

2-8-2017

Do Race and Ethnicity Matter? An Examination of Racial/Ethnic Differences in Perceptions of Procedural Justice and Recidivism Among Problem-Solving Court Clients

Cassandra A. Atkin-Plunk

Jennifer H. Peck

Gaylene Armstrong

Follow this and additional works at: <https://digitalcommons.unomaha.edu/criminaljusticefacpub>

 Part of the [Criminology Commons](#)



Do Race and Ethnicity Matter? An Examination of Racial/Ethnic Differences in Perceptions of Procedural Justice and Recidivism Among Problem-Solving Court Clients

Cassandra A. Atkin-Plunk¹, Jennifer H. Peck² and Gaylene S. Armstrong³

¹ School of Criminology and Criminal Justice, Florida Atlantic University, Boca Raton, FL, USA

² Department of Criminal Justice, University of Central Florida, Orlando, FL, USA

³ School of Criminology and Criminal Justice, University of Nebraska Omaha, Omaha, NE, USA

Abstract

Over the years, a distinct body of research has emerged that examines procedural justice in problem-solving courts. However, there is virtually no research to date on racial and ethnic differences in perceptions of procedural justice among problem-solving court clients. The present study seeks to understand the complexities of judicial procedural justice and race/ethnicity within problem-solving courts. Using a convenience sample of 132 clients from two problem-solving courts in a southern state, this study addresses a void in the literature by examining the influence of race/ethnicity on perceptions of procedural justice as well as the impact of race/ethnicity and procedural justice on clients' likelihood of recidivism. Results suggest that Black problem-solving court clients' have significantly lower perceptions of procedural justice, while also having a lower likelihood of recidivism. Perceptions of procedural justice did not influence recidivism outcomes. Policy implications and recommendations for future research are discussed.

Keywords

race, ethnicity, procedural justice, problem-solving courts, recidivism

Prior research has consistently shown that racial/ethnic minorities (e.g., Blacks and Hispanics) hold negative perceptions of the criminal justice system compared to similarly situated Whites (Hagan & Albonetti, 1982; Woolard, Harvell, & Graham, 2008). In fact, studies show that Blacks consistently hold the most negative attitudes toward the courts, Whites the most positive, and Hispanics in the middle of the spectrum (see also Caldeira & Gibson, 1992; Longazel, Parker, & Sun, 2011). Tied to this notion of perceptions and attitudes concerning the criminal justice system is the concept of procedural justice. Racial and ethnic differences in perceptions of procedural justice throughout court processing are also documented in the literature (Caldeira & Gibson, 1992; Higgins, Wolfe, Mahoney, & Walters, 2009; Tyler, 2001; Sun & Wu, 2006).

Procedural justice plays an important role in the courtroom setting, where individuals who believe they are treated fairly by judicial decision-makers (i.e., judges) tend to possess more positive attitudes toward these courtroom actors, view the legal system as one to be obeyed (Sunshine & Tyler, 2003; Tyler, 2006), and subsequently follow the directives of the judge and the law (Tankebe, 2013; Tyler, Sherman, Strang, Barnes, & Woods, 2007). Ultimately, the focus of procedural justice is on the *process* experienced by individuals encountering courtroom actors, not solely on the outcome the individual receives in court (Poythress, Petril, McGaha, & Boothroyd, 2002; Thibaut & Walker, 1975).

While prior studies have largely focused on procedural justice in traditional adversarial courtrooms (Rottman, 2005; Tyler & Huo, 2002; Tyler et al., 2007), a more recent area of research has emerged that focuses on the influence of procedural justice within problem-solving courts (Canada & Watson, 2013; Gottfredson, Kearley, Najaka, & Rocha, 2007; Henry, 2011; McIvor, 2009; Wales, Hiday, & Ray, 2010). In general, problem-solving courts are designed to embody the philosophy of procedural justice, with judges engaging in frequent and prolonged interactions with clients assigned to their docket, treating clients in a respectful manner, and providing clients with a voice (Huddleston & Marlowe, 2011). Problem-solving courts utilize a stage- progression program structure that combines intensive cognitive behavioral treatment with offender accountability (MacKenzie, 2006). These factors have been suggested to contribute to

positive behavior change for problem-solving court clients (Shaffer, 2011; Taxman & Bouffard, 2005).

Of the particular studies on procedural justice surrounding nontraditional court settings, findings suggest that higher perceptions of procedural justice for problem-solving court clients are related to both prosocial intermediate and long-term outcomes. Intermediate outcomes consist of increased program compliance and court satisfaction (Canada & Watson, 2013; Henry, 2011; McIvor, 2009). Positive long-term outcomes include reduced drug use and criminal behavior (Gottfredson et al., 2007; Wales et al., 2010).

However, research is incomplete surrounding perceptions of procedural justice for various racial and ethnic groups who are involved in problem-solving courts. It may be that due to the nonadversarial, therapeutic approach to handling cases and fostering positive behavioral change (Bureau of Justice Assistance, 2004; Council of State Governments Justice Center, 2007), racial/ethnic minorities hold more favorable perceptions of procedural justice in problem-solving courts compared to prior findings of traditional courtroom settings. We argue that since prior research has found that Blacks and Hispanics hold the most negative views of traditional courts (Caldeira & Gibson, 1992; Longazel et al., 2011) compared to Whites, the components of problem-solving courts may “matter more” in the perceptions of these two racial/ethnic groups. Due to a history of negative perceived treatment in traditional courtroom settings, minority clients may believe (more so than Whites) that they have a voice and are treated with respect throughout the program, which results in an increase to both perceptions of procedural justice and subsequent prosocial behavior.

