUI courts, where fewer than half of Black participants graduated (46%) and more than three quarters of White participants graduated (76%).

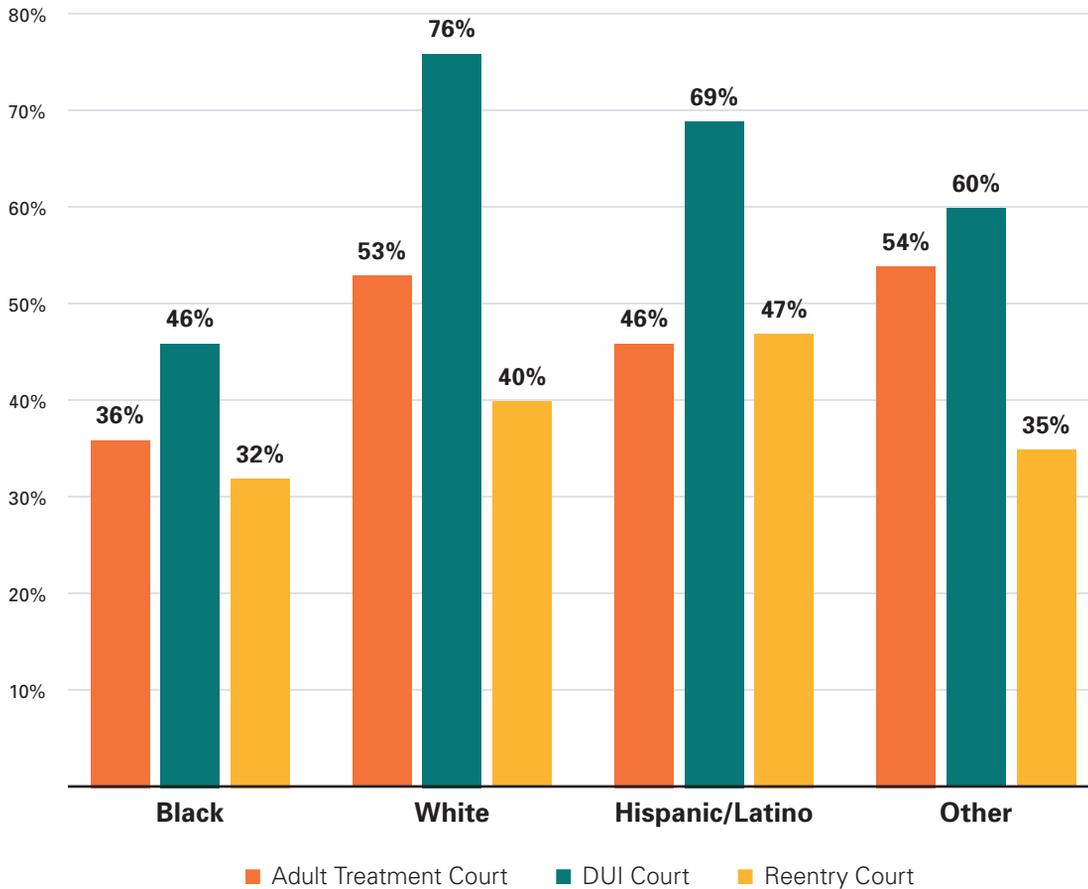
**Figure 4. Graduation Rate by Number of Arrests 2 Years Prior to Treatment Court Entry**



16.  $r_{pb} = .114, p < .001$

17.  $r_{pb} = -.151, p < .001$

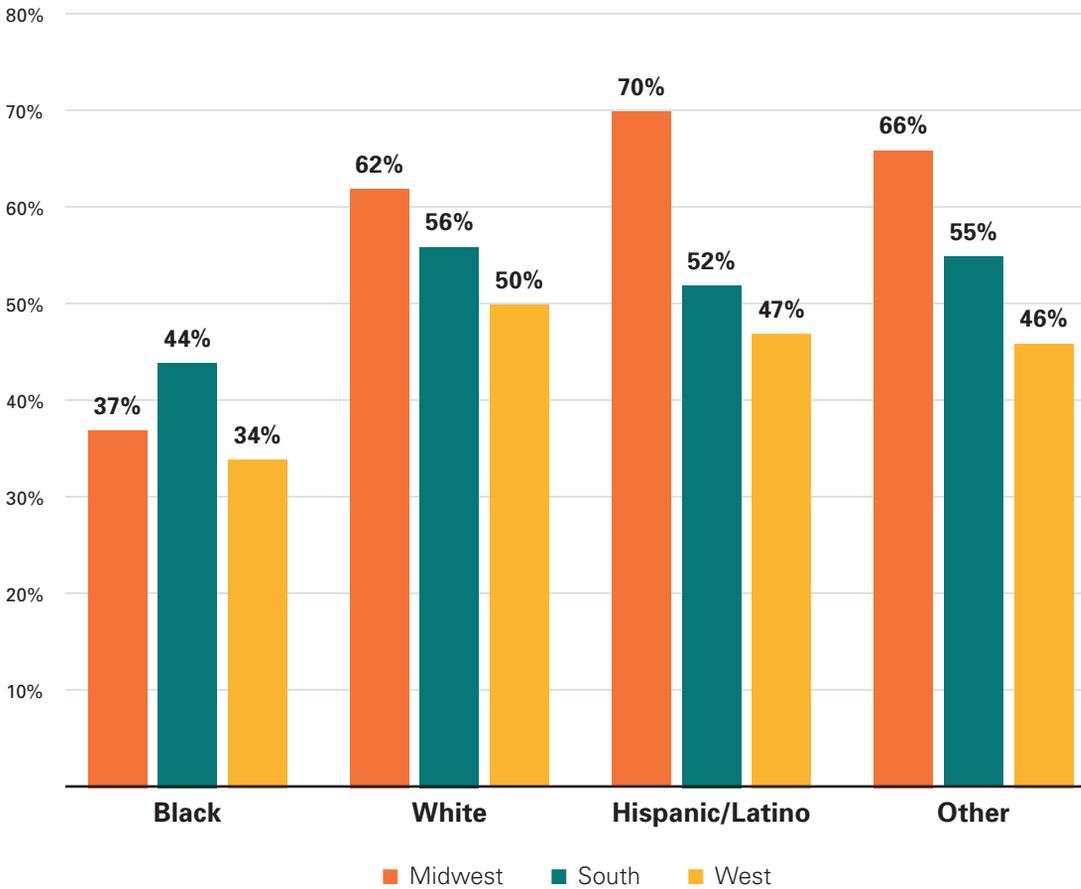
**Figure 5. Graduation Rates by Race and Treatment Court Type**



In a comparison of graduation rates in treatment courts across regions, Black participants consistently exhibited the lowest graduation rates while White participants had the highest graduation rates, except in the Midwest, where Hispanic/Latino participants and participants of other races had higher graduation rates than Whites. The disparity between Black and White graduation rates was most pronounced in the Midwest, where White participants had a graduation rate that was

25 percentage points (or 68%) greater than the graduation rate for Black participants. In contrast, treatment courts in the South had graduation rates for White participants that were 12 percentage points (or 27%) greater than for Black participants. Although somewhat higher in the Midwest, Hispanic/Latino graduation rates were similar to those of Whites in other regions. These results are displayed in Figure 6.

**Figure 6. Graduation Rates by Race and Region**



There was little difference in graduation rates across race in urban and rural jurisdictions. Black participants graduated at a rate of 40% in urban courts compared with 38% in rural courts, while White participants graduated at a rate of 57% in urban courts and 54% in rural courts. Hispanic/Latino participants also graduated at similar rates in urban courts (50%) and rural courts (49%).

Displaying overall graduation rates across treatment courts conceals the variability in individual treatment courts. The overall difference in graduation rates between Black treatment court participants (38%) and White treatment court participants (55%) was 17 percentage points (44%).

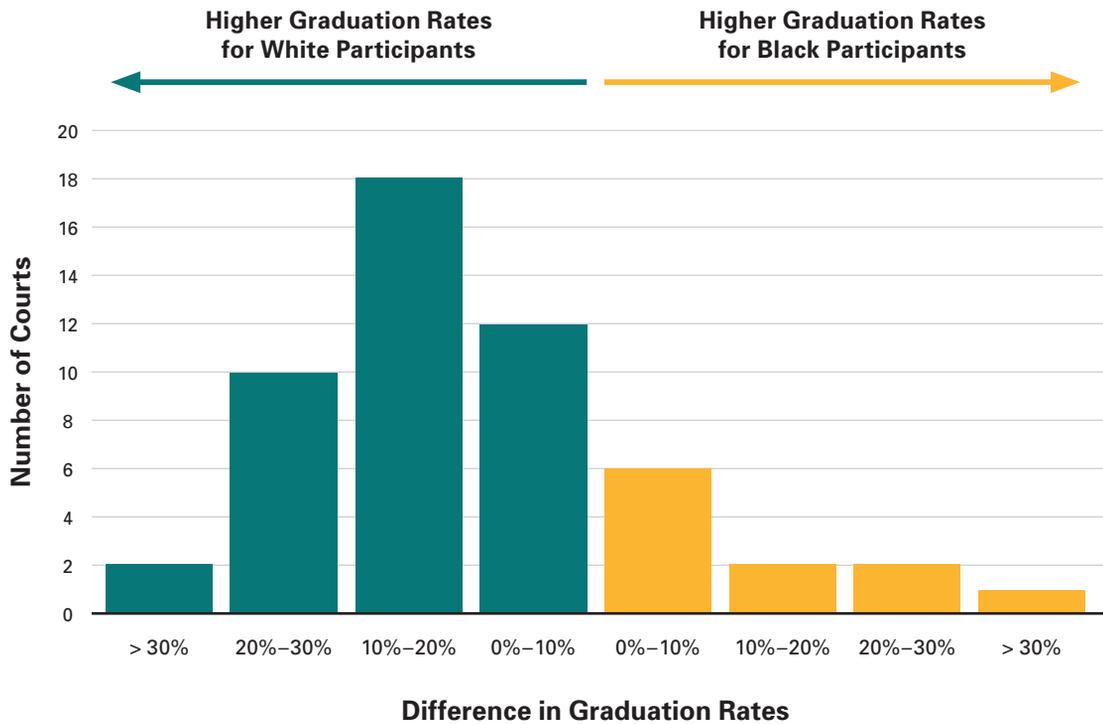
However, not all treatment courts had higher graduation rates for White participants; in some courts, Black participants had higher graduation rates. Figure 7 displays the frequency distributions for treatment courts comparing graduation rates for White participants and Black participants. In the majority of treatment courts (78%), White participants graduated at a higher rate than Black participants. One third of these courts had graduation rates 10 to 20 percentage points greater for White participants than for Black participants, and two sites had graduation rates more than 30 percentage points higher for White participants than Black participants. Conversely, in 22% of treatment courts, graduation rates for

White participants were lower than graduation rates for Black participants, and in about half of these sites the difference was less than 10 percentage points. The majority of the courts in which Black participants graduated at higher rates than White participants were in the West.

A similar analysis looked at the number of courts with differing graduation rates for Hispanic/Latino and White participants (see Figure 8).

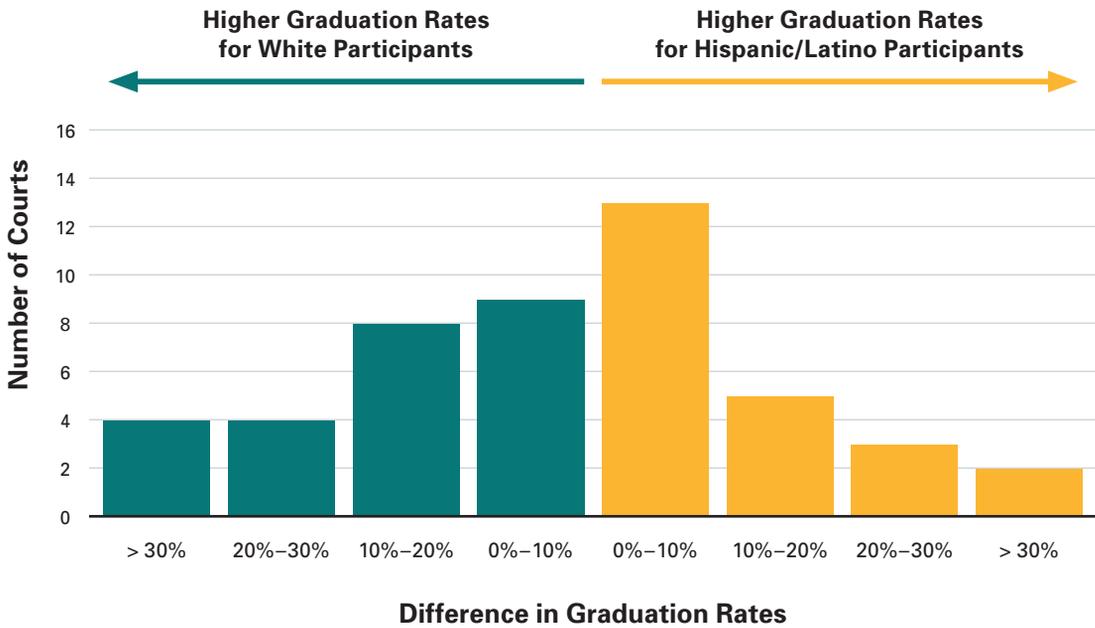
Just over half of the treatment courts (52%) had higher graduation rates for White participants than for Hispanic/Latino participants, and 48% had higher graduation rates for Hispanics/Latinos than Whites. In approximately 10% of courts, the White graduation rate was 30 percentage points greater than the Hispanic/Latino graduation rate, while in only 4% of courts was the Hispanic/Latino graduation rate 30 percentage points greater than the White graduation rate.

**Figure 7. Number of Treatment Courts with Disparate Graduation Rates for White Participants and Black Participants**



\*Courts included in this figure are those with sufficient numbers of both Black and White participants for valid analyses and do not include courts with no difference in graduation rates.

**Figure 8.** Number of Treatment Courts with Disparate Graduation Rates for White Participants and Hispanic/Latino Participants



\*Courts included in this figure are those with sufficient numbers of both White and Hispanic/Latino participants for valid analyses and do not include courts with no difference in graduation rates.

We performed a multilevel logistic regression to determine whether race/ethnicity and gender were significant predictors of graduation after controlling for other socioeconomic factors including employment, education, age, drug(s) used, and number of prior arrests. For race variables, White participants were the reference group with which participants of other races were compared. Gender, education, employment, and each drug used were all binary predictors. Age was included as a grand mean centered (32.4 years of age) predictor and number of prior arrests was included as an uncentered variable.

Table 3 displays the results of the analysis controlling for demographic factors outside of race (the fixed effects for the model in log odds units). This analysis tests whether, all else being equal, race alone significantly impacts the likelihood that a treatment court participant will graduate.

**Table 3.** Log Odds and Odds Ratio for Demographic Variables Predicting Graduation

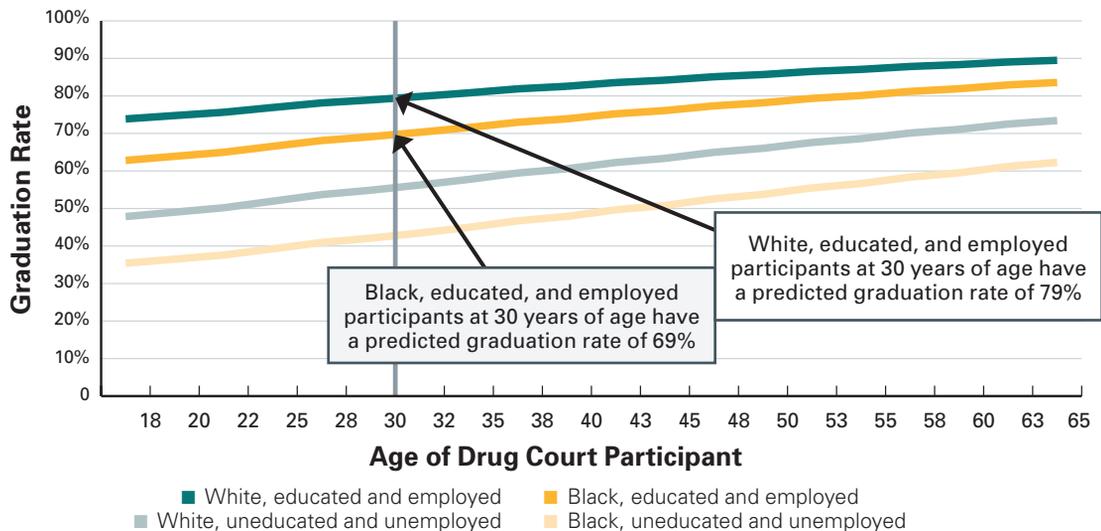
	Coefficient	Odds Ratio	Significance
Intercept	0.159	1.172	
Black	-0.515	0.598	***
Hispanic/Latino	0.248	1.282	
Other race	-0.056	0.946	
Male	0.093	1.097	
Age	0.023	1.023	***
Employment	0.715	2.044	***
Education	0.410	1.507	***
Prior arrest	-0.159	0.853	***

\*\*\*  $p < .001$

Odds ratios are displayed for each demographic; they describe the likelihood that a participant will graduate based on the particular demographic factor. For example, older participants were significantly more likely to graduate, with the odds of graduating increasing by 2% per year. Employment status (OR = 2.044), educational attainment (OR = 1.507), and prior arrests (OR = 0.853) were also all significant predictors of graduation, with individuals who were employed and had a high school (or equivalent) degree significantly more likely to graduate, while those with higher numbers of prior arrests significantly less likely to graduate. However, gender and race variables other than Black were not significant predictors of graduation. Even after controlling for these other factors, Black participants were still less likely to graduate (OR = 0.598). Black participants had 40% lower odds of successfully completing treatment court than White participants after accounting for sociodemographic factors. The results of this analysis, which demonstrates significant differences in graduation rates for Black participants compared with White participants after controlling for other important factors, supports the concept that there are some consistent disparities (a persistent social injustice) in who graduates from these programs.

Figure 9 displays predicted graduation rates for White participants and Black participants based on age, employment status, and educational attainment. As shown in the graph, White participants have a greater probability of graduating, even after accounting for age, employment, and education. For example, consider an individual who is 30 years of age, has a high school education, and is employed. A White individual with these characteristics has a predicted graduation rate of 79%, whereas a Black individual with these same characteristics has a predicted graduation rate of 69%. As another example, consider an individual who is 30 years of age but did not graduate from high school and is unemployed. A White individual with these characteristics has a predicted graduation rate of 55%, while a Black individual with these same characteristics has a predicted graduation rate of 42%. These examples illustrate that Blacks individuals have a predicted graduation rate that is 10 to 13 percentage points less than White individuals with similar characteristics. Interestingly, Figure 9 also shows that Black participants who have more education and are employed have a higher probability of graduating than White individuals who have less education and are unemployed, so education and employment together are a larger factor in graduation than race alone.

**Figure 9. Graduation Rates for Treatment Court Participants Based on Race, Educational Attainment, Employment Status, and Age**



As illustrated earlier, the multilevel logistic regressions showed that gender was not a significant predictor of graduation rate. To determine more specifically whether there was any interaction between gender and race in graduation rates, we performed a logistic regression with gender and race (White and Black) as predictors. Overall, there was no significant interaction; men and women of each race/ethnicity graduated at similar rates. We performed this analysis for all court types pooled, and then for each of the individual court types separately. We found no significant interactions by court type, although there was a (nonsignificant) trend in DUI courts, where White men graduated at slightly higher rates than White women, while Black men graduated at similar rates as Black women, and White participants of both genders were more likely to graduate than Black individuals of either gender.

**Study Question 3: What treatment court practices are associated with reduced disparities in graduation rates between demographic groups?**

After finding significant disparities between Black participants and White participants in treatment court graduation rates, we conducted an analysis comparing practices across treatment courts to determine whether any practices might be associated with smaller differences in graduation rates between these two groups (lower disparities). Prior evaluations of the treatment courts included in this study included data on whether each treatment court was following best practices described in NADCP's *Adult Drug Court Best Practice Standards* (NADCP, 2013, 2015). Differences in graduation rates for Black and White participants were compared by whether treatment courts met or did not meet each of these practices.

We calculated a measure of racial disparity by finding the difference in percentage points between the graduation rates of Black participants and White participants for each treatment court.

Then we calculated the average racial disparity across programs based on whether or not the programs followed each best practice.

We conducted independent t-tests for each best practice to determine whether the average disparity in graduation rate between treatment courts that implemented each practice and those that did not was significantly different. The results indicated that none of the best practices were significantly different in disparity at  $p < .05$ , with the exception of one practice. Treatment courts that provided family counseling had a disparity score that was 15 percentage points lower than treatment courts that did not provide family counseling ( $p = .049$ ). That is, treatment courts that provided family counseling had significantly less disparity in graduation rates for White participants and Black participants.

Although the disparities were not significant for the other best practices, there were substantial differences (50% or greater) in disparity for many of the best practices. To illustrate these differences in disparity related to best practices, we calculated an effect size for the disparity between White participants and Black participants. The effect size consisted of the difference in the disparity for the courts that did not engage in a best practice and those that did engage in the best practice divided by the disparity for courts that did not engage in the practice. That is, the effect size (shown in Table 4) is the percentage decrease in disparity for courts that engaged in a best practice compared with those that did not. The table lists only those practices for which there was at least a 50% decrease in disparity, and where there were at least 10 courts that engaged in the practice and 10 that did not. Note that some percentages in Table 4 are quite large (e.g., best practice 10 shows 105% lower disparity), but despite the magnitude of these differences, the effect sizes are not significant, most likely due to a smaller number of courts with data on the particular practices.

**Table 4. Percent Decrease in Disparity in Graduation Rates Between Black Participants and White Participants by Best Practice**

Best Practice		Decrease in Disparity
1	Defense attorney attends treatment court team meetings (staffing)	50%
2	Probation, if applicable, attends treatment court team meetings (staffing)	55%
3	Coordinator attends treatment court team meetings (staffing)	72%
4	Defense attorney attends treatment court status hearings	63%
5	Representative from treatment attends treatment court status hearings	51%
6	Coordinator attends treatment court status hearings	50%
7	Treatment court census (number of active participants) is less than 125	75%
8	The treatment court offers family/domestic relations counseling	78%*
9	Participants are expected to have more than 90 days sober (negative drug tests) before graduation	68%
10	A new arrest for possession does not automatically prompt termination	105%
11	Review of the data and/or regular reporting of program statistics has led to modifications in treatment court operations	59%
12	The treatment court has an advisory committee that includes community members	145%

\* $p < .05$ .

The first six practices in Table 4 are all related to team member engagement with the treatment court, specifically being present at staffing and status hearings. One of the key components of treatment courts, supported by best practice research (e.g., Carey, Mackin, & Finigan, 2012), is the collaborative nature of the model. Programs have better outcomes when all key partners are at the table. Enhanced collective efficacy may be behind this finding for decreasing racial disparities as well.

This study bears out the findings of best practices literature related to decreased recidivism (e.g., Carey et al., 2012): Courts that have fewer than 125 participants (best practice 7 in Table 4) tend to follow best practices in general and, in particular, tend to know each participant individually and provide more intensive services. A more per-

sonalized approach should lead to services that are more appropriate for each individual and his or her specific needs, leading to less disparity in outcomes.

Table 4 also shows that programs providing family/domestic relations counseling had significantly less disparity than programs that did not provide this service (best practice 8). Family counseling frequently includes information on how to communicate effectively with others, which can benefit all individuals regardless of race. In addition, family counseling specifically includes the individuals who interact most closely with participants (their family members), and often takes place within participants' homes. This component provides counselors with insight into the specific environment and circumstances each participant is experiencing, which may lead to better decisions

**Table 5. Percent Increase in Disparity in Graduation Rates Between Black Participants and White Participants by Best Practice**

Best Practice		Increase in Disparity
1	In order to graduate, participants must have a job or be in school	88%
2	Participants are required to pay court fees	197%

for the team in responding effectively to each participant's behavior.

Treatment courts that required more than 90 days sober before graduation also showed less disparity in graduation rates than courts that required less sober time (best practice 9). That 90-day mark may be a key turning point in helping all participants, including Black participants, realize they can accomplish a sobriety goal and actually be successful in treatment court, resulting in self-efficacy regarding sobriety (Dannerbeck, 2004).

Treatment courts that did not automatically terminate participants due to a new drug arrest (best practice 10) showed substantially less disparity in graduation rates. Black participants are more likely to live in neighborhoods with high police presence (Epp, Maynard-Moody, & Haider-Markel, 2016). This surveillance effect is likely to result in larger numbers of Black individuals caught with drugs and arrested for possession because of these policing practices. When treatment courts terminate participants due to new drug charges, it is likely to lead to more Black participants than White participants being terminated or, conversely, to higher graduation rates for White participants.

Treatment courts that review their own statistics and make improvements based on the findings have better outcomes, including lower disparities in graduation rates (best practice 11). Logically, treatment courts that take the time to review their practices and outcomes, and work to improve themselves, will also be more likely to address any disparities they see in their data. In addition, there may be some social accountability occurring as a result of team members seeing their own

statistics and knowing that others may see and question them, potentially leading to changes in the program—especially if the statistics include analysis by gender and race.

Finally, including community partners on an advisory committee was related to the largest percentage decrease in disparity (best practice 12). Community partners can help treatment court teams understand neighborhood attributes and resources, which could impact participant success. While Black participants tend to live in disadvantaged neighborhoods, they still have assets that only community members will recognize.

In addition to the practices listed in Table 4, which are related to decreases in the disparities, there were two practices that (although not statistically significant) trended toward worse disparities. Table 5 lists these two practices and the effect sizes (in this case measured as the percentage *increase* in disparity) associated with these practices.

The two practices listed in Table 5—participants must have a job or be in school in order to graduate and participants must pay court fees before graduating—were both related to greater disparities. The findings for these two practices also tie into the results from the earlier analysis on graduation rates in which education and employment were significant predictors of graduation. These findings likely tie into similar issues; the role of disadvantaged neighborhoods in the lives of Black participants cannot be underestimated. Black individuals may have fewer job opportunities and may never have had the experience of holding a job. Further, Black individuals are more likely to be low income and unable to afford fees.

## DISCUSSION

This study examined whether racial and gender disparities exist in the admittance to and graduation from treatment courts. It also examined whether any specific practices of treatment courts lead to lower or higher disparities in graduation rates.

The study found that males were somewhat underrepresented (by roughly 9%) in treatment court admissions compared with the general probation population. It is unclear why men would be underrepresented, or women overrepresented; however, many treatment courts exclude individuals with violent histories, and men are more likely than women to have violence charges. In addition, there is some evidence that women in the criminal justice system are more likely than men to have a substance use disorder and therefore may more likely be found eligible by treatment courts (e.g., National Institute on Drug Abuse, 2014). The study also found that, although Whites were slightly overrepresented in treatment courts compared with their respective probation population, the proportion of Black individuals in treatment courts was representative relative to the local probation population with the exception of reentry courts, where the percentage of Black participants was significantly higher, most likely due to their overrepresentation in American prisons. (This analysis could not be performed for Hispanic/Latino participants due to the large amount of missing data on this ethnicity in traditional probation data sources.) The overall results for this analysis imply that treatment courts, in general, accept participants without significant or meaningful disparities in race, at least compared with the general probation population.

The analysis comparing graduation rates across male and female participants found no significant or meaningful differences based on gender. However, the comparison of graduation rates across race showed that, although Hispanic/Latino participants tended to have similar graduation rates

as White participants, Black participants had lower graduation rates than White participants even after controlling for education, employment, prior arrests, and age. Black participants had significantly lower odds of successfully completing treatment courts than White participants. A more specific analysis, examining whether there were any interactions between race and gender in predicting graduation rates within each treatment court type (that is, whether a specific gender predicts graduation rates for some races but not others) showed no significant interactions. Men and women of each race graduated at similar rates, although Black men and women both graduated at lower rates than White men and women. This finding is consistent with previous research that found lower rates of graduation for Black treatment court participants (Dannerback et al., 2006; Gallagher, 2013).

Marlowe (2013) speculated that racial disparities in treatment court graduation might be due to factors correlated with race. However, the current analysis found that even after controlling for variables that independently had significant relationships with graduation rate (employment, education, prior arrests, drug[s] used, and age), the racial disparity persisted. Although these factors may not explain all of the disparity in graduation rates, the good news is that many of these factors are dynamic risk factors; that is, they are changeable and can be targeted for intervention. If treatment courts focus on providing assistance for issues such as unemployment and lack of education, as well as medically assisted treatment or other services appropriate for specific substances, it is likely that these interventions will help decrease disparities and increase the rate of successful program completion.

To investigate whether any treatment court practices were related to decreases in graduation rate disparity, the study performed exploratory analyses examining racial disparities in the graduation rates of courts that met each best practice compared with those of courts that did not meet each

practice. Because there was no difference in graduation rates between genders, and Hispanic/Latino participants had similar graduation rates as White participants, these analyses included only White participants and Black participants.

One practice, the provision of family/domestic counseling, was significantly related to lower racial disparity. Because family counseling specifically includes the individuals who interact most closely with each participant (family members), it can provide participants with the support they need to make and sustain changes. In addition, concepts from Afrocentrism<sup>18</sup> may help explain these results. An Afrocentric view holds that family and community are of key importance (e.g., Adeleke, 2001; Schiele, 1997). Black communities are more focused on the collective in contrast to White communities, which are more focused on the individual. The focus of family/domestic counseling on the family and others who are most important to Black participants may be particularly effective.

Further, a large study on parental incarceration performed by Dannerbeck (2004) reported that young Black men were angry at what society had done to them and their families, and that anger may be turned outward in the form of harmful behavior to society/others or turned inward in harmful behaviors to themselves. Research documents a relationship between being a Black male and having more adverse childhood experiences, which then leads to poorer adult relationships with family and friends (Umberson, Thomeer, Williams, Thomas, & Lui, 2016). Based on this research, interventions that help individuals with family relationships may have a particularly large impact on Black men, and that impact may be a factor in treatment court success. Family counseling may help them to experience healing from the societal harm that manifests in families through substance use, violence, and abuse.

Additional practices, although not statistically significant, were related to substantial decreases in racial disparity. Six of these practices had a common theme of team member engagement in the treatment court process, including team member attendance at staffing and court sessions. The Afrocentric view of the importance of the community may also be relevant here: the feeling of the collective can be experienced when more of the team fully participates in the staffings and multiple perspectives contribute to decisions, and especially when the team participates at status hearings, where they can be seen by participants. Drawing from diverse cultural traditions and norms, rather than relying solely on mainstream attitudes and approaches, is compatible with the collaborative and strength-based drug court model. Developing a sense of community has many benefits, both for individual participants and the team/program as a whole. While all participants can benefit from the power of the collective, it may have a differentially positive impact on Black participants.

The two practices of treatment courts that showed the largest decrease in racial disparity were as follows: (1) The treatment court includes members of the community on the advisory committee and (2) the treatment court does not terminate participants if they receive a new drug charge. Once again, the importance of community in the form of community members advising the program may explain some of the decrease in disparity. Having diverse perspectives and resources can help the team and service providers better understand and meet the needs and interests of treatment court participants, for example, helping participants connect with mentors and engage in culturally specific activities and traditions. Similarly, policing practices in disadvantaged neighborhoods could be related to disparities in treatment court termination rates. Differential neighborhood policing practices have been shown to lead to higher rates of arrest for Black individuals (Epp et al., 2016). It is more likely that Black participants will be caught with illicit drugs in their own neigh-

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18. Afrocentrism is an ideology or worldview that focuses on the history of black Africans, emphasizing African culture and the contributions of Africans to Western society.

borhoods than White participants in their neighborhoods, leading to a greater likelihood of Black treatment court participants receiving new drug charges. Treatment courts that terminate participants for new drug charges are therefore more likely to terminate Black participants.

Two practices, although not statistically significant, trended toward worse disparities: specifically, requiring participants to have a job or be in school in order to graduate, and to pay court fees before graduating. Black focus group participants in treatment courts more often than White participants reported never having held a job and expressed a preference for help building a career (Dannerbeck-Janku, personal communication, December 1, 2017). Associated with difficulty obtaining or holding a job, Black individuals are more likely to be low income and not be able to pay fees. Further, once participants start earning an income, they are often expected to help the rest of the family (Schiele, 1997). Helping the family may take precedence over paying fees.

Other than the two practices related to increases in disparity, and the 12 practices related to decreases in disparity, the majority of the existing treatment court best practices were not related to either increases or decreases in disparity, meaning any variation in racial disparities in graduation rates is not explained by following these practices. Overall, this is a positive finding in that treatment courts may follow best practices, particularly those found in the *Adult Drug Court Best Practice Standards* (NADCP, 2013, 2015), without concern that these practices will result in racial disparities.

Finally, there was a wide variation in disparities across treatment courts. There could be other treatment court practices not covered by the best practices that may help to explain these disparities, such as offering culturally responsive services or differential applications of sanctions (Marlowe, 2013). Alternatively, disparities in successful treatment court completion may reflect broader societal deficiencies. Even if this is the case, treat-

ment court staff should not be resigned to accepting these limitations and should continue to pursue practices and models that promote successful outcomes for all constituents.

The results of this study are particularly relevant to discussions in the treatment court field regarding culturally and gender-responsive interventions. In light of recent research showing positive outcomes for women in gender-responsive programming (e.g., Gobeil, Blanchette, & Stewart, 2016), as well as promising findings related to culturally specific interventions such as HEAT<sup>19</sup>, in which young Black males who participated in the intervention graduated from treatment court at roughly twice the rate of those who did not (Marlowe et al., 2018), the results of this study suggest such programming in treatment courts should be designed around culture as well as the gendered experiences of individuals in the criminal justice system.

This research constituted the largest empirical study to date examining racial disparities in treatment court entry and graduation. Despite its limitations, discussed below, the study effectively addresses the key question of whether racial and gender disparities exist in treatment courts. The results from this study of 142 treatment courts show that racial disparities do indeed exist.

## LIMITATIONS

The key limitations of this study include (1) a lack of a random sample of treatment courts, (2) a lack of geographic representation of treatment courts in the United States, and (3) a lack of availability of individual-level data for the general probation population in each jurisdiction.

The set of programs used in this study was a convenience sample of treatment courts that had undergone an evaluation by NPC Research either at

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19. Habilitation Empowerment Accountability Therapy is an intervention addressing such issues as racial stereotypes, counterproductive values expressed in some aspects of hip hop culture, and intergenerational remnants of historical trauma stemming from slavery and racially discriminatory policies.

their own request or as a requirement for a grant or other state or federal requirement (e.g., many treatment courts in this sample received an evaluation because their states had obtained grants from the Bureau of Justice Assistance to perform an evaluation of all their treatment courts statewide). Therefore, although many states are represented, this sample of treatment court programs may not be representative of all programs in the country. However, this is the largest sample of treatment courts used in an analysis of racial disparities to date, and there is no reason the authors can think of that any disparities found in these programs would differ from those in other programs.

Although treatment courts included in the study were located in various parts of the United States, they may not be a representative sample. In particular, treatment courts in the Northeastern United States were not well represented. In addition, courts were not randomly selected to be included in the sample; the study relied on historical data from previous evaluations. Findings from other treatment courts, particularly from those regions underrepresented in the current study, may help to increase the generalizability of the conclusions drawn here. However, the number of regions included in the analyses did result in some interesting and useful findings regarding differential disparities in regions of the country that were represented.

Finally, the probation data used in the analyses to answer the first research question (whether there were gender or racial disparities between individuals who entered the treatment court and individuals on general probation) did not include individual-level data. Thus, there was no way to ensure that the individuals on probation were otherwise equivalent to the participants in a treatment court, such as whether they had a substance use disorder or used illicit drugs at all. Therefore, any differences found in demographic characteristics, such as race or gender, between the general probation population and participants in treatment courts could be due to potential differences

between those who used or abused substances and those who did not, rather than to disparities in how treatment courts recruited or admitted participants. Statistics from the National Survey on Drug Use and Health show that approximately 40% of probationers reported having a substance use disorder and up to 54% had been referred to treatment for substance use, while a much larger percentage (approximately 70%) reported having used substances in the previous year (Center for Behavioral Health Statistics and Quality, 2015). These results illustrate that a notable portion of individuals on probation used drugs.

In addition, the majority of the treatment courts in this analysis were post-conviction, and their participants were on probation while participating in the program. We believe that the racial composition of the probation population in each jurisdiction is the best available (if rough) comparison with what one would expect for the racial composition of the treatment court without performing individual studies of eligibility criteria in each of the 142 jurisdictions and how well probation and treatment court staff adhered to those eligibility criteria. In spite of limitations due to potential differences in substance use and specific treatment court-eligible charges between the treatment courts and their general probation populations, the study results show no substantial racial differences between participants in the treatment court and the general probation population.

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## Author Biographies

**Timothy Ho, PhD**, a senior research analyst at NPC Research, has a decade of experience in research and evaluation. His primary focus is on providing quantitative data analysis and assisting in the design of research and evaluation projects. He is experienced in planning and implementing rigorous and appropriate methodologies that help program staff and managers better understand their programs. Other responsibilities have included overseeing data collection processes and implementing best practices to ensure high-quality data. Dr. Ho presents at professional conferences on topics ranging from interpreting quantitative findings, approaches to assessing fidelity of implementation measures, and best practices for data management. He received an MA and a PhD in education with an emphasis in social research methodology from the University of California, Los Angeles.

**Shannon M Carey, PhD**, is co-president and senior research associate at NPC Research. For the past 20 years, she has worked in criminal justice and substance abuse treatment, with a focus on drug courts and cost analysis. Dr. Carey has participated in process, outcome, and cost evaluations in more than 300 adult, juvenile, family, reentry, DUI, and veterans drug courts across the United States as well as providing consulting and training services in treatment courts in Australia, Chile, New Zealand, and England. She was involved in developing and writing the NADCP *Drug Court Best Practice Standards* and assisted several states in writing state-specific standards for all types of treatment courts. She also assisted in developing treatment court certification and peer review processes launched in several states. Dr. Carey received an MS in health psychology and a PhD in systems science from Portland State University in Portland, Oregon.

**Anna Malsch, PhD**, a research associate at NPC Research, is an applied social psychologist with 15 years of hands-on experience in all components of the research process, including literature review, design, instrument and measurement development, data collection, data management, statistical analysis, qualitative data analysis, and dissemination of results. She has applied her methodological skills to many topics, such as juvenile crime prevention, cancer prevention and control, HIV/AIDS prevention, children's mental health, children with special health care needs, health care access for victims of domestic violence, and psychological sense of community. Dr. Malsch enjoys applying her skill set in research and evaluation to translate findings into meaningful stories that inform policy and practice. She earned an MA in program evaluation and organizational behavior and a PhD in social psychology from the School of Behavioral and Organizational Sciences at Claremont Graduate University in Claremont, California.