Furthermore, there is still a void in the literature surrounding the link between procedural justice and long-term outcomes for problem-solving court clients. Stated differently, if clients perceive they are treated in a procedurally just manner by the problem-solving court judge, these perceptions may translate to positive behavioral change. Finally, it is unknown the extent to which racial and ethnic differences may emerge in long-term outcomes for problem-solving court clients while taking into consideration perceptions of procedural justice as it relates to their judge (hereafter termed *judicial* procedural justice). Therefore, the impetus for the present study is based

on a paucity of research surrounding the intricacies involving race and ethnicity, procedural justice, and long-term outcomes within the setting of problem-solving courts.

Utilizing data from a multicourt survey on perceptions of procedural justice among participants in a drug and veterans' court, two objectives guide the current study. The first objective is to examine if clients' race and ethnicity influence perceptions of procedural justice in problem-solving courts. The second objective is to investigate if racial and ethnic differences in recidivism emerge among problem-solving court clients, controlling for perceptions of procedural justice. The results have the potential to inform policy and practice to understand in more detail why disparities across race and ethnicity may surface in perceptions of judicial procedural justice and recidivism for offenders in a nontraditional court setting.

Background

Procedural Justice in Traditional Court Settings

The idea of procedural justice focuses on the fairness of the *process* experienced by individuals encountering criminal justice agents (Poythress et al., 2002; Tyler & Folger, 1980; Walker, Lind, & Thibaut, 1979). Over the years, researchers have explored what it means to be treated in a procedurally just manner (Leventhal, 1980; Thibaut & Walker, 1975; Tyler, 2006). In other words, what elements of the encounter do individuals focus on when determining whether or not legal authorities treat them fairly? Research has suggested procedural justice to be a multidimensional construct with quality of decision-making and quality of treatment being the primary elements driving individuals' judgments regarding fair treatment (Tankebe, 2013; Tyler, 2006). This concept is gaining attention throughout criminal justice research due to a substantial body of literature which has found that if individuals believe they are treated fairly by authorities in the legal process, they possess more positive attitudes toward those authorities, view the legal system as fair and just, and subsequently comply with the law (see also Sunshine & Tyler, 2003; Tyler, 2006). The effects of perceiving procedurally just treatment by court actors are vast, in that individuals who believe they are treated fairly (1) have higher levels of satisfaction with those authorities, (2) are willing to comply with court mandates, and (3) engage in prosocial behavioral changes (Tyler, 2007).

Prior research on procedural justice has primarily been conducted on police–citizen encounters (Mazerolle, Bennett, Antrobus, & Eggins, 2012; Tyler & Folger, 1980; Tyler & Wakslak, 2004) and situations involving traditional courtroom settings (Casper, Tyler, & Fisher, 1988; Heinz, 1985; Landis & Goodstein, 1986; Rottman, 2005; Tyler, 1984; Tyler & Huo, 2002; Tyler et al., 2007). Early research on procedural justice in a court context has occurred in a variety of situations, including pretrial settlement hearings (Heinz, 1985), traffic cases (Tyler, 1984), misdemeanor courts (Tyler, 1984), and felony courts (Casper et al., 1988). Findings indicate that not only are defendants concerned with the outcome of their case, their perceived fairness of court procedures also influences their overall satisfaction with the court (Heinz, 1985; Thibaut & Walker, 1975; Tyler, 1984). Additional studies suggest that perceptions of procedural justice are important regardless of whether sanction severity is low (e.g., fines) or much greater (e.g., incarceration) (Casper et al., 1988; Landis & Goodstein, 1986).

In the last 15 years, researchers have expanded the literature on procedural justice in traditional courtroom settings (Rottman, 2005; Tyler & Huo, 2002; Tyler et al., 2007), where emphasis has been placed on replicating prior findings and extending the overall knowledge of procedural justice in the field. Results tend to parallel earlier conclusions in that individuals who have higher levels of perceived procedural justice are more willing to accept the decision made by the judge and have more positive evaluations of the court system (Tyler & Huo, 2002). Findings also suggest that fair procedures are the strongest predictor of having overall confidence in the court system (Rottman, 2005; Tyler & Huo, 2002), and individuals who have greater perceptions of procedural justice are significantly more likely to view the law as legitimate (Tyler et al., 2007). Overall, studies examining procedural justice in a court context conclude that satisfaction with court proceedings is determined largely by an individual's perception of being treated fairly (i.e., in a procedurally just manner) and that this satisfaction occurs above and beyond the court outcome (Casper et al., 1988; Landis & Goodstein, 1986; Rottman, 2005; Tyler, 1984; Tyler & Huo, 2002).

Racial/Ethnic Differences in Procedural Justice in Traditional Court Settings

Differences across racial groups in perceptions of procedural justice in traditional

court contexts have been examined less often in the literature compared to other decision-making points in the criminal justice system (Baker et al., 2015; Higgins & Jordan, 2005; Higgins et al., 2009; Tyler, 2006; Tyler & Huo, 2002). While a number of studies have examined the effect of race/ethnicity on more general evaluations of court experiences (Gibson & Calderia, 1992; Sun & Wu, 2006; Tyler, 2001), fewer examinations have investigated the theoretical notions of procedural justice or therapeutic jurisprudence in courtrooms across different racial and ethnic groups. Of the research that has been conducted in traditional court settings, results have been mixed concerning if racial and ethnic minorities experience varying levels of procedural justice compared to Whites.