### *Conflict of Interest Attestation*

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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## RESEARCH REPORTS

## Exploring Racial and Ethnic Disproportionalities and Disparities in Family Treatment Courts: Findings From the Regional Partnership Grant Program

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### Abstract

*This article explores whether racial disproportionalities and disparities exist among a cohort of families participating in family treatment courts (FTCs). It summarizes selected data from Round 1 of the Regional Partnership Grant Program (2007 to 2012), a federal initiative to improve the well-being, permanency, and safety outcomes of children and families affected by substance use disorders and child abuse or neglect. Data collected from FTCs demonstrate that there are differences in the enrollment of racial and ethnic minority children in the FTC programs compared to the child welfare population in the participating communities. Caucasian children are overrepresented, while Hispanic or Latino, African-American, Asian and Pacific Islander, and multiracial children are underrepresented in the FTC programs. American Indian or Alaska Native children are equally represented. Although there were differences in enrollment, similar percentages of Caucasian, African-American, American Indian or Alaska Native, and Hispanic or Latino children who experienced reunification with a parent or caregiver did so within 12 months. Median length of stay in out-of-home care varied across racial and ethnic groups, with multiracial children experiencing significantly longer median lengths of stay than Caucasian children. The article highlights common program strategies implemented across grantee sites and discusses opportunities for FTCs to reduce racial and ethnic disproportionality and disparity.*

## BACKGROUND

As a problem-solving court, the family treatment court (FTC) is designed to mitigate the poor outcomes historically experienced by families affected by parental substance use disorders who are involved in the child welfare system. Parental substance use disorders can negatively affect the ability to provide a stable, nurturing home environment. These families have a lower likelihood of successful reunification with their children, and their children tend to stay in the foster care<sup>1</sup> system longer than children of parents without substance use disorders (Gregoire & Schultz, 2001). The lack of coordination and collaboration across child welfare, substance use disorder treatment, and family or dependency court systems has hindered the courts' ability to fully support these families.

FTCs are an outgrowth of the adult drug court movement, created to address the significant strain that rising caseloads were placing on the child welfare and court systems. Since the first one opened in Reno, Nevada, in 1995, FTCs have emerged as a promising model to better serve these families, and more than 300 FTCs are now in operation across the nation (Marlowe, Hardin, & Fox, 2016). FTCs were established to respond to new requirements of the Adoption and Safe Families Act (ASFA) of 1997, which Congress passed in an effort to decrease the amount of time children spend in out-of-home care. They seek to respond to the multiple and complex needs of families in the child welfare system who are affected by parental substance use, while complying with the time limits set forth by ASFA. Through a cross-systems collaborative approach, FTCs identify and assess parents' needs, provide access to treatment, remove barriers that may affect successful engagement and completion of treatment, and provide ongoing monitoring of parent compliance (Pach, 2008). More recently, FTCs have evolved to include the coordination of a full range of services by incorporating evidence-based and

evidence-informed programs that address the developmental needs of children and heal the parent-child relationship.

FTC process evaluations have led to consensus on seven essential practices to improve child welfare and substance use disorder treatment outcomes through the FTC collaborative (Children and Family Futures, 2017).<sup>2</sup> In addition to the seven essential practices, the publication *Guidance to States: Recommendations for Developing Family Drug Court Guidelines* (Children and Family Futures, 2015) outlines 10 essential components of effective FTCs.<sup>3</sup> First published in 2013, *Guidance to States* was updated in 2015 to reflect findings from the research on effective strategies to achieve improved safety, permanency, and well-being outcomes for children, as well as effective treatment and recovery outcomes for parents. These outcomes showed that FTC participants have significantly higher rates of parent participation in substance use disorder treatment, longer stays in treatment, increased rates of family reunification, less time for children in foster care, and decreased incidence of repeat maltreatment and return to out-of-home care compared to non-FTC participants with substance use disorders (Marlowe & Carey, 2012).

One important question is whether these positive recovery, safety, and permanency outcomes are similarly experienced by persons from diverse racial and ethnic groups.<sup>4</sup> The issue of racial injustice and sustained inequity is a historical and continuing national concern, especially with respect to public safety agencies and how they intervene with minority groups. The disparities in arrest, conviction, and incarceration rates of adult African American and Hispanic males is well established (Hartney & Vuong, 2009; Mauer & King, 2007). The War on Drugs that escalated through the 1980s, which emphasized incarceration as a primary response but yielded minimal effect on criminal recidivism, was costly and disproportionately harmed racial and ethnic minorities and the poor (Marlowe, 2013). The War on

Drugs also targeted women who used illicit drugs, namely cocaine and methamphetamine, resulting in high rates of child removal and entry into out-of-home care (Kruttschnitt, 2010). Disparities in child abuse investigations, child removals, and placement into foster care for African American, Hispanic, and Native American families continue to be a focus of child welfare reform (Harris & Hackett, 2008; Lawler, LaPlante, Giger, & Norris, 2012; Wells, Merritt, & Briggs, 2009).

Problem-solving and treatment court programs are focused on resolving the underlying substance use, mental health disorders, and other challenges that brought participants to the attention of the court while upholding due process and ensuring fairness and equity (Huddleston & Marlowe, 2011). In response to concerns regarding whether drug courts were providing equivalent access to minority populations, the National Association of Drug Court Professionals (NADCP) challenged drug court professionals to examine whether unfair disparities exist in their programs for racial and ethnic minorities (Marlowe, 2013). A resolution of the NADCP Board of Directors expressed that drug courts should continuously monitor whether minority participants have equal access to the programs, receive equivalent services, and successfully complete the programs at rates equivalent to those for Caucasian participants (NADCP, 2010). Ensuring the same opportunities for racial and ethnic minorities and other historically disadvantaged groups is now part of the *Adult Drug Court Best Practice Standards* (NADCP, 2013). In alignment with these best practice standards, the American Bar Association calls upon courts to track, analyze, and report on corrective actions to respond to information gathered on racial disparities at the local and state levels.

Research has shown that more than one fifth of drug courts could not report reliable information on the representation of racial and ethnic minorities in their programs (NADCP, 2010). Data available from a national survey in 2014 showed that the representation of African American and

Hispanic individuals in various drug courts was lower than the arrestee, probation, and incarcerated populations (Marlowe, Hardin, & Fox, 2016). African American and Hispanic participants graduated from some drug courts at rates substantially below those of other drug court participants. Overall, this evidence suggests that racial and ethnic minorities may experience relatively lower success rates than Caucasian participants in some drug court programs.

### **Disproportionality and Disparity in Child Welfare: Analysis of the Research**

Often used interchangeably, the terms *disproportionality* and *disparity* have distinct meanings that are important to clarify to understand the role of race and ethnicity within the child welfare system.

*Disproportionality* is the under- or overrepresentation of a racial or ethnic group in the child welfare system compared to its percentage in the total population (Child Welfare Information Gateway, 2016). A significant body of research has documented the overrepresentation of certain racial and ethnic populations, including African American and Native American children, in the child welfare system when compared to the general population (Magruder & Shaw, 2008; Summers, 2015; Wells, 2011).

*Disparity* refers to unequal outcomes for one racial or ethnic group as compared to outcomes for another racial or ethnic group in the child welfare system (Child Welfare Information Gateway, 2016). Disparity can be observed at various decision points of case processes: reporting, investigation, substantiation, foster care placement, access to services, and exit (Hill, 2006). McCarthy (2011) documented that racial disparities exist in both system- and child-level outcomes for minority children in the child welfare system. Compared to Caucasian children, racial and ethnic minority children are more likely to experience lengthy stays in out-of-home care without a clear plan for permanency, are less likely to be returned to their

families, are more likely to experience group care, are less likely to find permanency, and are more likely to have poor educational, social, behavioral, and other outcomes.

Many studies point to disparities in service provision, case management, and access to and completion of services such as family support and mental health and substance use disorder treatment (Gone & Trimble, 2012; Gudiño, Martinez, & Lau, 2012; Guerrero, Marsh, Duan, Oh, Perron, & Lee, 2013; McCarthy, 2011). A lack of available services and resources could cause and/or exacerbate the very risk factors that led to the removal and/or prevented reunification of minority children with their families in the first place (Child Welfare League of America [CWLA], 2008; Washington State Racial Disproportionality Advisory Committee, 2008). It has been demonstrated that minority children may be less likely to return home because of service disparities that “create [barriers] to both prevention of abuse and reunification when a child has been removed” (CWLA, 2008). For instance, studies have shown that African American adults have lower rates of referral and receipt of services for substance use disorders and mental health difficulties (National Institute on Drug Abuse, 2003).

The issue of racial disproportionality in the child welfare population is a complex one. While it is clear that disproportionality exists, it is unclear whether it reflects bias at multiple decision points within the child welfare system; differences in exposure to risk factors related to maltreatment, such as poverty; or, most likely, both (Schubert Center for Child Studies, 2012). Research on surveillance bias has also been suggested as a factor contributing to disproportionality (Chaffin & Bard, 2006; Roberts, 2014). Surveillance bias in child welfare reports refers to the greater scrutiny of some individuals or groups, which can increase the likelihood of being reported for maltreatment.

Although racial disproportionality and disparity is well documented in the child welfare setting,

research specifically focused on these issues in the FTC context is lacking. One existing study explored the intersection of race and FTC participation as factors contributing to parent recovery and child permanency outcomes. An evaluation of the King County Family Treatment Court (KCFTC) in the state of Washington examined the differences in outcomes between KCFTC participants and a comparison group of nonparticipants (Bruns, Pullmann, Wiggins, & Watterson, 2011). Analyses of differences by race and ethnicity indicated that minority families in the KCFTC had more positive outcomes than minority families in the comparison group. Specifically, minority parents in the KCFTC entered treatment faster than minority parents in the comparison group and at a rate equal to that of Caucasian parents in the KCFTC. Minority children in the KCFTC were more likely to be returned home (i.e., to have dependency dismissed, to be reunified, or to have a trial home visit) than minority children in the comparison group and were almost as likely to be returned home as Caucasian children in KCFTC. These findings demonstrate support in favor of the family treatment court model and reinforce the need to explore racial differences as they relate to outcomes.

## **APPROACH**

Efforts to improve outcomes for families in the child welfare system who are affected by parental substance use disorders have increased significantly over the past two decades (Falconer, Lederman, Pecora, Thompson, & DiLorenzo, 2012; Price et al., 2012). Specifically, resources have been directed to address child abuse and neglect associated with substance use disorders. These efforts have sometimes focused on use or dependence on specific substances, including alcohol, cocaine, and methamphetamine. The Child and Family Services Improvement Act of 2006 (Public Law 109-288) appropriated \$145 million over 5 years for a targeted grant program

designed to increase the well-being, improve the permanency, and enhance the safety of children involved with the child welfare system as a result of parental methamphetamine and other substance use. This federal government initiative, known as the Regional Partnership Grant (RPG) Program, supported the development of regional partnerships<sup>5</sup> by states, tribes, and communities to build interagency collaborations and improve service delivery for children and families. In September 2007, the U.S. Department of Health and Human Services (DHHS), Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau granted 5-year awards to 53 applicants in 29 states, including 6 tribes.

The authorizing legislation included provisions regarding performance monitoring and technical assistance and required the DHHS to report on the grantees' progress and performance outcomes. Following a detailed consultative process with grantees and the Center for Children and Family Futures (CCFF), DHHS established 23 performance indicators in the domains of child safety, child permanency, parental recovery, well-being (child, adult, and family), and systems collaboration. DHHS's Administration for Children and Families awarded a support contract to CCFF to provide training and technical assistance for grantees. Under the terms of the support contract with the Children's Bureau, CCFF was responsible for conducting site visits, providing technical assistance for programmatic and evaluation needs, developing a performance measurement and reporting system, and conducting data analyses of the 23 performance indicators. The approach to performance monitoring took into account the large diversity of sites and was heavily based on the grantees' program design and implementation context.

As a whole, the RPG Program was successful in achieving positive outcomes for children and families. Such outcomes included increased access to and completion of substance use disorder treatment; improved safety and permanency

outcomes; and enhanced child, adult, and family well-being (Dennis et al., 2015). The grantees implemented various services and activities to address the complex needs of families, such as family treatment courts, comprehensive substance use disorder treatment, in-home parenting, and child safety support for families. Of those 53 partnerships, 13 implemented a family treatment court as part of their intervention. These 13 grantees included eight counties, three state offices, and two community-based agencies. Grantees proposed to create ( $n = 7$ ), expand ( $n = 5$ ), and/or enhance ( $n = 8$ ) their FTC under the RPG funding opportunity. Some grantees implemented FTCs in multiple locations, representing a total of 18 FTC sites.

Data were retrieved from two federal data sets, the Adoption and Foster Care Analysis and Reporting System (AFCARS) and the U.S. Census, to provide additional information and context for the FTC cohort data. Foster care demographic data were retrieved from AFCARS to better understand the number of children from racial and ethnic minorities that move through the system. U.S. Census data were included because it is necessary to identify the demographics of the total population in order to determine whether disproportionality exists in the system. For the purposes of this article, those residing in the grantees' jurisdictions served as the base population to compare against those in foster care. It is important to examine these varying levels to observe the points at which disproportionality occurs.

## METHOD

Based on the literature reviewed and the composition of FTCs, the following research questions were developed for this study:

1. Are the proportions of children of different races or ethnicities whose parents enrolled in RPG FTCs (FTC cohort) similar to the proportions of racial and ethnic minority children in the community's child welfare system?

2. Are there similar outcomes for children whose parents participated in an FTC, regardless of race or ethnicity, specifically days in out-of-home care and reunification with a parent or caregiver within 12 months?

## Participants

During the course of the grant period (FY 2007 to 2012), the RPG Program compiled a large data set regarding families involved with the child welfare system as a result of parental substance use, including more than 15,000 families comprising more than 17,000 adults and 25,000 children. This article presents selected child permanency outcomes from a subset of grantees whose participants were involved in an FTC. Data on children who were not involved in an FTC were excluded from all analyses. FTC data for children whose race and ethnicity were unknown were excluded from all analyses ( $n = 138$  or 3.9%). Additional child demographic data were retrieved from federal data sets to help provide context; those who identified as “some other race”<sup>6</sup> with non-Hispanic or Latino origins<sup>7</sup> were not included. Two of the 13 grantees that implemented an FTC were missing data on the selected child permanency outcomes and were excluded from all analyses ( $n = 1,397$  or 28.2% of the children enrolled in the 18 family treatment courts). The remaining 11 grantees implemented various program components to address the multiple and complex needs of families, including case management services, substance use disorder treatment, children’s services, individual and family counseling, mental health and trauma services, and recovery support services (see Table 1).

The data of the remaining sample, consisting of 3,554 children (age:  $M = 5.0$  years,  $SD = .08$ ) in the FTC cohort, were analyzed. The racial and ethnic breakdown of these children is presented in Table 2, along with the relevant comparative data described below. All of the children in this sample were in out-of-home care with the primary goal of reunification with a parent or caregiver as ordered by the court. The children represented

a geographically diverse sample, as the participating FTCs were located in both urban and rural settings. Two thirds of the grantees were located in midwestern and western states.

## Measures

Data on the racial and ethnic composition of children in the child welfare population were retrieved from AFCARS (National Data Archive on Child Abuse and Neglect [NDACAN], 2012). The AFCARS data set collects information on every child in the U.S. foster care system through public child welfare agencies; this represents the “pool” of children from which FTC participants were drawn. Specifically, the children are a subset of children whose parents have identified substance use issues. The Statistical Package for the Social Sciences (SPSS) software was used to retrieve selected child welfare data from the AFCARS data set. The AFCARS data set provided state- and county-level race and ethnicity data for children in foster care at any point in time during the federal fiscal year. State-level AFCARS data were retrieved for two states, since their FTC interventions served participants in multiple counties within the state. County-level AFCARS data for the remaining sites ( $n = 6$ ) were retrieved.

The AFCARS data set does not include counties with fewer than 1,000 records of foster care cases. Three counties representing three grantees fit this criterion and therefore did not have data available. Child welfare data for these three counties were accessible from alternative sources (California Child Welfare Indicators Project, 2017; Public Children Services Association of Ohio, 2015); however, these measures differed slightly from the ones in the AFCARS data set. For example, the data for two counties (see Grantees 1 and 3 in Table 2) represented children in foster care at a single point in time (October 1, 2012). In another county (see Grantee 9 in Table 2), ethnicity data are unavailable, as this county measures ethnicity separately from race, and the data represent children in foster care on January 1, 2014.

The FTCs in the sample provided services to children and families in out-of-home care; therefore, the data sets identified on the previous page are appropriate as a context for comparison. However, there are limitations involved in using the AFCARS and county-level data sets, including that they do not uniquely identify only those children whose parents have substance use issues and they represent a point in time rather than the same period represented by the implementation of the FTCs. In addition, this AFCARS data set captures data only on a subset of children, as not all children in the child welfare system are in out-of-home care. As such, the racial and ethnic breakdown of those in foster care may not be representative of the larger child welfare population. Although this is a general limitation of the AFCARS data set, it does not create a concern for the contextual comparisons, as the FTCs in this sample served only those in out-of-home care.

Child demographic data of the general population were retrieved from the U.S. Census Bureau (U.S. Census Bureau, 2010) to provide an additional layer of context for the children in the FTC cohort. DataFerrett, a web-based data analysis tool developed by the U.S. Census, was used to retrieve county-level race and ethnicity data for children under 18 years of age residing in the jurisdictions where the FTCs were implemented. Age, race, and ethnicity data were extracted from the 2010 Census Summary File 1 in the Decennial Census of Population and Housing. State-level census data were retrieved for the two states mentioned earlier, since their FTC interventions served participants in multiple counties within the state. Although the census can provide valuable context, the survey's reliance on self-reports may affect the accuracy of the data. Like the AFCARS data set, the census data do not reflect the same time period as the RPG grant.

Regarding race and ethnicity data, children were categorized into the following five racial categories if they were not of Hispanic or Latino origins: (1) Caucasian, (2) African American, (3) Ameri-

can Indian or Alaska Native, (4) Asian and Pacific Islander,<sup>8</sup> and (5) multiracial.<sup>9</sup> Participants who identified as Hispanic or Latino were classified as such and could be of any race. Children in the FTC cohort were recoded into these categories to align with the contextual data.

Program performance and participant outcomes for the RPG Program were measured using a total of 23 indicators. Due to the diversity in program-specific strategies, grantees were not required to report on each performance indicator and reported only on the measures that corresponded to their activities, goals, and outcomes. For the purposes of this article, the authors focused exclusively on the child permanency domain, as measured using selected performance indicators: (1) average length of stay in out-of-home care and (2) timeliness of reunification with a parent or caregiver.

## Design and Analyses

The sample for analyses comprised all of the children in the 11 FTC sites. Two measures—FTC enrollment rates and rates of reunification with a parent or caregiver within 12 months—were analyzed with descriptive statistics. In addition to the descriptive analysis, a Kruskal-Wallis test<sup>10</sup> was conducted on the median length of stay by race and ethnicity, and follow-up pairwise tests examined the ranked medians, adjusting significance for multiple tests. Exploratory analyses were conducted for each of the 11 FTC sites; however, due to the small numbers at many of the FTC sites, the results for the individual sites were considered preliminary and are not presented in the Results section.

## RESULTS

### Family Treatment Court Enrollment

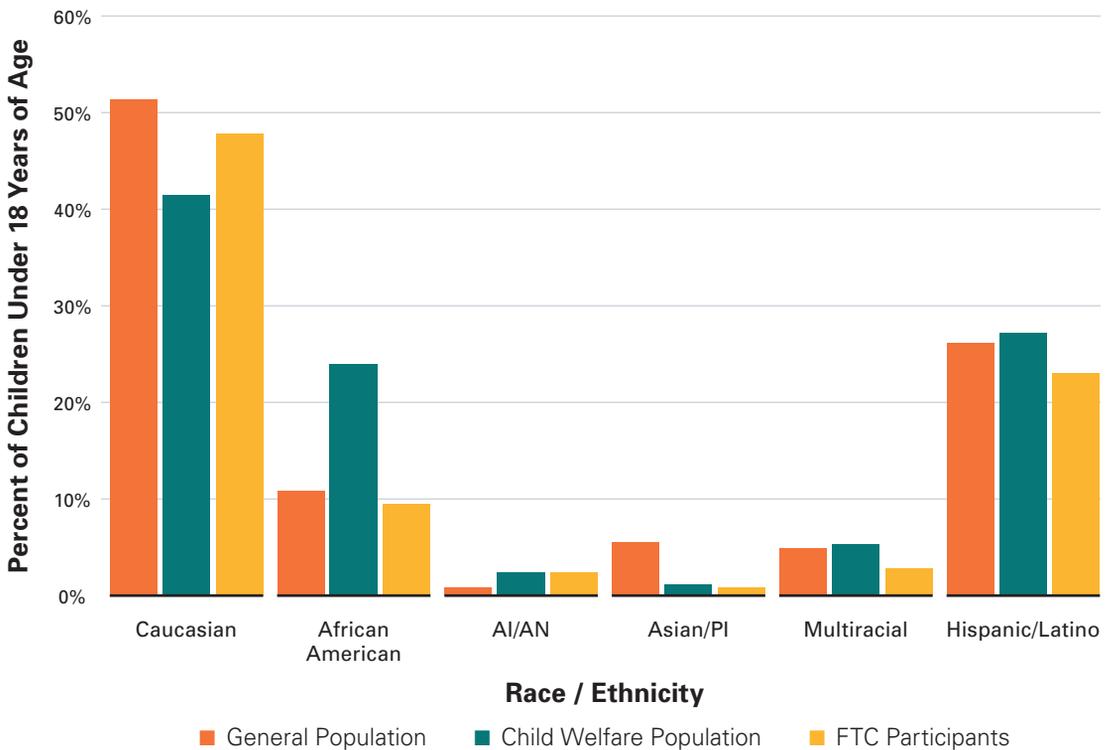
As shown in Figure 1, the FTC cohort demographics were compared with the AFCARS data set, referred to as the child welfare population, for the communities in the FTC sample. Children whose parents enrolled in the FTCs were predominantly

Caucasian (47.9%) and were overrepresented compared to the child welfare population (41.5%). Approximately one fourth (23.1%) of children in the FTCs identified as Hispanic or Latino, which was slightly less than the percentage of Hispanic or Latino children (27.2%) in the child welfare population. African American (19%), Asian and Pacific Islander (0.9%), and multiracial (2.9%) children were underrepresented compared to the child welfare population. American Indian or Alaska Native children (2.4%) were equally represented in the FTC cohort compared to the child welfare population (2.5%).

To provide additional context, the AFCARS data set was also compared against the U.S. Census

data, which is referenced as the general population in Figure 1, for the same FTC communities. Caucasian children (41.5% vs. 51.4%) and Asian and Pacific Islander children (1.2% vs. 5.6%) were underrepresented in the child welfare population compared to the general population. In contrast, African American children accounted for 24% of the children in the child welfare population, although they constituted 10.9% of the general population. Children who identified as multiracial (5.4% vs. 5%), American Indian or Alaska Native (2.5% vs. 0.9%), or Hispanic or Latino (27.2% vs. 26.2%) were also overrepresented in the child welfare population compared to the general population.

**Figure 1. Contextual Data: Race and Ethnicity of Children Under 18 in the General Population, Child Welfare Population, and FTC Cohort**



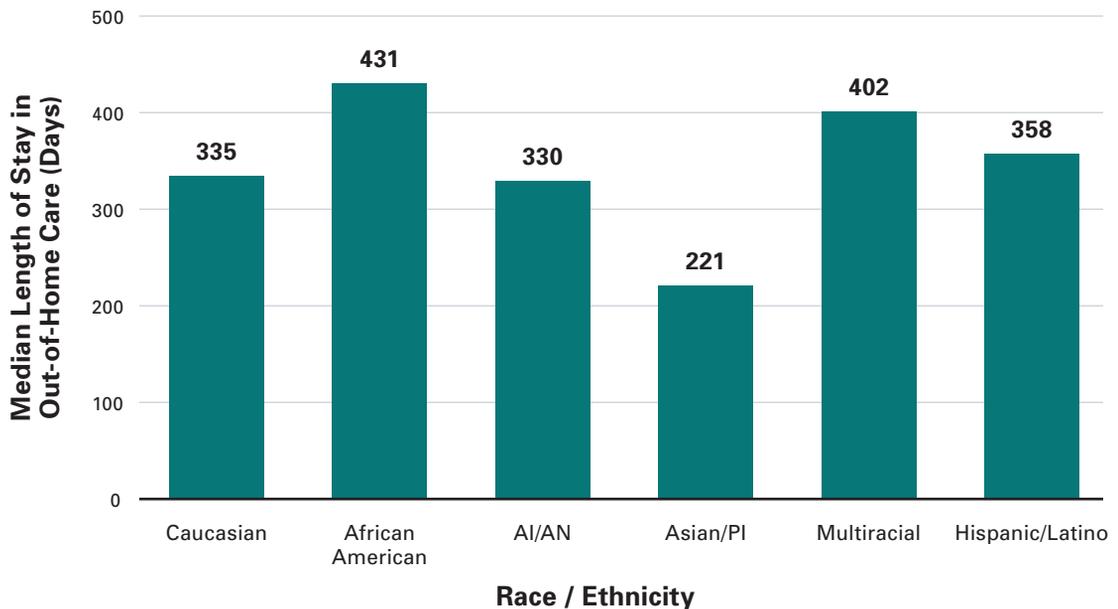
### Child Permanency

Analyses of the grantees' performance measures related to permanency were conducted for the median length of stay in out-of-home care and timeliness to reunification with a parent or caregiver (within 12 months). For families in the FTC cohort whose children were removed from their homes, the median length of stay in out-of-home care was 355 days. Figure 2 shows that the median number of days spent in out-of-home care varied by race and ethnicity.

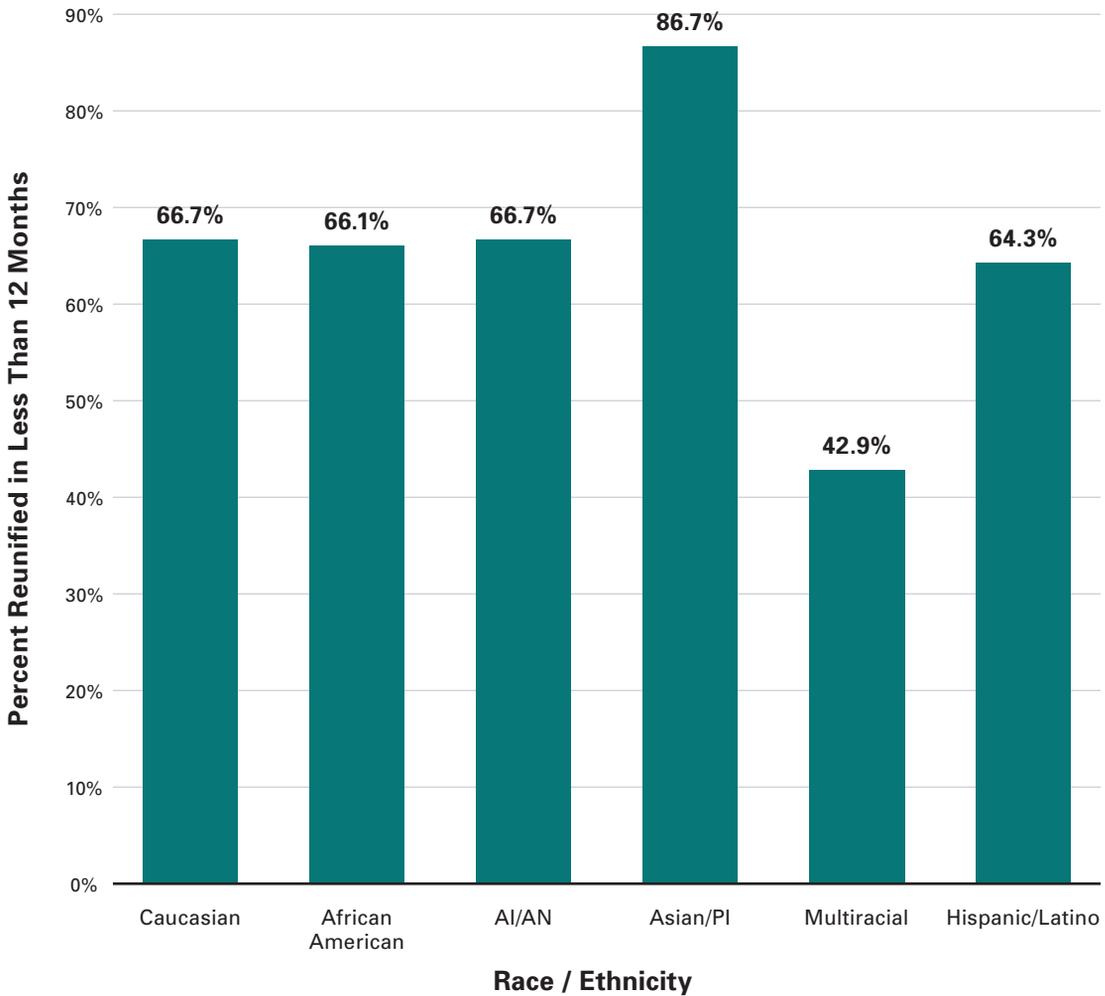
The median length of stay in out-of-home care, in days, was highest for African American children

(431 days) and multiracial children (402 days), followed by Hispanic children (358 days). American Indian or Alaska Native children (330 days) and Caucasian children (335 days) spent a comparable amount of time in out-of-home care. The median length of stay in out-of-home care was lowest for children who identified as Asian and Pacific Islander (221 days). The Kruskal-Wallis test revealed an overall significant difference in the median length of stay by race and ethnicity ( $p < .05$ ). Follow-up pairwise comparisons revealed that multiracial children's median length of stay in out-of-home care was significantly longer than that of Caucasian children ( $p < .05$ ).

**Figure 2. Median Length of Stay in Out-of-Home Care for Children Under 18 in the FTC Cohort, by Race and Ethnicity**



**Figure 3.** Children Under 18 in the FTC Cohort Who Were Reunified With a Parent or Caregiver in Less Than 12 Months, by Race and Ethnicity



For those children who were reunified with a parent or caregiver, 65.5% of children in the FTC cohort were reunified in less than 12 months from the date of their most recent entry into out-of-home care. Figure 3 demonstrates the variation among different racial and ethnic groups in this performance area.

More Asian and Pacific Islander children (86.7%) were reunified with their parent or caregiver in less than 12 months than any other racial or ethnic group. Caucasian (66.7%), African American (66.1%), American Indian or Alaska Native (66.7%), and Hispanic or Latino (64.3%) children were reunified at similar rates. In comparison to the other groups, fewer multiracial children (42.9%) were reunified within 12 months.

## DISCUSSION

The findings from this analysis provide a descriptive examination of whether the proportions of racial and ethnic minority children whose parents enrolled in the FTC program are similar to their proportions in the child welfare system and whether the permanency outcomes for children from racial and ethnic minorities within the FTC sample were comparable. The RPG Program provides one of the largest existing data sets regarding families involved in the child welfare system due to parental substance use. The number of children in the FTC cohort ( $N = 3,554$ ) used for these analyses is particularly noteworthy, given the limited number of studies that have been published.

### Disproportionality

The study examined FTC enrollment by race and ethnicity. Approximately one half of the children in the FTC cohort were identified as racial and ethnic minorities, with African American and Hispanic or Latino populations as the two largest racial and ethnic minority groups in the cohort (see Figure 1). As anticipated, African American children were overrepresented in the child welfare system compared to the general population; however, they were underrepresented in the FTC cohort. Hispanic or Latino representation in the child welfare system was nearly the same as in the general population, and slightly less in the FTC cohort. Although American Indian or Alaska Native children were overrepresented in the child welfare system, they were equally represented in the FTC cohort. Examining whether participants from different racial and ethnic minority groups actually enroll in services such as FTCs is important given the concern of disparate or unequal access to quality services for minorities raised in both the child welfare and substance use disorder treatment literature.

### Disparity

This study also examined whether there were similarities in permanency outcomes for families across race and ethnicity by examining two key child welfare outcomes—length of stay in out-of-home care and reunification with a parent or caregiver within 12 months. Among children in the FTC cohort, multiracial children spent a significantly longer time in out-of-home care than Caucasian children (see Figure 2). With the exception of Asian and Pacific Islander and multiracial children, the rate at which racial and ethnic minority children were reunified within 12 months was nearly the same as for Caucasian children (see Figure 3). Although further examination is needed to explore the relationship between race and other predictive factors for reunification in the FTC context, these findings are particularly encouraging given the unequal outcomes observed in research studies for racial and ethnic minority children due to the lack of available support services that help facilitate successful reunification (CWLA, 2008).

The exploratory analysis of one of the sites (Grantee 3) is particularly noteworthy since African American children in this program were observed to experience significantly better permanency outcomes along both indicators. Whereas African American children in the larger FTC cohort spent significantly longer in out-of-home care, the median length of stay in out-of-home care for African American children in this program was significantly less than for Caucasian and Hispanic children. African American children in this program were also returned home with a parent or caregiver within 12 months at a higher rate than their Caucasian counterparts.

### Program Components and Strategies

Although the selected grantees did not implement the same set of services or interventions, a few common strategies implemented by the FTC cohort are worth highlighting (see Table 1). All

grantees ( $n = 11$ ) provided some enhanced or intensive case management services and access to substance use disorder treatment services. All grantees also provided enhanced or specialized outreach strategies to improve engagement and retention in treatment. These strategies included cognitive behavioral strategies such as motivational interviewing and staffing practices such as collocation of staff and provision of parent mentors or recovery support specialists. All sites provided family-based services such as evidence-based parenting, family-centered treatment, and/or family counseling. Other common service components provided by a majority of the grantees included mental health and trauma services ( $n = 7$ ) and family group decision making ( $n = 7$ ) to improve family engagement. Over half the grantees ( $n = 6$ ) provided housing services as part of their comprehensive service array.

Given its significantly better performance along permanency indicators, it is worth taking a closer look at the program strategies implemented by Grantee 3. According to its reported service array (see Table 1), this site provided case management, FGDM, substance use disorder treatment, family therapy, mental health and trauma services for adults, specialized outreach, and children's services. Its specialized outreach strategies included collocation of recovery coaches and employment of a racially diverse staff that reflected the population served. These program components and strategies are among a list of commonly implemented practice ingredients in the FTC model that are supported by research or practice-based evidence as outlined in *Guidance to States: Recommendations for Developing Family Drug Court Guidelines* (Children and Family Futures, 2015). FTCs that are operating under the framework outlined in *Guidance to States* are leveraging the full array of services and supports that families need to reunify.

## Limitations

Although this descriptive analysis indicated positive results, this study has several limitations that

must be considered. Many of these limitations are similar to those identified in the overall findings of the RPG Program. First, the study contained sampling bias, which limits the generalization of these findings. The participants were not randomly selected, but rather voluntarily participated in the FTC program. Given that many families eligible for FTC represent varying levels of complexity (e.g., co-occurring mental health disorders, domestic violence, and extensive history of child welfare involvement), this study does not capture those who chose not to enroll in the FTC program or who were screened out due to eligibility or suitability reasons, such as the presence of co-occurring issues. In addition, the RPG Program performance monitoring was not designed as a cross-site evaluation, which would have required all sites to implement the same model to determine its effectiveness across sites and its potential for replication in other sites. Although the selected grantees had similar project goals, they did not implement the same set of services, interventions, or program models during the grant period. Finally, extraneous variables outside of the FTC program could not be controlled for and may have affected the grantees' outcomes. For example, contextual factors such as the economic environment and service array available in different communities may have played a role in terms of outcomes.

Another limitation to consider is the use of federal data sets (i.e., U.S. Census and AFCARS) to make comparisons. Although these data provide important information, they may be subject to inconsistent and inaccurate reporting, as states practice varying protocols or rely on self-reports to capture data. As such, the contextual data provided are meant to serve as background information and were not used to draw definitive conclusions. Many grantees also implemented an FTC program in conjunction with other interventions to address the complex needs of children and families. Another consideration is the geographical context of drug use patterns that are unique to different parts of the country. Specifically, the RPG Pro-

gram targeted, but was not limited to, persons with methamphetamine use disorders, which may have affected racial and ethnic groups differently. With regard to child permanency, this study did not examine the rates at which children reentered out-of-home care placement or the timeliness of adoption or guardianship. Further research should be conducted to include each performance indicator for a more comprehensive assessment of child permanency.

Lastly, a general limitation of studies that draw from federal data sets, including this descriptive analysis, is that the racial and ethnic categories often used do not reflect the within-group variability and diversity of racial and ethnic populations. It is important to acknowledge that racial and ethnic groups are not homogeneous (Helms, 2007) and that an examination of outcomes along these designations may not capture the full complexity of ethnicity and race that exist in this nation today.

### **Implications for Family Treatment Courts—What Can They Do?**

Although there is widespread recognition by the larger child welfare system of the existence of racial and ethnic disproportionality and disparity, research is lacking into the causes and promising practices to address them (Hill, 2011). This descriptive study highlights key opportunities for the FTC field and larger systems to more closely examine their programs and ensure fairness, equal access, and proper matching of services for participant families.

FTC practitioners are encouraged to collect basic demographic data along key child safety and adult treatment performance indicators as an important first step. To pursue a more in-depth examination, collection, and analysis of data at specific child welfare and court decision points would identify the extent to which racial and ethnic minorities have access to needed services and achieve desired outcomes.

FTCs should examine their current screening and admission processes to ensure that bias or subjective decision making does not contribute to unequal access to their programs. FTCs that rely on relational networks or that conduct subjective assessments based on perceived levels of client motivation and readiness are at risk of inappropriately screening out participants who need this level of service. Instead, FTCs should establish systematic and structured screening protocols and develop legal and clinical eligibility criteria for program admission. They should also examine whether they are excluding clients with serious co-occurring issues, since early studies have shown that FTCs that serve clients with co-occurring risk factors, such as mental health problems, unemployment, criminal history, inadequate housing, and/or risk for domestic violence, achieved equivalent or better outcomes than those without these risk factors (Boles & Young, 2011; Carey, Sanders, Waller, Burrus, & Aborn, 2010a, 2010b; Worcel, Furrer, Green, & Rhodes, 2006).

After prospective clients are screened, identified, and deemed eligible, FTCs should track whether they actually enter the program. Given that FTC participation is based mostly on a voluntary decision by a client, FTCs can monitor these decisions and examine what factors contribute to subsequent refusal or enrollment. Examination of these factors, including race and ethnicity and other demographic data, could inform FTCs on the types of intervention or outreach strategies they should implement to reduce refusal rates and increase access and early engagement. FTCs can use specialized outreach and engagement strategies similar to those implemented by the sites in the FTC cohort, including motivational interviewing, co-location of staff, and the provision of parent mentors or recovery support specialists.