On the one hand, some research finds no difference across race/ethnicity in perceptions of procedural justice in traditional courtroom settings (Baker et al., 2013, 2015; Tyler, 2001; Tyler & Huo, 2002). This is especially true in studies where all racial/ethnic groups indicated that they were treated fairly throughout court proceedings (see Higgins & Jordan, 2005). On the other hand, some findings indicate that Blacks and Hispanics are less likely than Whites to perceive the court system as fair and just (Higgins et al., 2009; Sun & Wu, 2006). However, Higgins, Wolfe, Mahoney, and Walters (2009) reported that even though race differences emerged in perceptions of procedural justice, both Black and White individuals described satisfaction with the court system. Adding to these mixed results, Baker and colleagues (2013) found that Hispanic female inmates had higher perceptions of procedural justice in a court context compared to their White female counterparts. No differences emerged between Black and White females (Baker et al., 2013).

Procedural Justice in Problem-Solving Courts

As discussed above, the majority of prior research on procedural justice has involved police–citizen encounters and adversarial courtroom settings. More recently, researchers of procedural justice have begun to examine this concept within problem-solving courts including mental health courts (Canada & Watson, 2013; Kopelovich, Yanos, Pratt, & Koerner, 2013; Poythress et al., 2002; Wales et al., 2010), domestic violence courts (Gover, Brank, & MacDonald, 2007), and drug courts (Atkin-Plunk &

Armstrong, 2016; Gottfredson et al., 2007; Henry, 2011; Mclvor, 2009). Despite the success of problem-solving courts (see MacKenzie, 2006), little research exists to determine the factors within these nontraditional court settings that correlate with perceptions of procedural justice and changes in behavioral outcomes (i.e., criminal behavior) of participants (cf. Gottfredson et al., 2007).

For example, all prior research that examined procedural justice in mental health courts and domestic violence courts focused solely on participants' perceptions of procedural justice. Earlier studies have found that mental health court defendants had significantly higher perceptions of procedural justice and were more satisfied with the court outcome compared to defendants in traditional court settings (Poythress et al., 2002). Other results show that mental health court clients have strong and positive perceptions of procedural justice, in that participants feel their judge treated them with respect, was fair, was interested in them as a person, and gave them a chance to tell their story (Kopelovich et al., 2013; Wales et al., 2010). Most recent, Canada and Watson (2013) reported comparable findings where mental health court participants perceived moderate levels of procedural justice, indicating more so than not that they were treated fairly and with respect by the mental health court team (i.e., judge, caseworker, and probation officer).

Only one study to date has examined perceptions of procedural justice in a domestic violence court (Gover et al., 2007). In an effort to determine the extent to which both defendants and their victims experienced procedural justice in a domestic violence court setting, Gover and colleagues (2007) found that the majority of victims and defendants believed they were treated with respect by the court, they had a chance to tell their side of the story, and the outcome of their case was fair. In the three studies that examined how procedural justice impacts future behavior of drug court participants (Atkin-Plunk & Armstrong, 2016; Gottfredson et al., 2007; Henry, 2011), the findings provide preliminary evidence that elements of procedural justice are evident in some drug court settings (see also Mclvor, 2009). Drug court clients who had greater perceptions of procedural justice were more likely to reduce their drug use (Henry, 2011) and criminal behavior (Gottfredson et al., 2007) and be compliant with program mandates (Henry, 2011). Although Atkin-Plunk and Armstrong (2016) did not find a significant relationship

between procedural justice and reduced recidivism, the drug court clients in their study reported high perceptions of procedural justice.

Procedural Justice and Race/Ethnicity in Problem-Solving Courts

Of those studies that have investigated the relationship between procedural justice and outcomes in a court context, even fewer have examined the predictors of procedural justice and long-term outcomes in problem-solving courts (Canada & Watson, 2013; Gottfredson et al., 2007; Henry, 2011; Kopelovich et al., 2013; McIvor, 2009; Poythress et al., 2002; Wales et al., 2010). This discovery was surprising given that the National Association of Drug Court Professionals (n.d.) states that there are over 2,700 operating *drug courts* in the United States, not including any other types of problem-solving courts. To our knowledge, much of the empirical research on procedural justice within problem-solving courts (1) did not disclose client race or ethnicity or (2) only included race and ethnicity of the client as a control measure. Absent from the literature is the examination of race and ethnicity as a central focus and main influence on perceptions of procedural justice and subsequent outcomes in problem-solving court settings.

This lack of research is surprising given the depth of empirical knowledge surrounding perceptions of procedural justice in traditional courtroom settings (Heinz, 1985; Rottman, 2005; Tyler et al., 2007), and prior findings that minorities consistently hold more negative views of the criminal justice system compared to Whites (Henderson, Cullen, Cao, Browning, & Kopache, 1997; Woolard et al., 2008). Not only do minorities perceive the criminal justice system in a more critical manner than Whites (Rottman, Hansen, Mott, & Grimes, 2003), research has also found that minorities harbor feelings of injustice based on prior contact with the court (Sun & Wu, 2006). Consequently, while there is scant research on procedural justice in problem-solving courts, examinations of the effects of race/ethnicity on both perceptions of procedural justice and problem-solving court outcomes are nonexistent.

Within the literature that has investigated perceptions of procedural justice in problem-solving courts, it is necessary to mention that most studies have included participants from various racial and ethnic backgrounds, including White and Black (Henry, 2011; Poythress et al., 2002); White, Black, and "Other" (Gottfredson et al.,

2007; Wales et al., 2010); or three or more racial/ethnic groups (Atkin-Plunk & Armstrong, 2016; Canada & Watson, 2013; Kopelovich et al., 2013). In these instances, race/ethnicity was typically included as a control measure. For example, in the research by Gottfredson, Kearley, Najaka, and Rocha (2007), race was not predictive of perceptions of procedural justice, yet Blacks received shorter suspended sentences, attended more judicial hearings, and were less likely to report multiple- drug use compared to other races. In another study, race did not influence perceptions of procedural justice 6 months after enrollment in a drug court (Henry, 2011). However, client race was not included in the statistical analyses predicting program compliance, future criminal behavior, or later drug use.

Unfortunately, some studies of problem-solving courts did not collect data pertaining to participant race/ethnicity (Gover et al., 2007; McIvor, 2009). Additional studies failed to report the presence or absence of any race/ethnic effects with procedural justice or court outcomes (Kopelovich et al., 2013; Poythress et al., 2002), while other examinations did not disaggregate perceptions of procedural justice by client race/ethnicity (Canada & Watson, 2013). These particular findings illustrate the need to examine not only potential racial/ethnic differences in perceptions of procedural justice in problem-solving courts but also differences in long-term outcomes of these clients.

An Integrated Theoretical Foundation of Problem-Solving Courts

As introduced earlier, the emergence of problem-solving courts and subsequent evaluations of the effectiveness of these programs in decreasing negative behaviors of court clients has shown that problem-solving courts are successful at reducing recidivism (Canada & Watson, 2013; Gover et al., 2007; MacKenzie, 2006). Although a more recent research inquiry into the effectiveness of problem-solving courts has investigated the applicability of procedural justice as a mechanism for program success (Kopelovich et al., 2013; Poythress et al., 2002; Wales et al., 2010), it has been argued that an integrative perspective that combines aspects from procedural justice and therapeutic jurisprudence can provide the theoretical foundation for *why* problem-solving courts have the ability to successfully change the thoughts, beliefs, and actions of clients. Specifically, Kaiser and Holtfreter (2016) offer a conceptual rationale that links the two

theoretical paradigms of therapeutic jurisprudence and procedural justice to explain why problem-solving courts have been successful in rehabilitating clients. Although the purpose of the current study does not aim to test the integrated theory of specialized court programs (Kaiser & Holtfreter, 2016), we believe that it provides a conceptual foundation for the importance of theoretically linking the aspect of procedural justice (and therapeutic jurisprudence) to an additional context of the criminal justice system.

The integrated theory of specialized court programs is built on a foundation that merges facets from procedural justice and therapeutic jurisprudence. The principles of therapeutic jurisprudence compliment procedural justice in various ways. Therapeutic jurisprudence is concerned with studying the role of the law as a therapeutic agent (Wexler, 1990), not strictly as a form of retribution or punishment. Therapeutic jurisprudence focuses on shaping the law and legal processes, such as problem-solving courts, to enhance the psychological functioning and emotional well-being of individuals (Rottman, 2000; Winick & Wexler, 2002). Ultimately, it requires court actors to be aware of how their actions, words, and interactions with clients can increase or decrease the likelihood of engaging in prosocial thoughts and behaviors both within and after program completion. Aspects of therapeutic jurisprudence are evident in problem-solving courts through ongoing judicial intervention (i.e., frequent hearings with a judge), monitoring of treatment services, and collaboration and involvement of community treatment providers (Castellano, 2011; Senjo & Leip, 2001).

Since therapeutic jurisprudence places a significant weight on the interaction between court actors and clients, it compliments and extends the base assumptions of procedural justice. Thus, the conceptual underpinnings of procedural justice can provide a theoretical explanation for why therapeutic jurisprudence is an effective mechanism in the success of problem-solving courts (Kaiser & Holtfreter, 2016). Therapeutic jurisprudence within problem-solving court settings uses the legal process (especially the role of the judge and their interaction with clients) to achieve the overall goal of rehabilitation. Procedural justice is seen as the “missing link” between therapeutic jurisprudence and program compliance because problem-solving courts have a nonadversarial environment, engage in a team-oriented model, give clients a voice, treat clients with respect, and increase positive client-judge interactions.

While Kaiser and Holtfreter (2016) address an important theoretical need in the problem-solving court literature, there is also the potential for the integrated theory to explain the presence or absence of racial/ethnic differences in perceptions of procedural justice and long-term behaviors for problem-solving court clients. As a way to advance this theoretical foundation, we consider that the use of Kaiser and Holtfreter's (2016) perspective could provide a basis for why different courtroom settings could result in differing perceptions of procedural justice for various racial/ethnic groups. Problem-solving courts modify the traditional roles of court actors into treatment teams with a focus on rehabilitation rather than retribution. In turn, since research is mixed concerning racial/ethnic differences in perceptions of procedural justice in traditional courtroom settings, the intersection of therapeutic jurisprudence and procedural justice in nonadversarial settings may be more influential for racial/ethnic minorities compared to Whites. Since the courtroom setting and handling of cases in problem-solving courts are different from traditional courtrooms, these changes may translate into minority clients perceiving that they receive more positive treatment, respect, and a voice in specialized courts compared to other types of courtrooms. While race/ethnicity has been predictive of perceptions of procedural justice in some studies of traditional courtrooms, the integrated theoretical foundation of specialized courts provides the opportunity to understand the generalizability of this theoretical perspective, and the applicability of the conceptual model to explain both proximal and distal outcomes of problem-solving court clients across race/ethnicity.