Further qualitative examination should be conducted to explore client perceptions to understand why certain racial or ethnic groups might be more or less inclined to enroll voluntarily.

Many parents are not receiving timely access to treatment, recovery supports, and other services that address the unique needs of this population of families. Knowledge of how culture uniquely affects beliefs about health, parenting, and behavior, and of strategies found to be effective with the client's culture can be particularly helpful. For instance, substance use disorder treatment providers working with Hispanic clients may want to use family therapy, which builds upon the centrality of the family within that culture, or to have an understanding of the flexible or less structured view of time within Hispanic culture, which may affect timeliness for appointments (Substance Abuse and Mental Health Services Administration, 2014).

In addition, FTCs should examine the scope of services offered through their program to meet the full range of needs among the child welfare population, including those related to housing, mental health disorders, family violence, family income, employment issues, and children's needs. Community and agency partnerships are critical, since no single agency can provide this range of services. Also, it is important that FTCs acknowledge that participant families may have different needs influenced by culture, race, and ethnicity, and that these needs can be addressed by offering services that are family centered and culturally relevant. As one of the common strategies implemented by the FTC cohort in this study, family group decision making has been identified as a proven solution to address the racial overrepresentation and disparities in child welfare systems by engaging racial and ethnic minorities in case planning and decision making (Sheets et al., 2009).

FTCs should also ensure quality implementation of the FTC model at the local and state levels. Unfortunately, many FTCs are not operating in alignment with the recommendations embodied in the *Guidance to States* framework (Children

and Family Futures, 2017). Challenges to quality implementation include a lack of partnerships to leverage the full array of services and supports that families need to reunify successfully. As previously discussed, many FTCs also lack adequate systems for identifying, screening, and assessing families for treatment needs. The goal of establishing national standards<sup>11</sup> for FTCs similar to the standards for adult drug courts is an important step in holding the field accountable to the highest possible standards to ensure that FTCs are effectively serving families who need this level of service and support.

Finally, it is recommended that local FTCs conduct their own process and outcome evaluations to ensure that their program does not contribute to the disparities seen in the larger child welfare and treatment systems. These local efforts could be aligned with existing state-level initiatives, such as the Court Improvement Program and Child and Family Services Review/Program Improvement Plan, which are charged with carefully examining racial disparity data and exploring systemic responses to reduce high rates of disproportionality (Davidson, 2009).

As FTCs gain greater attention as a promising model in achieving positive outcomes for families affected by parental substance use disorders, it will be imperative for them to partner with the larger child welfare service system to solve critical issues related to racial and ethnic disparities. Through collaboration and quality implementation, agencies and systems can partner together to increase timely access to comprehensive and coordinated screening, assessment, and service delivery and, subsequently, to achieve improved outcomes for all children and families in the child welfare system affected by parental substance use disorders, regardless of race or ethnicity.

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## ENDNOTES

<sup>1</sup> In this article, the terms *foster care* and *out-of-home care* are used interchangeably, depending on the usage in the original reference or data source.

<sup>2</sup> The seven essential practices of FTCs are (1) a system of identifying families; (2) timely access to assessment and treatment services; (3) increased management of recovery services and compliance with treatment; (4) improved family-centered services and parent-child relationships; (5) increased judicial oversight; (6) systematic response for participants (contingency management); and (7) a collaborative, nonadversarial approach grounded in efficient communication across service systems and court.

<sup>3</sup> The 10 essential components of effective FTCs are (1) create a shared mission and vision; (2) develop interagency partnerships; (3) create effective communication protocols for sharing information; (4) ensure interdisciplinary knowledge; (5) develop protocols for early identification and assessment; (6) address the needs of parents; (7) address the needs of children; (8) garner community support; (9) implement funding and sustainability strategies; and (10) evaluate for shared outcomes and accountability.

<sup>4</sup> In this article, the term *racial and ethnic minorities* includes families or children other than those who are non-Hispanic Caucasian only (i.e., African American, Asian and Pacific Islander, American Indian or Alaska Native, and Hispanic or Latino).

<sup>5</sup> The U.S. Department of Health and Human Services defines *regional partnerships* as comprising two partners, one of which must be the state child welfare agency. Tribes are exempt from this requirement, but tribal partnerships must include at least one nontribal partner.

<sup>6</sup> This pertains to those who identified as “some other race” in the federal data sets. This option did not exist for the FTC data set.

<sup>7</sup> The data retrieved and analyzed for this article used racial categories that included non-Hispanic or Latino origins. It is important to note that those who identified as White non-Hispanic are referred to as “Caucasian” and those who identified as Black non-Hispanic are referred to as “African American.”

<sup>8</sup> Two separate categories, “Asian” and “Native Hawaiian or Other Pacific Islander,” were collapsed into the “Asian and Pacific Islander” category.

<sup>9</sup> Includes two or more races.

<sup>10</sup> The Kruskal-Wallis test is a nonparametric (distribution-free) test, and is used when the assumptions of analysis of variance (ANOVA) are not met.

<sup>11</sup> The development of national standards is one of the strategies included in the *National Strategic Plan for Family Drug Courts* (Children and Family Futures, 2017) under the goal to (1) improve the effectiveness of the existing network by assuring that it operates with fidelity. The other two primary goals of the *National Strategic Plan* are (2) expand the reach of FTCs to keep families together and reduce child maltreatment and (3) continue to build the evidence base about what works for FTCs to improve outcomes for children and their families.

**Table 1.** Program Components and Strategies Implemented by Each Grantee During the Grant Period

RPG Grantee	Program Components and Strategies
<p style="text-align: center;"><b>1</b></p>	<ul style="list-style-type: none"> <li>• Case management/in-home</li> <li>• Parenting/family strengthening</li> <li>• Visitation</li> <li>• Mental health (MH) and trauma services – Adult</li> <li>• Substance use disorder treatment (SUD tx)</li> <li>• Specialized outreach/engagement and retention (E&amp;R)</li> <li>• Substance use disorder prevention (SUD prevention)</li> <li>• Screening and assessment – Adult</li> <li>• Screening and assessment – Child</li> <li>• Housing</li> <li>• Cross-systems collaboration</li> <li>• FTC</li> <li>• Transportation</li> </ul>
<p style="text-align: center;"><b>2</b></p>	<ul style="list-style-type: none"> <li>• Case management/in-home, including family group decision making (FGDM)</li> <li>• Parenting/family strengthening</li> <li>• Visitation</li> <li>• MH and trauma services – Adult</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• Family-centered SUD tx</li> <li>• Screening and assessment – Adult</li> <li>• Screening and assessment – Child</li> <li>• Child services</li> <li>• Housing</li> <li>• Medical/dental – Family</li> </ul>
<p style="text-align: center;"><b>3</b></p>	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• Family therapy/counseling</li> <li>• MH and trauma services – Adult</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• Child services</li> <li>• FTC</li> </ul>

**Table 1.** Program Components and Strategies Implemented by Each Grantee During the Grant Period *(continued)*

RPG Grantee	Program Components and Strategies
4	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• Parenting/family strengthening</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• Screening and assessment – Adult</li> <li>• FTC</li> </ul>
5	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• Parenting/family strengthening</li> <li>• Visitation</li> <li>• Family therapy/counseling</li> <li>• MH and trauma services – Adult</li> <li>• SUD tx – Adult</li> <li>• Family-centered SUD tx</li> <li>• Specialized outreach/E&amp;R</li> <li>• Child services</li> <li>• FTC</li> </ul>
6	<ul style="list-style-type: none"> <li>• Case management/in-home</li> <li>• Family therapy/counseling</li> <li>• Specialized outreach/E&amp;R</li> <li>• Family-centered SUD tx</li> <li>• Screening and assessment – Adult</li> <li>• MH and trauma services – Adult</li> <li>• FTC</li> </ul>
7	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• Parenting/family strengthening</li> <li>• Visitation</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• SUD prevention</li> <li>• Screening and assessment – Adult</li> <li>• Screening and assessment – Child</li> <li>• Child services</li> <li>• Cross-systems collaboration</li> </ul>

**Table 1.** Program Components and Strategies Implemented by Each Grantee During the Grant Period *(continued)*

RPG Grantee	Program Components and Strategies
<p style="text-align: center;"><b>8</b></p>	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• Parenting/family strengthening</li> <li>• Visitation</li> <li>• MH and trauma services – Adult</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• SUD prevention</li> <li>• Screening and assessment – Adult</li> <li>• Screening and assessment – Child</li> <li>• Housing</li> <li>• Cross-systems collaboration</li> <li>• FTC</li> </ul>
<p style="text-align: center;"><b>9</b></p>	<ul style="list-style-type: none"> <li>• Case management/in-home</li> <li>• Parenting/family strengthening</li> <li>• MH and trauma – Adult</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach – Child services</li> <li>• Housing</li> <li>• Engagement of fathers</li> </ul>
<p style="text-align: center;"><b>10</b></p>	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• Parenting/family strengthening</li> <li>• Visitation</li> <li>• MH and trauma services</li> <li>• SUD prevention</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• Screening and assessment – Adult</li> <li>• Screening and assessment – Child</li> <li>• Engagement of fathers</li> <li>• Family-centered tx</li> <li>• FTC</li> <li>• Housing</li> <li>• Cross-systems collaboration</li> <li>• Child services</li> <li>• Educational counseling</li> <li>• Vocational/employment</li> <li>• Domestic violence (DV) support</li> </ul>

**Table 1.** Program Components and Strategies Implemented by Each Grantee During the Grant Period *(continued)*

RPG Grantee	Program Components and Strategies
<b>11</b>	<ul style="list-style-type: none"> <li>• Case management/in-home, including FGDM</li> <li>• MH and trauma services</li> <li>• SUD tx – Adult</li> <li>• Specialized outreach/E&amp;R</li> <li>• Child services</li> <li>• Housing</li> </ul>

**Table 2.** County-Level Race and Ethnicity Data for Children in the General Population, in Foster Care, and Accessing FTCs Across the Grantee Sites

RPG Grantee	Race or Ethnicity of Children Under 18 in the County	Race or Ethnicity of Children Under 18 in Foster Care	Race or Ethnicity of Children Under 18 Accessing FTC
<b>1</b>	<p><i>N</i> = 19,425</p> <p>Caucasian: 49%</p> <p>African American: 1%</p> <p>AI/AN: 5%</p> <p>Asian/PI: 1%</p> <p>Multiracial: 5%</p> <p>Hispanic/Latino: 39%</p>	<p><i>N</i> = 206</p> <p>Caucasian: 59.2%</p> <p>African American: 1.5%</p> <p>AI/AN: 10.2%</p> <p>Asian/PI: 0.5%</p> <p>Multiracial: 5.8%</p> <p>Hispanic/Latino: 22.8%</p>	<p><i>N</i> = 200</p> <p>Caucasian: 76%</p> <p>African American: 2.5%</p> <p>AI/AN: 13%</p> <p>Asian/PI: 1.5%</p> <p>Multiracial: 0%</p> <p>Hispanic/Latino: 7%</p>
<b>2</b>	<p><i>N</i> = 428,190</p> <p>Caucasian: 24%</p> <p>African American: 2%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 31%</p> <p>Multiracial: 6%</p> <p>Hispanic/Latino: 37%</p>	<p><i>N</i> = 1,818</p> <p>Caucasian: 14.6%</p> <p>African American: 7%</p> <p>AI/AN: 0.3%</p> <p>Asian/PI: 4.5%</p> <p>Multiracial: 5.5%</p> <p>Hispanic/Latino: 68%</p>	<p><i>N</i> = 431</p> <p>Caucasian: 20.6%</p> <p>African American: 8.8%</p> <p>AI/AN: 2.6%</p> <p>Asian/PI: 5.3%</p> <p>Multiracial: 0%</p> <p>Hispanic/Latino: 62.4%</p>
<b>3</b>	<p><i>N</i> = 55,215</p> <p>Caucasian: 42%</p> <p>African American: 1%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 2%</p> <p>Multiracial: 5%</p> <p>Hispanic/Latino: 50%</p>	<p><i>N</i> = 270</p> <p>Caucasian: 39.6%</p> <p>African American: 3.3%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 1.9%</p> <p>Multiracial: 4.1%</p> <p>Hispanic/Latino: 51.1%</p>	<p><i>N</i> = 293</p> <p>Caucasian: 44%</p> <p>African American: 2.4%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 0.3%</p> <p>Multiracial: 0%</p> <p>Hispanic/Latino: 53.2%</p>

**Table 2.** County-Level Race and Ethnicity Data for Children in the General Population, in Foster Care, and Accessing FTCs Across the Grantee Sites *(continued)*

RPG Grantee	Race or Ethnicity of Children Under 18 in the County	Race or Ethnicity of Children Under 18 in Foster Care	Race or Ethnicity of Children Under 18 Accessing FTC
<b>4</b>	N = 162,225 Caucasian: 62% African American: 6% AI/AN: 1% Asian/PI: 2% Multiracial: 7% Hispanic/Latino: 22%	N = 1,651 Caucasian: 50.9% African American: 15.3% AI/AN: 0.2% Asian/PI: 2.8% Multiracial: 7.8% Hispanic/Latino: 22.8%	N = 439 Caucasian: 49% African American: 7.3% AI/AN: 0% Asian/PI: 0% Multiracial: 5.2% Hispanic/Latino: 21%
<b>5</b>	N = 293,008 Caucasian: 42% African American: 19% AI/AN: 0% Asian/PI: 3% Multiracial: 4% Hispanic/Latino: 31%	N = 3,404 Caucasian: 39.4% African American: 36.7% AI/AN: 0% Asian/PI: 0.1% Multiracial: 5% Hispanic/Latino: 18.6%	N = 157 Caucasian: 56.7% African American: 18.5% AI/AN: 0% Asian/PI: 0% Multiracial: 3.8% Hispanic/Latino: 19.1%
<b>6</b>	N = 218,746 Caucasian: 33% African American: 48% AI/AN: 0% Asian/PI: 6% Multiracial: 3% Hispanic/Latino: 11%	N = 1,261 Caucasian: 4.2% African American: 89.9% AI/AN: 0% Asian/PI: 0.1% Multiracial: 2.4% Hispanic/Latino: 3.2%	N = 312 Caucasian: 3.8% African American: 95.8% AI/AN: 0% Asian/PI: 0% Multiracial: 0% Hispanic/Latino: 0.3%
<b>7*</b>	N = 428,459 Caucasian: 77% African American: 1% AI/AN: 1% Asian/PI: 1% Multiracial: 3% Hispanic/Latino: 17%	N = 2,410 Caucasian: 74.9% African American: 2.2% AI/AN: 4% Asian/PI: 0.4% Multiracial: 3.2% Hispanic/Latino: 14.8%	N = 290 Caucasian: 73.8% African American: 0.7% AI/AN: 4.8% Asian/PI: 0% Multiracial: 2.4% Hispanic/Latino: 16.9%
<b>8*</b>	N = 726,918 Caucasian: 82% African American: 4% AI/AN: 0% Asian/PI: 2% Multiracial: 3% Hispanic/Latino: 9%	N = 10,441 Caucasian: 66.1% African American: 13.6% AI/AN: 1.7% Asian/PI: 1.1% Multiracial: 4.4% Hispanic/Latino: 9.6%	N = 770 Caucasian: 65.5% African American: 9.4% AI/AN: 3.5% Asian/PI: 0.5% Multiracial: 2.7% Hispanic/Latino: 13.9%

**Table 2.** County-Level Race and Ethnicity Data for Children in the General Population, in Foster Care, and Accessing FTCs Across the Grantee Sites *(continued)*

RPG Grantee	Race or Ethnicity of Children Under 18 in the County	Race or Ethnicity of Children Under 18 in Foster Care	Race or Ethnicity of Children Under 18 Accessing FTC
<b>9</b>	<p><i>N</i> = 105,754</p> <p>Caucasian: 59%</p> <p>African American: 23%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 1%</p> <p>Multiracial: 6%</p> <p>Hispanic/Latino: 11%</p>	<p><i>N</i> = 570</p> <p>Caucasian: 42%</p> <p>African American: 49%</p> <p>AI/AN: 8%</p> <p>Other: 1%</p> <p>Hispanic/Latino: N/A</p>	<p><i>N</i> = 266</p> <p>Caucasian: 48.1%</p> <p>African American: 42.1%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 0%</p> <p>Multiracial: 3.4%</p> <p>Hispanic/Latino: 1.9%</p>
<b>10</b>	<p><i>N</i> = 244,420</p> <p>Caucasian: 36%</p> <p>African American: 9%</p> <p>AI/AN: 0%</p> <p>Asian/PI: 5%</p> <p>Multiracial: 3%</p> <p>Hispanic/Latino: 47%</p>	<p><i>N</i> = 1,602</p> <p>Caucasian: 18.7%</p> <p>African American: 28%</p> <p>AI/AN: 0.1%</p> <p>Asian/PI: 0.2%</p> <p>Multiracial: 4%</p> <p>Hispanic/Latino: 47.6%</p>	<p><i>N</i> = 186</p> <p>Caucasian: 29%</p> <p>African American: 22%</p> <p>AI/AN: 0.5%</p> <p>Asian/PI: 0%</p> <p>Multiracial: 2.2%</p> <p>Hispanic/Latino: 46.2%</p>
<b>11</b>	<p><i>N</i> = 197,571</p> <p>Caucasian: 59%</p> <p>African American: 7%</p> <p>AI/AN: 1%</p> <p>Asian/PI: 7%</p> <p>Multiracial: 12%</p> <p>Hispanic/Latino: 15%</p>	<p><i>N</i> = 2,039</p> <p>Caucasian: 47.2%</p> <p>African American: 17.4%</p> <p>AI/AN: 3.5%</p> <p>Asian/PI: 1.6%</p> <p>Multiracial: 16.8%</p> <p>Hispanic/Latino: 13.3%</p>	<p><i>N</i> = 210</p> <p>Caucasian: 55.2%</p> <p>African American: 18.1%</p> <p>AI/AN: 2.4%</p> <p>Asian/PI: 1%</p> <p>Multiracial: 15.2%</p> <p>Hispanic/Latino: 5.2%</p>

\*Grantees with state-level demographic data for children in the general population and in foster care.

## Author Biographies

**Philip Breitenbucher, MSW**, is a nationally recognized expert, author, and speaker on family treatment courts. He currently is a Director at Children and Family Futures, where he manages multiple programs and initiatives. Mr. Breitenbucher also serves as the Program Director of the U.S. Office of Juvenile Justice and Delinquency Prevention's National Family Drug Court Training and Technical Assistance Program and as Program Director for the Prevention and Family Recovery Initiative supported by the Doris Duke Charitable Foundation and Duke Endowment. He has nearly 20 years of experience in the management of public child welfare and community-based prevention services, including the implementation and management of three family treatment court programs and four family resource centers, as well as various prevention, diversion, and early intervention programs for children and families. He co-directed the Children Affected by Methamphetamine program supported by the U.S. Substance Abuse and Mental Health Services Administration. He managed the design and implementation of an effective national training model, using a wide range of computer-based and communications technologies. In addition, he directed the development of and co-authored the Family Drug Court Guidelines publication and created the nation's first family treatment court mentor sites. He serves as a consultant to states and local jurisdictions at the National Center on Substance Abuse and Child Welfare. He is the Vice President and Co-Founder of the California Collaborative Justice Courts Foundation. Mr. Breitenbucher received his MSW from California State University, San Bernardino; a BA in Psychology from California Baptist University, and a certificate in Addiction and Recovery from Light University.

**Russ Bermejo, MSW**, currently serves as a Senior Program Associate with the National Center on Substance Abuse and Child Welfare at Children and Family Futures (CFF). In this capacity, he facilitates technical assistance regarding issues related to child welfare and substance abuse for multiple projects. He has managed the Family Drug Court Learning Academy since 2010 and currently serves as a Change Leader Associate for the State-wide Systems Reform Program (SSRP) supporting state leaders in the development and successful implementation of their statewide plan to increase the scale of FTCs and/or infuse FTC practices into larger systems. Mr. Bermejo also served as the Performance Management Liaison providing support to six FTCs

awarded the Children Affected by Methamphetamine (CAM) federal grant (2010 to 2014). He has 12 years of experience in public child welfare practice, including nearly 10 years as a Senior Social Worker with Orange County Children and Family Services. Mr. Bermejo's casework primarily focused on family reunification, family maintenance, and permanency planning. He has extensive experience in working with children and families involved in the juvenile dependency court system. Prior to joining CFF, Mr. Bermejo served in the Philippines as an Aftercare Fellow for International Justice Mission, where he worked on numerous aftercare projects focused on rescue and protection, reintegration, economic self-sufficiency, and community stakeholder training. Mr. Bermejo earned a BA in Sociology from the University of California, Los Angeles, and an MSW from California State University, San Bernardino.

**Colleen M. Killian, PhD**, is a Senior Research Associate at James Bell Associates (JBA) with over 21 years of experience in applied social science research, data analysis, program evaluation, and technical assistance (TA). At JBA she provides methodological and statistical TA and support to states implementing child welfare waiver demonstration projects for the Title IV-E Waiver Demonstration Project. In addition, she is the lead evaluator for the Recidivism Reduction Fund Court Grant for the Mendocino County Adult Drug Court and the Veterans Court Treatment Track for the Kitsap County Veterans Treatment Court. Prior to her work at JBA, Dr. Killian was the lead evaluator for the U.S. Substance Abuse and Mental Health Services Administration's Multi-site Evaluation of the Children Affected by Methamphetamine Program, a four-year grant, where she was responsible for the day-to-day implementation of the evaluation, data analyses, and report preparation, including statistical graphs, and dissemination. In addition, she was the lead evaluator on projects analyzing child welfare and substance use treatment data for family and adult drug courts at Children and Family Futures. Dr. Killian has extensive experience collecting and conducting comprehensive analysis of both quantitative and qualitative data and/or information and in preparing high-quality, professional summary reports, documents, and presentations that detail evaluation questions, design, results, and discussion. Dr. Killian has a PhD in Developmental Psychology from the University of California, Riverside, and an MA in Experimental Psychology from California State University, Fullerton.

## Author Biographies *(continued)*

**Nancy K. Young, PhD**, is the Executive Director of Children and Family Futures (CFF), a California-based research and policy institute whose mission is to improve safety, permanency, well-being, and recovery outcomes for children, parents, and families affected by trauma, substance use, and mental disorders. CFF operates a number of evaluation and technical assistance programs. Since 2002, she has served as the Director of the federally funded National Center on Substance Abuse and Child Welfare, and she has been the Director of the Administration on Children and Families' technical assistance program for the Regional Partnership Grants since 2007. In 2010, she began serving as the Director of the Office of Juvenile Justice and Delinquency Prevention's technical assistance program for family treatment courts, and she has been the Director of the Statewide System Reform Program since 2014. She led the effort to create the foundation-funded Prevention and Family Recovery Program to implement evidence-based parenting and children's intervention in family treatment courts in 2013. In addition, Dr. Young has been involved in numerous projects related to public policy analysis, strategic planning, and program evaluation through her work with these programs and through serving as a consultant to various states, counties, tribes, communities, and foundations on behalf of children, parents, and families affected by substance use and mental disorders who are involved in the child welfare and judicial systems. Dr. Young is a graduate of California State University, Fullerton, and received her MSW and her PhD from the University of Southern California, School of Social Work.

**Lisa Duong, MSW**, currently serves as a Program Specialist at Children and Family Futures. In this role, she provides technical assistance and support for several substance abuse and child welfare related projects. She also serves as a Change Leader Associate for the Prevention and Family Recovery Program, supporting family treatment courts and advancing their capacity to provide family-centered care to children and families. She has over 5 years of counseling experience serving diverse clients, including former foster youth, at-risk youth, and domestic violence survivors. Ms. Duong received her BA in Psychology from the University of California, Santa Barbara. She earned an MSW from the University of California, Los Angeles, where she was awarded the Harmon Fellowship Award, focusing on the provision of supportive services to former foster youth.

**Ken DeCerchio, MSW**, currently serves as the Project Co-Director of the Regional Partnership Grant (RPG) support program. In this role, he is responsible for overall management of the RPG support program, facilitates communication with the federal project officers, and collaborates with the National Center on Substance Abuse and Child Welfare on implementation of the technical assistance program, including management of the subcontractors. Mr. DeCerchio joined the staff of Children and Family Futures in July 2007 after 27 years of experience in the management of community-based substance abuse and mental health services. He served as the Assistant Secretary for Substance Abuse and Mental Health in Florida from 2005 to 2007. Prior to this appointment, he served as the State Substance Abuse Director with the Department of Children and Families Services for 10 years. He also served on Florida's Supreme Court Task Force on Treatment-Based Drug Courts. In November 2001, Governor Bush appointed Mr. DeCerchio as Deputy Director for Treatment to the Florida Office of Drug Control. He was appointed to the Governor's Drug Policy Advisory Council in 1999, and in 2004 he was appointed by Secretary Tommy Thompson to serve on the Center for Substance Abuse Treatment's National Advisory Council. In June 2005, Mr. DeCerchio received the National Association of State Alcohol and Drug Abuse Directors' Service Award for his leadership and support in the substance abuse prevention and treatment field. In August 2007, he received the Florida Alcohol and Drug Abuse Association's Lifetime Achievement Award for his contributions to prevention and treatment services in Florida. He received his MSW from Florida State University. Mr. DeCerchio is a Certified Addictions Professional.

### *Conflict of Interest Attestation*

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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## RESEARCH REPORTS

## Examining Racial Disparities in Program Completion and Post-Program Recidivism Rates: Comparing Caucasian and Non-Caucasian Treatment Court Participants

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### Abstract

*The current study examined racial disparities in program completion and post-program outcomes for Caucasian and non-Caucasian participants in a statewide treatment court. A stratified random sample ( $n = 534$ ) was selected to represent total participants in Kentucky Drug Courts (KDC;  $N = 4,881$ ) from July 1, 2006, to January 1, 2011. Data were gathered from the participant assessment at program entry (modified Addiction Severity Index [ASI]); the KDC Management Information System, which contains information on services and activities during program participation; and secondary data sources showing post-program arrests, convictions, and incarcerations. A multivariate logistic regression, with race as the only predictor, showed that in comparison to Caucasians, the odds of graduating decreased by 51% for non-Caucasians ( $OR = .495, p < .05$ ). However, when significant demographic, substance use, mental health, criminal justice, and during-program factors were added to the model, race was not significantly associated with program completion. Another multivariate logistic regression showed no significant racial differences in post-program recidivism (defined as any arrest, conviction, or incarceration). Data suggested few differences in program completion and post-program outcomes strictly associated with race; however, there were several statistically significant associated factors that ultimately may be related to race. Practice and policy implications are discussed.*

**Keywords:** racial disparities, drug court, treatment court, program completion, post-program recidivism

Treatment courts are designed to offer criminal justice-involved individuals suffering from substance use problems a community-based alternative to receive treatment and rehabilitation (National Association of Drug Court Professionals [NADCP], 1997). Treatment courts involve the coordination of efforts from various professionals, including judges, prosecuting and defense attorneys, probation or parole officers, and law enforcement, as well as mental health, social services, and treatment providers (NADCP, 1997) on multidisciplinary teams to provide supervision, monitoring, and treatment. The Key Components are critical to treatment court operations and include (1) integration of treatment with justice system case processing, (2) use of a nonadversarial approach, (3) early or prompt program placement, (4) a continuum of treatment and other services, (5) frequent and random drug testing, (6) a coordinated intervention strategy via a multidisciplinary team, (7) ongoing judicial interaction, (8) monitoring and evaluation that inform program operations, (9) continuing multidisciplinary education, and (10) forging community partnerships (NADCP, 1997).

The effectiveness of treatment court is supported extensively by published research. Reduced recidivism is one of the most commonly discussed post-program treatment court benefits (Belenko, 2001; Brown, 2011; Gottfredson, Najaka, & Kearley, 2003; Huddleston & Marlowe, 2011; Kalich & Evans, 2006; Sanford & Arrigo, 2005; Shaffer, 2006). A meta-analytic review of 154 studies showed that overall post-program recidivism reduced from 50% to 38% and drug-related recidivism reduced from 50% to 37% in treatment court participants compared to non-participants (Mitchell, Wilson, Eggers, & MacKenzie, 2012). Research also suggests that the effects of treatment court are sustained; in a longitudinal study of Multnomah County, Oregon, findings showed a 30% decrease in rearrests among those eligible for the treatment court program 5 years post-disposition (Finigan, Carey, & Cox, 2007). In

addition to recidivism, the Multi-Site Adult Drug Court Evaluation (MADCE) showed that treatment court participants reported less need for employment, educational, and financial services than the comparison group (Rossman, Roman, Zweig, Rempel, & Lindquist, 2011). Further, other evaluations have shown a reduction in substance use (Belenko, 2001), as well as higher annual earnings, reduced use of outpatient mental health services, increased stability, and higher productivity associated with treatment court participation (Logan, Hoyt, & Leukefeld, 2002). Data suggest that treatment courts address multiple needs and help facilitate positive post-program outcomes.

While data on treatment courts overall show programmatic success, some evidence suggests there may be disparities in program completion and outcomes for specific groups. Specifically, extant research has examined racial differences primarily for two different treatment court indicators: program completion rates and post-program recidivism outcomes. With respect to treatment court program completion, findings on the impact of race are inconsistent. Several studies have suggested that race is an influential factor in treatment court program completion (Dannerbeck, Harris, Sundet, & Lloyd, 2006; DeVall & Lanier, 2012; Gray & Saum, 2005; Hartley & Phillips, 2001; Sechrest & Shicor, 2001). Sechrest and Shicor (2001) showed that race or ethnicity was a significant predictor of treatment court success via the difference in graduation rates; more than two thirds of Caucasian participants graduated (68.9%) compared with a little under one third (31.6%) of African Americans. Similarly, in a study of 196 treatment court participants, Hartley and Phillips (2001) found that non-Caucasians were less likely to graduate compared with Caucasian participants. In an examination of a Delaware treatment court by Gray and Saum (2005), more than three fourths (76.0%) of Caucasians were program completers compared with less than one fourth (24.0%) of non-Caucasian participants. Further, even when controlling for other

sociodemographic, drug use, crime, and mental health indicators, race was a significant predictor of program completion (Gray & Saum, 2005). DeVall and Lanier (2012) also detected racial disparities in program completion rates (40.7% Caucasian participants vs. 22.3% non-Caucasian participants). The multivariate analysis suggested some similarities in influential factors related to program completion between the Caucasian and non-Caucasian participants. For Caucasian participants, age, education, employment, number of dependents, and methamphetamine as drug of choice were influential; for non-Caucasian participants, age and employment were critical factors (DeVall & Lanier, 2012). Finally, in a study of 10 Missouri adult treatment courts, data showed that Caucasians were significantly more likely to graduate (55% Caucasians vs. 28% African Americans); however, there were significant differences between Caucasians and African Americans in employment, primary drug of choice, family support, and socioeconomic status. The final study analysis ultimately linked African Americans' lower level of success in treatment court to the increased use of cocaine (Dannerbeck et al., 2006).

On the other hand, one study conducted by Vito and Tewksbury (1998) at the Jefferson County, Kentucky (Louisville), treatment court suggested African American treatment court clients were more likely than Caucasian clients to complete the program. Other research has suggested there were no racial disparities in treatment court completion rates or, if such differences were initially detected, upon further statistical examination these effects were found to be more attributable to other related factors (Butzin, Saum, & Scarpitti, 2002; Cissner et al., 2013; Mateyoke-Scrivner, Webster, Staton, & Leukefeld, 2004; McKean & Warren-Gordon, 2011; Rempel & Defastano, 2001). In Mateyoke-Scrivner et al.'s (2004) study, there were no statistically significant associations between race and treatment court completion. McKean and Warren-Gordon (2011) also found a non-statistically significant difference in graduation rates (non-

Caucasians: 29.4%; Caucasians: 34.6%). In this study, the more comprehensive analysis suggested that effects of race on treatment court completion could be explained via psychological well-being (as measured by the Brief Symptom Inventory). In several other studies the initial effect of race on program completion was ultimately accounted for by other variables. Rempel and Defastano (2001) initially found a relationship between race or ethnicity and treatment engagement in Brooklyn treatment court; however, upon further investigation, the relationship with race became statistically nonsignificant, and the effect appeared to be most related to the interaction between race and age. Finally, Butzin et al.'s (2002) initial analyses suggested that race was associated with program completion; however, race became statistically nonsignificant in relation to program completion when other variables were examined.

Studies have also investigated racial disparities in relation to post-program treatment court outcomes; again, findings were inconsistent. Listwan, Sundt, Holsinger, and Latessa (2003) examined treatment court participants and a comparison group in Cincinnati. Race was a statistically significant predictor for three of the four recidivism outcome indicators (arrest, incarceration, and incarceration for a drug offense). Findings from the Krebs, Lindquist, Koetse, and Lattimore (2007) study suggested that compared with Caucasian participants, Hispanic participants had a higher likelihood of recidivism via rearrest. Conversely, other research has suggested few racial differences in treatment court outcomes. In the MADCE, comprehensive factors including demographics, social ties, prior substance use, criminality, and mental health were used to examine reductions in substance use, crime, and other psychosocial problems associated with treatment court participation. While findings related to treatment court outcomes were positive, there were few differences in the impact among population subgroups (Rossman et al., 2011). In an examination of the impact of adult treatment courts in New York on

recidivism and sentencing, Cissner et al. (2013) determined, after controlling for participant characteristics, that there were no differential impacts by age, sex, race, or nationality.

Studies have attempted to understand racial disparities in treatment court program completion and outcomes via participant perceptions. Cresswell and Deschenes (2001) examined perceptions of severity and effectiveness of treatment court via 227 participants in Orange County, California; overall, both minority and nonminority participants viewed the treatment court program as helpful. However, minority participants viewed the program as less effective for remaining alcohol free, yet viewed it as more helpful than their Caucasian counterparts did at helping with other needs, such as employment, vocational counseling, and self-image (Cresswell & Deschenes, 2001). Gallagher (2013) conducted a qualitative study to understand African American participants' perceptions of factors that contribute to racial disparities in treatment court outcomes. Findings from this study suggest participants believed there was a lack of cultural sensitivity in sanctioning and a lack of individualized treatment and efforts to promote employment; participants were also dissatisfied with mandatory Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) meetings. Further, there was a belief among participants that they could have a better rapport and relationships with other African American clients and counselors (Gallagher, 2013). Additionally, Gallagher and Nordberg (2016) presented data to suggest that African American treatment court participants were more critical of substance use treatment (i.e., comparing it to AA or NA) and cultural insensitivity regarding labeling (i.e., being forced to call oneself an "addict" or "alcoholic") than were Caucasian participants.

There have been attempts to remedy disparities by offering more individualized and culturally specific programming. For example, Beckerman and Fontana (2001) examined a treatment court that offered specific programming as a strategy to

enhance retention for African American males. In comparing treatment court participants receiving the service enhancement with those receiving traditional treatment court services, the researchers found that African American males receiving the service enhancement had higher rates of abstinence and also remained in treatment court significantly longer (Beckerman & Fontana, 2001).

In 2014, the National Drug Court Institute implemented the *Painting the Current Picture* survey to understand treatment courts and other problem-solving courts in the United States, District of Columbia, Guam, Puerto Rico, and the Virgin Islands. Data from this survey suggested that Caucasians represented about two thirds (67%) of treatment court participants; further, it appeared that African Americans graduated from the reporting treatment courts at lower rates (Marlowe, Hardin, & Fox, 2016). Existing literature is mixed on whether these disparities in rates exist solely due to race, or if the relationship is more reflective of the influence of other variables that are also known to affect treatment court completion and outcomes (i.e., drug of choice, employment, and criminal history) and may also be related to race (Finigan, 2009). Regardless, treatment courts should seek to better understand and ultimately eliminate these disparities (Marlowe et al., 2016).

The current study seeks to examine racial disparities in program completion as well as post-program recidivism among a random sample of Caucasian and non-Caucasian participants from a statewide treatment court. In this study, treatment court was operationalized as all adult felony and misdemeanor drug courts. The purpose of this research was to comprehensively understand factors of importance for treatment court completion and post-program outcomes using multiple data sources, including the participant assessment, during-program management information system (MIS) data, and secondary data on arrests, convictions, and incarcerations in the two-year post-program period.

## METHODOLOGY

### Participants

Five hundred and thirty-four ( $n = 534$ ) Kentucky Drug Court (KDC) participants were randomly selected for a retrospective statewide outcome evaluation study. The study sample was selected from the total KDC participant population ( $N = 4,881$ ). The total KDC population included all individuals who had (1) entered KDC since July 1, 2006, after the MIS was fully implemented, and (2) exited before January 1, 2011. The first criterion was used to ensure access to all needed during-program data. The second criterion was used to allow the examination of outcomes during the 2-year post-program window.

Due to the focus of this paper on understanding racial disparities, 12 individuals with missing data on the race variable were excluded from study analyses. Thus, the final sample was 522. Participants were 29.5 years old, on average. The majority were Caucasian (85.6%), males (60.2%), and had a high school education or more (65.0%). The non-Caucasian group comprised 86.7% African American ( $n = 65$ ) and 13.3% categorized as an “other” race ( $n = 10$ ).

### Kentucky Drug Courts

The KDC program provides an alternative to incarceration, aimed at restoring individuals with substance use and criminal justice involvement to productive citizenship while protecting public safety. The program consists of three phases that can be completed in a minimum of 18 months and a 6-month aftercare component. KDCs target nonviolent offenders charged with misdemeanor or felony drug and drug-related crimes. The KDC program began as pilot sites in Jefferson (Louisville, 1993) and Fayette (Lexington, 1996) Counties (Administrative Office of the Courts [AOC], 2015). There are 120 counties encompassing 57 jurisdictions in Kentucky; all but seven counties have an established KDC. In total, there are 89

KDC felony and misdemeanor programs. KDCs operate under a unified court system. All KDC programs are overseen by the AOC; each program operates in accordance with the Key Components (NADCP, 1997) and seeks to incorporate the *Adult Drug Court Best Practice Standards* (NADCP, 2013, 2015). There is uniformity in KDC implementation via a statewide procedures manual, statewide policies, and the Administrative Rules of the Kentucky Supreme Court.

### Sources of Data and Measures

#### Participant assessment

The KDC participant assessment was adapted from the Addiction Severity Index (ASI; McLellan, Luborsky, O'Brien, & Woody, 1980). The participant assessment provided measures on pre-treatment court individual characteristics, including demographics (i.e., gender, age, and race), lifetime and past-30-day substance use, drug of choice, prior treatment episodes, and physical or mental health.

#### MIS data

MIS data, entered by KDC staff who monitored and supervised program participants, provided during-program information. MIS data provided type of completion (i.e., program completion or termination), treatment services, drug screening results, sanctions, and therapeutic responses.