In other words, minority clients who believe that the judicial system is unfair or unjust (see Higgins et al., 2009; Sun & Wu, 2006) may encompass more positive perceptions of procedural justice in problem-solving courts due to the program's therapeutic orientation. Kaiser and Holtfreter's (2016) theoretical model can help understand why problem-solving courts are successful and also explore if these relationships hold across clients of different racial/ethnic groups. Paralleling this line of thought, Wiener, Winick, Georges, and Castro (2010) support this suggestion by arguing that theoretical models of problem-solving courts should include:

Comparisons among offenders with different ethnic backgrounds, nationalities,

and cultural viewpoints ... to make courts work better for people who abuse substances, act out violent against their significant others and who are in need of psychological services to rehabilitate their lives to eliminate antisocial behavior. (p. 425)

Overall, even though the present research is not explicitly testing Kaiser and Holtfreter's (2016) integrated theory of specialized court programs, the above discussion highlights the importance of including a theoretical foundation for why the components of problem-solving courts are more successful than traditional courtroom settings for offenders with specific risks and needs. Furthermore, utilizing a relatively new theoretical foundation specifically for problem-solving courts also provides the opportunity for researchers to expand above and beyond Kaiser and Holtfreter's (2016) original arguments and apply the integrative perspective across various demographic (i.e., race, gender, and age) groups of problem-solving court clients (see also Wiener et al., 2010).

Present Research

Building upon existing criminal justice literature of perceptions of procedural justice in traditional courtroom settings, the present study seeks to understand the complexities of judicial procedural justice and race/ethnicity within problem-solving courts. Specifically, this study examines whether racial and ethnic minorities have different perceptions of judicial procedural justice compared to Whites. Moreover, this study investigates whether differences in long-term outcomes exist for problem-solving court clients' of various racial and ethnic groups. Noting the overall gap in the literature, the current study expands on prior research and focuses on two general research questions:

1. To what extent do problem-solving court clients' race or ethnicity influence perceptions of procedural justice (i.e., does the race or ethnicity of the client predict perceptions of procedural justice)?
2. Controlling for perceptions of procedural justice, do racial or ethnic differences

emerge in long-term behavioral outcomes (i.e., recidivism) for participants in problem-solving courts?

In turn, the findings have the potential to further understand the complexities of procedural justice, problem-solving courts, and program outcomes while also providing policy suggestions to increase program success regardless of client race and ethnicity.

Method

Data and Sample

Researchers surveyed clients from a well-established drug¹ and veterans'² court in one county in a southern state. Survey administration occurred at the conclusion of the court session after the participant appeared in front of the presiding judge and after the judge left the courtroom. The problem-solving court coordinator introduced the researchers to the court participants, at which point the researchers explained the purpose of the study. The survey was described to court clients as measuring their perceptions of interactions between themselves and the judge. Participants were informed of the voluntary and confidential nature of the survey and were told they could skip any questions that made them feel uncomfortable. Researchers then handed out the self-administered surveys, which participants completed on their own prior to leaving the courtroom. Researchers were available while participants were completing the survey to answer any questions. All courtroom actors, including the problem-solving court coordinator and judges, were aware of the study and its purpose. All procedures and methods were reviewed and approved by the appropriate institutional review board.

At the time of data collection, a total of 272 clients were involved in the two problem-solving courts (207 in the drug court and 65 in the veterans' court) and 215 problem-solving court clients were contacted by researchers to participate in the survey (150 in the drug court and all 65 from the veterans' court).³ Despite a lack of compensation and the fact that participants had to stay after court on their own time to complete the survey, a relatively high response rate of 61.4% was achieved for a total of 132 usable surveys (113 from the drug court and 19 from the veterans' court).

Table 1. Coding and Distribution of Variables.

| Variable | Full Sample ^a (N = 132) | | Drug Court (N = 113) | | Veterans' Court (N = 19) | |
|--|---------------------------------------|--------------------|-------------------------|--------------------|-----------------------------|--------------------|
| | Mean | Standard deviation | Mean | Standard deviation | Mean | Standard deviation |
| Dependent | | | | | | |
| Judicial procedural justice | 3.85 | 0.27 | 3.84 | 0.28 | 3.93 | 0.14 |
| Recidivism ^b | 0.22 | 0.42 | 0.23 | 0.42 | 0.16 | 0.37 |
| Independent | | | | | | |
| Race/ethnicity | | | | | | |
| White ^b | 0.42 | 0.50 | 0.42 | 0.50 | 0.42 | 0.51 |
| Black ^b | 0.43 | 0.50 | 0.45 | 0.50 | 0.32 | 0.48 |
| Hispanic ^b | 0.15 | 0.36 | 0.13 | 0.34 | 0.26 | 0.45 |
| Controls | | | | | | |
| Offender's age at time of survey (years) | 37.21 | 9.88 | 37.39 | 9.56 | 36.06 | 11.95 |
| Male ^b | 0.51 | 0.50 | 0.44 | 0.50 | 0.89* | 0.32 |
| Number of prior arrests | 9.14 | 6.66 | 10.11* | 6.68 | 3.37 | 2.11 |
| Appearances in front of judge prior to survey | 22.92 | 12.84 | 23.91* | 13.05 | 17.00 | 9.83 |
| Negative court outcome on day of survey ^b | 0.06 | 0.24 | 0.05 | 0.23 | 0.11 | 0.32 |
| Court | | | | | | |
| Drug court ^b | 0.86 | 0.35 | — | — | — | — |
| Veterans' court ^b | 0.14 | 0.35 | — | — | — | — |

Note. Judicial procedural justice is also treated as an independent variable of interest when predicting recidivism.

^aThere was no missing data in the data set. Thus, all analyses include the full sample of participants. ^bCoded as 1 = yes; 0 = no.