#### CourtNet

CourtNet is the official recording system for criminal activity in Kentucky. The AOC provided the CourtNet record for each study participant, a complete list of convictions, and the categorization of these by level (i.e., felony and misdemeanor) as specified in the Kentucky Revised Statutes (KRS). Conviction data were pre-program and 2-year post-program. Arrests were dichotomized (yes or no) to correspond with each contact post-program with the criminal justice system.

### JusticeXchange and Kentucky Offender Management System (KOMS)

Jail incarceration data were provided via the JusticeXchange system. Prison incarceration data were provided by the Department of Corrections KOMS. Both data sources are official Kentucky systems and provided booking date, release date, total days incarcerated, and facility name (if applicable).

### Procedures

The participant assessment, MIS, JusticeXchange, and KOMS data were entered directly into the Statistical Package for the Social Sciences (SPSS). To understand potential impact on program completion, assessment and CourtNet (i.e., arrests or convictions) data were coded as prior to treatment court by using the KDC entrance date. All MIS data represented time during the program. The 2-year post-program data (i.e., arrests, convictions, incarcerations) were coded by using the KDC exit date; the 2-year window began 1 day after the exit date and was calculated to include the ensuing 2-year period.

The CourtNet convictions were coded by level of offense according to the KRS. Convictions were further classified into 13 categories: (1) property, (2) drug trafficking, (3) drug possession, (4) other drug (i.e., drug paraphernalia), (5) violent crime ineligible (by KDC criteria; robbery), (6) violent crime eligible (by KDC criteria; domestic violence), (7) traffic, (8) alcohol, (9) prostitution, (10) weapons, (11) probation or parole, (12) other, and (13) non-support. A specific coding protocol was developed and used based on the aforementioned categories and the KRS offense level. The first author conducted quality control by analyzing 10% of CourtNet records and comparing the results with the other coder's results for that record. Quality control was designed to catch errors in coding and/or transferring codes from the CourtNet record to the coding sheet, not inter-coder discrepancies; the coding protocol listed each conviction in one of the 13 categories and the level of offense per the KRS. The CourtNet

data, after recoding, were also entered into SPSS for analysis.

### Analyses

The bivariate analyses examined relationships between race and individual characteristics (i.e., other demographics, substance use, health, criminal justice involvement, etc.), during-program performance (i.e., treatment services, drug screens, sanctions, and therapeutic responses), and post-program outcomes (i.e., arrests, convictions, and incarcerations). All variables that were statistically significant (at least  $p < .05$ ) in the bivariate assessment, and those linked to program completion and/or post-program recidivism in extant literature (i.e., age, gender, education, employment, and mental health), were considered for inclusion in the multivariate logistic regressions. Certain variables were ruled out for model inclusion (i.e., variables with expected cell frequencies  $< 5$  [e.g., past-30-day use of club drugs, pre-treatment court felony drug trafficking convictions, pre-treatment court felony traffic convictions, pre-treatment court felony other convictions, pre-treatment court felony non-support convictions, and pre-treatment court misdemeanor weapons convictions] and variables with a small number of Caucasians or non-Caucasians [e.g., back pain and phase demotions]). Although chi-square tests did not result in back pain or phase demotions having  $< 5$  expected frequencies in each cell, a small number of non-Caucasians were represented in these variables ( $n = 1$  non-Caucasian for both variables). Multicollinearity diagnostics were performed on the remaining variables, and the diagnostics did not uncover any highly correlated variables. All remaining variables were included in the multivariate models predicting program completion and recidivism.

Five multivariate logistic regression models were run to assess the relationship between race and program completion as well as between race and 2-year post-program recidivism. Each model was used to individually assess how certain factors (i.e., race alone, race plus remaining factors such

as substance use, health, etc.) influenced program completion and recidivism. The dependent variable, program completion, was coded using the participants' MIS treatment court status: 0 = terminator, 1 = graduate. The dependent variable, recidivism, was coded as 0 = no (i.e., no post-program arrests, incarcerations, or convictions) or 1 = yes. The first model contained only race as a predictor. Race was coded as 0 = Caucasian (reference) or 1 = non-Caucasian. The second model contained race and the remaining demographic variables: gender (0 = male [reference], 1 = female), education (0 = high school or more [reference], 1 = less than high school), marital status (0 = not married [reference], 1 = married), employed at time of the treatment court assessment (0 = not employed [reference], 1 = employed), living with partner (0 = no [reference], 1 = yes), and age (continuous). The third model contained race as well as health, substance use, and criminal justice involvement variables; all were coded as 0 = no (reference) or 1 = yes, unless noted as a continuous variable. The health, substance use, and criminal justice variables were number of times treated for psychological or emotional problems in a hospital (mental health indicator; continuous), lifetime substance use (i.e., opiates, benzodiazepines, methadone, hallucinogens, amphetamines, inhalants, and methamphetamines), drug of choice (i.e., opioids, marijuana, alcohol, cocaine, sedatives, and stimulants), treatment (i.e., number of detoxification programs attended in the past year; continuous), past-30-day substance use (i.e., opiates and cocaine), lifetime IV opiate use, pre-treatment court convictions (i.e., felony drug possession crime and misdemeanor other crime), and on probation or parole at the time of the treatment court assessment. The fourth model contained race and during-program variables, including number of sanction or therapeutic response days (i.e., curfew, residential treatment, and incarceration; all continuous). The final model included all predictors from the previous four models (see Tables 4 and 5).

During study development, a power calculation was completed, using the projected sample size ( $N = 500$ ), the type of analysis (i.e., logistic regression), an alpha = .05, and a medium effect size (.20); the power calculation was .96. A post hoc power calculation was conducted for specific analyses based on actual sample size ( $N = 522$ ) and number of predictors in the models. Based on these power calculations, the models had excellent power to detect large (.99) and medium (.95) effect sizes. The models had lower power (.32) to detect a small effect size.

## RESULTS

### Demographics

On average, the sample was 29.5 years of age, was mostly male (60.2%), and had at least a high school education (65.0%). Slightly less than one third (31.9%) were employed at the time of the treatment court assessment. Significant associations existed between race and marital status and living arrangements in the past 12 months. More non-Caucasians were married (38.6% vs. 26.0%;  $\chi^2 = 4.773$ ,  $p < .001$ ) and lived with their partner in the past 12 months (20.6% vs. 11.8%;  $\chi^2 = 4.073$ ,  $p < .05$ ).

### Substance Use and Health

Table 1 presents participants' lifetime substance use and treatment history. Significantly more Caucasians reported lifetime use of opiates (81.1% vs. 41.9%), benzodiazepines (75.5% vs. 37.8%), methadone (47.8% vs. 12.0%), hallucinogens (35.1% vs. 14.9%), amphetamines (31.7% vs. 10.8%), inhalants (14.2% vs. 5.4%), and methamphetamine (49.8% vs. 12.2%) compared with non-Caucasians. Further, significantly more Caucasians (18.1%) than non-Caucasians (4.3%) reported lifetime IV opiate use. Caucasians also averaged a significantly higher number of detoxification programs attended in the past year (0.09 programs vs. 0.01 programs). Significantly more

Caucasians reported the following drugs of choice: opioids (55.7% vs. 18.7%), sedatives (30.2% vs. 16.0%), and stimulants (22.8% vs. 5.3%). However, significantly more non-Caucasians reported the following as drugs of choice: marijuana (61.3% vs. 42.3%), alcohol (52.0% vs. 32.9%), and cocaine (52.0% vs. 26.4%).

Examining past-30-day substance use (data not shown) showed that significantly more Caucasians reported opiate use (35.7% vs. 11.0%;  $\chi^2 = 17.517, p < .001$ ); however, significantly more non-Caucasians reported use of cocaine (33.3% vs. 14.9%,  $\chi^2 = 14.065, p < .001$ ) and club drugs (5.5% vs. 1.2%; Fisher's exact = .030,  $p < .05$ ) in the past 30 days at assessment.

Participants' lifetime and past-30-day physical health and mental health data were examined (data not shown). Approximately one fourth (24.6%) experienced medical problems that affected their daily living. Significantly more Caucasians than non-Caucasians reported back problems or pain (8.1% vs. 1.4%;  $\chi^2 = 4.323, p < .05$ ). The sample averaged 3 days of medical problems in the past 30 days. Regarding mental health, a little less than one fifth (18.1%) reported having received treatment for psychological or emotional problems in a hospital. By self-reported history, almost half of the participants had experienced lifetime serious depression (48.6%) and serious anxiety (46.6%).

### **Criminal Justice Involvement**

Table 2 shows felony and misdemeanor convictions prior to treatment court. Significantly more non-Caucasians (42.7%) than Caucasians (27.1%) were convicted of a felony prior to treatment court. The sample averaged 0.92 felony convictions. Examining *types* of felony convictions revealed that significantly more non-Caucasians than Caucasians were convicted of felony drug trafficking (10.7% vs. 1.8%), drug possession (24.0% vs. 7.2%), traffic (4.0% vs. 0.7%), non-support (5.3% vs. 1.3%), and other (8.0% vs. 2.5%) crimes prior to entering treatment court.

Also as shown in Table 2, significantly fewer Caucasians (76.3%) than non-Caucasians (86.7%) were convicted of a misdemeanor before treatment court. Caucasians also averaged significantly fewer misdemeanors than non-Caucasians (4.64 vs. 7.59). Examining *types* of misdemeanor convictions revealed that significantly more non-Caucasians than Caucasians were convicted of misdemeanor weapons (5.3% vs. 1.3%) and other (40.0% vs. 24.8%) crimes prior to treatment court.

### **During-Program Performance**

As shown in Table 3, participants received various external treatment services, which were required as part of treatment court participation, including ancillary (47.1%), outpatient (35.8%), intensive outpatient (22.0%), short-term residential (20.1%), long-term residential (10.9%), and non-residential (1.7%).

Participants averaged approximately nine positive drug screens. Three fourths (75.5%) received a sanction or therapeutic response associated with program noncompliance. When examining *types* of sanction or therapeutic responses, significantly more Caucasians (8.3%) than non-Caucasians (1.3%) received a phase demotion. Otherwise, there were no differences in the receipt of other sanctions and therapeutic responses. The number of days for each sanction or therapeutic response is also presented in Table 3. In comparison to non-Caucasians, Caucasians averaged a significantly higher number of curfew (1.61 vs. 0.08), residential treatment (2.44 vs. 0.37), and incarceration (11.21 vs. 6.17) days.

### **Outcomes**

#### **Program completion and recidivism**

With regard to program completion, more Caucasians were program graduates (38.9% vs. 24.0%;  $\chi^2 = 6.153, p < .05$ ; data not shown). Examination of any 2-year post-program recidivism (arrests, convictions, and/or jail or prison incarcerations; data not shown) did not result in a significant association with race (Caucasians: 72.9%; non-

Caucasians: 80.0%). In the 2 years post-program, 40.8% were arrested. Examining convictions showed that slightly over one third (37.9%) had received *any* conviction 2 years after treatment court participation. Only 13.0% had received a felony conviction. Only one significant relationship emerged when examining race and *types* of post-treatment court felony convictions. Significantly more non-Caucasians (4.0%) than Caucasians (0.7%) had been convicted of felony drug trafficking crimes 2 years after treatment court (Fisher's exact = .041,  $p < .05$ ). About one third (32.8%) of the sample had received a misdemeanor conviction 2 years after treatment court participation. Examining incarceration, over two thirds (69.0%) were jailed and approximately 6% were in prison.

### Multivariate Analyses

In the first model predicting program completion ( $N = 522$ ; data not shown), with race alone as a predictor, a significant relationship emerged. In comparison to Caucasians, non-Caucasians were associated with reduced odds of program completion (OR = .495, 95% CI [.282, .870],  $p < .05$ ). Table 4 presents the remaining logistic regression models predicting program completion. In Model 2, which included race and the other demographic variables, race, age, education, marital status, employment, and living with a partner were all significantly associated with program completion. Again, non-Caucasians had reduced odds of program completion. As age increased, the odds of graduating also increased. In addition, those with less than a high school education, individuals who were married, and those who were living with a partner had reduced odds of program completion. However, those who were employed at the time of the treatment court assessment had increased odds of program completion.

Model 3 contained race, health, substance use, and criminal justice history variables. Five variables were significantly associated with reduced odds of program completion: marijuana as drug

of choice, an increasing number of detoxification programs attended in the past year, cocaine use in the past 30 days before the treatment court assessment, conviction of a misdemeanor other crime, and currently being on probation or parole. Model 4, race and during-program factors, resulted in the following significant relationships: non-Caucasians had reduced odds of treatment court completion, and as the number of incarceration sanction days increased, the odds of program completion decreased.

When all predictors were taken into account (Model 5), race was no longer significant in program completion. However, several other variables, some of which were significant in previous models, were associated with program completion in the final model. Seven variables were significantly associated with reduced odds of program completion: less than a high school education (53% reduced odds), being married (55%), an increasing number of times treated for a psychological or emotional problem in a hospital (28%), an increasing number of detoxification programs attended in the past year (78%), conviction of a misdemeanor other crime before treatment court (52%), currently being on probation or parole (53%), and an increasing number of incarceration sanction days (3%). Two variables were significantly associated with increased odds of completion: increasing age (5% increased odds) and sedatives as drug of choice (109%).

In the first model predicting post-program recidivism, with race alone as a predictor, no significant relationship emerged (data not shown;  $N = 522$ ; OR = 1.485,  $p = .199$ ). Table 5 presents the remaining logistic regression models predicting recidivism 2 years post-program. In Model 2, which included race and the other demographic variables, age, marital status, and employment were significantly associated with recidivism. Married participants had increased odds of recidivism. Older participants and those who were employed at the time of the assessment had reduced odds of recidivism.

Model 3 contained race, health, substance use, and criminal justice history variables. Five variables were significantly associated with increased odds of recidivism: opioids as drug of choice, marijuana as drug of choice, opiate use in the past 30 days before the treatment court assessment, cocaine use in the past 30 days before the treatment court assessment, and conviction of a misdemeanor other crime. Model 4, race and during-program factors, resulted in the following significant relationship: As the number of incarceration sanction days increased, the odds of recidivism also increased.

Model 5, which took into account all predictors, resulted in several significant relationships. Six variables were significantly associated with increased odds of recidivism: less than a high school education (92% increased odds), being married (142%), an increasing number of times treated for a psychological or emotional problem in a hospital (45%), opioids as drug of choice (216%), cocaine use in the past 30 days before assessment (288%), and an increasing number of incarceration sanction days (3%). Two variables, age and lifetime opiate use, were associated with 6% and 60% reduced odds of recidivism, respectively.

## DISCUSSION

To better understand the relationship between race and program completion and post-program recidivism, this study examined a variety of individual (i.e., demographic, substance use, health, criminal justice history) and during-program performance measures. For program completion, in the first multivariate model with race as the only predictor, a significant relationship emerged. However, in the final multivariate model, taking into account all significant predictors from the bivariate analyses, race was no longer significantly associated with program completion. Rather, two variables were significantly associated with increased odds of program completion: age and sedatives as drug of choice.

Seven variables were significantly associated with reduced odds of program completion: having less than a high school education, being married, an increasing number of times treated for a psychological or emotional problem in a hospital, an increasing number of detoxification programs attended in the past year, conviction of a misdemeanor other crime, an increasing number of incarceration sanction days, and currently being on probation or parole. These findings suggest that, when examining race independently, differences do exist in program completion rates. However, when demographic, substance use, health, criminal justice, and during-program performance are taken into account, these other factors emerge as having the most influence on program completion. Despite these findings, it is important to note that race is likely still important to consider as related to many of these other significant factors.

Findings from the current study are consistent with past research suggesting that associations between race and treatment court completion are very complex and often associated with a variety of other factors (Butzin et al, 2002; McKean & Warren-Gordon, 2011; Rempel & Defastano, 2001). Further, this study is consistent with other past research on KDCs. Mateyoke-Scriver et al. (2004) suggested that, for rural and urban Kentucky treatment courts, program success was related to variables such as education and income. Although race was not identified as one of the most critical factors in program completion in this examination of statewide KDCs, the possibility of racial interactions between identified significant variables and treatment court completion is likely, as the variables included in the final model showed differences between the racial groups in the early bivariate analyses. As discussed by Rempel and Destefano (2001), the effects of race and ethnicity may be dependent on the context; for example, in communities with different social and demographic characteristics, non-Caucasian individuals may face disadvantages such as living in socially isolated areas.

With regard to 2-year post-program recidivism, race was not significantly associated when included in any of the multivariate models. Further, an examination of other variables that showed significant differences between Caucasian and non-Caucasian participants in the bivariate analyses revealed that two variables, age and lifetime opiate use, were associated with reduced odds of recidivism. Six variables were significantly associated with increased odds of recidivism: having less than a high school education, being married, an increasing number of times treated for a psychological or emotional problem in a hospital, opioids as drug of choice, cocaine use in the past 30 days before assessment, and an increasing number of incarceration sanction days. Although these findings suggest no racial differences in post-program recidivism, again variables identified as significant may still be related to race.

These findings are consistent with previous studies (Cissner et al., 2013; Rossman et al., 2011) suggesting that race is not a primary influence on post-program treatment court outcomes. Specifically, Cissner et al. (2013) suggested that after controlling for significantly related characteristics, there was no relationship between race and treatment court recidivism. Further, there is consistency with other published studies on factors of importance to recidivism. For example, Peters, Haas, and Murrin (1999) determined that participants who reported cocaine as their primary substance use problem had higher rates of recidivism than individuals who reported problems with alcohol or marijuana.

Interestingly, across program completion and post-program recidivism models, a number of overlapping factors emerged as influential on both. Specifically, the multivariate models identified four factors associated with decreased program completion as well as increased post-program recidivism: educational status, marital status, number of times treated for a psychological or emotional problem in a hospital, and number of incarceration sanction days. These findings are

congruent with past research showing an association between demographics (i.e., education [DeVall & Lanier, 2012; Listwan et al., 2003]), mental health (Mendoza, Trinidad, Nochajski, & Farrell, 2013), the use of sanctions (Sevigny, Fuleihan, & Ferdik, 2013), and specifically incarceration sanctions (Brown, Allison, & Nieto, 2010; Wu, Altshuler, Short, & Roll, 2012) and treatment court completion and outcomes. The use of incarceration sanctions is an emerging area of importance. Wu et al. (2012) found that treatment court program graduates were less likely to be sanctioned with jail time in comparison with those who ultimately were terminated from the program. Another study indicated that the timing of the first jail sanction was highly predictive of treatment court program noncompletion, particularly if the jail sanction was administered within the first 30 days of program participation (Brown et al., 2010).

It is important to note that all the aforementioned factors were selected for inclusion in the multivariate models because of significant differences between Caucasians and non-Caucasians in the early analyses; thus, these outcome variables varied by race and ethnicity. Because effective treatment court programming and planning rely on understanding specific relationships between individual characteristics, program performance, and outcomes, a more culturally nuanced examination of these variables is important. For example, generally, being married and having a committed marital relationship are associated with reduced criminal participation and a lower risk for substance use (Visher, Knight, Chalfin, & Roman, 2009). However, the protective effects of marriage were not apparent among these study participants. Social and financial strains from lower education levels and economic disadvantage tend to spill into marriage and mitigate the quality of any relationship (Bryant, Taylor, Lincoln, Chatters, & Jackson, 2008; Cutrona et al., 2003). Further, systems of emotional support, in addition to informational, financial, and practical help, may extend beyond court defendants' marital

relationships (Podkopacz, Eckberg, Zehm, & Kubits, 2006). Group concerns over disclosure in psychological intervention and the self-perception of vulnerability may help to explain mental health treatment attempts. The Black male respondents of one study endorsed the cultural belief that families should resolve family matters privately, believed that mental health intervention signified weakness or diminished pride, and upheld the expectation that African Americans should demonstrate strength (Sanders Thompson, Bazile, & Akbar, 2004). Existing research has also suggested a cultural or racial link with specific types of substance use. Specifically, past research has suggested that Caucasians and Hispanics were more likely to report illicit use of prescription drugs when compared with African Americans (McCabe, Morales, Craford, Delva, McPherson, & Boyd, 2007). A focus on race and ethnicity and perceptions of incarceration sanctioning may help to distinguish findings on escalating sanctions and poor programmatic outcomes, as Caucasian offenders tend to estimate prison in relatively more severe terms than do Black offenders (Applegate, 2014). By delving deeper into many of the group-based dynamics associated with program completion and post-program recidivism, researchers may identify other racial and cultural linkages that are not readily apparent but deserve focused attention as part of treatment court programming.

As shown by Cresswell and Deschenes (2001), both minority and nonminority participants viewed the treatment court program as a moderately severe but effective rehabilitative option; thus, it appears as though treatment court is a viable option for supervising and rehabilitating both minority and nonminority offenders. Even though findings from this study showed that race was not ultimately a primary variable influencing program completion and recidivism outcomes, there were still numerous differences between the two groups that ultimately influenced treatment court performance and outcomes. These unique between-group characteristics warrant

tailored evidence-based practices (EBPs) and interventions. For example, as discussed by Cresswell and Deschenes (2001), while both minority and nonminority participants reported that the treatment court program was helpful, minority participants had a less favorable view of the effectiveness for remaining alcohol free. Somewhat related, Dannerbeck et al. (2006) suggested there may be a differential perception about drug use among African Americans; specifically, African Americans may view substance abuse as secondary, with racism and poverty of foremost concern. The potential differences in perceptions related to programmatic effectiveness and importance point to the need for a thorough program assessment, as well as follow-through and monitoring of progress for individuals meeting their primary and secondary goals. A thorough assessment should evaluate the full range of issues that may contribute to successful outcomes, including underlying issues of racism, oppression, and stigma (Dannerbeck et al., 2006).

In 2016, the Kentucky AOC undertook the task of better understanding the changing acceptance patterns of the drug court program from 2010 to 2015. Over this time frame, the number of African Americans accepted in two of the largest urban KDC programs had declined (AOC, 2016). Among the African Americans referred to KDC who ultimately did not enter the program, some of the reasons most commonly cited for lack of eligibility were criminal history, lack of cooperation, and denial of addiction (AOC, 2016). These factors may be perceived as making the individual at high risk for non-completion; however, some of these factors, such as denial of addiction, may be culturally or racially related. As discussed by Beckerman and Fontana (2001), retention in treatment court is an issue of critical importance for high-risk individuals; specifically, the principles of therapeutic jurisprudence and the legal inducement of court-monitored drug treatment appear to be insufficient to engage and rehabilitate. One consideration for high-risk and high-

needs individuals is specialized treatment groups to encourage continued participation (Beckerman & Fontana, 2001). Bouffard and Taxman (2004) examined the delivery of substance use and other social services in four adult treatment courts; the data showed that an eclectic intervention style with a variety of EBPs and 12-step programs were used. While this approach may appear to address a variety of individualized needs, the actual result was that very little time was spent using any specific treatment approach. Further, offering a variety of treatment approaches may lead to inconsistent messages, such as the conflicting philosophies of 12-step and cognitive behavioral approaches (Bouffard & Taxman, 2004). Additionally, in this examination, there appeared to be very little culturally specific programming, as evidenced by the frequency with which these topics were addressed in groups. It is possible that a lack of quality treatment, specifically using EBPs with cultural sensitivity, could be another factor that contributes to racial disparities in treatment court outcomes (Bouffard & Taxman, 2004).

In 2010, the NADCP Board of Directors adopted a resolution regarding the equivalent treatment of racial and ethnic minorities; this resolution urged all treatment courts to examine whether racial and ethnic disparities existed and also to take reasonable action to correct these disparities (NADCP, 2010). Treatment court programs must be sensitive to and aware of racial and ethnic issues, striving to ensure that they contain culturally sensitive components that can add to the success of diverse groups (McKean & Warren-Gordon, 2011). This is echoed in the Board of Directors' resolution by urging the use of EBPs that may help correct extant disparities (NADCP, 2010). Evidence does exist to suggest that providing culturally sensitive interventions can help overcome many negative factors and improve outcomes (Finigan, 2009). However, there is a dearth of published literature on culturally sensitive program enhancements in treatment court and associated outcomes.

As shown by Beckerman and Fontana (2001), African American male substance users often face multiple chronic problems, such as unemployment, homelessness or unstable living conditions, poor financial resources, and health problems that may exacerbate substance-using behavior. In this study, the enhancement treatment program, which was targeted toward African American males, was able to achieve better retention rates than for treatment court clients receiving the standard services. These findings emphasize the importance of culturally specific programming to achieve short- and long-term program impacts.

There are at least two ways to achieve greater cultural sensitivity in treatment courts. One is to match treatment court clients with counselors and other participants by racial group. Gallagher (2013) showed that African American treatment court participants believed they could have a better rapport and relationship with other African American clients and counselors. The second way for treatment courts to achieve greater cultural sensitivity is to establish culturally sensitive trainings and interventions to ensure that the client's needs are met (McKean & Warren-Gordon, 2011). One treatment court, which was staffed by an African American clinician and used culturally sensitive interventions, demonstrated superior effects for African American participants (Vito & Tewksbury, 1998). Thus, evidence exists that positive treatment court outcomes are indeed a viable possibility for minority participants when unique needs are addressed.

### Study Limitations

While this study presents some noteworthy findings by examining racial disparities in program completion and post-program recidivism, it has some limitations that warrant discussion. First, the Caucasian and non-Caucasian groups were disproportionate in size (Caucasian  $n = 447$ ; non-Caucasian  $n = 75$ ). Further, the non-Caucasian group contained primarily African American

individuals and a small number of individuals endorsing an “other” race. Second, this study relied solely on secondary data collected from the KDC participant assessment, the MIS, and other external state databases. Thus, variables for inclusion were limited to those for which data had been collected, which potentially overlooked constructs of interest for understanding racial disparities in program completion and recidivism as well as other outcomes, such as motivation for treatment and criminal thinking.

Third, during collection of the secondary data for this study, there were instances when the program assessment could not be located for specific participants initially selected for the random sample. These participants had to be removed from the original sample to reduce the amount of missing data. In a related issue, there were occasions when a selected participant’s status was not recognized as graduated or terminated from KDC (i.e., administrative discharge). Administrative discharges were used for participants who could not meet programmatic requirements due to something that likely occurred (or was discovered) after admission (i.e., severe illness or injury). These participants also had to be removed from the sample in order to provide a full understanding of program completion. These occurrences were corrected by pulling a replacement. These incidences may have skewed the accuracy of the stratified random sampling and may ultimately influence the generalizability of the findings.

Further, related to the multivariate analyses, the sample size and number of predictors included in the models reduced the power for detecting small effect sizes. While increasing the sample size would have enhanced the power for the statistical analyses, doing so was not feasible due to the data collection burden on the AOC and partnering agencies that were pulling the secondary data.

Finally, data available from this study cannot address whether there are racial disparities in sentencing differences for Caucasian and non-

Caucasian individuals, which may ultimately have an impact on the accessibility of treatment court. Research conducted in 2012 has suggested the existence of harsher sentencing policies nationally for both African American and Hispanic individuals; these individuals were less likely to receive leniency in sentencing, with sentences 19% and 21% longer, respectively, when compared with Caucasian counterparts (Chen & Nomura, 2015).

## **Conclusion**

While this study cannot address critical questions related to racial disparities in criminal justice sentencing and accessing treatment court, the data provided show a lack of racial disparities in program completion and outcomes for program participants. In a comprehensive examination of factors associated with race, this variable did not show a direct relationship to program completion and post-program recidivism. However, there were indirect associations via differences in demographics, substance use, health, criminal justice history, and treatment court sanctioning. The findings have important implications for those working to eliminate barriers to program completion and enhance post-program success for all participants. Treatment court needs to begin with a thorough assessment to understand individual factors that may help or hinder programmatic success. This assessment should become the foundation of an individualized program plan, tailored to the unique needs of the individual. Within program planning, cultural sensitivity needs to become more of a focus, with the understanding that a “one size fits all” treatment model will ultimately not address many of the nuances individuals have when entering the program. Finally, future research should also further investigate the issue of treatment court access to understand if treatment court is accessible and available equally to all those in the criminal justice system who meet eligibility requirements.

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**Table 1. Lifetime Substance Use and Treatment History**

	Caucasians (N = 447)	Non-Caucasians (N = 75)	Total (N = 522)	df	$\chi^2 / t$
<b>Substance Use (lifetime)</b>					
Alcohol	96.4%	95.5%	96.3%		
Marijuana	93.9%	94.6%	94.0%		
Cocaine	79.1%	78.7%	79.0%		
Opiates	81.1%	41.9%	75.5%	1	$\chi^2 = 52.638^{***}$
Benzodiazepines	75.5%	37.8%	70.1%	1	$\chi^2 = 42.793^{***}$
Methamphetamine	49.8%	12.2%	44.3%	1	$\chi^2 = 36.260^{***}$
Methadone	47.8%	12.0%	42.6%	1	$\chi^2 = 33.675^{***}$
Hallucinogens	35.1%	14.9%	32.2%	1	$\chi^2 = 11.857^{**}$
Amphetamines	31.7%	10.8%	28.7%	1	$\chi^2 = 13.489^{***}$
Club drugs	23.3%	17.8%	22.5%		
Heroin	14.6%	7.0%	13.5%		
Inhalants	14.2%	5.4%	13.0%	1	$\chi^2 = 4.369^*$
Stimulants	12.7%	6.9%	11.9%		
Barbiturates	11.3%	6.8%	10.7%		
<b>Route of Administration (lifetime)</b>					
IV opiate use	18.1%	4.3%	16.2%	1	$\chi^2 = 8.269^{**}$
<b>Treatment History</b>					
Ever treated for alcohol or other drugs of abuse	54.6%	53.5%	54.5%		
Attended detox programs in past year	7.6%	1.5%	6.7%		
No. of detox programs in past year (SD)	0.09 (0.31)	0.01 (0.12)	0.08 (0.30)	240	$t = 3.291^{**}$
<b>Drug of Choice</b>					
Opioids	55.7%	18.7%	50.4%	1	$\chi^2 = 35.244^{***}$
Marijuana	42.3%	61.3%	45.0%	1	$\chi^2 = 9.418^{**}$
Alcohol	32.9%	52.0%	35.6%	1	$\chi^2 = 10.230^{**}$
Cocaine	26.4%	52.0%	30.1%	1	$\chi^2 = 20.016^{***}$
Sedatives	30.2%	16.0%	28.2%	1	$\chi^2 = 6.402^*$
Stimulants	22.8%	5.3%	20.3%	1	$\chi^2 = 12.134^{***}$

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Table 2. Criminal Justice Convictions Prior to Treatment Court**

	Caucasians (N = 447)	Non-Caucasians (N = 75)	Total (N = 522)	df	$\chi^2 / t$
<b>Felony Convictions</b>					
<b>Any felony</b>	<b>27.1%</b>	<b>42.7%</b>	<b>29.3%</b>	<b>1</b>	$\chi^2 = 7.541^{**}$
Average no. of felony convictions (SD)	0.86 (3.24)	1.32 (2.79)	0.92 (3.18)		
Property crime	15.4%	16.0%	15.5%		
Drug trafficking	1.8%	10.7%	3.1%		Fisher's exact $p = .001^{**}$
Drug possession	7.2%	24.0%	9.6%	1	$\chi^2 = 21.032^{***}$
Other drug crime	4.3%	4.0%	4.2%		
Violent crime eligible	0.0%	0.0%	0.0%		
Violent crime ineligible	1.1%	0.0%	1.0%		
Traffic	0.7%	4.0%	1.1%	1	Fisher's exact $p = .041^*$
Alcohol	0.7%	1.3%	0.8%		
Weapons	0.2%	0.0%	0.2%		
Prostitution	0.0%	0.0%	0.0%		
Other	2.5%	8.0%	3.3%	1	Fisher's exact $p = .024^*$
Non-support	1.3%	5.3%	1.9%	1	Fisher's exact $p = .042^*$
<b>Misdemeanor Convictions</b>					
<b>Any misdemeanor</b>	<b>76.3%</b>	<b>86.7%</b>	<b>77.8%</b>	<b>1</b>	$\chi^2 = 4.004^*$
Average no. of misdemeanor convictions (SD)	4.64 (5.34)	7.59 (11.30)	5.06 (6.61)	79	$t = -2.219^*$
Property crime	39.1%	46.7%	40.2%		
Drug trafficking	2.7%	2.7%	2.7%		
Drug possession	30.6%	38.7%	31.8%		
Other drug crime	30.9%	32.0%	31.0%		
Violent crime eligible	10.0%	17.3%	11.1%		
Violent crime ineligible	0.9%	1.3%	1.0%		
Traffic	41.6%	53.3%	43.3%		
Alcohol	37.1%	32.0%	36.4%		
Weapons	1.3%	5.3%	1.9%		Fisher's exact $p = .020^*$
Prostitution	0.7%	0.0%	0.6%		
Other	24.8%	40.0%	27.0%	1	$\chi^2 = 7.494^{**}$
Non-support	1.1%	4.0%	1.5%		

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Table 3. During-Program Performance**

	Caucasians (N = 447)	Non-Caucasians (N = 75)	Total (N = 522)	df	$\chi^2 / t$
<b>Treatment Services</b>					
Ancillary	46.8%	49.3%	47.1%		
Outpatient	37.1%	28.0%	35.8%		
Intensive outpatient	22.4%	20.0%	22.0%		
Residential, short term	19.2%	25.3%	20.1%		
Residential, long term	10.1%	16.0%	10.9%		
Nonresidential	1.3%	4.0%	1.7%		
<b>Drug Screening (SD)</b>					
No. of positive drug screens	8.78 (12.40)	8.15 (10.75)	8.69 (12.17)		
<b>Sanctions and Therapeutic Responses</b>					
<b>Any sanction or therapeutic response</b>	<b>74.5%</b>	<b>81.3%</b>	<b>75.5%</b>		
Community service	23.7%	18.7%	23.0%		
Detention	29.5%	40.0%	31.0%		
Curfew	4.5%	1.3%	4.0%		
Failure-to-appear warrants	7.4%	10.7%	7.9%		
Incarceration	43.2%	40.0%	42.7%		
Increased drug tests	2.2%	0.0%	1.9%		
Self-help meetings	10.3%	13.3%	10.7%		
Phase demotion	8.3%	1.3%	7.3%	1	$\chi^2 = 4.588^*$
Residential treatment	4.9%	2.7%	4.6%		
Suspension	1.8%	5.3%	2.3%		
<b>Number of Sanction or Therapeutic Response Days (SD)</b>					
Curfew (SD)	1.61 (12.74)	0.08 (.69)	1.39 (11.80)	460	$t = 2.520^*$
Increased drug test (SD)	0.48 (5.10)	0.00	0.41 (4.73)		
Residential treatment (SD)	2.44 (16.88)	0.37 (3.23)	2.14 (15.68)	514	$t = 2.346^*$
Incarceration (jail days) (SD)	11.21 (23.75)	6.17 (11.45)	10.49 (22.47)	201	$t = 2.903^{**}$

\* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ .

**Table 4.** Logistic Regression Models Predicting Treatment Court Completion

Predictor	Model 2 (N = 469)		Model 3 (N = 398)		Model 4 (N = 522)		Model 5 (N = 369)	
	B	OR	B	OR	B	OR	B	OR
<b>Race and Demographics</b>								
Race (non-Caucasian)	-.834	.434*					-.941	.390
Age	.063	1.065***					.044	1.045*
Gender (female)	.229	1.257					.313	1.367
Education (< high school)	-.445	.641*					-.752	.471**
Marital status (married)	-.539	.583*					-.794	.452*
Employed (yes)	.589	1.802**					.455	1.576
Live with partner (yes)	-.701	.496*					-.294	.745
<b>Race, Health, Substance Use, and Criminal Justice History</b>								
Race (non-Caucasian)			-.777	.460				
No. of times hospitalized for psychiatric problems			-.229	.795			-.328	.720*
Opiates (lifetime; yes)			.104	1.110			.507	1.660
Benzodiazepines (lifetime; yes)			-.416	.659			-.319	.727
Methadone (lifetime; yes)			-.052	.950			-.033	.968
Hallucinogens (lifetime; yes)			.176	1.192			-.361	.697
Amphetamines (lifetime; yes)			.144	1.155			.202	1.223
Inhalants (lifetime; yes)			-.206	.814			-.210	.810
Methamphetamine (lifetime; yes)			-.084	.920			.108	1.114
Opioids drug of choice (yes)			-.466	.628			-.711	.491
Marijuana drug of choice (yes)			-.818	.441**			-.428	.651

\*p < .05, \*\*p < .01, \*\*\*p < .001; categories in parentheses represent effect shown

**Table 4.** Logistic Regression Models Predicting Treatment Court Completion *(continued)*

Predictor	Model 2 (N = 469)		Model 3 (N = 398)		Model 4 (N = 522)		Model 5 (N = 369)	
	B	OR	B	OR	B	OR	B	OR
Alcohol drug of choice (yes)			-.221	.801			-.076	.927
Cocaine drug of choice (yes)			.441	1.555			.006	1.006
Sedatives drug of choice (yes)			.490	1.632			.738	2.091*
Stimulants drug of choice (yes)			.231	1.260			.104	1.109
No. of detox programs in past year			-1.387	.250*			-1.497	.224*
Opiate use in past 30 days (yes)			-.265	.767			-.362	.696
Cocaine use in past 30 days (yes)			-.732	.481*			-.697	.498
IV opiate use (yes)			-.585	.557			-.823	.439
Pre-treatment court felony drug possession conviction (yes)			.636	1.888			.472	1.603
Pre-treatment court misdemeanor other conviction (yes)			-1.040	.353***			-.725	.484*
Currently on probation or parole			-.632	.531**			-.749	.473**
<b>Race and During-Program Factors</b>								
Race (non-Caucasian)					-.785	.456**		
No. of curfew days					.003	1.003	.000	1.000
No. of residential treatment days					-.021	.979	-.032	.969
No. of incarceration days					-.017	.983**	-.032	.969**

\*p < .05, \*\*p < .01, \*\*\*p < .001; categories in parentheses represent effect shown

**Table 5.** Logistic Regression Models Predicting Post-Program Recidivism

Predictor	Model 2 (N = 469)		Model 3 (N = 398)		Model 4 (N = 522)		Model 5 (N = 369)	
	B	OR	B	OR	B	OR	B	OR
<b>Race and Demographics</b>								
Race (non-Caucasian)	.716	2.046					1.078	2.939
Age	-.073	.929***					-.059	.942**
Gender (female)	-.180	.836					-.572	.564
Education (< high school)	.218	1.244					.651	1.918*
Marital status (married)	.752	2.121*					.882	2.415*
Employed (yes)	-.738	.478**					-.426	.653
Live with partner (yes)	.237	1.268					-.082	.922
<b>Race, Health, Substance Use, and Criminal Justice History</b>								
Race (non-Caucasian)			.693	2.000				
No. of times hospitalized for psychiatric problems		.250	1.284				.372	1.451*
Opiates (lifetime; yes)			-.369	.692			-.920	.398*
Benzodiazepines (lifetime; yes)			.507	1.661			.426	1.531
Methadone (lifetime; yes)			.116	1.124			.074	1.077
Hallucinogens (lifetime; yes)			-.367	.693			.124	1.132
Amphetamines (lifetime; yes)			-.419	.658			-.335	.715
Inhalants (lifetime; yes)			.329	1.389			.300	1.349
Methamphetamine (lifetime; yes)			.169	1.184			.281	1.325
Opioids drug of choice (yes)			.824	2.281*			1.151	3.160**
Marijuana drug of choice (yes)			.728	2.070*			.111	1.118

\*p < .05, \*\*p < .01, \*\*\*p < .001; categories in parentheses represent effect shown

**Table 5.** Logistic Regression Models Predicting Post-Program Recidivism (continued)

Predictor	Model 2 (N = 469)		Model 3 (N = 398)		Model 4 (N = 522)		Model 5 (N = 369)	
	B	OR	B	OR	B	OR	B	OR
Alcohol drug of choice (yes)			-.034	.966			-.114	.892
Cocaine drug of choice (yes)			-.397	.672			-.066	.936
Sedatives drug of choice (yes)			-.508	.602			-.473	.623
Stimulants drug of choice (yes)			.370	1.448			.333	1.395
No. of detox programs in past year			1.307	3.694			1.488	4.428
Opiate use in past 30 days (Yes)			.670	1.955*			.653	1.922
Cocaine use in past 30 days (yes)			.902	2.465*			1.355	3.878**
IV opiate use (yes)			.677	1.969			.617	1.854
Pre-treatment court felony drug possession conviction (yes)			-.408	.665			-.448	.639
Pre-treatment court misdemeanor or other conviction (yes)			.945	2.573**			.728	2.071
Currently on probation or parole			.269	1.309			.409	1.506
<b>Race and During-Program Factors</b>								
Race (non-Caucasian)					.494	1.639		
No. of curfew days					.005	1.005	.012	1.012
No. of residential treatment days					.020	1.020	.040	1.040
No. of incarceration days					.030	1.030**	.032	1.032*

\*p < .05, \*\*p < .01, \*\*\*p < .001; categories in parentheses represent effect shown

## Author Biographies

**Lisa Shannon, PhD, MSW**, is currently an Associate Professor of Social Work in the Department of Sociology, Social Work, and Criminology at Morehead State University. Dr. Shannon's current funded research focuses primarily on evaluations of community-based substance abuse treatment programs. She is currently the Evaluator for multiple Center for Substance Abuse Treatment (CSAT) Substance Abuse and Mental Health Services Administration (SAMHSA) projects examining outcomes associated with community-based treatment alternatives (i.e., treatment court, Volunteers of America). In addition, Dr. Shannon is currently working on a Bureau of Justice Assistance (BJA) statewide evaluation of Kentucky Drug Courts as well as multiple BJA-funded evaluations of specific treatment court sites using evidence-based or best practices. Her research interests are in the areas of substance use/abuse, victimization, and treatment-seeking behaviors as well as community-based treatment alternatives for those involved in the criminal justice system.

**Afton Jackson Jones, MPH**, is a Research Coordinator in the Department of Sociology, Social Work, and Criminology at Morehead State University. She has over 7 years of experience in collecting and analyzing data for federally funded evaluation studies. She has published in peer-reviewed journals such as *Women & Health* and *Journal of Offender Rehabilitation*. Her research interests include infectious diseases, substance use, and women's health.

**Shondrah Nash, PhD**, is a Professor of Sociology in the Department of Sociology, Social Work, and Criminology at Morehead State University. She earned a PhD in Sociology from the University of Kentucky and later conducted post-doctoral work in the Department of African American Studies at the University of Illinois at Chicago. Her primary research interest includes the sociology of the family and violence against women with a focus on African Americans.

**Jennifer Newell, BSW**, is a Research Coordinator with the Department of Sociology, Social Work, and Criminology at Morehead State University. She has 9 years of experience as a Research Assistant on multiple substance use/abuse and/or mental health evaluation studies at both the University of Kentucky and Morehead State University. Ms. Newell is currently working as a Research Coordinator/Data Manager for a Kentucky statewide treatment court evaluation as well as five evaluation studies at the Volunteers of America Los Angeles and Southern California Alcohol and Drug Programs, Inc.

**Connie M. Payne, JD**, has served as the Executive Officer for the Kentucky Administrative Office of the Courts, Department of Specialty Courts, since March 2003. She has served as an Executive Officer for the National Association of Drug Court Professionals, as Chair of the Kentucky Agency for Substance Abuse Policies, and on numerous gubernatorial and state committees. Prior to her work with the AOC, she served as a felony prosecutor for 10 years.

### *Conflict of Interest Attestation*

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

### *Author Attestations*

- This submission reflects the authors' own original work.
- Institutional review board (IRB) approval was obtained to protect human subjects.
- This publication has not been submitted for simultaneous review.  
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## RESEARCH REPORTS

## African American Participants' Suggestions for Eliminating Racial Disparities in Graduation Rates: Implications for Drug Court Practice

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### Abstract

*The drug court literature has highlighted a pattern in which, in some drug courts, African Americans are less likely to graduate than their Caucasian counterparts. This phenomenon is concerning, especially when research has shown that participants who graduate are less likely to recidivate than those who are terminated. Quantitative studies have documented the problem, but little is known about African Americans' views on drug court. This article describes the largest known qualitative meta-synthesis of African American participants' (n = 70) views on drug court, with the goal of developing an in-depth understanding of the factors that may contribute to racial disparities in graduation rates. Many African Americans had favorable views toward key components of the drug court model. Specifically, they felt that submitting frequent and random drug screens and having frequent contact with the judge supported them in graduating. Conversely, most African Americans had unfavorable views toward their counselors and the quality of treatment they received for their substance use disorders; felt they were not receiving individualized treatment, particularly treatment for mental health symptoms; and felt that drug court did not support them in developing sustainable, career-oriented employment. Implications for drug court practice are discussed.*

**Keywords:** *African American, drug court, graduation rates, racial disparities, substance use disorder, qualitative research*

## **INTRODUCTION**

**T**reating individuals who are involved in the justice system and have substance use disorders is a challenge that rests with both criminal justice professionals and treatment providers. Drug courts are part of the rapid expansion of problem-solving courts that combine elements of punitive and treatment-oriented interventions (National Association of Drug Court Professionals [NADCP], 2004). Drug courts are structurally and procedurally shaped by 10 Key Components, such as ongoing judicial interaction, a nonadversarial approach, and provision of an array of treatment and other rehabilitative services to individuals who have substance use disorders (NADCP, 2004). There are approximately 3,057 drug courts in the United States (Marlowe, Hardin, & Fox, 2016). Their numbers continue to increase, perhaps due to strong evidence that they are effective in reducing criminal recidivism and drug use (Belenko, 1998, 2001, 2002; Belenko, DeMatteo, & Patapis, 2007; Krebs, Lindquist, Koetse, & Lattimore, 2007; Mitchell, Wilson, Eggers, & MacKenzie, 2012; Shaffer, 2011; Wilson, Mitchell, & Mackenzie, 2006). But, in some drug courts, these results are primarily for Caucasian participants and women (Dannerbeck, Harris, Sundet, & Lloyd, 2006; Listwan, Sundt, Holsinger, & Latessa 2003; Schiff & Terry, 1997). Therefore, questions remain about who benefits most from drug courts and why, with specific concerns regarding race and ethnicity as they relate to graduation and recidivism outcomes.

In every year from 1980 to 2007, adult African Americans were arrested on drug charges in the United States at rates that were 2.8 to 5.5 times as high as those of Caucasians (Human Rights Watch, 2009). Roughly one third of the more than 25.4 million adult drug arrestees during that period were African American (Human Rights Watch, 2009). However, drug courts serve mostly Caucasian participants. Marlowe, Hardin, and Fox (2016) reported that, on average, Caucasians

represented 67% of drug court participants in 2014, compared with African Americans, who represented 17%, and Hispanics, who represented 10% (though these percentages vary widely from court to court). The percentages of African American and Hispanic participants in drug courts were lower than the percentages of those arrested, on probation, and incarcerated (Marlowe, Hardin, & Fox, 2016). While there are calls for drug courts to tailor their programming to meet the differing needs of clients (Jones & Kemp, 2011; Marlowe, Festinger, Dugosh, Arabia, & Kirby, 2008), we must first understand what those differing needs are. As Marlowe, Hardin, and Fox (2016) point out, we who work in drug courts as researchers, clinicians, or criminal justice professionals have “an obligation to examine the reasons for these disparities and institute remedial measures to correct the problem” (p. 8).

### **Race and Ethnicity and Drug Court Graduation Rates**

Race and ethnicity, as a demographic factor, has been included in many studies. A pattern is emerging of studies that have found racial disparities in graduation rates, with Caucasian participants being more likely than African Americans to graduate (Brewster, 2001; Dannerbeck, Harris, Sundet, & Lloyd, 2006; Gray & Saum, 2005; Hartley & Phillips, 2001; Krebs, Lindquist, Koetse, & Lattimore, 2007; Listwan, Sundt, Holsinger, & Latessa, 2003; Schiff & Terry, 1997; Sechrest & Shicor, 2001; Shah et al., 2015; Shannon, Jones, Perkins, Newell, & Neal, 2016). For example, Dannerbeck, Harris, Sundet, and Lloyd (2006) examined data from 10 Missouri drug courts and found that 55% ( $n = 305$ ) of Caucasian and 28% ( $n = 30$ ) of African American drug court participants graduated from the programs. It is important to note, however, that some studies offer contradictory evidence about race and ethnicity and graduation outcomes (Goldkamp, White, & Robinson, 2001; Hepburn & Harvey, 2007). For example, Logan, Williams, Leukefeld, and Minton (2000) evaluated a Ken-

tucky drug court that included 197 participants from 1998. Twenty percent of the participants graduated, and 67.5% of the graduates were African American (Logan, Williams, Leukefeld, & Minton, 2000).

While there is evidence that graduation rates differ by race and ethnicity, several studies included models to predict the successful completion of drug court programs. In some studies, Caucasian participants were more likely to graduate than non-Caucasians (Butzin, Saum, & Scarpitti, 2002; DeVall & Lanier, 2012; Gray & Saum, 2005; Miller & Shutt, 2001; Schiff & Terry, 1997; Sechrest & Shicor, 2001; Senjo & Leip, 2001; Shah et al., 2015; Wolf, Sowards, & Wolf, 2003). Sechrest and Shicor (2001) noted that race and ethnicity had a strong predictive value for graduation from the California drug court they studied. Specifically, 68.9% of Caucasian participants graduated, compared to only 42.1% of Hispanic and 31.6% of African American participants. Shah et al. (2015) studied 251 adult drug court participants from three courts in Delaware. They found that race and ethnicity, as well as addiction severity index and years of education, were significant predictors of graduation, with the odds of graduation compared with termination reduced by a factor of 0.334 for African Americans compared with Caucasians (Shah et al., 2015). In the Broward County drug court, race and ethnicity was the strongest predictor of successful completion, with the odds of completion for Caucasian participants over 36 times the odds of completion for non-Caucasian participants (Senjo & Leip, 2001). However, as with graduation rates, other studies concluded that race and ethnicity did not predict the likelihood of successful completion (Evans, Li, & Hser, 2009; Hickert, Boyle, & Tollefson, 2009; Mateyoke-Scriver, Webster, Staton, & Leukefeld, 2004; Roll, Prendergast, Richardson, Burdon, & Ramirez, 2005).

## Differences Between Caucasian and African American Drug Court Participants

Butzin, Saum, and Scarpitti (2002) adroitly observed that racial differences in treatment outcomes may be intercorrelated with socioeconomic differences or other factors. In their study of 116 participants in a Delaware drug court, they found racial disparities in graduation rates similar to those for the studies previously mentioned. However, they also found race and ethnicity was to be a predictor of drug court completion in interaction with education. Specifically, 44% of Caucasian participants, as compared to 39% of African Americans, who had dropped out of high school graduated. Among those who had completed high school or received a GED, 91% of Caucasian participants, compared to only 41% of African American participants, graduated from the drug court (Butzin, Saum, & Scarpitti, 2002). McKean and Warren-Gordon (2011) studied graduation among 167 drug court participants in Indiana and found evidence that race and ethnicity might interact with psychological distress to negatively affect the likelihood of graduation for African American participants.

Brown, Zuelsdorff, and Gassman (2009) analyzed data about completion of substance abuse treatment from 573 drug court participants in a midwestern state. They found no significant differences in treatment completion rates but, echoing Butzin, Saum, and Scarpitti (2002), noted that African Americans presented with a different set of historical concerns that ought to be addressed to optimize treatment retention. Among African Americans who failed to complete treatment, significant factors that affected failure were unemployment ( $p = .011$ ), previous criminal history ( $p = .013$ ), and possibly the presence of a cocaine use disorder ( $p = .064$ ) (Brown, Zuelsdorff, & Gassman, 2009). Similarly, the work of Dannerbeck, Harris, Sundet, and Lloyd (2006) explored the factors that differed between African American

and Caucasian participants. They determined that there were significant differences between the two groups in employment levels at entry, primary drug of choice, levels of positive family support, and socioeconomic status. A higher proportion of Caucasians had received previous treatment, compared with African Americans. Furthermore, Caucasians were more likely to identify alcohol, marijuana, and stimulants as their primary drug of choice, whereas African Americans were significantly more likely to identify cocaine as their drug of choice (Dannerbeck, Harris, Sundet, & Lloyd, 2006).

Quantitative studies have documented the problem of racial disparities in graduation rates, but little is known about African Americans' views on drug court. The present qualitative meta-synthesis contributes to the current knowledge base by exploring the factors that may contribute to African Americans graduating drug court at a lower rate than their Caucasian counterparts. This is the largest known qualitative meta-synthesis of African American participants' ( $n = 70$ ) views on drug court, with the goal of developing an in-depth understanding of the factors that may contribute to racial disparities in graduation rates.

## METHODOLOGY

### Qualitative Research Design and Sampling

This study is a qualitative meta-synthesis of previous work that collected data on African Americans' views on drug court. *Qualitative meta-synthesis* is an approach to combine, analyze, and summarize findings from multiple qualitative studies in order to provide in-depth answers to research questions (Major & Savin-Baden, 2010). It is a growing methodology in social science research because the experiences of individuals, which are often captured through qualitative studies, play an essential role in addressing social problems (Major & Savin-Baden, 2010). It is important to note,

however, that this is not an inclusive analysis of all qualitative studies completed on the phenomenon of racial disparities in drug court graduation rates. Rather, it is a meta-synthesis of the previous work of co-author J. R. Gallagher and his colleagues. Specifically, data collected from African American drug court participants in studies by Gallagher (2013a), Gallagher and Nordberg (2016), Gallagher, Nordberg, and Lefebvre (2016), and Gallagher and Wahler (2018) were combined and a new analysis was completed. The four previously mentioned studies received approval from the institutional review boards (IRB) at either Indiana University or the University of Texas at Arlington.

The research question for this qualitative meta-synthesis: What are the factors that may contribute to African Americans graduating from drug court at a lower rate than their Caucasian counterparts? The following describes the research methods for each study included in this qualitative meta-synthesis. Research participants were recruited at four points in time, and the qualitative data collection involved either individual interviews or satisfaction surveys. First, in 2011, African American participants ( $n = 14$ ) in the Tarrant County (Fort Worth), Texas, drug court participated in individual interviews (Gallagher, 2013a). Second, in 2013, African American participants ( $n = 16$ ) in the St. Joseph County (South Bend), Indiana, drug court participated in individual interviews (Gallagher & Nordberg, 2016). Third, in 2015, African American participants ( $n = 9$ ) in the St. Joseph County (South Bend), Indiana, drug court completed the *Drug Court Participant Satisfaction Survey* (Gallagher, Nordberg, & Lefebvre, 2016). Fourth, in 2016, African American participants ( $n = 31$ ) of the Gary City, Indiana, drug court completed the *Drug Court Participant Satisfaction Survey* (Gallagher & Wahler, in 2018). The total sample size for this qualitative meta-synthesis was 70.

The individual interviews were semistructured. The researcher had questions prepared related to participants' views on the most helpful aspects of drug court and areas for improvement. However,

the researcher was mostly interested in having a genuine dialogue with participants, so while the questions may have initiated the discussion, the researcher allowed participants to freely share about their lived experiences in drug court. Probing questions were used to encourage participants to give specific examples, especially when responses appeared to be related to the impact of race and ethnicity on drug court outcomes. The satisfaction survey was developed by the researchers and included brief demographic information and open-ended questions. Specifically, participants were asked their age, gender, race and ethnicity, and how long they had been in the drug court. Then participants answered the following two open-ended questions.

- First, could you please describe what aspects of drug court are most helpful to you in supporting you in graduating the program?
- Second, could you please describe how drug court could be more helpful to you in supporting you in graduating the program?

Participants were provided with a pen and the satisfaction survey, and a private location for them to answer the questions. No incentive was provided by the researchers for participating in the studies.

### **Qualitative Data Analysis Plan**

First, the data collected from African American drug court participants in the Gallagher (2013a), Gallagher and Nordberg (2016), Gallagher, Nordberg, and Lefebvre (2016), and Gallagher and Wahler (in press) studies were combined and a new analysis was completed. NVivo, a qualitative data analysis software, was used for the analysis. The data analysis was guided by a combination of phenomenology and grounded theory. These two approaches were most effective in answering the research question. Phenomenological analysis, for example, is recommended when you have a phenomenon, such as racial disparities in drug court graduation rates, for which an in-depth understanding can be reached only by gathering data on

the lived experiences of the individuals directly affected by it (Padgett, 2008). Phenomenology is also recommended when you want to gain insight not only into individuals' thoughts and experiences, but also into the environments, such as drug court, that the individuals are involved in (Padgett, 2008). Grounded theory involves asking open-ended questions, developing a rapport with research participants, bracketing preconceived theoretical beliefs about the phenomenon being studied, and continuously comparing and contrasting findings (Rubin & Babbie, 2008). The overall goal of phenomenological and grounded theory analyses is to develop hypotheses about a particular phenomenon, not to draw conclusions.

The data analysis followed a four-step process (Miles, Huberman, & Saldana, 2014; Padgett, 2008; Rubin & Babbie, 2008). First, to promote immersion in the data, the researchers read the transcriptions on four occasions over a week-and-a-half period. A phenomenological and grounded theory approach was used during this process by continuously comparing and contrasting the lived experiences of African Americans in drug court. Second, concept mapping was used to group data, identify codes, and provide a conceptual framework for the findings. Third, codes were grouped as themes, the number of research participants that contributed to each theme was quantified, and direct codes from the research participants were used to conceptualize each theme. Fourth, data that did not demonstrate consistent responses from the research participants were considered outliers and used for the negative case analysis.

Several strategies were used to increase the rigor of the analysis and validity of the qualitative findings. Triangulation, peer debriefing, negative case analyses, and audit trails are all methods to reduce researcher bias (Padgett, 2008). The data analysis was completed by researchers from different disciplines, offering interdisciplinary triangulation. Peer debriefing allowed the researchers to share their preliminary codes and themes with colleagues who had expertise in qualitative

research and seek their feedback on the logic of the data analysis and preliminary findings. Peer debriefing was completed via email and phone calls, and those involved in the peer debriefing process had access to all the transcripts. Negative case analyses and audit trails were completed for each theme, and the negative cases are presented in the findings section. The negative case analyses promote a balanced interpretation of the findings, and the audit trails provide an additional avenue to verify the findings.

## FINDINGS

The response rate was 96%. For the four studies included in this qualitative meta-synthesis, Gallagher (2013a), Gallagher and Nordberg (2016), Gallagher, Nordberg, and Lefebvre (2016), and Gallagher and Wahler (in press), 73 African American drug court participants were recruited, and 70 of these agreed to be part of the studies. They ranged in age from 18 to 47 years old, with the average age for the sample being 26. With regard to gender, 74% ( $n = 52$ ) were male and 26% ( $n = 18$ ) were female. At the time research participants participated in an individual interview or completed a satisfaction survey, their length of time in drug court ranged from approximately 1 month to 20 months, and the average length in drug court was approximately 8 months. For those that participated in an individual interview ( $n = 30$ ), the face-to-face interviews ranged from approximately 20 to 75 minutes, and the average length of the interviews was approximately 35 minutes. Throughout the analysis, a number of major thoughts and experiences were shared consistently by African American drug court participants. Four themes emerged from the data.

### Key Components 5 and 7 Support African Americans in Graduating

Drug courts are conceptualized by 10 Key Components (NADCP, 2004). The first theme to emerge from the data was that two of these Key

Components—Key Components 5 and 7—were seen as especially beneficial in supporting African Americans in graduating from the program. Fifty-four of the 70 research participants (77%) shared experiences that contributed to this theme. Key Component 5 requires drug court participants to submit to frequent and random drug screens. Key Component 7 requires drug court participants to have frequent contact with the judge, which may include weekly court sessions to review participants' progress in the program. One participant, for example, described his experiences with the drug testing system. He stated:

*The drug tests in drug court are really good because they deter you from getting high, even using alcohol. They have this new test called an EtG [ethyl glucuronide] that can detect alcohol for a few days, not just a couple hours. The beginning of drug court was tough because I still had cravings, but I got tested at least twice a week and the days were random, so that deterred me from using. After a while, I wasn't having that many cravings and it got easier.*

Another participant highlighted how being drug tested on a frequent and random basis supported his recovery while also changing his thought patterns. Specifically, he noted:

*Sometimes it is stressful because we have to do it several times each week, but the drug tests are what make this program work. I needed to get clean first so I could start thinking clearly again, like being me. I still have thoughts about smoking weed, but because I have been clean for so long and know that I am getting tested, I am able to think better and make better decisions.*

Furthermore, African American participants viewed having frequent contact with the judge as an effective intervention that supported them in graduating drug court. The benefit of this intervention seemed to be more focused on the interactions, or dialogues, between the judge and participants,

as compared to simply attending court frequently. A female participant, for instance, described personal characteristics of the judge. She said:

*The judge is what motivates me to graduate; she really cares about me and my children. This is not what I expected from a judge. I did not expect for her to get to know me on a personal level. I look forward to seeing her each week and sharing all the good stuff I am doing with my life now. She is so caring and kind, and people like me who are suffering from addictions need someone like her to motivate us and tell us that we can do it because she did it herself.*

Another participant shared a similar experience, describing how the judge supported him even while he was receiving a sanction from the court. He shared:

*I was nervous going into court because I knew the judge knew I was getting high and I was getting a sanction. I ended up going to jail for the weekend, and I wasn't happy about that, but I could see that she [the judge] wanted what was best for me. If she didn't lock me up, I would never have stopped getting high. That's how my addiction works; I use and use and use until I get caught. It's a vicious cycle that hurts everyone around me. I am grateful today that she locked me up because I know she cares about me, sees potential in me, and wants me to be alive for my family. She doesn't yell at us when we are on sanctions, look down on us, view us as criminals; she genuinely wants to help us change.*

The negative case analysis revealed that 8 of the 70 research participants (11%) shared experiences that differed from the theme. It is important to mention, however, that they did not suggest that the drug testing system or having frequent contact with the judge were ineffective interventions. Rather, they felt that these interventions were time-consuming and interrupted other important

areas of their lives. One participant, for example, shared his concern with both the drug testing system and having frequent contact with the judge. He stated:

*I really think the court is trying to help us, but they overdo it. Drug tests several times a week, counseling three nights a week, going to drug court weekly, and trying to work and raise my family is too much. I am doing well in the program, but making me drug test three times a week is like a punishment, and when I go to court, I just sit there until it's my turn to talk to the judge. Then, I tell her everything is good, my case manager says everything is good, and I leave. It's just a waste of my time and I could be using my time to work and make money or spend time with my kids. You should only see the judge if you have problems, like testing positive or dilutes or missing treatment.*

## **An Uneasy Relationship Exists Between African Americans and Treatment Providers**

The second theme to emerge from the data was the uneasy relationship between African Americans and treatment providers. Forty-nine of the 70 research participants (70%) shared experiences that contributed to this theme. Most African American drug court participants expressed unfavorable views toward their counselors, which is of concern, especially because one of the key components of the drug court model is for participants to receive treatment for their substance use disorders. Participants, for example, felt that treatment providers pressured them to accept labels, such as addict and alcoholic, which they viewed as derogatory and stigmatizing. Additionally, participants felt that they could not be honest with their counselors, because they feared that counselors would disclose the information they shared back to the drug court. They also felt that treatment providers used ultimatums to get them to comply with treatment requirements. A male

participant, for example, shared his discomfort with being labeled an addict. He stated:

*I have no respect for the counselors because they judge us and label us addicts. One of the counselors even told me that he would not move me to the next phase of treatment until I admit I am an addict and in denial or something like that. I see the word addict as a derogatory term, and I will not subject myself to their judgments and labels.*

Another participant shared his uncertainties about being honest with his counselor, as his past experience with being honest had resulted in losing his freedom. He explained:

*I relapsed once while in drug court, but the judge didn't know about it because they didn't pick it up on the drop [urine drug screen], but it wasn't something I wanted to do, so I discussed it in group. Our counselors always talk about being honest, and honesty is the key to recovery and nonsense like that. So I went to group, was honest about my relapse, and then the counselor called my case manager, snitched on me, and I went to jail. Honesty is not part of my recovery, and I can speak for all of us: all we do is lie to the counselors and tell them what they want to hear because no one wants to go to jail.*

Furthermore, a female participant who had an opiate use disorder shared that she did not feel comfortable being honest with her therapist because she feared it might result in negative consequences. She noted:

*I feel that I won't graduate drug court because I am not receiving good treatment. I have a really serious addiction to heroin. I think about it all the time and constantly obsess about using, but I don't want to get high in my heart, but my mind does. If I do relapse, I have no one to talk with it about, not even the therapists, because if I tell them, they will tell drug court and I*

*will go on sanctions. It's a real shame because we need a safe place to talk about the challenges we are experiencing, and a safe place to treat our addictions, but this court doesn't have that.*

Another participant was dissatisfied with the quality of treatment he received because he felt the counselors used ultimatums to get him to comply with treatment requirements. He said:

*The drug court can be improved by sending us to treatment centers that treat us with respect and actually care about us. I tell you, the counselors are more strict than the judge. They threaten us and give us ultimatums, and if we don't do what they say, they will tell our PO [probation officer] and we go to jail for a weekend or have to do community service. See, the counselors tell us to participate in group, and if we don't, they say they will tell the court we are noncompliant. They make us restart the IOP [intensive outpatient program] if we relapse, without ever giving us a chance to explain why we relapsed. If we miss a 12-step meeting, even because we were working, they threaten to tell the drug court we are noncompliant. Treatment is more of a stress for me than help.*

The negative case analysis revealed that 4 of the 70 research participants (6%) shared experiences that differed from the theme. A female participant, for instance, viewed her relationship with her counselor as one of the most helpful aspects of drug court, and she even plans to invite her counselor to attend her graduation ceremony. She noted:

*My counselor understands me, she respects me, and she lets me talk about whatever's on my mind. I can talk to her about anything and she doesn't judge. When I graduate drug court, I am going to ask her to come and I am going to write a letter thanking her for all she has done for me.*

## Individualized and Mental Health Needs of African Americans Are Not Being Met

The third theme to emerge from the data was that individualized and mental health needs of African Americans are not being met. Forty-six of the 70 research participants (66%) shared experiences that contributed to this theme. This theme is similar to the previous one involving the uneasy relationship between African Americans and treatment providers, as both are related to the quality of treatment African Americans receive for their substance use disorders. However, the conceptualization of the two themes is distinctly different. The previous theme was related to how African Americans view treatment providers, whereas this theme is specific to the clinical needs African Americans have that are not being met in the treatment setting. Specifically, African Americans felt that they were not receiving enough individual counseling and in some situations were not offered any individual counseling whatsoever, and that their mental health symptoms were not adequately addressed in treatment. A participant, for instance, shared that he would have preferred to receive individual counseling to process his history of trauma. However, the treatment providers did not offer him individual counseling, but rather made him attend group therapy. He noted:

*Most of my childhood I was abused by my father and I smoked weed at the time to cope with it. The weed like numbed the feelings and made me less angry. Then I started drinking all the time and things got really bad in my life. I'd like to discuss the trauma with someone, but the counselors say I have to do group therapy and to bring it up there. I do not feel comfortable sharing how my dad hit me and my mom and my brothers with a group of people I don't know. It's a private matter that I would like to discuss privately with a counselor, but they said no.*

Another participant who had a history of depression described her dissatisfaction with treatment because she received only one individual counseling session. Overall, she did not feel that her mental health needs were adequately addressed. She stated:

*I have depression and that is why I get high. Even at my assessment, the counselor said I had symptoms of depression and she would work with me on treating it while I was also attending the addiction groups. She met with me one time and told me to talk with my doctor about an antidepressant and to read some handouts on depression. That's it, one time she met with me individually to treat my depression, and what am I going to do, complain? I can't complain; all the drug court would make me do is go to another agency for treatment and I'd have to start this whole process over again. Or worse, they would dismiss me and tell me my depression will get better the more I don't use. I was depressed before I got hooked on cocaine, so I know recovery alone will not stop my depression.*

Furthermore, African Americans preferred using natural recovery support systems (e.g., family, religion, hobbies) as compared to being mandated to attend 12-step recovery support groups (e.g., Alcoholics Anonymous, Narcotics Anonymous). A male participant, for example, even discussed how 12-step programs were inconsistent with his culture. He shared:

*This court makes us go to AA [Alcoholics Anonymous] meetings each week, which takes up a large chunk of time, and to be honest, I don't find them helpful. I see how they are helpful, just not for me. Attending my church each week, praying, and spending time with my family is my recovery support system, but the drug court says I can't use my church in place of a meeting. AA is not the way I was raised. In my culture, we rely on family for support, not other*

*people who are court ordered to these meetings and don't even want to be there. If you want to help more people graduate, the court needs to allow us to pick our support systems, as compared to them picking it for us.*

The negative case analysis revealed that 3 of the 70 research participants (4%) shared experiences that differed from the theme. These participants indicated that their needs were being met by treatment providers. One participant, for example, shared his satisfaction with individual counseling and how it supported his recovery from both a substance use disorder and mental illness. He shared, "I enjoy meeting with my counselor individually because we can talk about deeper issues, like my depression, and that helps me stay sober." The other two participants commented on how being mandated to attend 12-step programs supported their recovery. One in particular shared how his motivation to attend 12-step meetings had changed from external to internal. Specifically, he stated:

*The AA meetings have changed my life. I have surrendered my will over to God who can cure my addiction. I started going because the court made me, but now I go because it's part of my daily life. I will continue to go even after drug court.*

### **Support Is Needed to Create Sustainable Employment for African Americans**

The fourth theme to emerge from the data was the need to create sustainable employment for African Americans. Forty-five of the 70 research participants (64%) shared experiences that contributed to this theme. African Americans felt that drug court could be improved by helping them learn new skills that would support them in creating sustainable careers. It is important to mention that this theme is not focused simply on helping participants find employment. Participants specifically stated that they were not simply

looking for jobs; they wanted employment that was career oriented and sustainable beyond drug court. Overall, African Americans felt that learning new skills that supported sustainable employment would motivate them to graduate from the program, as well as reduce their risk of criminal recidivism. A participant, for instance, described his desire to become a welder. He said:

*They say I need a job to graduate drug court, so I am going to find any type of job. I don't even care if I have to pick up trash or flip burgers. I'll do what they want me to do so I can get out of this program. If they really wanted to help us, though, they would teach us a job skill, like welding at the community college, I always wanted to do that, and it pays really good. This is what happens, we pick up any miserable job just so we can graduate, then as soon as we graduate, we quit. Then, back to the same old shit of trying to make a real living, and for me, that usually involves crime. If you want me to graduate and stay out of the system, I think it'd be best to help me learn a skill that will last and encourage me to find a career.*

A female participant shared similar thoughts, and her goal was to become a cosmetologist. She said:

*Ever since I graduated high school, I have never had a real career. I just worked jobs here and there, and many I lost because I was getting high. Now that I am a mom and clean, I want to go to cosmetology school here in town. If I have a career, I will feel better about myself, I will be able to support my son, and put some structure and accountability into my weeks. This will support my recovery, but I can't do school now with all the drug court things. It's just too much. I asked if I could do less [12-step] meetings so I had more time to go to school, but the judge denied my request.*

Another participant described his goals of earning a bachelor's degree and beginning a career in psychology. He stated:

*I want to do something in psychology, maybe counseling or working with kids. I think I would be good at that, but drug court makes it difficult to find time to go to college. I am only taking one class this semester, which sets me back an entire year, because I don't have the time to do all the drug court requirements and my schooling. Plus, some of my classes conflicted with the court schedule, so I had to drop them. If they want to improve my chances of graduation, I suggest they work with me and my schedule better than they have. School is important to me, but they don't seem worried about that.*

The negative case analysis revealed that 6 of the 70 research participants (9%) shared experiences that differed from the theme. These participants felt that drug court supported them in learning new skills that helped them develop a career. For instance, a participant who was unemployed before drug court described how being involved in the program helped him find not just a job, but a career. He shared:

*Drug court was the best thing to happen to me. I had no skills before this program. I was just on the streets with no job and no hope for the future. You have to have a job in this program, but the judge allowed me to attend vocational school instead. Now I have a career that pays great money and has health insurance.*

## Limitations

With all qualitative research, there is a chance of social desirability bias, or the likelihood that participants answer questions, whether through individual interviews or through satisfaction surveys, in a favorable manner. Social desirability bias cannot be controlled for and is a limitation that is important to mention. The most noticeable limitation with this qualitative meta-synthesis is that the findings are not generalizable to other drug courts. Despite this limitation, the findings can be used to inform drug court practice and support

other drug courts with their program evaluations. This qualitative meta-synthesis, for example, demonstrated that qualitative research methods can be used successfully to capture the lived experiences of African Americans in drug court, and it is recommended that all drug court program evaluations incorporate some type of qualitative design into the methodology to give participants a voice in the services they are receiving.

Additionally, this qualitative meta-synthesis explored only the factors that may contribute to racial disparities in graduation rates for African Americans; therefore, data from other races and ethnicities were not captured. This is important because racial disparities in graduation rates are not limited to African Americans. Some research, for example, has found that Hispanic participants are also less likely to graduate than their Caucasian counterparts (Gallagher, 2013b; Marlowe, 2013; Sechrest & Shicor, 2001). Therefore, it is recommended that future qualitative studies collect data from the multiple races and ethnicities that drug courts serve. This would also provide an opportunity to compare and contrast the findings based on participants' race and ethnicity. Next, this qualitative meta-synthesis was limited to the four studies mentioned and did not include all studies that have explored the phenomenon of racial disparities in drug court graduation rates. Therefore, future qualitative meta-syntheses are recommended to include all studies in this area. Last, 57% of the sample (40 of 70 participants) completed a satisfaction survey, as compared to an individual interview. As a result, the researchers were not able to ask probing questions or develop a rapport with this portion of the sample, which are two benefits of qualitative research. When possible, it is recommended that qualitative data be collected through face-to-face methods so that probing questions can be used and rapport can be built, which may result in additional data and themes.

## **DISCUSSION**

It was promising to see that African Americans had favorable views toward key components of the drug court model. Specifically, they felt that submitting frequent and random drug screens and having frequent contact with the judge supported them in graduating. Conversely, African Americans shared lived experiences that may point to factors that contribute to racial disparities in drug court graduation rates. Specifically, most African Americans had unfavorable views toward their counselors and the quality of treatment they received for their substance use disorders; felt they were not receiving individualized treatment, particularly when it came to receiving treatment for mental health symptoms; and felt that drug court did not support them in developing sustainable, career-oriented employment. This section discusses these findings in reference to three areas of drug court practice: program evaluation, stakeholders screening treatment providers to assure that participants are receiving evidence-based interventions, and incorporating employers into the drug court team.

### **Program Evaluation**

Key Component 8 charges all drug courts with evaluating their programs to assess whether or not they are achieving their program goals and objectives (NADCP, 2004). In addition, the NADCP Board of Directors has called on drug courts to specifically assess outcomes for participants from historically disadvantaged groups (NADCP, 2010). Perhaps the most important recommendation derived from the findings of this qualitative meta-synthesis, is for drug courts to incorporate qualitative methods into their program evaluations.

The norm in program evaluations is to compare drug court recidivism rates to those of a comparison group. The comparison groups tend to be matched based on characteristics such as gender, ethnicity, age, and criminal history (Brown,

2011). Other comparison groups are made up of individuals whose criminal offenses made them eligible for drug court but who received probation instead, perhaps because they either chose not to enroll in drug court or were excluded because they did not meet certain criteria (Gallagher, Ivory, Carlton, & Woodward Miller, 2014; Gallagher et al., 2015). Furthermore, studies predicting graduation (Hickert, Boyle, & Tollefson, 2009) and criminal recidivism (Gallagher, 2014) are also common. These quantitative methods have documented the problem of racial disparities in graduation rates; however, it is only through qualitative methods that drug courts will be able to develop an in-depth understanding of their programs through participants' experiences. This qualitative meta-synthesis, for example, developed insight into African Americans' experiences in drug court that could not have been obtained through quantitative methods.

Two points are important to note with this recommendation. First, program evaluations need to be completed by independent researchers, and drug courts should contract with researchers who have expertise in mixed methods (quantitative and qualitative) research designs. Researchers are commonly located at local colleges and universities. Mixed methods research offers multiple ways to explore a phenomenon, which are surely needed in exploring the complexities associated with race and ethnicity and drug court outcomes. Second, from a cost standpoint, qualitative research tends to be more expensive than quantitative methods because collecting and transcribing the data verbatim is time-consuming. Therefore, drug courts should seek local, state, and federal grants to assist with the cost of contracting with an independent researcher. While the upfront costs may be higher, the knowledge gained from a mixed methods evaluation may lead to decreased costs over the long term through improved outcomes, such as increased graduation rates and decreased criminal recidivism rates.

## Stakeholders Screening Treatment Providers

It is recommended that drug court stakeholders screen treatment providers to assure that they are providing evidence-based interventions and meeting the individualized needs, including mental health needs, of participants. There seems to be a growing trend in the drug court literature suggesting that participants may not always receive the highest quality of treatment, and one study recently found that treatment providers were perceived as implementing punitive and judgmental tactics during the treatment process (Gallagher, Nordberg, & Lefebvre, 2016). Fischer and Geiger (2011) found that satisfaction with treatment increased when participants received individualized interventions; however, African Americans in a Texas drug court felt that they were not receiving individualized treatment and thought this was a factor contributing to a lower percentage of African Americans graduating from the program, compared to Caucasian and Hispanic participants (Gallagher, 2013a). This qualitative meta-synthesis analyzed data only from African Americans. Therefore, it is unknown whether dissatisfaction with the quality of treatment is isolated to African Americans or is experienced by other races and ethnicities. Gallagher and Nordberg (2016), however, found, in their study that compared and contrasted the lived experiences of Caucasian and African American drug court participants, that only African Americans shared concerns about the quality of treatment they received for their substance use disorders. Actually, Caucasian participants shared only concerns specific to the drug court, such as difficulties with time management. They did not share any favorable or unfavorable views toward the quality of treatment they received.