*Results from t-test and χ^2 analyses indicate significant differences across drug and veterans' court clients, $p < .01$.

Description of Variables

Table 1 presents the coding and distribution of all dependent, independent, and control variables of interest. The selection of measures was based on prior research of perceptions of procedural justice (Gottfredson et al., 2007; Henderson, Wells, Maguire, & Gray, 2010; Henry, 2011).

Dependent variables.

The first dependent variable of interest is *judicial procedural justice*. The measure is a

12-item index regarding the participant's perceptions of procedural justice based on their encounter with the problem-solving court judge (adapted from Henderson et al., 2010). The index was chosen because the items are easily adaptable to a specific individual (i.e., judge) instead of general perceptions. Items on the index are based on a 4-point Likert-type scale, with response options including *never*, *seldom*, *sometimes*, and *always*. The 12-item index reflects overall fairness, quality of decision-making, and quality of treatment experienced by problem-solving court clients (a $\frac{1}{4}$.90). Questions were coded such that higher scores indicate greater perceptions of judicial procedural justice. All index items and means are presented in Appendix A. The index score was computed by summing each item and dividing by 12 (the number of items in the index).⁴ Judicial procedural justice is treated as a dependent variable for the first research question and an independent variable for the second research question.

The second dependent variable of interest is *recidivism*. Recidivism is operationalized as rearrest for a new crime following survey completion (0 $\frac{1}{4}$ *no*, 1 $\frac{1}{4}$ *yes*). Recidivism data were obtained from official Department of Public Safety (DPS) records.⁵ DPS records include all arrests made by local police departments or state highway patrol. Thus, new offenses that were processed as technical violations are not captured in this data. Additionally, DPS records do not include other technical violations of probation, such as testing positive for drugs, failing to attend treatment, missing a probation meeting, or violating curfew. The majority of clients who recidivated were rearrested for possession of a controlled substance, theft, prostitution, driving while intoxicated, or assault. The time between survey completion and follow-up recidivism checks ranged from approximately 1.5 years (552 days) to approximately 2.5 years (869 days). The average follow-up time was approximately 2 years and 2 months (803 days).

Independent variables.

The primary independent variable of interest is race and ethnicity. Dummy variables were constructed for Blacks and Hispanics. Whites constituted the reference category. Approximately equal numbers of Whites (42%) and Blacks (43%) participated in the study, while Hispanic individuals represented 15% of survey respondents. The other independent variable of interest is judicial procedural justice (as described above)

when predicting recidivism outcomes.

Control variables.

The remaining variables are treated as controls. Participant age, gender (female $\frac{1}{4}$ 0, male $\frac{1}{4}$ 1), criminal history (number of prior arrests), time spent in front of judge (number of appearances), and outcome received in court (positive outcome $\frac{1}{4}$ 0, negative outcome $\frac{1}{4}$ 1) were all taken into consideration. The outcome received in court serves as a proxy for the participant's performance in the court program. Negative outcomes included sanctions (e.g., verbal reprimand, community service, and dismissal from the program) for infractions committed by the client (e.g., missing a scheduled drug test, testing positive for drugs, missing a treatment session, and absconding). Positive outcomes included incentives (e.g., praise from the judge, a reduction in the number of drug testing days, sobriety chip, and movement to the next phase in the program) for compliance with court mandates.

Analytic Procedure

The analysis plan was guided by the research questions.⁶ First, bivariate correlations based on Pearson correlation coefficients were computed to examine the relationship between the independent and dependent variables of interest (Table 2). Second, an ordinary least squares (OLS) regression equation was estimated to examine the presence of statistically significant main effects of race and ethnicity on perceptions of judicial procedural justice, net of all control variables (Table 3). Third, a binary logistic regression equation was estimated to examine the effect of race, ethnicity, and all control variables on the likelihood of recidivism (Table 4, Model 1). Fourth, a mediation model (using binary logistic regression) was estimated to examine the impact of race and ethnicity on recidivism by adding perceptions of procedural justice to the model (Table 4, Model 2). Therefore, the mediation model examined if race and ethnicity continued to significantly influence recidivism outcomes even after the inclusion of perceptions of procedural justice (see Baron & Kenny, 1986).⁷

Results

The typical problem-solving court client who completed the survey was a 37 years old, male (51%), had an extensive criminal history (nine prior arrests), appeared before the problem-solving court judge approximately 23 times prior to completing the survey, did not receive a sanction (94%) on the day of survey completion, and participated in drug court (86%) compared to veterans court. As also presented in Table 1, the average judicial procedural justice scale score was 3.85 (out of the 4), indicating very high perceptions of procedural justice among drug and veterans' court clients. Stated differently, the drug and veterans' court clients feel they are treated in a procedurally just manner at virtually all court encounters. Official data showed only 22% of respondents' recidivated during the approximate 2 year follow-up period.

Independent samples t -tests and w^2 tests were conducted to examine potential differences between drug and veterans' court clients in regards to the sample characteristics. There were no significant differences between drug and veteran' court clients regarding age and perceptions of judicial procedural justice. However, drug and veterans' court clients differed in number of prior arrests, $t(88.84) \frac{1}{4} 8.492, p \frac{1}{4} .000$, and number of prior court days, $t(29.84) \frac{1}{4} 2.692, p \frac{1}{4} .012$. Specifically, drug court clients had more extensive criminal records and more appearances in front of their judge prior to taking the survey. Additionally, there were no significant differences between drug and veterans' court clients regarding recidivism rates, race/ethnicity, or receiving a negative outcome on the day of the survey. Veterans' court clients, however, were significantly more likely to be male compared to drug court clients, $w^2(1, 132) \frac{1}{4} .13, 31, p \frac{1}{4} .000$.