When screening treatment providers, the following four areas are important to assess. Note that this is not an exhaustive list of screening recommendations. Rather, the recommendations here are based on previous research and the findings from this qualitative meta-synthesis. Although

they are framed specifically for African American participants, these recommendations are important to consider for all participants to assure that drug courts are referring to effective treatment providers.

First, African Americans preferred to use natural recovery support systems, as compared to mandated support groups, such as 12-step programs. It is recommended that treatment providers do not mandate attendance at 12-step programs, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA). While these programs are useful, they are not beneficial to all. Sanders and Powell (2012) found that African Americans value multiple pathways to recovery, such as church, educational attainments, nutrition programs, meditation and other forms of mindfulness, and advocacy efforts. Rather than mandating attendance at AA or NA meetings, treatment providers should be charged with educating African American men and women about these resources, as well as with gathering insight into what they feel would be most helpful for their recovery and then respecting their right to self-determination.

Second, African Americans felt that their mental health needs were not adequately addressed in treatment, which is concerning because research has suggested that mental health symptoms are associated with lower drug court graduation rates (Gray & Saum, 2005; Mendoza, Trinidad, Nochajski, & Farrell, 2013). Therefore, it is recommended that drug courts refer participants only to treatment providers who have expertise in treating a range of diagnoses, not just substance use disorders, and that agencies have a psychiatrist either on staff or available to consult with.

Third, stakeholders should require treatment providers to provide evidence to the drug court that their counselors are licensed or certified to provide dual-diagnosis treatment, as well as provide evidence that they have been trained to deliver evidence-based interventions. This is especially important because some of the African Americans

in this qualitative meta-synthesis disclosed a history of trauma, and in order to treat the trauma and promote recovery, counselors will need to deliver trauma-informed interventions that require formal training and supervision, such as behavioral activation, eye movement desensitization and reprocessing, and cognitive processing therapy (Barlow, 2014).

Fourth, it is recommended that drug courts refer participants only to treatment providers who offer a variety of clinical services, including individual counseling. Having the opportunity to participate in individual therapy was important to the African American men and women in this qualitative meta-synthesis, which is similar to the recent findings by Gallagher, Nordberg, and Kennard (2015). Surprisingly, however, some reported that they were never offered individual counseling. Not only should treatment providers offer individual counseling, it should be the norm that drug court participants are commonly referred to this modality of treatment. Hardin and Kushner (2008) perhaps state it best: "Group counseling has not been shown to be effective and yet group counseling is a staple of most addiction programs. Programs that offer only group counseling and not individual counseling should be considered carefully prior to referral" (p. 19).

### **Employers as Part of the Drug Court Team**

Of all the variables measured in drug court evaluations, employment is perhaps the one most predictive of graduating the program and not recidivating. A plethora of studies have consistently demonstrated that participants who are employed have better outcomes than those who are unemployed (Dannerbeck, Harris, Sundet, & Lloyd, 2006; Gallagher, 2013b; Gallagher et al., 2015; Goldkamp, 1994; Listwan, Shaffer, & Hartman, 2009; Mullany & Peat, 2008; Peters & Murrin, 2000). This point is even emphasized in the current qualitative meta-synthesis, in which African Americans felt they would have better graduation

outcomes if drug court supported them in finding employment that was career oriented and sustainable beyond the program. As a result, it is recommended that drug courts incorporate employers into the drug court team, especially employers that can assist participants in developing sustainable employment skills. Some participants may already have vocational skills, and so collaborating with employers that can assist them in finding jobs is a priority. For participants that do not have sustainable employment skills, however, it would be advantageous for the drug court to also invite representatives from local community colleges, universities, and vocational schools to be part of the drug court team.

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### ***Conflict of Interest Attestation***

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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## RESEARCH REPORTS

## Developing a Culturally Proficient Intervention for Young African American Men in Drug Court: Examining Feasibility and Estimating an Effect Size for Habilitation Empowerment Accountability Therapy (HEAT)

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### Abstract

*African American males between 18 and 29 years of age are substantially less likely than many other participants to graduate successfully from drug court. Unsuccessful termination from drug court can have serious repercussions for these young men, including possible incarceration and negative collateral consequences associated with having a criminal record. This article reports preliminary results from two pilot studies that examined the feasibility of implementing a culturally proficient intervention for young African American men in drug court, and estimated an effect size for the intervention in improving treatment retention and reducing termination rates. Results confirmed that participants with serious criminal and substance use histories were willing and able to complete the lengthy 9-month curriculum, were satisfied with the intervention, and graduated from drug court at substantially higher rates than are commonly observed in this at-risk population. A sufficient basis has been established to justify the effort and expense of examining this intervention—Habilitation Empowerment Accountability Therapy (HEAT)—in fully powered randomized controlled trials.*

**Keywords:** *drug court, reentry drug court, culturally proficient treatment, racial disparities*

## **INTRODUCTION**

**T**he U.S. government's War on Drugs that began in the 1980s relied on incarceration as the principal response to drug-related crime, including illicit drug use and possession. It is now evident that this policy had minimal effects on substance use and criminal recidivism, was prohibitively costly, and disproportionately harmed racial and ethnic minority individuals and the poor (Jensen, Gerber, & Mosher, 2004; Mitchell & Caudy, 2015; Stringer & Holland, 2016).

Drug courts emerged as one alternative to the War on Drugs, offering community-based treatment and supervision in lieu of a criminal conviction or incarceration (National Association of Drug Court Professionals [NADCP], 1997). The drug court judge leads a multidisciplinary team of professionals, which commonly includes a program administrator, prosecuting attorney, defense attorney, probation or community supervision officer, treatment representatives, and law enforcement representative. Participants are required to complete substance use disorder treatment and other indicated services, undergo random drug and alcohol testing, and attend frequent status hearings in court during which the judge reviews their progress in treatment and may impose gradually escalating consequences contingent upon their performance. These consequences may include desired rewards (e.g., verbal praise, reduced supervision requirements, token gifts), modifications to the participant's treatment plan (e.g., transfer to a more intensive level of care), or punitive sanctions (e.g., writing assignments, community service, brief jail detention).

In preadjudication drug courts, successful graduates have their criminal charges reduced or withdrawn, and the arrest or conviction may be expunged from their legal record. Record expungement helps to avoid some of the negative collateral consequences associated with having a criminal record, such as a loss of voting rights or access to public housing (Festinger, DeMatteo,

Marlowe, & Lee, 2005). In postadjudication drug courts, the record of the conviction stands, but graduates can avoid incarceration or reduce the length and conditions of their probation. Recently, reentry drug courts have also been developed, applying the drug court model to help parolees and other individuals released conditionally from jail or prison transition successfully back into their community.

### **Effects of Drug Courts**

Recent meta-analyses and multisite studies conducted by leading scientific organizations have concluded that drug courts significantly reduce criminal recidivism—typically measured by rearrest rates over at least two years—by an average of approximately 12% to 32%, with the best drug courts reducing recidivism by 50% to 85% (Carey, Mackin, & Finigan, 2012; Mitchell, Wilson, Eggers, & MacKenzie, 2012; Rossman et al., 2011; U.S. Government Accountability Office [GAO], 2011). The Multisite Adult Drug Court Evaluation (MADCE), a national study of 23 adult drug courts, also found that drug courts significantly reduced illicit drug and alcohol use, improved participants' family relationships, reduced family conflicts, and increased participants' access to needed financial and social services (Green & Rempel, 2012; Rossman et al., 2011).

Unfortunately, the benefits of drug courts have not accrued equally for racial minority participants. A 2014 survey of all state and territorial drug court administrators in the United States reported a substantially lower average graduation rate for African American participants compared to non-Hispanic Caucasians (39% vs. 58%) (Marlowe, Hardin, & Fox, 2016). Approximately one half of published program evaluations examining this issue have also reported significantly lower graduation rates for African American participants (for reviews, see Belenko, 2001; Finigan, 2009; Marlowe, 2013). In some studies, racial differences in graduation rates were as large as 25 to 40 percentage points (Dannerbeck, Harris, Sundet, & Lloyd,

2006; Sechrest & Shicor, 2001; Shaffer, 2006; Wiest et al., 2007).

Disparities in graduation rates are especially pronounced among African American males between 18 and 29 years of age. Being young and male are well-documented risk factors for poorer outcomes in drug courts and other correctional rehabilitation programs (Butzin, Saum, & Scarpitti, 2002; Marlowe, Patapis, & DeMatteo, 2003; Peters, Haas, & Murrin, 1999; Reilly & Calabrese, 2011; Shannon, Jackson, Newell, Perkins, & Neal, 2015), and combining these risk factors with racial minority status may multiply the likelihood of program failure. In one study, for example, approximately 95% of unsuccessful discharges from a drug court were African American males between 17 and 20 years of age (Institute of Applied Research, 2003).

These findings are by no means universal; a smaller but growing number of evaluations, including the MADCE, have reported no differences in graduation rates for African American drug court participants (Cissner et al., 2013; Gallagher et al., 2015; Gilbertson, 2013; Hickert, Boyle, & Tollefson, 2009; Hohman, 2000; Roll, Prendergast, Richardson, Burdon, & Ramirez, 2005; Saum, Scarpitti, & Robbins, 2001), and a few noteworthy studies reported higher graduation rates for African Americans, including those between 18 and 25 years of age (Brown, 2011; Vito & Tewksbury, 1998). Nevertheless, there does appear to be a plurality trend that young African American men are less likely to graduate from many drug courts as compared to other participants. Because successful graduation from drug court is one of the greatest predictors of reduced future involvement in the criminal justice system (Cissner et al., 2013; Gottfredson, Kearley, Najaka, & Rocha, 2007; Rossman et al., 2011), it is reasonable to assume that improving graduation rates for these young men is likely to improve the long-term public safety impacts of drug courts. Moreover, increasing graduation rates will provide immediate short-term benefits for these young men, in-

cluding avoidance of incarceration and/or the collateral consequences of having a criminal record.

## Rectifying Racial Disparities

In 2010, the NADCP board of directors issued a unanimous resolution directing drug courts to determine whether racial or ethnic disparities exist in their programs, and to take reasonable corrective measures to eliminate disparities that are identified (NADCP, 2010). In 2013, NADCP released Volume I of the *Adult Drug Court Best Practice Standards* (Standards). The NADCP Standards place further obligations on drug courts to monitor their programs at least annually for evidence of racial or ethnic disparities, and to adjust their eligibility criteria, assessment procedures, and treatment services, as indicated, to eliminate disparities that are detected (NADCP, 2013). Among other strategies, compliance with the Standards requires drug courts to determine whether certain racial or ethnic groups experience unique barriers or encumbrances that may hinder their success in drug courts, take remedial measures to resolve those barriers, and evaluate the success of the remedial measures. Drug courts must also adjust their treatment services and assessment procedures to ensure that they are culturally relevant and suitably matched to the demonstrated needs of racial and ethnic minority individuals.

## Moderators of Racial Disparities

Studies indicate that disparities in drug court graduation rates do not appear to be a function of race or ethnicity per se, but rather are accounted for by other variables that are often correlated with race, including participants' employment history, educational attainment, socioeconomic status, and primary drug(s) used. These variables are referred to as *moderator variables* because they moderate, or help to explain, the relationship between race or ethnicity and drug court outcomes. Researchers have determined, for example, that lower graduation rates for African American participants were attributable to their being younger,

on average, than participants from other racial groups (Spiropoulos, Salisbury, & Van Voorhis, 2014); more likely to be male (Ray & Dollar, 2013); less likely to be employed or enrolled in school (Dannerbeck et al., 2006; DeVall & Lanier, 2012; Gallagher, 2013b; Howard, 2014); more likely to be in a lower socioeconomic bracket (Dannerbeck et al., 2006); more likely to live in disadvantaged neighborhoods characterized by high concentrations of poverty, violence, and single-female-headed households (Howard, 2014); or more likely to be experiencing clinically significant levels of anxiety or psychological distress (McKean & Warren-Gordon, 2011; Spiropoulos et al., 2014). When the researchers accounted statistically for the influence of these other variables, race was no longer related to outcomes, or its effects were explained by an interaction with one or more of the other variables.

Studies conducted in the early to mid-2000s also found that African American drug court participants were significantly more likely than non-Hispanic Caucasians to be using crack cocaine, and that the severely addictive and destructive nature of this drug was wholly or partly responsible for their lower graduation rates (Dannerbeck et al., 2006; Guerrero et al., 2013; Hartley & Phillips, 2001; Miller & Shutt, 2001). As the drug epidemic evolved in the United States, changes in racial drug-use patterns have been observed. Recent studies indicate that African Americans arrested for drug offenses are more likely than Caucasians to use marijuana as their primary drug of choice, and are less likely to meet diagnostic criteria for substance dependence or a severe substance use disorder (Guerrero et al., 2013; McElrath, Taylor, & Tran, 2016). Proactive police surveillance and arrest practices in some minority communities may be widening the net for African Americans, particularly young adult males, bringing many of these individuals into drug courts and other treatment diversion programs despite having relatively minor drug problems (Guerrero et al., 2013; Mitchell & Caudy, 2015; Nguyen &

Reuter, 2012; Reuter, Hirschfeld, & Davies, 2001; Sahker, Toussaint, Ramirez, Ali, & Arndt, 2015). Focus groups conducted in drug courts found that many African American participants believed the programs were unsuited to their needs because they did not feel they had a substance use problem, and they resented being compelled to identify themselves as addicts or admit to being powerless over their drug use (Gallagher, 2012; Gallagher, 2013a; Gallagher & Nordberg, 2015).

Requiring individuals with minor drug problems to participate in substance use disorder treatment is a waste of treatment resources and can make outcomes worse by placing unwarranted demands on participants, interfering with their engagement in prosocial activities such as work or school, and exposing them to higher-risk and higher-need peers (Lloyd, Hanby, & Serin, 2014; Lowenkamp & Latessa, 2004). Interacting with high-risk peers is especially problematic for adolescent and young adult males, who may be unduly influenced by delinquent peer groups to adopt deviant or antisocial values and attitudes (DeMatteo, Marlowe, & Festinger, 2006; McCord, 2003; Welsh & Rocque, 2014).

Taken together, these findings indicate that racial disparities in drug court outcomes are explained, at least in part, by broader societal burdens that are often borne disproportionately by racial minority participants, including lesser educational and employment opportunities, aggressive law enforcement practices in minority communities, and a greater infiltration of crack cocaine into African American communities in past decades. The implications of these findings are critical for designing effective corrective measures in drug courts. First, drug courts should increase their focus on delivering vocational and educational services to offset disadvantages experienced by racial minority participants. Focus group studies conducted in drug courts found that African American participants recommended placing greater emphasis on delivering vocational and educational services and reducing the program's

emphasis on substance use disorder treatment, particularly peer support groups such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA) (Cresswell & Deschenes, 2001; Gallagher, 2012; Gallagher, 2013a; Gallagher & Nordberg, 2015). Studies have, in fact, reported significantly better outcomes for African American participants when drug courts and other correctional programs enhanced their provision of vocational services (DeVall & Lanier, 2012; Fosados, Evans & Hser, 2007; Leukefeld, Webster, Staton-Tindall, & Duvall, 2007).

Drug courts should also administer evidence-based interventions designed to treat the types of substance use patterns they frequently encounter among racial minority participants. For example, drug courts may need to incorporate treatments designed for young adults who are engaging in problematic cannabis use but are not clinically dependent or addicted, such as the treatments delivered in the Cannabis Youth Treatment Study (CYT) (Dennis et al., 2004). They may also need to deliver treatments that are proven to be effective for persons suffering from cocaine or stimulant addiction, such as the Matrix Model (Marinelli-Casey et al., 2008). Many commonly administered substance use disorder treatments were designed originally for older, Caucasian, alcohol-dependent persons, and may not be suitable for younger racial or ethnic minority persons (Burlew et al., 2011).

### **Culturally Proficient Practices**

National studies in the United States have determined that African American and Hispanic individuals have shorter lengths of stay in substance use disorder treatment than non-Hispanic Caucasians and are less likely to complete treatment successfully (Arndt, Acion, & White, 2013; Menis & Stahler, 2015). However, these disparities are significantly smaller or are eliminated entirely when programs apply culturally proficient practices. Retention in treatment has been shown to be significantly better, for example, in programs that cultivate linkages and resources in minor-

ity communities, implement policies and procedures (such as bilingual services) to better serve ethnic minority individuals, match clients to service providers with similar cultural and linguistic backgrounds, and ensure that all staff members, including managers and supervisors, attend cultural sensitivity trainings and harbor culturally sensitive beliefs and values (Finn, 1994; Goddard, 1993; Guerrero, 2013; Guerrero & Andrews, 2011; Marsh, Cao, Guerrero, & Shin, 2009).

Few studies have examined the effects of delivering culturally proficient services in drug courts; however, one study in Kentucky reported highly impressive results for young African American males when an experienced African American clinician delivered a curriculum that addressed issues commonly confronting these young men, including negative racial stereotypes, counterproductive values expressed in certain aspects of hip-hop culture, and intergenerational remnants of historical trauma stemming from slavery and racially discriminatory laws and policies (Vito & Tewksbury, 1998). Contrary to the findings reported in many drug court evaluations, young African American males in this drug court graduated at nearly twice the rate of Caucasian males (42% vs. 22%).

### **Current Program of Research**

The current program of research builds on the early success reported in Kentucky by Vito & Tewksbury (1998) in improving outcomes for young African American men in drug court. With support from NADCP, the curriculum delivered in that study was documented carefully in a treatment manual for clinicians (Turpin & Wheeler, 2012a) and an accompanying workbook for counseling-group participants (Turpin & Wheeler, 2012b). Subsequent studies of this intervention—Habilitation Empowerment Accountability Therapy, or HEAT—are proceeding in accordance with the National Institutes of Health (NIH) Stage Model of Behavior Therapy Development (Carroll & Onken, 2005; Onken, Carroll, Shoham,

Cuthbert, & Riddle, 2014; Rounsaville, Carroll, & Onken, 2001). Stage Ia of the NIH model involves developing a manual for the intervention that specifies the topics to be covered and procedures to be implemented, and ensures that the intervention can be delivered with fidelity in a consistent and standardized manner (Carroll & Nuro, 2002). Subsequently, Stage Ib involves pilot testing the intervention to ensure that it is acceptable to participants and staff and feasible to implement in real-world practice. Stage Ib pilot testing also involves estimating an effect size for the intervention by comparing outcomes on a small sample of participants (typically 10 to 20) who receive the intervention to a comparable sample of roughly the same number of individuals who do not receive the intervention (Hertzog, 2008; Rounsaville et al., 2001). The goal of Stage Ib pilot testing is not to prove whether the intervention works, but rather to determine if it shows sufficient promise to justify the considerable effort and expense required to examine it in a fully powered experimental study. By estimating an effect size, researchers can also determine how many participants are likely to be needed in future studies to evaluate the efficacy of the intervention, and thus how much those studies are likely to cost and how long it is likely to take to recruit the requisite numbers of subjects.

## **METHODS AND RESULTS**

**T**he current studies are Stage Ib pilot studies designed to determine (1) whether young African American men are willing and able to complete the lengthy 9-month HEAT curriculum, and (2) whether HEAT shows promise for retaining these young men in drug court and reducing otherwise high attrition rates for this at-risk population. Based on the promising results demonstrated in the pilot studies (reported later in this article), future studies will examine the effects of HEAT in larger controlled efficacy studies (NIH Model Stage II) and determine whether its

effectiveness can be maintained when it is incorporated into mainstream drug court practice and delivered by community providers (Stage III). The HEAT curriculum was delivered in the current studies by one of the original developers of the intervention and a coauthor of this article. Future studies will determine whether comparable benefits can be achieved when the curriculum is delivered by other treatment providers.

### **Description of HEAT**

HEAT is a culturally proficient, strength-based, and trauma-informed group counseling intervention designed for African American males between 18 and 29 years of age who are engaged in problematic substance use and involved in the criminal justice system. Although HEAT focuses primarily on the experiences of African Americans, clinical experience suggests it may be delivered effectively to other young men of color who share comparable experiences of racial or ethnic discrimination and negative cultural stereotypes, including some individuals of Hispanic or Latino ancestry.

The curriculum does not assume that participants are dependent on illicit drugs or alcohol. For participants who do not meet diagnostic criteria for a moderate or severe substance use disorder, HEAT may be provided in place of traditional substance use disorder treatments that are commonly administered in drug courts and other correctional rehabilitation programs. It may also be provided in conjunction with other substance use disorder treatments for participants who require those services. Drug courts in a few jurisdictions are reportedly using HEAT as the primary treatment for participants with serious substance use disorders, and anecdotal evidence suggests it may potentially be effective as a stand-alone substance use treatment.

The intensive curriculum is delivered over a period of approximately 9 months. Because topics are presented in a cyclical format, participants may be admitted to the HEAT group on a rolling basis. Before entering the group, participants complete a

12-hour orientation process involving two 4-hour orientation sessions and a 4-hour learning assignment. Because many participants are unmotivated or precontemplative of change, the orientation sessions are geared toward resolving potential barriers to treatment success, including distrust or resentment of authority figures. Strength-based messages are delivered that focus on the resilience of the African American community in the face of longstanding and systemic injustices, including slavery, racially discriminatory laws and policies, and intergenerational trauma stemming from these chronic and progressive injuries. Historic and current injustices are considered as explanatory factors to help participants understand their predicaments, but they are not viewed as excusing destructive actions that perpetuate harm to participants, their families, or their communities.

In setting the stage for the treatment experience, the strength-based orientation focuses on African Americans' will, determination, spirit, and intellect to confront and overcome barriers to success. Thus, the program promotes a positive self-image and may be the first time that many of these young men have been offered a socially sanctioned view of themselves that tells them they are competent, capable, smart, and worthy. This process may serve as the strongest incentive to complete the program and overturn the high rates of attrition and unsuccessful discharge commonly seen in this at-risk population. The orientation process culminates with the completion of a peer-learning assignment. The learning assignment typically involves researching a culturally relevant issue related to a substance use or mental health topic, writing or dictating a report, and presenting the information to fellow group members. One purpose of the learning assignment is to gauge and enhance participants' readiness to contribute productively to the group peer-learning process. The HEAT facilitator helps participants locate relevant resources to complete the assignment, such as audiotapes, pamphlets, or books that are suitable for their learning style, reading ability, and educational background.

Upon entering the group, participants attend approximately 80 group counseling sessions over 36 weeks. The groups typically meet twice per week for 90 minutes each session. The HEAT curriculum is carefully documented in a facilitator's guide for group leaders (Turpin & Wheeler, 2012a) and an accompanying participant workbook for group members (Turpin & Wheeler, 2012b). The facilitator's guide describes the agenda and topic(s) to be covered in each session, concrete learning objectives, educational materials needed to complete in-session exercises and homework assignments, and post-session quizzes to gauge knowledge acquisition. Sample scripts are provided to help facilitators introduce topics, lead group discussions, assist participants in completing in-session exercises, assign homework, and review progress on those homework assignments.

The curriculum is divided into three broad areas focusing on the self, the family, and the community. Some sessions apply traditional cognitive behavioral therapy (CBT) strategies that are familiar to most substance use disorder treatment providers, such as identifying risk factors or triggers for substance use and criminal activity, reconsidering irrational thought patterns, and practicing drug-refusal skills. However, the interventions do not assume that participants are dependent on or addicted to drugs or alcohol. Rather, interventions focus on generic triggers for substance misuse and delinquent activity, such as anticipating a "rush" from stealing cars or dealing drugs.

Other interventions focus specifically on issues confronting young African American males. In the section focusing on the self, sessions explore prevalent myths, stereotypes, and misconceptions of African American manhood that are commonly presented in the media and held by society at large and often by the participants themselves. The group collectively chips away at maladaptive images and beliefs concerning Black manhood, separates fact from fiction, and examines how mainstream images such as themes of misogyny, profanity, and homophobia depicted in hip-hop

culture negatively shape society's perceptions of African American men and their own self-perceptions. Through group discussions, in-session exercises, and homework assignments, participants are encouraged to deconstruct and reconsider these images and to decide which ones they should keep and which should be discarded.

In the section dealing with the family, emphasis is placed on traumas inflicted on the Black family, such as enforced separations during slavery, reverberations of which may continue in an intergenerational cycle of paternal absenteeism, intimate partner violence, child neglect, or other unrecognized and unacknowledged traumatic sequelae. The facilitator introduces mnemonic devices as shorthand descriptions of syndromes or interpersonal patterns that are discussed in the sessions. For example, the term "Baby Mama Drama" refers to problems commonly experienced by single-mother-headed households, financial burdens and child alienation syndrome encountered by absentee fathers, and lasting intergenerational damage caused to children and the community by the breakdown of the family unit. Participants consider their own reactions to issues such as paternal absenteeism and interparental violence, and consider ways to break the intergenerational cycle of these destructive patterns.

Finally, the section dealing with the community focuses on issues threatening the physical and emotional health of African American neighborhoods, such as limited access to healthy groceries, sparse and unaffordable health care, abandoned or boarded-up homes, inadequate educational resources, and rampant crime and drug availability. Rather than accept or exacerbate these problems, participants are encouraged to take responsibility for healing their communities through appropriate grassroots activism, youth mentoring, crime-watch programs, and community cleanup activities.

Throughout their enrollment in HEAT, participants are encouraged to reconsider self-destructive values and attitudes, and to engage in prosocial

behaviors that contribute productively to the health and welfare of the African American community. Emphasis is placed on enhancing vocational and educational skills, and participants are paired with a peer or vocational mentor from their community who has a minimum of seven years of desistance from crime and substance misuse. The mentor serves as a personal steward, teacher, and resource to link participants with employment and educational opportunities and maximize their chances of long-term success in new adaptive roles.

### **Study 1 (Feasibility)**

The objectives for Study 1 were to examine the feasibility of implementing the 9-month HEAT curriculum in a drug court program and determine whether participants were satisfied with the intervention. In line with these objectives, the primary outcome measures were retention in the HEAT intervention, completion of the HEAT curriculum, completion of the drug court program, and satisfaction with the HEAT curriculum.

**Study 1 recruitment.** Participants for Study 1 were recruited from the Fayette County Drug Court located in Lexington, Kentucky. This drug court had previously received grant funding from the Center for Substance Abuse Treatment (CSAT) to deliver enhanced residential and inpatient treatment primarily for female drug court participants, and to evaluate the effects of the service enhancements. Evaluation activities for the HEAT study were performed in conjunction with the larger grant evaluation activities. All study procedures were reviewed and approved by the Institutional Review Board (IRB) of Morehead State University. A Federal Certificate of Confidentiality was also obtained to shield sensitive information disclosed in research interviews from a court order or subpoena.

All study procedures and data collection occurred between August 2013 and June 2014. The short 11-month funding period for the study made it necessary to rapidly recruit at least 10 participants

to provide a sufficient “critical mass” to maintain a stable counseling group. The coordinator for the drug court program identified participants meeting HEAT eligibility criteria (male, African American, between 18 and 29 years of age), and a research assistant approached those individuals about potential participation in the study. In addition, three young Caucasian males who were already underperforming in the program and in danger of being terminated from the drug court were informed about the HEAT study. Although HEAT was not designed for Caucasian participants, these three individuals indicated an interest in the intervention, and their inclusion allowed the group to commence quickly with 10 group members. The HEAT curriculum was not adapted for the Caucasian participants; however, the group leader was sensitive to their presence and offered opportunities for them to discuss issues from their perspectives. Study recruitment yielded a high acceptance rate, with 100% of those approached about the study agreeing to participate. The follow-up rate was also 100%, with outcome data being obtained on all 10 participants.

**Study 1 data sources.** Participants were interviewed by trained research staff at entry into HEAT and 9 months after enrollment. The face-to-face interviews took approximately 45 minutes and were conducted in a private location at the drug court office or elsewhere in the community, depending on participant preference. Participants were not compensated for participation in the baseline interview; however, they received \$20 for completing the 9-month follow-up interview.

Information concerning participants’ demographic characteristics, criminal history, and substance use history was obtained from the Health Services Research Questionnaire (HSRQ) (Chitwood, McBride, Metsch, Comerford, & McCoy, 1998), the Addiction Severity Index (ASI) (McLellan et al., 1992), and the Government Performance and Results Act (GPRA) assessment instrument (Mulvey, Atkinson, Avula, & Luckey, 2005). The Texas Christian University (TCU) Criminal Jus-

tice Client Evaluation of Self and Treatment Scale (CJ-CEST) (Joe, Broome, Rowan-Szal, & Simpson, 2002; TCU, 2005a) was used to assess participants’ self-reported treatment satisfaction, peer support, treatment participation, and counseling rapport. The CJ-CEST was administered 9 months following participants’ entrance into the HEAT group, which corresponds roughly with the end of the HEAT intervention. CJ-CEST subscales have a range of 10 to 50, with a median of 30. Among male offender populations, a score of 40 falls at approximately the 75th percentile, indicating an above-average score compared to other male offenders in substance use disorder treatment (TCU, 2005b). Studies involving more than 3,200 males in corrections-based treatment reported excellent reliability for these CJ-CEST subscales, with Cronbach alphas ranging from .84 to .94 (TCU, 2005c). Finally, information related to participants’ during-program performance in the drug court program (e.g., sessions attended, completion rates) was obtained from the Kentucky Drug Court Management Information System.

**Study 1 results.** Participant characteristics and outcomes for Study 1 are presented in Table 1. In line with the intended target population for HEAT, the participants were all male and approximately 25 years of age (mean = 24.9 yrs., SD = 2.38). As mentioned earlier, three participants were Caucasians who were performing poorly in the drug court and indicated a desire to participate in HEAT. The remaining participants were African American. Most participants reported being unemployed (60%), never having been married (90%), having children (80%), and having earned at least a high school diploma or GED (70%).

Participants reported serious criminal and substance use histories. They averaged more than 10 prior criminal convictions and nearly two years of previous incarcerations. In addition to drug possession (90% of participants) and drug trafficking (80%), other criminal charges included a range of serious felonies, misdemeanors, major traffic violations, and probation violations. Use

of illicit drugs and alcohol was also prevalent in the sample, with all participants (100%) reporting lifetime use of alcohol and marijuana, and substantial percentages reporting illicit use of cocaine (90%), benzodiazepines (80%), or opioids (60%). Unfortunately, diagnostic information was not available from the program to indicate whether participants were dependent on these substances or suffering from a severe substance use disorder.

Retention in HEAT was excellent. As indicated earlier, the HEAT curriculum is designed to be administered over 36 weeks (approximately 9 months) and includes a maximum of 80 counseling sessions. As shown in Table 1, participants attended 81% of their scheduled HEAT appointments, averaging 65 sessions over 264 days (8.8 months). Of the 10 participants, 9 (90%) completed the entire HEAT curriculum. No participant dropped out of HEAT; however, one Caucasian participant was transferred out of the drug court to long-term residential treatment before he could complete HEAT. This participant still attended over 60 HEAT sessions before being transferred.

Participants' perceptions of treatment were quite favorable. At the 9-month follow-up interview, average scores exceeded 40 on the CJ-CEST treatment participation, counseling rapport, treatment satisfaction, and peer support scales. As described earlier, scores over 40 fall at approximately the 75th normative percentile for males in corrections-based treatment, indicating higher-than-average satisfaction with the program and perceived rapport with the group counselor and fellow group members.

By the conclusion of the study period, three participants (30%) had graduated successfully from the drug court and two additional participants (20%) were still active in the program and entering the aftercare phase. Four participants (40%) were discharged unsuccessfully from the drug court despite having successfully completed the HEAT curriculum, and one participant (10%) was transferred to long-term residential treatment. Among

the African American participants, 57% (4 out of 7) graduated from the drug court or entered the aftercare phase, and the remaining three participants (43%) were discharged unsuccessfully from the program. In contrast, one of the three Caucasian participants (33%) graduated from the drug court, one (33%) was transferred to long-term residential treatment, and one (33%) was discharged unsuccessfully from the program. Given the small samples, it is not possible to draw conclusions about the relative effectiveness of HEAT for Caucasian vs. African American participants. Seemingly poorer outcomes for the Caucasians might be explained by the fact that HEAT is culturally tailored for African Americans; however, it might also reflect the fact that these individuals were already performing poorly in the drug court before entering HEAT.

**Study 1 conclusions.** The objectives of Study 1 were to examine the feasibility of implementing the 9-month HEAT curriculum in a drug court program and determine whether participants were satisfied with the intervention. Results confirmed that participants with serious criminal and substance use histories were willing and able to complete the HEAT curriculum, were satisfied with the program, and reported having good rapport with the group leader and fellow group members. Half of the HEAT participants, including four out of seven (57%) African American participants, ultimately graduated from the drug court or were proceeding on schedule to complete the program. Previous studies have consistently reported a statewide graduation rate of approximately 35% for Kentucky drug courts (Marlowe et al., 2016; Shannon, Jackson, Perkins, Newell, & Neal, 2016). This suggests that HEAT may substantially improve drug court graduation rates for young African American men; however, better-designed studies that compare graduation rates between HEAT participants and comparable drug court participants not receiving HEAT are needed to shed further light on this issue.

**Table 1. Study 1 (Feasibility) Participant Characteristics and Outcomes (N = 10)**

	Percentage or Mean (SD)		Percentage or Mean (SD)
<b>Demographics</b>		<b>Substance Use</b>	
Male	100%	Alcohol	100%
Age	24.90 (2.38)	Cannabis	100%
African American, non-Hispanic	60%	Cocaine	90%
African American, Hispanic	10%	Illicit benzodiazepines	80%
Caucasian, non-Hispanic	30%	Illicit opioids	60%
Unemployed	60%	Hallucinogens	40%
Never married	90%	Other illicit drug use	30%
12th-grade education, GED, or higher	70%	<b>HEAT Retention</b>	
Have children	80%	Session attendance rate	81%
No. of children	1.60 (.52)	Number of sessions attended	65.00 (10.64)
<b>Criminal History</b>		Duration of participation in days <sup>1</sup>	264
Convictions	10.40 (5.50)	Completed HEAT	90%
Months of incarceration	22.30 (22.48)	<b>CJ-CEST<sup>2</sup> Treatment Process Scales: 9-Month Follow-Up (range = 10 to 50, median = 30)</b>	
Any criminal charge	100%	Treatment participation	41.33 (4.22)
Drug possession	90%	Counseling rapport	43.67 (4.89)
Drug trafficking	80%	Treatment satisfaction	42.00 (5.80)
Probation violation	80%	Peer support	40.40 (5.95)
Drug paraphernalia	70%	<b>Drug Court Completion Status</b>	
Driving under the influence of drugs or alcohol	60%	Graduated	30%
Weapons offense	50%	Still actively participating – entering aftercare	20%
Contempt of court	40%	Administrative discharge	10%
Disorderly conduct	20%	Terminated unsuccessfully	40%
Major traffic violation	20%		
Shoplifting	10%		
Forgery	10%		
Robbery	10%		

<sup>1</sup> There is no standard deviation for days in the HEAT intervention because no individual dropped out of the protocol.

<sup>2</sup> Texas Christian University Criminal Justice Client Evaluation of Self and Treatment Scale.

## Study 2 (Effect Size)

The objective of Study 2 was to determine whether HEAT shows promise for increasing retention of young African American men in drug court and reducing otherwise high attrition rates for this at-risk population. If the estimated effect size for HEAT on retention is in at least the moderate range, this will justify more complicated and costly efforts to examine its effectiveness in fully powered experimental trials. The study protocol was approved and monitored by the IRB of Indiana University–Purdue University Indianapolis.

**Study 2 recruitment.** Participants were recruited from the Marion County Reentry Court (MCRC) located in Indianapolis, Indiana. Analyses conducted by the current investigators found that in the two years immediately preceding implementation of the HEAT curriculum, African American males between 18 and 29 years of age ( $n = 166$ ) were significantly more likely to be terminated unsuccessfully from the MCRC and have their parole revoked than other MCRC participants ( $n = 126$ ) (46% vs. 33%;  $\chi^2 = 5.23$ ,  $p < .05$ , Cramer's  $V = 0.13$ ). This significant disparity underscores the need for a culturally proficient intervention to improve MCRC outcomes for this at-risk population.

The MCRC applies the drug court model to address the needs of formerly incarcerated inmates reentering the community. It primarily targets inmates with substance use problems and excludes those with a history of serious violent or sex crimes. Participants serve their parole under MCRC supervision, and successful graduates receive an early release from parole. To graduate from MCRC, participants must complete a regimen of substance use disorder treatment or other indicated services, remain arrest free, abstain from using illicit drugs and alcohol for several consecutive months, obtain regular employment, pay applicable fines and fees, and obey other parole conditions. Some participants may not satisfy all conditions for graduation from MCRC before their mandatory parole period expires. These

individuals receive an administrative discharge from MCRC, indicating that they successfully completed parole but did not meet the more stringent requirements for graduation from reentry drug court before their parole expired.

**Study 2 HEAT condition.** The experimental HEAT condition comprised two group counseling cohorts. The first group consisted of 10 MCRC participants who entered the program in December 2014, and the second group consisted of 12 participants who entered in February 2015. Of these 22 HEAT participants, two absconded during the first month of the MCRC program before receiving any HEAT or other MCRC services, and were dropped from the analyses. One additional participant died early in the study, resulting in 19 participants who engaged in the HEAT intervention. The IRB determined that the participant's death was not study related, and therefore no changes were required to the study procedures. The consent rate for the HEAT group was 100%, with all individuals approached about the intervention agreeing to participate. The follow-up rate was 100%, with completion data being available on all HEAT participants. Just over two thirds (68%) of the HEAT participants completed the entire HEAT curriculum, and the remaining participants attended between 3 and 10 months of the intervention.

**Study 2 comparison groups.** Two comparison groups were constructed to estimate an effect size for HEAT compared to MCRC treatment as usual (TAU). The first TAU comparison group consisted of 38 MCRC participants who met eligibility criteria for HEAT (male, African American, between 18 and 29 years of age) but entered the program within a few months immediately preceding implementation of the HEAT curriculum. This comparison group, referred to as the *Contemporary TAU Group*, was treated in the MCRC during nearly the same period as the HEAT participants, which helps to reduce potential time effects or cohort effects that may have arisen if changes were introduced over time to MCRC practices or procedures.