Correlations between Participant Characteristics, Perceptions of Procedural Justice, and Recidivism

Table 2 presents the results of bivariate correlations based on Pearson correlation coefficients. Grounded in our measures of interest, results indicate that a significant relationship exists between race and perceptions of procedural justice, in that Blacks have lower perceptions than Whites. No significant correlation exists between Hispanics and perceptions of procedural justice. Significant positive relationships also emerged between race and age, and between race and total prior arrests. There is also

a significant inverse relationship between ethnicity (i.e., Hispanic) and total prior arrests. However, significant relationships between race or ethnicity and recidivism did not emerge.

Table 2. Bivariate Relationships between Independent and Dependent Variables.

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|----------------------------------|---------|---------|-----------|---------|----------|-----------|----------|--------|--------|
| 1. Recidivism | 1.0 | | | | | | | | |
| 2. Judicial procedural justice | 0.101 | 1.0 | | | | | | | |
| 3. Black | -0.093 | -0.187* | 1.0 | | | | | | |
| 4. Hispanic | -0.071 | 0.054 | -0.368*** | 1.0 | | | | | |
| 5. Age | -0.159 | -0.037 | 0.283*** | -0.169 | 1.0 | | | | |
| 6. Male | -0.136 | -0.092 | -0.059 | 0.036 | -0.035 | 1.0 | | | |
| 7. Total prior arrests | 0.259** | -0.021 | 0.259** | -0.216* | 0.298*** | -0.224** | 1.0 | | |
| 8. Appearances in front of judge | 0.144 | -0.026 | 0.150 | -0.139 | 0.024 | -0.088 | -0.125 | 1.0 | |
| 9. Negative outcome | 0.249** | 0.000 | 0.163 | -0.019 | -0.077 | 0.060 | -0.005 | -0.006 | 1.0 |
| 10. Drug court client | 0.061 | -0.116 | 0.096 | -0.128 | 0.047 | -0.318*** | 0.357*** | 0.190* | -0.077 |

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 3. Ordinary Least Squares (OLS) Regression Results for Perceptions of Procedural Justice.

| Variable | B | Standard Error (SE) | β |
|-----------------------------------|-------|---------------------|---------|
| Black | -.116 | .054 | -.214* |
| Hispanic | -.020 | .072 | -.026 |
| Age | .000 | .003 | .005 |
| Male | -.077 | .050 | -.143 |
| Total prior arrests | .002 | .004 | .060 |
| Appearances in front of judge | .001 | .002 | .031 |
| Negative outcome on day of survey | .035 | .101 | .032 |
| Drug court client | -.125 | .077 | -.161 |
| Constant | 4.008 | .126 | |
| R^2 | .068 | | |

* $p < .05$; ** $p < .01$; *** $p < .001$.

Table 4. Logistic Regression Results for Predictors of Recidivism.

| Variable | Model 1 | | | Model 2 | | |
|-----------------------------------|---------|-------|----------|---------|-------|----------|
| | B | SE | Exp (B) | B | SE | Exp (B) |
| Black | -1.597 | 0.628 | 0.203** | -1.549 | 0.636 | 0.212* |
| Hispanic | -0.647 | 0.808 | 0.524 | -0.576 | 0.804 | 0.562 |
| Judicial procedural justice | — | — | — | 1.098 | 1.566 | 3.000 |
| Age | -0.096 | 0.039 | 0.908* | -0.095 | 0.039 | 0.909* |
| Male | -0.571 | 0.562 | 0.565 | -0.530 | 0.568 | 0.589 |
| Total prior arrests | 0.205 | 0.052 | 1.227*** | 0.204 | 0.053 | 1.226*** |
| Appearances in front of judge | 0.055 | 0.021 | 1.056** | 0.053 | 0.022 | 1.054* |
| Negative outcome on day of survey | 3.011 | 1.056 | 20.301** | 2.971 | 1.027 | 19.511** |
| Drug court client | -1.096 | 0.948 | 0.334 | -1.025 | 0.940 | 0.359 |
| Constant | 0.470 | 1.510 | 1.600 | -3.903 | 6.347 | 0.020 |
| Nagelkerke R ² | 0.401 | | | 0.406 | | |

* $p < .05$; ** $p < .01$; *** $p < .001$.

Effects of Race on Perceptions of Procedural Justice

Table 3 presents the OLS regression results examining the relationship between race/ ethnicity and perceptions of judicial procedural justice. Results indicate that race is the only significant predictor of perceptions of judicial procedural justice. Specifically, Black problem-solving court clients report significantly lower perceptions of procedural justice compared to similarly situated Whites ($b = -.214$). Ethnicity was not significantly related to perceptions of procedural justice, nor were the six control measures (i.e., age, gender, prior arrests, number of court appearances, negative court outcome, and type of problem-solving court). Up to this point in the analysis, some support is found for the first research question in that the race of the client (but not ethnicity) is related to perceptions of procedural justice.

Effects of Race and Perceptions of Procedural Justice on Recidivism

Table 4 presents the logistic regression results for two specific models predicting the likelihood of recidivism postcompletion from problem-solving court. Model 1 represents the effect of race and ethnicity on recidivism among drug and veterans' court clients, and Model 2 displays the effects of race, ethnicity, and perceptions of procedural justice on recidivism outcomes. Specifically, we wanted to investigate if the inclusion of

procedural justice perceptions into the model negates or attenuates the effect of race and ethnicity on the likelihood of engaging in subsequent criminal behavior.