For the second TAU comparison group, propensity-score matching was used to select individuals who were equivalent to the HEAT participants on variables known to influence MCRC outcomes, specifically participants' age, number of prior arrests, and most serious current criminal conviction. These variables were entered into a logistic-regression model to generate a propensity score for all participants entering the MCRC in the previous two years who would have been eligible for HEAT had it been available when they were in the program. The nearest-neighbor matching method (Smith & Todd, 2005) enabled selection of two participants who had the closest propensity scores to each HEAT participant ( $n = 38$ ). This comparison group is referred to as the *Matched TAU Group*. Because some of these participants entered the MCRC as much as two years before the HEAT participants, program policies and procedures might have changed appreciably over time, which could have differentially affected their performance. However, these participants were matched to HEAT participants on the most influential risk factors known to affect treatment success rates and criminal recidivism.

**Study 2 results.** Participant characteristics for Study 2 are reported in Table 2. Consistent with the intended target population for HEAT, participants in the HEAT and comparison groups were all male, African American, and approximately 25 to 28 years of age. Approximately 55% to 60% of the participants in all three groups were high school graduates or had earned a GED. Marijuana was reportedly the primary substance of abuse for more than 80% of all participants. No diagnostic information was available from the program to determine whether participants were dependent on marijuana, alcohol, or other drugs, or suffering from a severe substance use disorder. Participants in all three groups had extensive criminal histories, averaging approximately 10 prior arrests; however, HEAT participants were more likely to have been incarcerated most recently for a drug or weapon offense, whereas comparison subjects

were more likely to have been incarcerated most recently for a person or property offense.

There were no significant differences between the HEAT and Matched TAU groups in terms of participants' age, number of prior arrests, educational level, primary drug of choice, or most serious current conviction. However, participants in the Contemporary TAU group were approximately 18 months younger, on average, than those in the HEAT group ( $p < .05$ ), and were more likely to have been incarcerated most recently for a property or person offense as opposed to a drug or weapon offense ( $p < .01$ ). Importantly, controlling for these baseline differences had no effect on the results of the between-group outcome comparisons.

Outcomes for the HEAT and comparison groups are reported at the bottom of Table 2 and depicted in Figure 1. HEAT participants graduated from the MCRC at a considerably higher rate (42%) than participants in the Contemporary TAU (24%) and Matched TAU (29%) comparison groups. They were also far less likely to be terminated unsuccessfully from the MCRC and have their parole revoked (26% vs. 66% and 45%).

An omnibus chi-square test revealed that outcomes differed significantly overall among the three groups,  $\chi^2 = 8.39$ ,  $p < 0.05$ , Cramer's  $V = 0.38$ . The effect size falls in the moderate range, with Cramer's  $V$  exceeding 0.30 (Cohen, 1988). Specific cell comparisons indicated that HEAT participants were significantly less likely than participants in the Contemporary TAU Group to have been terminated unsuccessfully from the program and have their parole revoked,  $\chi^2 = 7.92$ ,  $p < 0.01$ , Cramer's  $V = 0.37$ . Again, the effect size falls in the moderate range with Cramer's  $V$  exceeding 0.30 (Cohen, 1988). The remaining cell comparisons were not statistically significant; however, the absence of significance is most likely attributable to low statistical power for the analyses, because there were only about 10 to 15 participants in many of the cells. With a larger sample, these differences in outcomes would most likely have been statistically significant.

**Study 2 conclusions.** The goal of Study 2 was to estimate an effect size for HEAT in retaining young African American men in drug court and increasing their graduation rate. Results confirmed that HEAT participants were considerably more likely to graduate from the program and successfully complete their term of parole than comparable participants receiving treatment as usual. The estimated effect size was moderate, with Cramer’s V exceeding 0.30. These findings provide ample preliminary support for HEAT to justify conducting additional research in fully powered randomized controlled trials.

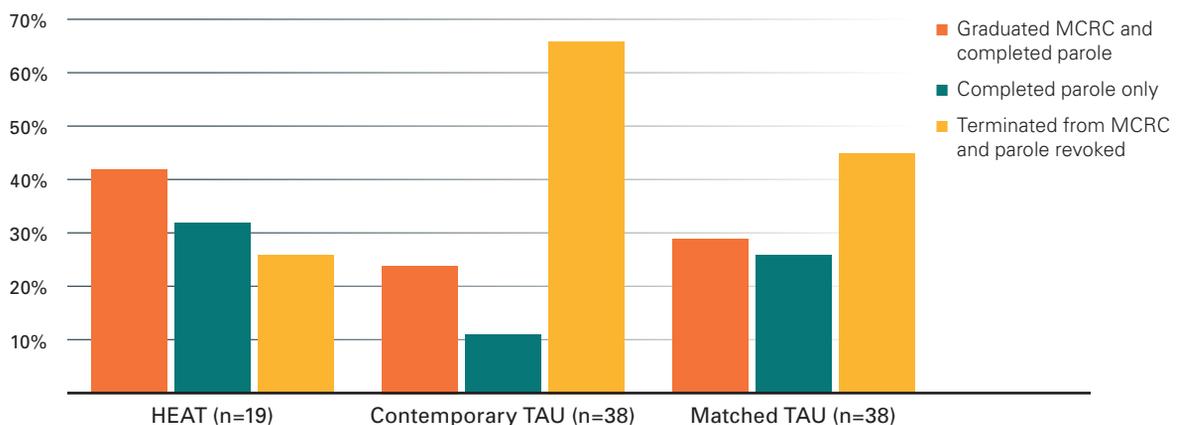
## DISCUSSION

Findings from these two pilot studies provide preliminary support for HEAT in improving success rates among young African American men in drug court. Participants with serious criminal and substance use histories completed the lengthy 9-month HEAT curriculum and were satisfied with the intervention, and African American participants graduated from drug court at substantially higher rates than are commonly observed in this at-risk population. A sufficient basis has been established to justify the expense and effort of examining HEAT in fully powered randomized controlled trials.

## Limitations

The design limitations of the studies are self-evident and stem primarily from their limited aims. The cell sizes were quite small (approximately 10 to 20 participants per condition), the studies were limited to two drug courts, and only proximal during-program outcomes were examined. The impact of HEAT must be evaluated in larger-scale multisite studies and should examine post-program outcomes, including criminal recidivism. The comparison groups in Study 2 were also not constructed randomly, and therefore the TAU participants may have differed from the HEAT participants on unmeasured dimensions that could have affected their outcomes. Moreover, the sheer novelty of delivering a new intervention and paying heightened attention to the HEAT participants could have elicited better outcomes irrespective of the specific content of the HEAT intervention. If, for example, drug court staff members were invested in the success of HEAT, they may have interacted more favorably with the HEAT participants during other facets of the program, such as court hearings, thus contributing to better outcomes for reasons having little to do with HEAT. Future studies should include placebo or attention-controlled comparison groups to reduce such biasing effects. Finally, it remains unclear whether comparable benefits can be achieved when HEAT

**Figure 1. Study 2 Outcomes for HEAT Participants and Comparison Groups**



**Table 2. Study 2 (Effect Size) Participant Characteristics and Outcomes: mean (SD) or N (%)**

	HEAT (N = 19)	Contemporary TAU (N = 38)	Matched TAU (N = 38)
<b>Demographics</b>			
African American	19 (100%)	38 (100%)	38 (100%)
Male	19 (100%)	38 (100%)	38 (100%)
Age*	27.2 (2.6) <sup>a</sup>	25.6 (2.7) <sup>b</sup>	26.0 (2.3)
No. of prior arrests	10.6 (5.9)	9.5 (5.8)	10.1 (6.2)
High school graduate or GED	11 (58%)	21 (55%)	23 (61%)
<b>Drug of Choice</b>			
Alcohol	1 (5%)	1 (3%)	4 (11%)
Marijuana	16 (84%)	34 (90%)	32 (84%)
Cocaine	2 (11%)	1 (3%)	1 (3%)
Illicit opioids	0 (0%)	0 (0%)	1 (3%)
Other drug	0 (0%)	2 (5%)	0 (0%)
<b>Most Serious Charge Leading to Recent Incarceration**</b>			
Drug offense	14 (74%) <sup>a</sup>	12 (32%) <sup>b</sup>	14 (37%)
Person offense	0 (0%) <sup>a</sup>	12 (32%) <sup>b</sup>	13 (34%)
Property offense	1 (5%) <sup>a</sup>	8 (21%) <sup>b</sup>	8 (21%)
Weapon offense	4 (21%)	6 (16%)	2 (5%)
Other offense	0 (0%)	0 (0%)	1 (3%)
<b>Outcomes**</b>			
Graduated MCRC and completed parole	8 (42%)	9 (24%)	11 (29%)
Completed parole and administratively discharged from MCRC	6 (32%)	4 (11%)	10 (26%)
Terminated from MCRC and parole revoked	5 (26%) <sup>a</sup>	25 (66%) <sup>b</sup>	17 (45%)

\*p < .05. \*\*p < .01. TAU: Treatment as usual non-HEAT comparison group. MCRC: Marion County Reentry Court.

<sup>a,b</sup> Cells in the same row with different superscripts (a vs. b) are significantly different from each other.

is administered by treatment providers other than one of the original developers of the intervention. All that can be concluded at this juncture is that there is a reasonable basis to move forward and examine HEAT in better-designed research studies.

Lacking diagnostic information concerning the severity of participants' substance use problems, it is also uncertain under what circumstances HEAT may be administered as a stand-alone intervention, or when it should be administered in combination with other substance use disorder treatments. Participants in Study 1 reported substantial use of a wide range of seriously addictive drugs, including opioids, cocaine, and benzodiazepines; however, participants in Study 2 reporting primarily using marijuana. Future studies should carefully evaluate participants' diagnostic status and primary substances used, and determine whether HEAT needs to be adapted or combined with other interventions for individuals suffering from severe substance use disorders.

## **Conclusion**

Convincing evidence indicates that racial disparities exist in some drug court graduation rates (Finigan, 2009; Marlowe, 2013; Marlowe et al., 2016). As courts of law, drug courts are obliged by constitutional principles of due process and equal protection to provide fair access and equivalent opportunities for success to all eligible persons. Best practice standards require drug courts to examine racial, ethnic, and gender disparities in their programs, and to implement remedial measures where indicated (NADCP, 2010, 2013). The drug court field has a legal, ethical, and moral obligation to pursue promising avenues of research that may uncover ways to rectify unfair disparities in their programs, and in so doing contribute to public health, public safety, and the equitable administration of justice.

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### **Conflict of Interest Attestation**

Darryl Turpin and Guy Wheeler provide training and technical assistance on HEAT for financial compensation.

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## RESEARCH REPORTS

# Trauma Treatment for Men in Recovery for Substance Use Disorders: A Randomized Design Within the Miami-Dade County Adult Drug Court

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## Abstract

*This study addresses how male clients of the Miami–Dade County Adult Drug Court (ADC) who were recovering from substance use disorders responded to trauma screening and treatment designed to address underlying trauma. The study implemented a randomized experimental design to determine how the outcomes of clients who received Helping Men Recover (HMR) compared with those who received Seeking Safety (SS), Miami-Dade’s business-as-usual curriculum. Cultural awareness is paramount for ADC, as Miami–Dade County has a significant proportion of Hispanics in its population. In this study, 71% of the men identified as Hispanic or Latino. Specifically, the study explores (a) whether trauma screening tools were sensitive to the trauma needs of male felony defendants and (b) whether men assigned to HMR and SS groups differed significantly in retention, social functioning, sobriety, and in-program recidivism. The post-assessment trauma scores increased for both groups, but the effects for HMR participants were more profound. Additionally, Hispanic participants had lower PTSD Checklist–Civilian Version (PCL-C) scores compared with non-Hispanic participants at entry, leading to the conclusion that culture plays an important role in securing trust during initial assessments, particularly as this difference disappeared at exit. There were no discernable differences in most of the outcome measures. However, participants randomized to HMR groups were more likely to report improvements in overall health and more likely to interact with family and friends who were supportive of their recovery efforts. The likelihood of relapse for all trauma study participants increased 100 days after the participant began trauma-informed substance abuse treatment.*

**Keywords:** trauma, adult drug court, experimental design, substance use disorder, men, Hispanic

## INTRODUCTION

Effectively treating underlying trauma is a key goal for a population recovering from substance use disorders. Relapse tends to occur sooner in patients with co-occurring posttraumatic stress disorder (PTSD) and substance use disorders than in patients with only substance use disorders (Brown, Stout, & Mueller, 1996). Also, there is a significant relationship between adverse childhood experiences and drug use, suggesting that exposure to adverse childhood experiences can cause social, emotional, and cognitive impairment. Such an impairment can lead to the adoption of health-risk behaviors in adulthood that serve as coping mechanisms for stress and dysfunction (Felitti et al., 1998). This study addresses how adult male drug court clients respond to trauma screening and treatment designed to address underlying trauma during recovery from substance use disorders.

### History of Trauma Awareness

The “shell shock” of World War I was recognized in World War II as a syndrome characterized by anxiety, reliving of traumatic experiences, and sensitivity to triggers. Theorists developed two main frameworks to explain trauma: (a) the biological school and (b) the psychological school. The former believed that physical mechanisms were crucial to stress-related disorders and that symptoms arose in response to chronic and severe stress. The latter school focused on the unconscious, repressed memories, and early childhood trauma.

The fourth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV), published in 1994, provides the basis of PTSD screening and treatment used in this study. In DSM-IV, PTSD is characterized as an anxiety disorder and requires prior exposure to a traumatic event involving actual or threatened death or serious injury to oneself or others. Additionally, the person’s response to the event must involve intense fear, helplessness, or horror. Further, the individual must

experience a series of symptoms for at least one month. These symptoms include reexperience of the traumatic event, avoidance of trauma-related stimuli, hyperarousal, and numbing symptoms. Finally, the symptoms must cause significant distress or functional impairment. DSM-5, published in 2013, changed the categorization of PTSD to a disorder related to traumatic and stressful events (Schnurr, 2013). The new definition removed indirect exposure to nonviolent deaths from the list of relevant stressors, and it requires that a person experience at least one avoidance symptom (Kilpatrick et al., 2013).

Following a traumatic event, an individual may experience hyperarousal, or the tendency for the nervous system to react to stressors rapidly, extremely, and for prolonged periods of time (Ford & Russo, 2006). In response, the individual looks for signs of external danger and bodily distress. This may cause the person to be preoccupied with distant or unlikely signs of threat or distress. To reduce these symptoms, he or she may avoid things, people, or places that are associated with distress. Thus, the person is unable to process memories related to the trauma.

Previous studies examining trauma have focused on the effect of trauma on women. Many have found a lower prevalence of PTSD among men than women (Baker et al., 2005; Frissa et al., 2016; Kessler, Sonuga, Bromet, Hughes, & Nelson, 1995; Najavits et al., 1998; Norris, Perilla, Ibañez, & Murphy, 2001; Ouimette, Goodwin, & Brown, 2006; Pratchett, Pelcovitz, & Yehuda, 2010; Wade et al., 2016; Zlotnick, Zimmerman, Wolfsdorf, & Mattia, 2001) as women are more likely to report a traumatic experience and to experience interpersonal trauma such as intimate partner violence (Frissa et al., 2016). Men are more likely to experience physical violence, public violence, threats with weapons, and violence from strangers, acquaintances, and friends (Baker et al., 2005).

The effects of culture (Hough, Canino, Abueg, & Gusman, 1996) and gender on responses to trauma

are particularly important. Latinos are more likely to experience PTSD than non-Latinos (Miles, Marshall, & Schell, 2008). Norris and colleagues (2001) examined the effects of cultural influence on reporting PTSD symptoms. They drew on past research conducted on masculinity as applied to value systems in 40 countries. The premise of their research was that if cultural factors underlay sex differences in responses to trauma, the differences between men's and women's outcomes should be greater in a society that fosters traditional gender roles. They found that, in Mexico, differences were amplified in posttraumatic stress of male and female disaster victims. In comparing reported PTSD symptoms after Hurricane Andrew struck Miami and after Hurricane Paulina hit Acapulco, their study found that the difference in reported PTSD symptoms between Mexican men and women was greater than between Caucasian or African American men and women.

Fortuna, Porche, and Alegria (2008) found that a total of 76% of immigrant Latinos in the United States reported lifetime trauma. The study also found that Cubans were exposed to a greater proportion of violence than other Latinos and were more likely to report exposure. Immigrants who reported exposure to political violence were more likely to be male. Non-Cuban Latinos were less likely to use mental health services; however, among all Latino immigrants, women were more likely to access mental health services than men. Latino men were more likely to be influenced by the stigma associated with seeking help for trauma, especially sexual trauma.

Trauma is often associated with substance use. PTSD and trauma-related experiences have been associated with higher rates of drug use (Chilcoat & Breslau, 1998; Leeies, Pagura, Sareen, & Bolton, 2010; McCauley, Killeen, Gors, Brady, & Back, 2012; Read, Brown, & Kahler, 2004; Sadeh & McNiel, 2015). The National Comorbidity Survey in the 1990s found that, among men and women with PTSD, a higher proportion of men reported co-occurring drug dependence (Kubiak,

2004, citing Kessler et al., 1995). Two main theories explain the co-occurrence of substance use disorders (SUD) and PTSD.

One theory is the self-medication hypothesis, which posits that an individual with PTSD develops an SUD after using drugs or alcohol to relieve the symptoms of PTSD (Leeies et al., 2010, referencing Khantzian, 1999). Because a person with PTSD experiences hyperarousal, that person may attempt to mitigate anxiety through self-medication. Alternatively, a person with PTSD may use drugs to increase awareness of potential triggers or to reduce the distress associated with reexperiencing the trauma (Ford & Russo, 2006). The use of drugs to alleviate PTSD symptoms becomes common, aggravating the disorder and exposing the individual to the risk of new trauma (Kubiak, 2004).

The other theory is the high-risk hypothesis, which suggests that an existing SUD enhances the risk of experiencing trauma and developing PTSD by creating dangerous opportunities and impairing a person's ability to process a traumatic memory (van Dam, Ehring, Vedel, & Emmelkamp, 2013b). Most patients with co-occurring PTSD and SUD report that trauma occurs prior to substance use (van Dam et al., 2013b), and recent research indicates that the co-occurrence of PTSD and SUD symptoms is more consistent with the self-medication model (Ouimette, Read, Wade, & Tirone, 2010). The comorbidity of and interaction between PTSD and SUD are significant because studies indicate that individuals with both issues are more likely to relapse, relapse sooner (Brown et al., 1996), or be admitted for SUD treatment (Kubiak, 2004; McCarthy & Petrakis, 2010).

PTSD symptoms are a crucial factor in predicting relapse after substance use treatment for SUD patients with PTSD (Boden et al., 2012). Patients with more symptoms of PTSD are more likely to relapse, as are those who experience greater severity of symptoms and those who are isolated from social interaction. Additionally, patients with co-occurring PTSD and SUD who received

PTSD treatment within three months of being discharged from an SUD treatment program were more likely to be in remission five years later than patients who did not receive PTSD treatment (Ouimette, Moos, & Finney, 2003).

## Assessing Trauma: Screening Tools

Many screening and assessment tools for trauma symptoms and PTSD have been developed. Such tools can be divided into two categories: (a) clinician administered and (b) self-reported. Clinician-administered tools are necessary for the diagnosis of PTSD; however, they are costly and time consuming. As a result, self-reported assessments have been created as a screening tool for those with potential trauma symptoms.

In this study, the PTSD Checklist (PCL) and the Adverse Childhood Experiences (ACE) questionnaire were utilized as self-reporting tools. The PCL has three versions: PCL-M (military); PCL-C (civilian), which was used for this study;<sup>1</sup> and PCL-S (specific). PCL-C asks about symptoms related to general stressful experiences that occurred during the past month. Only 5 to 10 minutes are required to administer PCL-C, and possible scores range from 17 to 85. The cutoff score is not universal; it changes based on the goal of the assessment and the prevalence of PTSD in the targeted population.<sup>2</sup>

1. During the grant period for this study, PCL-C was modified to a new version, PCL-5, to match the diagnostic criteria corresponding to the updates made to the DSM-5. However, to ensure comparability on the pre- and post-screen data employed in this study, at the request of National Center for State Courts, ADC retained use of PCL-C rather than PCL-5 as a screener for trauma symptoms in ADC clients.

2. Among a limited sample of college students, one study (Ruggiero et al., 2003) suggested that an overall cutoff score of 44 to 50 with mixed scoring criteria (in which respondents answered that they were "moderately," "quite a bit," or "extremely" affected by the symptoms or conditions described) led to a high level of diagnostic efficiency (0.96). However, given the specific sample used in that study, it may not be generalizable to the broader population or, more specifically, to the ADC population. Additionally, a lower cutoff score is generally recommended for civilians as it leads to greater overall diagnostic efficiency (Blanchard et al., 1996). Its usefulness as a diagnostic tool depends on sample variation and bias, as well as the prevalence of PTSD in the population (McDonald & Calhoun, 2010; see also U.S. Department of Veterans Affairs, National Center for PTSD, 2014).

Multiple studies have found that PCL is generally a sound screening tool (Blanchard, Jones-Alexander, Buckley, & Forneris, 1996; Conybeare, Behar, Solomon, Newman, & Borkovec, 2012; Ruggiero, Del Ben, Scotti, & Rabalais, 2003; Wilkins, Lang, & Norman, 2011). There is high correlation of outcomes between the self-administered PCL and the Clinically Administered PTSD Scale, or CAPS, indicating its accuracy as a screening mechanism (Blanchard et al., 1996; Ruggiero et al., 2003). Further, PCL demonstrates high internal consistency, test-retest reliability, and convergent validity (Conybeare et al., 2012; Ruggiero et al., 2003; Wilkins et al., 2011). Although PCL is easy to administer, generally sound, and widely comparable, it has some limitations. In the absence of a specific traumatic event, PCL-C may overestimate the prevalence of PTSD by misidentifying another disorder as PTSD (Wilkins et al., 2011). Additionally, there are some concerns that the questionnaire's reading level may alienate individuals with low literacy levels. Because changes in the language of the instrument can affect outcomes (Wilkins et al., 2011), translations of PCL must be effective. Using a sample of Latinos in Los Angeles, Miles and colleagues (2008) found that the Spanish-language translation of PCL resulted in outcomes fairly equal with the English language version and can be used effectively among Spanish-language populations.

Whereas PCL-C focuses on recent symptoms, the ACE questionnaire focuses specifically on childhood experiences of trauma. The aggregated score indicates exposure to childhood adversity (Cabrera, Hoge, Bliese, Castro, & Messer, 2007) using seven categories of abuse and household dysfunction (Felitti et al., 1998). These categories include psychological, physical, and contact sexual abuse, as well as exposure to substance use, mental illness, violent treatment of a mother, and criminal behavior. Felitti and colleagues' study of almost 14,000 adults examined the relationship between exposure to these categories of childhood adversity and various adult health-risk behaviors and diseases. It found a consequential association be-

tween adverse childhood experiences and drug use, suggesting that social, emotional, and cognitive impairment resulting from those experiences can lead to the adoption in adulthood of health-risk behaviors that serve as coping mechanisms. Such behaviors increase the probability of disease, disability, and social problems that can result in early death. The Felitti study concluded that, ultimately, adverse childhood events commonly have long-term effects on adult health-risk behaviors.

Two or more traumatic experiences are associated with an increased risk for PTSD, and ACE is a significant predictor of symptoms (Cabrera et al., 2007). However, there are some limitations to ACE, including its use of retrospective information and self-reporting, which may lead to underreporting given that adults may not be able to recall childhood abuse. The Cabrera study found that underreporting was likely to be higher among males.

## Trauma Treatment

Cognitive behavioral therapy (CBT) is an efficacious treatment premised on the concept that individuals with PTSD have dysfunctional cognitions that prevent them from processing a traumatic experience (Bisson et al., 2007; Butler, Chapman, Forman, & Beck, 2006; Seidler & Wagner, 2006; Sijbrandij et al., 2007). CBT attempts to modify these cognitions; it asks patients to confront the traumatic experience by reliving the experience and describing it in detail (van Dam et al., 2013b).

Many treatment programs have been developed to treat co-occurring PTSD and SUD. Generally, there are two different approaches: trauma-focused treatment and trauma-avoidance treatment (van Dam et al., 2013b). Trauma-focused treatment identifies and manages triggers to replace poor coping, reduces anxiety and avoidance, and corrects dysfunctional thought processes (Ford & Russo, 2006). In contrast, trauma-avoidance therapy is centered on the belief that patients with comorbid PTSD and SUD are too fragile to be exposed to trauma-focused therapy. There-

fore, trauma-avoidance treatment focuses on coping mechanisms for symptoms (van Dam et al., 2013b). Evidence suggests that trauma-focused intervention is more effective at reducing PTSD symptoms than trauma-avoidance treatment (Mills et al., 2012).

Gender-responsive treatment programs, which create an environment that reflects an understanding of the lives and challenges faced by members of the target gender, are becoming more prevalent. Several curricula have been developed specifically for men. One is Trauma Recovery and Empowerment Model (TREM) originally designed for female trauma survivors, which emphasizes empowerment, cognitive restructuring, psychoeducation, and coping skills (Toussaint, VanDeMark, Bornemann, & Graeber, 2007). A quasi-experiment found that TREM reduced trauma symptoms but did not affect alcohol or drug use. A version adapted for men, M-TREM, focuses on empowerment, trauma education, and skills building using cognitive restructuring techniques, psychoeducation, coping skills training, and meditation (Wolff et al., 2015). In a randomized controlled trial of incarcerated men, M-TREM was found to be effective in reducing the presence and severity of PTSD symptoms. Participants also showed significant improvement in mental health, self-esteem, and coping skills.

The treatment condition used in this study is Helping Men Recover (HMR), a gender-responsive program designed for men. It uses relational-cultural theory, which holds that relationships inform male identity and that nonmutual relationships can generate negative emotions such as sadness and anger, potentially causing withdrawal, depression, insecurity, aggression, and violence (Bergman, 1991). Young boys are taught to be agents of disconnection, detaching from relationships with others. Thus, some men use drugs to avoid connection. It is also thought that men self-medicate to avoid the symptoms of trauma. HMR covers four modules addressed in 18 sessions: the self, relationships, sexuality, and spirituality (Covington, Griffin, & Dauer, 2011).

According to the curriculum developers, HMR is a trauma-focused curriculum that addresses what is often missing in prevailing treatment modes: the impact of male socialization on the recovery process, the relational needs of men, and the issues of abuse and trauma (both experienced and perpetuated). HMR treatment sessions consist of groups of 8 to 12 participants using a strengths-based approach to help clients develop effective coping skills, build healthy relationships, and develop a strong, positive interpersonal support network. The program uses cognitive behavioral skills training, mindfulness meditation, experiential therapies, psychoeducation, and relational techniques. Until this study, HMR had not been empirically evaluated.

Seeking Safety (SS) is one of the most extensively researched treatment programs for comorbid PTSD and SUD. Treatment occurs in gender-specific groups. The program deploys CBT and psychoeducation principles (Wolff et al., 2015), and focuses on reducing symptoms of PTSD and SUD and constructing coping skills. Although there have been some noncongruent results, generally SS appears to be effective in reducing the number and severity of PTSD symptoms (Boden et al., 2012; Hien, Cohen, Miele, Litt, & Capstick, 2004; Hien et al., 2009; Morgan-Lopez et al., 2014; Wolff et al., 2015). Several studies, typically in gender-specific samples, also found reductions in substance use (Boden et al., 2012; Hien et al., 2004; Morgan-Lopez et al., 2014). Boden et al. (2012) studied SS as treatment for male veterans with substance use disorders and found a reduction in PTSD symptomology. The SS curriculum served as the control treatment curriculum for this study. To some extent, because SS is part of the Substance Abuse and Mental Health Services Administration's (SAMHSA's) National Registry of Evidence-Based Programs and Practices (NREPP) (Boden et al., 2012), it has become the business-as-usual protocol for treatment providers in the Miami-Dade County area.

## METHODOLOGY

To understand whether HMR improved outcomes for ADC clients compared with SS, and whether select trauma screening tools were useful for triaging male clients into trauma therapy, we designed a randomized control trial. Experimental manipulation through a randomized design is a rare opportunity, particularly in the criminal justice setting (Greiner & Matthews, 2016). Such a design is not often executed in the field because of logistical and practical complications as well as ethical concerns about randomizing who receives potentially beneficial treatment services. This unique opportunity arose from an enhancement in Miami-Dade County ADC services, made possible through grant funding and through support from Judge Jeri Cohen.

The two-group study design involved randomized assignment. The ADC team, including the judge, were blind to the experimental conditions (i.e., the outpatient trauma treatment curriculum that clients received). This design feature was employed to protect against potential influence, intentional or not, from individuals who may impact client outcomes (e.g., case managers, the judge, those conducting drug and alcohol testing). As required for implementation, treatment staff were aware of the experimental conditions.

Outcomes arising from engagement with a trauma-responsive treatment curriculum are designed to enable survivors to manage their trauma-related symptoms successfully so that they can access, retain, and benefit from addiction and mental health services. Therefore, measures of relapses, social functioning (e.g., housing, relationships, educational attainment, employment status), recidivism, emotional and physical health, and retention rates were collected and compared across treatment groups. We hypothesized that superior outcomes, in all areas described above, would result for HMR participants. This was based on the premise that HMR addresses what are called "man rules" of society and enhances relationships that

provide critical social support during recovery (Griffin, 2011). We also hypothesized that participants' trauma screening scores would be higher after treatment engagement. This was premised on counselor intuition that prior to engagement with a trauma-informed treatment intervention, men would not be sufficiently able to recognize or articulate the impact of trauma in their lives and were socially constrained not to identify as victims of trauma.

The two treatment providers participating in this study were Better Way of Miami (BWOM) and Community Action and Human Services (through its Diversion and Treatment Program, DATP). BWOM is a nonprofit health care facility offering a full array of psychiatric, medical, and treatment services, including outpatient substance use services. DATP is Miami-Dade County's largest department providing comprehensive county-wide social and human services including outpatient substance use treatment to adult residents. DATP operates in several locations in the county: Miami-Dade College, Coconut Grove, and Florida South.<sup>3</sup> Both BWOM and DATP offered relatively low weekly treatment fees (\$15 or less per week) and a sliding scale for indigent clients.

Developers of the HMR curriculum, Dan Griffin and Rick Dauer, provided a two-day training session for clinicians from the two treatment providers. Court staff tracked trauma scores and admission data on newly admitted ADC clients for four months. During this time frame, the treatment providers implemented a pilot test of the HMR curriculum. These data were used to inform the study design.

Prior to launching the study, the National Center for State Courts (NCSC) team visited the treatment providers to discuss implementation concerns that arose during the pilot test. The team inquired about logistical concerns for implemen-

tation and practicing fidelity to the curriculum model. Following this visit, the team conducted a training webinar to further instruct the participating facilitators and clinical managers on the protocols for implementation of the full study.

The first group was held in July 2014. The number of ADC clients that DATP and BWOM provided services to during the study period fluctuated. In the first year of implementation, January through November 2014, DATP served 46.4% of ADC clients and BWOM 13.1%. From December 2014 through April 2015, DATP discontinued accepting new referrals, which led to a shift in the distribution of clients.

### Assignment Process

Clients were eligible for inclusion in the study if the client (a) entered the Miami-Dade County ADC between January 16, 2014, and May 9, 2016; (b) was male; and (c) was a client of a participating treatment provider. Monolingual Spanish speakers were included in Spanish-only groups, as feasible.

The NCSC team compiled a rolling list of potential trauma study participants with assistance from ADC and randomly assigned them to HMR or SS. The control group (SS) was approximately the same size as the treatment group (HMR), and the dosage (i.e., treatment hours received) was comparable at two hours per session, twice a week for nine weeks.

ADC typically connects clients with treatment providers immediately after arraignment. However, during the study intake screening occurred as much as two months after arraignment and resulted in significant participant attrition. To overcome this delay, participants were identified at arraignment, prior to intake screening with the drug court. The impact of this change in protocol was that clients entering after October 2015 typically received an intake assessment after being randomly assigned to a group.

3. Allapattah originally agreed to participate, but prior to implementation, the location was closed. Coconut Grove replaced Allapattah in the study in October 2014. Florida South was added as a participating location in October 2015.

DATP offered both concurrent groups at the largest location (Miami-Dade College) and consecutive groups at the smaller locations (Coconut Grove and Florida South). The assignment process for the DATP Miami-Dade College location was through an individualized random assignment. Each client was randomly assigned to join either an SS or an HMR group. DATP clients from the smaller locations and BWOM clients were assigned through a randomized block design. The client volume at these provider locations dictated consecutive groups. In other words, once there were enough clients to hold a group, the group as a whole was randomly assigned to either the SS or HMR curriculum.

Because of minimum requirements for group sizes at the various treatment locations and the block design, the resulting randomized curricula was higher for HMR (57.0%) than SS (43.0%). A total of 179 participants were allocated to one of the two interventions for this study. A total of 132 participants (73.7%) completed a treatment group, and an additional 16 participants (8.9%) attended some of the sessions but dropped out prior to the scheduled group end date. A class of 31 individuals (17.3%) did not join the groups to which they were randomly assigned.

A total of 20 groups were conducted for this study, 14 at DATP locations and 6 at BWOM; of those, 12 were assigned to HMR and 8 to SS. The group sizes ranged from 3 to 21 with a median group size of 7. Most of the groups (45.0%) were run by male and female cofacilitators,<sup>4</sup> 30.0% were run by two female facilitators, and 25.0% were run by two male facilitators. One of the facilitators did not complete the training for HMR, but a senior clinician who underwent HMR training by the curriculum developers took over as cofacilitator.

The groups spanned from 9 weeks to 15 weeks for HMR (the median was 9 weeks) and from 10 to 21 weeks for SS (the median was 13 weeks). Most of the groups (82.3%) met twice a week and for two hours per session; the remaining groups (17.6%) reported they “usually” met twice a week and “usually” conducted sessions lasting two hours. Some groups had extended total durations as the groups did not meet every week because of scheduling conflicts or holiday scheduling changes. Facilitators also reported that some groups lasted longer than two hours to enable them to cover all the material, and others reported that the groups lasted one and a half hours as the clients’ attention span would wane after that period. All groups reported that they covered all the material in the workbooks.

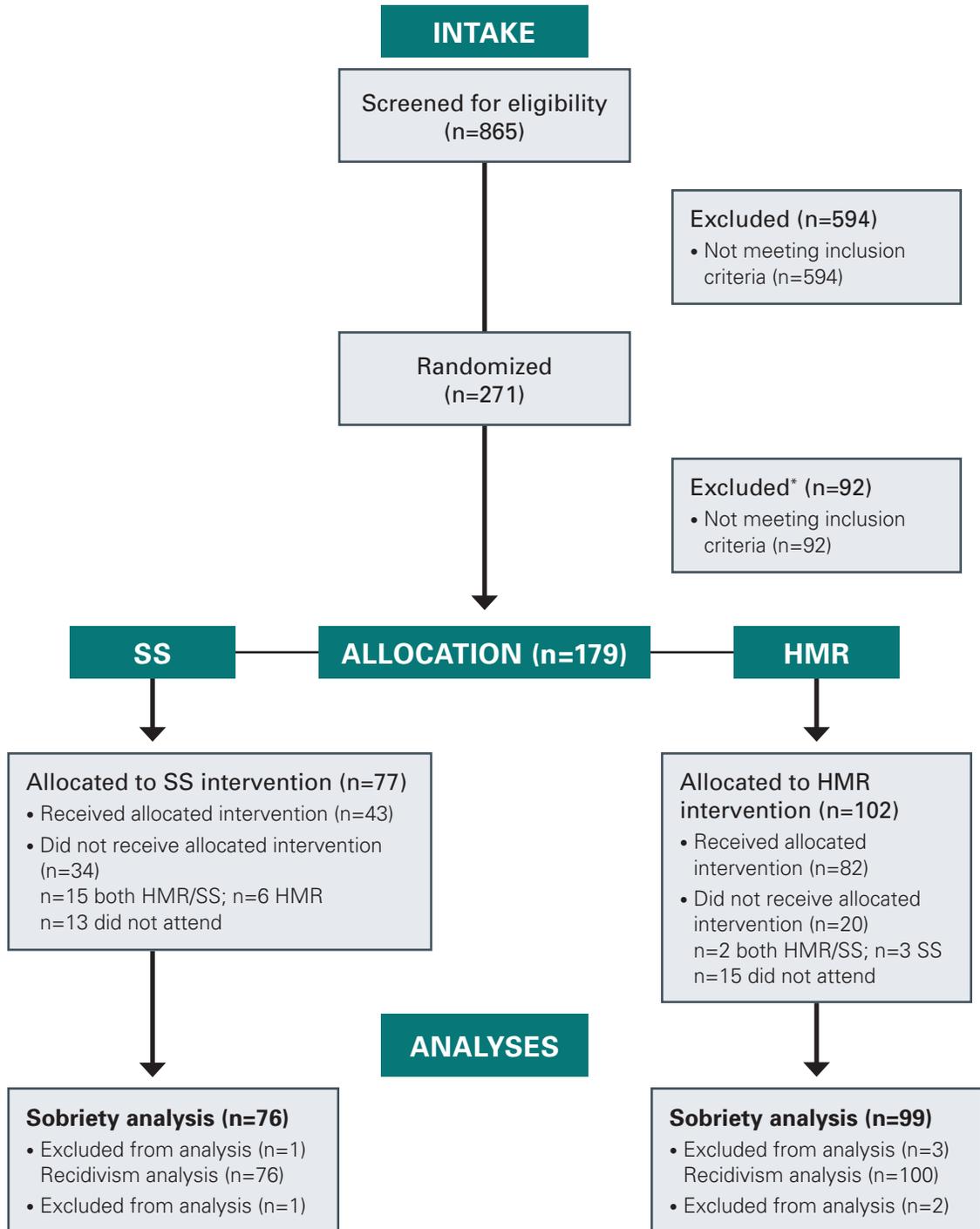
### Attrition of participants

Following the initial screening of 865 potential drug court participants, further screening ruled out an additional 594 participants who did not meet inclusion criteria (see Figure 1). This resulted in 271 participants randomly assigned to participate in a trauma curriculum. Because attrition after random assignment was also possible, an additional 92 did not meet inclusion criteria. Typically, participants were excluded because they were female, did not enroll with a participating treatment provider, were assigned to a different treatment modality (e.g., residential treatment, diversion to a program not requiring substance use outpatient treatment, transfer to another jurisdiction), and/or experienced a legal status change (e.g., dismissal of charges by the state’s attorney, court’s placement on self-sufficiency) between the time of screening/random assignment and the start of the treatment group.

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4. All but one of these groups were facilitated by one male and one female. One group was run by three facilitators (two females and one male).

**Figure 1.** Flow Diagram for Intent to Treat (ITT) Survival Analyses



\* As of October 2015 random assignments were made at arraignment rather than at intake.  
Source: Consort: Transparent Reporting of Trials, 2010.

Clients who entered ADC between January and June 2014 and who did not speak English at all or who chose “not well” when asked how well they spoke English were excluded from the study. After June 2014, all group materials and client feedback forms were translated into Spanish, and Spanish-only groups were conducted. In total, 26.2% of participants indicated that Spanish was their primary language, but as part of a bilingual culture; 91.4% indicated they spoke English “well” or “very well.” Monolingual Spanish speakers were included in a Spanish-only group, unless there was not a sufficient number of monolingual Spanish speakers entering the program to form a group at a participating location. If participants were monolingual Spanish speakers and no group could accommodate them, the men were excluded.

As treatment was a requirement of ADC, participants were not allowed to decline participation; however, some participants cited work or school conflicts with scheduling of trauma groups and opted for individual treatment sessions conducted independently of this study. A total of 179 participants were assigned to one of the two interventions for this study.

Additional opportunities for attrition occurred due to a lack of adherence to the trauma study protocols. These included 9 participants who were placed in groups other than the ones randomly assigned, and 17 participants who received both curricula (SS and HMR) while in ADC. The effect of attrition was identifiable in the resulting data and dictated the analysis techniques applied in the Results section.

### Measures of Fidelity to the Curricula

After a group concluded all its sessions and during annual face-to-face interviews, clinicians reported on fidelity to curricula. Fidelity questions included group size (6 to 15, with 12 ideal), session length (two hours), frequency of sessions (twice weekly), total number of sessions (18), number of

facilitators (two cofacilitators), and names of facilitators (to verify receipt of training). The NCSC team also gathered data on client engagement and attendance at each session, and general information about the group, including location, start and end dates, and facilitator comments.

### Data sources

The data collection process was integrated into the screening and assessment requirements of the court as well as into the grant-reporting requirements. Clinically trained intake specialists with the court administered several screening and assessment tools (including ACE and PCL-C) through its intake interview, which typically occurred within 15 days of arraignment.<sup>5</sup>

At the conclusion of the trauma treatment group sessions, the clients completed a reassessment with ACE and PCL-C. After the groups, the facilitators also solicited anonymous and voluntary written feedback from the clients. Spanish translation of the feedback form was offered to all clients. The feedback form asked open-ended questions about whether attendance in the group changed social and family relationships, drug or alcohol use, and the client’s attitudes about himself. Additionally, the form captured client input on the content covered in the groups and sought recommendations for any changes.

Additional ADC client data were available. These included intake, six-month follow-up, and exit interviews required by SAMHSA grants through the Government Performance and Results Act (GPRA) and data collected by the court to monitor client progress in the program (e.g., through its drug court application data system tracking the results of drug tests). Annually, the NCSC team conducted structured interviews with the clinicians and conducted focus groups with clients currently enrolled with the two treatment provid-

5. All clients completed a consent for the release of confidential information with ADC covering the results of screening and assessment instruments, grant-required interview results, drug and alcohol testing results, attendance/lack of attendance at treatment sessions, and treatment prognosis.

ers. Finally, the court secured criminal history records drawn on July 1, 2016, from the Florida Department of Law Enforcement to analyze incidents of reoffending.

## RESULTS

The following analyses were conducted for 179 male ADC clients. The average age was 29 (the median age was 24), indicating a young population (74.9% were 32 years old or younger). English was the primary language for most clients (69.1%), but 25.9% listed Spanish as their primary language and 4.9% indicated multiple primary languages. A total of 90.6% of the clients reported that they spoke English “well” or “very well.” One treatment group was held in Spanish; all others were held in English, but participants had access to Spanish-translation materials as needed.

The facilitators rated over half of the clients (54.8%) with an overall engagement level of “high” and 31.5% with an “average” engagement level. The facilitators indicated that the remaining 13.7% clients had a “low” overall engagement level. Most participants (91.3%) missed two or fewer sessions.

### Screening and Assessment

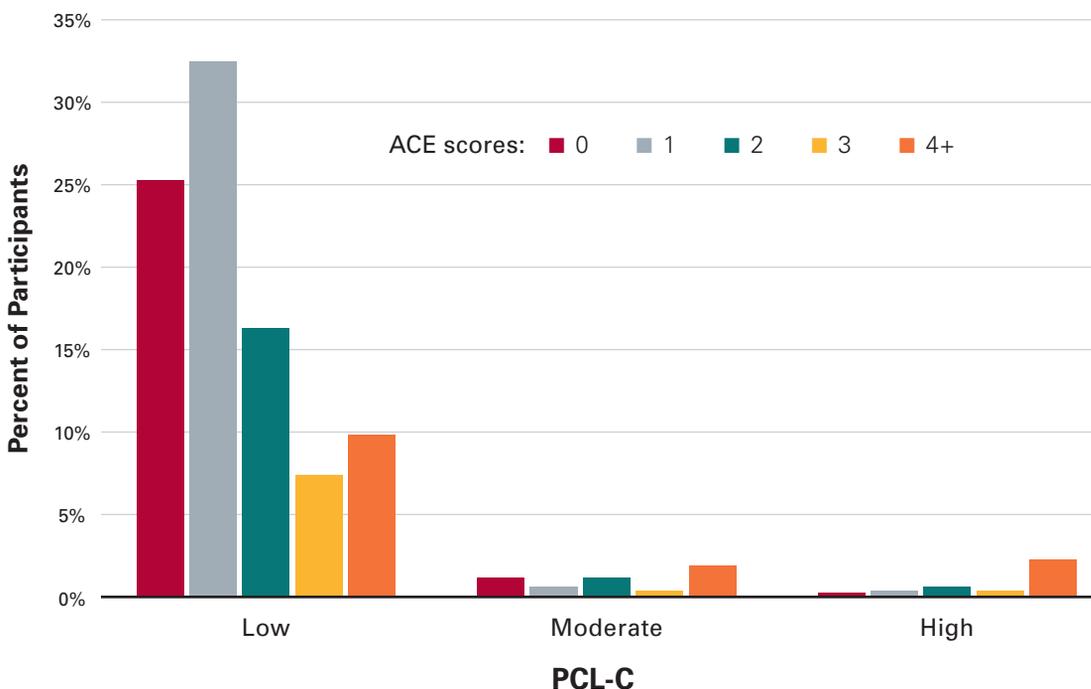
PCL-C scores can range from a low of 17 to a high of 85. Overall, participant scores were low; the average score at intake was 19.5 and the median was 17. For the purposes of this study, PCL-C scores were categorized as follows: 17 to 32 was low, 33 to 43 was moderate, and 44 and above was high. Because a substantial number of participants scored low, another way to present the distribution is to describe percentiles. The 50th percentile, or median, indicates that more than half of the incoming clients screened at 17 points (lowest score) on PCL-C; these participants indicated that they had not experienced any symptoms of trauma in the previous month.

As stated in the literature review (Fortuna et al., 2008), Hispanics are more likely to experience trauma, but Hispanic men in particular are less likely to report trauma and seek assistance to address it. Cultural awareness is paramount for ADC, as Miami-Dade County has a significant proportion of Hispanics in its population. In this study, 71% of the men identified as Hispanic or Latino. We examined the results of both trauma screening tools to detect any differences between male Hispanic and non-Hispanic participants. At intake, PCL-C scores for Hispanic participants were significantly lower than for non-Hispanics. The average PCL-C score for Hispanics was 18.5 compared with 22.6 for non-Hispanics,  $t = -2.162$  (47.28 df),  $p = .036$ . There were no differences between Hispanics and non-Hispanics in ACE scores at entry or exit or for PCL-C scores at exit. PCL-C at exit was 26.3 for Hispanics and 26.5 for non-Hispanics,  $t = -0.081$  (101),  $p = .935$ ; ACE at entry:  $t = -1.022$  (155 df),  $p = .308$ ; ACE at exit:  $t = -0.257$  (100 df),  $p = .798$ .

ACE scores can range between 0 and 10. Research suggests that a score of 4 or higher results in a positive screen for past trauma (ACEs Too High News, n.d.). For the purposes of this report, scores above 4 were labeled high; the maximum score accorded was 8. The distribution of study participants was similar to national statistics (30.7% scored 0 compared with 36.1% nationally; 32.5% scored 1 compared with 26.0% nationally; 16.9% scored 2 compared to 15.9% nationally; 9.0% scored 3 compared to 9.5% nationally; 10.8% scored 4 or higher compared with 12.5% nationally).

The ADC intake specialists preferred the ACE screen to the PCL-C. Their primary complaint about PCL-C was consistent with a limitation noted previously: PCL-C references only a client’s symptoms in the past month and fails to account for childhood trauma or past symptoms of PTSD, instead relying on recent, self-reported symptoms.

**Figure 2. PCL-C vs. ACE Trauma Scores (n=443)**



A comparison of PCL-C and ACE scores among the larger population of male ADC clients indicates that the intake specialists appear correct in their observation that ACE detects higher levels of trauma, particularly past trauma, than PCL-C. Overall, only 3.8% of ADC clients scored high on PCL-C, compared with 14.7% on ACE. Nearly 8% of those who scored low on PCL-C scored high (4 or higher) on the ACE.

By comparing the two study groups, it is possible to verify the effect of randomization, or the creation of two groups with similar characteristics. As expected, the preassessment scores of participants assigned to HMR and SS did not differ significantly (RANT  $F=0.013$ ,  $p=.910$ ; PCL-C  $F=0.526$ ,  $p=.470$ ; and ACE  $F=0.834$ ,  $p=.363$ ). This indicates that participants who were randomly assigned to both curricula were similar, on average, for relevant measures. Therefore, any changes in

these measures post-treatment are attributed to the treatment condition.

There were some differences between the pre- and post-scores. Recall, participants were reassessed after their group sessions. Participants' PCL-C scores averaged 19.5 at intake and 26.5 after completing their treatment group. The ACE scores also saw a slight increase from an average of 1.5 at intake to 1.6 after the conclusion of the group. Mirroring the attrition experienced in the overall treatment groups, some participants did not receive a post-treatment trauma assessment.<sup>6</sup> A total of 132 clients completed the treatment sessions.

6. The number of participants with PCL-C scores dropped from 164 at intake to 108 (34% attrition) with follow-up PCL-C scores. Similarly, the number of participants with ACE scores dropped from 166 to 107 (36% attrition) with follow-up ACE scores. Among those who completed the group sessions, there was an attrition rate of only 13.5% in PCL-C reassessment and 16.5% in ACE reassessment.

We expected that the participants' trauma scores would increase between intake into the drug court and completion of the trauma treatment sessions. The PCL-C screen asks participants how bothered they have been by each problem or complaint in the *past month* (and the responses are expected to change over time), whereas the ACE screen relies on participants' recall of traumatic *childhood events* (first 18 years of life) and are less likely to change over time. Some responses to ACE questions are not expected to change (e.g., parents were divorced), but others are more dynamic and could be influenced by receiving a trauma-informed treatment or as a result of a change in perspective about the experience (e.g., responses to the question about whether parents insulted or humiliated you).

Most commonly, the results for both randomized groups indicate that between the pre- and post-administration of the two scales, PCL-C scores generally increased post-treatment and ACE scores remained unchanged. A total of 8.5% of PCL-C scores declined, 17.0% remained unchanged, and 74.5% increased after treatment. Tracking changes in ACE scores uncovered that 28.7% decreased, 42.6% remained unchanged, and 28.7% increased after treatment. Most of the participants (65.5%) with different pre- and post-treatment ACE scores changed their responses to only one question.

Applying these results through a clinical perspective, court intake specialists or treatment providers must make recommendations about the threshold that should be applied to screening and assessment scores to enable development of appropriate and individualized treatment plans. A treatment plan that includes trauma-informed substance use treatment is based on an identified need. During the intake assessment by the court, only 6.7% of participants (11 of 164 clients) would have had a PCL-C score above low (33 or above). Using the reassessment conducted by the group facilitators after treatment concluded, only 17.6% of participants (19 of 108 clients) would have had a score above low. Although this is a conservative

(or low) threshold, employing a high threshold (44 or above) would have meant only 2.4% of participants (4 of 164 clients) screened high at intake with the court compared with 8.3% (9 of 108 clients) scoring high following treatment.

The largest increase in scores after treatment was for HMR participants who were initially "not bothered at all" by any trauma symptoms. To explore the change in scores further, we theorize that the clients may not have been as comfortable or willing to reveal personal information in the initial intake assessment conducted by the court compared with the post-treatment assessment conducted by clinicians at the treatment provider. In support of this is the finding that the largest increase in scores between the pre- and post-treatment time periods was for trauma study participants who answered "not at all" to all questions on PCL-C. Of the 81 participants who scored 17 (answered "not at all" to all questions) at intake and had a reassessment score, 65.4% ( $n=53$ ) scored between 18 and 33 on the reassessment. An additional 13.5% scored either moderate or high on the reassessment. Interestingly, there was a statistically significant difference in higher reassessment scores between those who received HMR (90.7%) and those who received SS (72.7%),  $z = 2.060$  (46.3 df),  $p = .045$ .<sup>7</sup> This effect was not found for the ACE screen; no significant differences between pre- and post-ACE assessment were noted in the randomized groups.

## Outcomes and Data Analysis Design

The use of intent to treat (ITT) methodology overcomes the practical realities of implementing a randomized experimental design in the field. Crossover effects, compliance with randomized assignment, and partial completions, as realized in this study, are accounted for in the ITT model. ITT methodology was first proposed by Fisher and colleagues (1990) to overcome complications

7. This analysis included those who had a reassessment score higher than the initial assessment and who attended at least one group session.

of randomized control trials (RCTs). In a controlled environment, such as a laboratory, all subjects in an RCT follow instructions and complete their allocated treatment as described in the protocol. Many investigators suggest that this is not a reality in most field settings; most RCTs suffer from noncompliance and missing outcomes. Applying ITT analysis avoids overly optimistic estimates of the efficacy of an intervention as a result of omitting from an analysis those who are not in compliance with the study protocols, have an adverse response to therapy, or drop out (Fisher et al., 1990; Gupta, 2011).

One argument against using ITT analysis is that inclusion of participants who are assigned to a group, but receive only small dosages of a treatment indicates very little about the *efficacy* of the treatment (Gupta, 2011). This is a valid argument and, therefore, the resultant analyses estimate the effect of the treatment as assigned. The results reflect the practical realities of drug court clients and the likelihood that they may drop out or attend only partial sessions of any given treatment curriculum.

Applied in this randomized study, the ITT principle benefits from maximizing the use of all observations. When paired with other analysis techniques, such as survival analysis, ITT will also incorporate partial data, such as for those who were terminated early from the drug court or did not complete the treatment sessions. One limitation is the availability of sobriety data. Drug test results were not available for those who were not active in both treatment and the drug court program. For those who left the program while not in compliance, we assumed a worst-case scenario and treated the first day of termination from the program as a likely relapse.

### Retention in drug court

Assignment to treatment groups occurred early in the client's tenure with the ADC program; just over one third of the participants (34.3%) were still active in the program after the grant period.

The data collection phase ended July 1, 2016. Approximately half of the participants (50.6%) successfully completed ADC, and 15.2% were terminated from the program. Of the 117 participants who completed ADC (successfully or not), the average time in the program was 320 days and for the 90th percentile 413 days. There were no significant differences in the rates of program completion or total time in the program between those assigned to HMR and those assigned to SS, completion rate  $\chi^2 = 0.10$ ,  $p = .919$  (note, transfers were coded as "not complete"); time in program  $t = 0.488$  (116) df,  $p = .626$ .

The duration that the NCSC team could track the participants after exiting the ADC drug court program was limited: an average of 9 months (269 days). In effect, the evaluators were only able to track recidivism after exiting for less than 6 months for one third of the participants, and between 6 months and a year for another third of the participants; only five participants were out of the program for at least 18 months.

### Social functioning

Examining how well participants are poised to succeed in the community has important implications for long-term recovery (Carey, Mackin, & Finigan, 2012; Gallegher, Nordberg, & Kennard, 2015; Shannon, Jackson, Newell, Perkins, & Neal, 2015). Social functioning includes safe and stable housing, advances in educational or employment goals, prosocial and supportive relationships with friends and family, and physical and emotional health. The results rely upon participants' answers to questions asked during the drug court intake interview and then again upon exiting the program. For those who had not yet exited the ADC program, NCSC relied on answers supplied as part of a six-month follow-up interview. Those not in the ADC program for at least six months were excluded from the following analyses.

After confirming equivalent groups through randomization, the study found that the proportions of participants who were unemployed and look-

ing for work did not significantly differ in the two randomized groups at entry,  $z = 0.529$ , (160 df),  $p = .598$ . At exit, the proportions unemployed did not statistically differ at the 0.05 level but did at the 0.10 level,  $z = -1.695$ , (83.5 df),  $p = .094$ . Although the difference is only marginally significant, the percentage of participants unemployed and looking for work was lower among HMR participants (5.4%) than among SS participants (14.8%). There were no differences in the proportions of participants in either group who had obtained a GED or high school diploma at entry or in educational attainment at exit,  $z = 0.830$ , (165 df),  $p = .408$  at entry;  $z = 0.751$ , (126 df),  $p = .454$  at exit.

At both entry and exit, participants were asked how they would rate their overall health on a five-point scale (1=excellent, 2=very good, 3=good, 4=fair, and 5= poor). At entry, there were no differences between those randomly assigned to HMR groups and those randomly assigned to SS groups, HMR average 1.96 and SS average 2.09;  $t = -0.775$ (150 df),  $p = .440$ . However, at exit, participants assigned to HMR reported an overall better rating of their health and this difference was statistically different, HMR average 1.53 and SS average 1.90;  $t = -2.030$ (115 df),  $p = .045$ . The results indicate that overall health improved more for HMR participants than for SS participants. During focus groups, participants randomized into HMR groups reflected on the health gains they made. "I feel healthier." "I used to use marijuana to substitute for insulin...I am finally on insulin. I can sleep better and have more energy when I wake up. I am not so cranky."

Participants were asked to reflect on the past 30 days and self-report the status of their psychological and emotional health. Specifically, as a result of alcohol or drug use, participants rated how often their lives were stressful and whether drug use resulted in a reduction or cessation of important activities or caused emotional problems. There were no statistically significant differences between the two randomized groups.

Participants were also asked the number of days, in the past 30 days, they experienced serious depression; serious anxiety or tension; hallucinations; trouble understanding, concentrating, or remembering; trouble controlling violent behavior; or attempted suicide. They were also asked how many of the past 30 days they had been prescribed medication for psychological or emotional problems and how often they had been bothered by such problems. Again, there were no significant statistical differences between the two randomized groups at exit.

Participants identified specific tools and exercises that were valuable as they learned healthy ways to deal with their stress and emotions. Activities that helped the men assigned to HMR increase self-control, think through consequences of behavior, and process emotions were among the most common responses. "I think [HMR] was very helpful 'cause I learned things like doing breathing exercises when mad or stressed." "Grounding techniques help me to get over urges." When sharing the benefits of participating in SS, multiple participants mentioned improved physical health as well as improved focus and a positive attitude. "I am again the man I was before, a good man again." "I feel good inside."

Participants were asked to reflect on their interactions with family members and friends. Specifically targeting the need to engage in prosocial activities and stabilizing life circumstances for those in recovery has been shown to improve long-term outcomes (Carey et al., 2012). Participants were interviewed at intake and asked to rate whether, in the past 30 days, they had any interaction with family or friends who were supportive of their recovery efforts. At entry, there was no difference between the two randomized groups; at exit, the difference was statistically significant. At exit, the proportion of SS participants who indicated yes was 78.2% compared with 94.1% of HMR participants,  $z = 2.397$ (75 df),  $p = .019$ .

The men assigned to HMR shared that their relationships with other participants as well as with family members had improved. Participants mentioned that bonds with their parents, partners, and children strengthened during the program: “I have a different perspective, [especially] when you lose life and family, but regain their respect now. And I regained my dog.” “Relationships are positive and better, not hiding things anymore. I am thinking more clearly.” “I can talk to my mom now and my lady friends.” “It gives you a chance to get back your life, your family, the way you see your family. I went to the fair with my niece. Before, I just would have given her money to go with someone else.”

Similarly, SS participants discussed the impact that drugs and alcohol had on their family and friends. The most common benefit of the program was participants’ improved relationships. Participants shared not only that they were strengthening relationships with positive people, but also that they were distancing themselves from people who had a negative influence on their lives. Having completed the group, participants felt they could now become positive influences and wanted to support others. “This group has helped me reconnect with my father and motivate him to not do drugs.” “I now try to be a positive influence on everyone I can.”

### Sobriety

To analyze the impact of the HMR curriculum on sobriety and recidivism, we employed the Kaplan-Meier survival analysis. Survival analysis examines how long a participant survives in one state (e.g., remaining sober) before experiencing failure (e.g., testing positive for substance use). In practice, it is not possible to observe the event of failure for each participant in a sample because some may fail after the study has concluded, and still others may never fail. For these observations, called censored observations, the observed survival time ends when the study’s follow-up period

ends, which is earlier than the actual point of failure, if failure occurs.<sup>8</sup>

The Kaplan-Meier survival analysis technique plots the survivor function, or the probability of survival, up to a given point in time. Each participant with a censored survival time is factored into the analysis only up to the point at which observation ends, eliminating any bias associated with the censoring (Bland & Altman, 1998; Box-Steffensmeier & Jones, 2004). Separate survivor functions are plotted for the treatment and control groups. The log-rank test is used to test for statistically significant differences between the two survivor functions (Bland & Altman, 2004).

The ITT model was applied to the survival analysis results in comparing sobriety for the two randomized groups. The theory is that the length of time a participant is sober is expected to increase with treatment that addresses underlying issues due to past trauma. The survival analysis examined the number of days from when the participant first entered a trauma group until his first positive drug test. For the purposes of this study, we defined positive drug tests broadly as any result other than negative. A diluted, insufficient sample or a missed test was considered positive. For participants who did not have a positive drug test, the analysis captured either the amount of time that lapsed until exit date when testing was discontinued, or for those who were still active in the program, the time that lapsed until data collection ended.

Of the 117 participants who completed ADC (successfully or not), a total of 26 participants (22.2%) tested positive at least once after starting a treatment group. On average, those participants had 5.4 positive drug test results while in the program. Relapses while participating in treatment

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8. Because the observed survival times of the censored observations are shorter than their actual survival times, estimates of mean survival times would be biased, and comparison of mean survival times across groups might lead to erroneous conclusions. Survival models take censoring into account, eliminating the associated bias (Box-Steffensmeier & Jones, 2004).

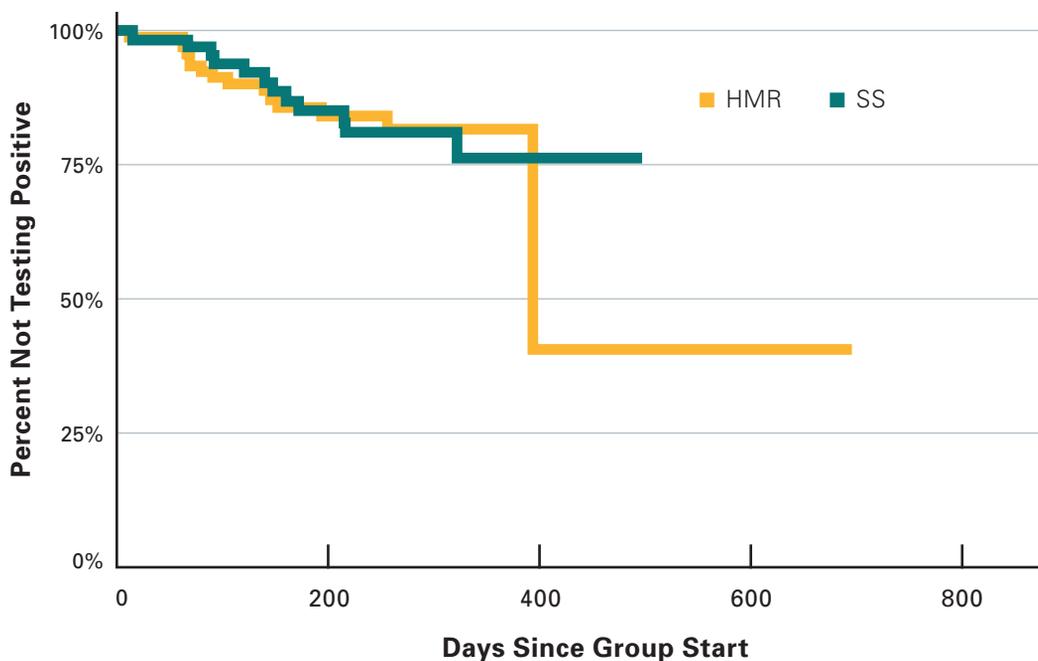
are expected; most participants had a positive drug test early in the ADC program (46.8% had a positive test in the first 90 days). Trauma participants were most likely to test positive for cannabinoids (41.9%), followed by cocaine at 16.8%, opiates at 15.1%, benzodiazepines at 14.5%, and barbiturates at 10.1% (remaining 1.6% fell into other categories).

Sobriety data were unavailable for four participants who were diverted from the ADC program prior to drug testing and/or exited prior to the first scheduled group session; these participants were excluded from the sobriety analysis. Of the remaining 175 participants, 24 (14%) tested positive. For three additional participants who absconded from the program, a positive drug test was assumed on the date that the participant absconded—a worst-case assumption, making a total of 27 failures. The sobriety analysis covers a long duration across multiple participants. For individual participants, the period of observation ranged from 3 to 695

days, with an average of 211 days. Typically, participants were administered drug tests for the duration of the program, which, on average, lasted 11 months (approximately 330 days).

The survival analysis provided no evidence that sobriety rates of the treatment (HMR) and control (SS) groups differed. The lines provide a similar declining pattern and the confidence intervals are overlapping, indicating no difference. Figure 3 shows the Kaplan-Meier survivor functions for participants randomized to the treatment and control groups. The lines in the figure (survivor functions) are quite similar through approximately the 400-day mark, at which point very few participants remained under observation. There were no significant differences between the two randomized groups. The log-rank test does not indicate a statistically significant difference between the two survivor functions. Log-rank test for equality of survivor functions:  $\chi^2 = 0.01$ , 1 df,  $p(\chi^2) = 0.9371$ .

**Figure 3. Sobriety Following First Scheduled Trauma Group Session, by Curriculum (n=175; 27 failures)**



The survival analysis functions produce valuable information for practitioners. At the 100-day mark (100 days after the participants started attending group), there was an increase in the percentage of participants who relapsed (or a decrease in the vertical axis, that is, the percentage not testing positive). This information informs the team to monitor the participant near this point in time and build up safeguards to support sobriety.

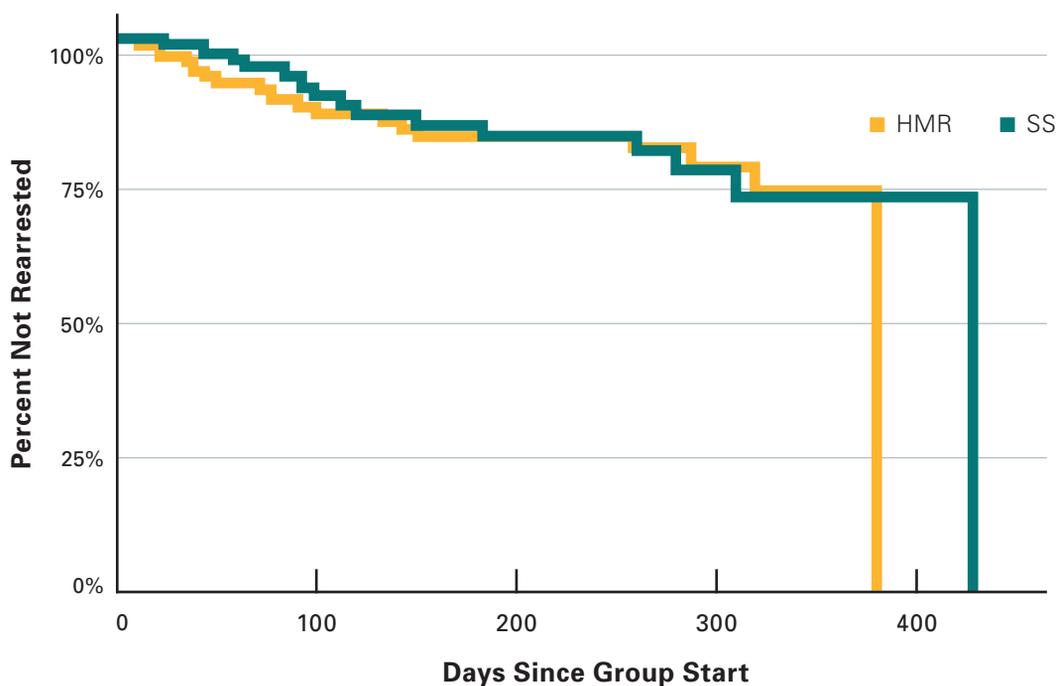
### Recidivism

For purposes of the recidivism analysis, the recidivistic event, or “failure” in survival analysis terminology, is defined as rearrest. The in-program recidivism analysis examined the incidence of rearrest between the date of the participant’s first scheduled trauma group session and ADC program exit date. Approximately one fifth of the participants (19.9%, or 35 clients) included in the analysis were rearrested between the first trauma

group session and program exit. Three participants were excluded from the analysis because they exited the program prior to the first scheduled group session for a total of 176 participants. The in-program recidivism analysis included observations of individual days in the program ranging from 3 to 428 days, or 195 days on average.

There was no evidence that in-program recidivism of the treatment (HMR) and control (SS) groups differed. Figure 4 shows two lines (the Kaplan-Meier survivor functions) for participants randomized to the two groups. The lines appear virtually identical, indicating no significant difference between the groups. The log-rank test does not indicate a statistically significant difference between the two. Log-rank test for equality of survivor functions:  $\chi^2 = 0.10$ , 1 degree of freedom,  $p(\chi^2) = 0.7490$ .

**Figure 4. In-Program Survival Without Rearrest, by Curriculum (n=176; 35 failures)**



Because of the very short time during which clients were under observation after exiting the program, post-program recidivism analysis is not included in this study. However, participants in both randomized groups reported that they developed the skills to be successful after integration into the community.

### **Facilitator and Participant Reactions**

Facilitators provided comments on 10 of the 12 HMR groups and 6 of the 8 SS groups. A total of 90 participants provided written post-group feedback, 50 for HMR groups and 40 for SS groups. Regardless of curriculum, both participants and facilitators were overwhelmingly positive in their reactions. Themes of participant progress or change, engagement with the curriculum, improved sobriety, and improved relationships were present in all groups.

Participants assigned to SS groups mentioned feeling prepared to fight addiction and having the tools needed for recovery. Some SS participants mentioned specific tools, such as being able to identify triggers and the importance of a support system. One SS participant mentioned that the recidivism lesson was especially relevant for him, as it was his second time in the program. “It is very good, it helps you focus and see...what are your triggers.”

HMR facilitators shared that although guarded at first, the men became highly engaged with the curriculum and, through participation in the group sessions, formed close relationships with other participants. All HMR facilitators mentioned the theme of transformation and growth from first to last session. In this safe environment, the men opened up, sharing personal information and discussing past experiences. This authentic sharing allowed the men to gain each other’s trust, and that trust strengthened the group dynamic. “At the onset of this group... the men were very guarded and reticent about sharing. The group transformed from that to a very close group of

men [who] actually formed friendships outside of the group process.”

Participants assigned to HMR echoed these same themes. The men shared that the environment in the group was supportive and allowed them to address topics and feelings that men usually don’t talk about. They could dig deep into their personal lives and past decisions. Participants also shared that hearing different perspectives and experiences from other group members provided valuable context as they processed their own history and worked on their recovery. “It’s helped me out by talking to other people about certain topics that generally us men don’t speak about to others.”

Comments were largely positive; facilitators and participants across both groups perceived similar benefits. However, some differences emerged. For one, the comments of HMR participants were more specific than the comments from those attending SS groups. HMR participants tended to focus more on improved family relationships stemming from a better understanding of how relationships and past experiences impacted their addiction; in contrast, SS clients tended to focus more on the positive outcomes of being able to achieve sobriety and the many benefits that come with living a sober life.

### **CONCLUSIONS**

**T**his study set out to answer two key questions. First, were the trauma screening tools employed by ADC sensitive to the trauma needs of male felony defendants? And second, whether men assigned to HMR and SS groups differed significantly in retention, social functioning, sobriety, and in-program recidivism?

The trauma screening results suggest that if ADC or its treatment partners use PCL-C as a screening tool for triaging male drug court clients into trauma treatment, it is important to be aware that many clients, particularly Hispanic and Latino men, will not screen positive for trauma. ACE

provides a more stable score than PCL-C between assessment and the conclusion of trauma-informed treatment. However, the application for each is nuanced. There are differences between the two screening tools. ACE, which measures traumatic events that occurred in the first 18 years of life, results in more stable scores for individuals over time. In contrast, PCL-C measures symptoms resulting from trauma that occurred in the past 30 days. By design, the PCL-C screening tool is expected to be more dynamic over time.

For this study, the HMR curriculum developers hypothesized that men do not have the language necessary to articulate experienced trauma until after exposure to a trauma-informed curriculum such as HMR. Therefore, we hypothesized that their scores would increase following the conclusion of treatment groups. Regardless of curriculum, participants' scores on PCL-C did, in fact, increase compared with scores at the initial intake assessment. Specifically, this effect was strongest for those who had the lowest PCL-C scores and supported the decision to administer the trauma intervention to individuals not reporting trauma symptoms at intake. Moreover, the effect was statistically higher for those in HMR groups compared with those in SS groups. HMR participants who responded to all items on PCL-C that they were "not at all" bothered by trauma symptoms were more likely to realize an increase in their post-assessment PCL-C scores.

The two-group design further informs participants' post-assessment experience. The post-assessment scores increased for both groups, but the effects for HMR participants were more profound. A significant finding was lower PCL-C scores for Hispanic participants than for non-Hispanic participants at entry, leading to a conclusion that culture plays an important role in securing trust during initial assessment, particularly as this difference between Hispanics and non-Hispanics disappeared at exit. Clinicians and ADC intake staff should not rely on screening scores alone to identify treatment needs

and should implement periodic reassessments throughout treatment engagement. Furthermore, clinicians and intake staff should be trained on cultural competency in addition to understanding gender differences for potential victims of trauma. To be responsive to how cultural and gender identities may impact the assessment process, drug courts should continually monitor demographic data on its participants.

It is possible that the HMR curriculum is better able than the SS to provide an opportunity for men to become more aware of the symptoms of traumatic events. However, an alternative theory remains untested, that is, whether different conditions exist during pre- and post-assessment. We know that the initial intake was markedly different from the post-assessment experience. During the initial intake, the defendant is in a courthouse and undergoes a thorough screening and assessment with numerous instruments. The intake specialists, while clinically trained, are by all appearances, court employees. Defendants may be more reticent to share personal experiences with the court, and they may undergo testing fatigue as they are subjected to numerous assessment and screening tools in one sitting.

This intake experience contrasts with the experience post-group in which the participants are asked by the group facilitators, who just spent nine weeks with them in a therapeutic setting, to self-report answers on the PCL-C and ACE tools. The only other information gathered after the conclusion of the group is a voluntary feedback form consisting of four questions. The potential for increased trust and a reduction in the likelihood of assessment fatigue may play a role in the changes detected in scores.

Too often there is redundancy in screening and assessment activities. Therefore, drug courts should establish intake screening protocols that reduce the redundancy in obtaining critical case triage and treatment planning information. Streamlining this process would take less time and improve

the overall experience. Such a change requires interagency coordination through shared assessment scores. Treatment providers should take the lead in conducting screening and assessment that pertain to developing an individualized and informed treatment plan. The screening and assessment done by court staff should target results that inform decision-making for eligibility, case processing, and triage for assigning participants to appropriate dockets.

The findings indicate no discernable differences in most of the four key outcomes (retention in drug court, social functioning, sobriety, and recidivism). Those randomly assigned to HMR treatment groups were not more likely than those randomly assigned to SS to graduate from the ADC program or to be retained for longer durations in the program.

However, participants randomized to HMR groups were more likely to report improvements in overall health and more likely to interact with family and friends supportive of their recovery efforts. These two findings position HMR participants at an advantage for long-term success when reintegrating back into society. As found in previous research (Boden, 2008), patients with more symptoms of PTSD and those isolated from social interaction are more likely to relapse. Additionally, patients with co-occurring PTSD and SUD who receive PTSD treatment within three months of being discharged from a SUD treatment program are more likely to be in remission five years later than those patients who did not receive PTSD treatment (Ouimette et al., 2003).

The long-term goal of all drug court clients is to extend the duration for which they are sober, breaking the cycle of involvement in the criminal justice system resulting from drug and alcohol use. Findings from these analyses indicate that participants randomized to HMR were no more or less likely to relapse and use drugs or alcohol following engagement with treatment than participants randomized to SS.

Although the methodology included fidelity measures for the interventions to address primarily structural components, such as frequency of sessions and dosage, those measures did not capture adherence to the content of the interventions aside from monitoring the completion of required HMR facilitator training. This limits our ability to discern what components of each HMR and SS group drive the relatively similar outcomes. As its name (Seeking Safety) implies, SS focuses on safety through cognitive, behavioral, case management, and interpersonal dimensions (primarily letting go of unhealthy relationships). However, HMR engages participants to regularly practice mindful meditation and focuses on building healthy relationships through acknowledgment and solutions for overcoming “man rules” engrained in our culture (Griffin, 2011). These variations in curriculum content may provide a possible explanation for the positive HMR results for improved health and social support, although the results need to be more fully explored in further research.

Participants randomized to HMR were no more or less likely than participants randomized to SS to reoffend while in the ADC program. It is important to recall, however, that SS has been identified as an evidence-based practice by NREPP. Therefore, it is not surprising that this null finding aligns with past research, such as a study of male inmates by Wolff et al. (2015), who found that M-TREM (Trauma Recovery and Empowerment Model adapted for men) did not produce differences in PTSD severity and secondary outcomes compared with SS. However, M-TREM and SS both outperformed *no treatment* when maximizing longitudinal data.

The current study measured only proximal, or short-term, outcomes. To overcome the limited longitudinal post-program recidivism data available for this study, we recommend following the same trauma study participants for at least another year to monitor more distal goals and long-term success following court-supervised treatment.

Ideally, the post-program recidivism should include rearrests resulting in convictions to eliminate the influence of historical fluctuations in law enforcement and prosecution decisions that occur when examining incidents of arrest.

What is gained from this analysis of outcomes is a better understanding of the timing of failures or reoffending and relapses. The likelihood of relapse for all trauma study participants increased 100 days after the participant began treatment. Drug courts may benefit from providing additional support during this period of the recovery process.

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