Results indicate that race was predictive of recidivism in both models, although in an unexpected direction. As shown in Model 1, Blacks were 80% less likely to recidivate after participating in their problem-solving court compared to Whites. When perceptions of procedural justice was included into the model (Model 2), Blacks still had a 79% lower likelihood of recidivating compared to Whites. Ethnicity did not significantly influence the likelihood of recidivism in either model. As can be seen in Model 2, and also unexpected, perceptions of judicial procedural justice did not impact the likelihood of recidivism. This finding contradicts prior research surrounding the relationship between procedural justice and long-term outcomes with problem-solving court clients (Gottfredson et al., 2007; Henry, 2011). Regardless of model, increased odds of recidivism emerged for respondents who were younger, had a greater number of prior arrests, had a greater number of appearances in court, and received a negative outcome on the day of the survey.

In other words, for each year older the odds of the respondent recidivating decreased by 9% (both models), while for every additional prior arrest, the odds of recidivating increased by 23% (both models). For every additional appearance in front of a judge, the odds of recidivating increased by 5% (Model 2) to 6% (Model 1). The largest effect was for court clients who received a negative outcome (i.e., were sanctioned by judge) on the day of the survey. Across both models, respondents were approximately 20 times more likely to recidivate compared to those who received a positive outcome on the day of the survey (i.e., given an incentive or praised by the judge).

Overall, the findings indicate that Black court clients have significantly lower odds of recidivating compared to White court clients, while ethnicity did not influence the likelihood of recidivism. Perceptions of judicial procedural justice did not impact long-term outcomes of court participants as measured by recidivism. Based on the results, and in light of the second research question, racial (but not ethnic) differences emerged in long-term outcomes for problem-solving court participants, although in an unanticipated direction (Hartley & Phillips, 2001). In other words, even when controlling for perceptions of procedural justice, differences across racial categories

emerged in the outcomes of offenders involved in problem-solving courts.

Discussion

Since the ground-breaking work of Thibaut and Walker (1975), scholars have produced a substantial body of research on procedural justice (see Sunshine & Tyler, 2003; Tyler, 2006; Tyler & Huo, 2002). Largely, this research examines the factors that relate to being treated in a procedurally just manner (Baker et al., 2015; Leventhal, 1980; Tyler, 2006) and the effects of procedurally just treatment on both intermediate and long-term outcomes (Sunshine & Tyler, 2003). While the majority of studies have focused on police–citizen encounters or traditional, adversarial court-rooms (Engel, 2005; Mazerolle et al., 2012; Tyler, 2007), a smaller body of research has more recently emerged examining procedural justice in problem-solving courts (Atkin-Plunk & Armstrong, 2016; Gottfredson et al., 2007; Gover et al., 2007; Henry, 2011; Wales et al., 2010). However, there is virtually no research to date on racial and ethnic differences in perceptions of procedural justice among problem-solving court clients (cf. Henry, 2011). This void is interesting since prior research has consistently shown that racial/ethnic minorities hold negative perceptions of the criminal justice system (including the courts), compared to similarly situated Whites (Hagan & Albonetti, 1982; Woolard et al., 2008). The current study attempted to fill this gap in the literature by examining if race/ethnicity impacted perceptions of judicial procedural justice among 132 clients from two problem-solving courts and if the respondents' racial/ethnic background was related to recidivism among the problem-solving court clients.

The first research question examined whether the race or ethnicity of problem-solving court clients predicted perceptions of procedural justice. Findings indicated that not only was race a significant predictor of perceptions of procedural justice among problem-solving court clients, it was the only significant predictor. In this sample, Blacks had significantly lower perceptions of procedural justice compared to White problem-solving court clients. There was no difference in perceptions of procedural justice between Hispanic and White clients. This finding parallels prior research of traditional court settings (Higgins et al., 2009; Sun & Wu, 2006) but not problem-solving courts (Gottfredson et al., 2007; Henry, 2011). More often than not, researchers find that race

is related to perceptions of various aspects of the criminal justice system, where Blacks possess less positive attitudes toward the police (Peck, 2015; Reisig & Parks, 2000), more legal cynicism (Kirk & Matsueda, 2011; Sampson & Bartusch, 1998), and lower levels of satisfaction (Sampson & Bartusch, 1998; Wu, Sun, & Triplett, 2009).

In an examination of female inmates' perceptions of procedural justice and their shared race/ethnicity with various courtroom actors, Baker and colleagues (2015) found that inmates who shared the race/ethnicity of the prosecutor had significantly higher perceptions of procedural justice compared to those who did not have the same racial/ethnic background of the prosecutor. In the current study, although we did not examine shared race/ethnicity, it is important to note that no Black judges presided over any of the court dockets. Instead, four of the five judges in the problem-solving courts were White and one was Hispanic. The lack of diversity of the presiding judges could contribute to the more negative perceptions of procedural justice among Black problem-solving court clients.

While our findings are in line with the broad literature examining racial minorities' attitudes toward the criminal justice system, they are in direct contrast to earlier problem-solving court and procedural justice research, which finds no racial differences in perceptions of procedural justice when racial groups are aggregated into a small number of categories, treated strictly as a control variable, or the race/ethnicity of the court client was unknown (see Henry, 2011). One explanation for our finding could be regional differences in the court location of prior procedural justice studies. For this study, data were collected in a southern state, where racism (including institutional racism), is likely more prevalent compared to other geographical areas of the country. Previous research on procedural justice in general has been conducted in Arizona (Casper et al., 1988), California (Rottman, 2005; Tyler & Huo, 2002), Illinois (Tyler & Folger, 1980; Tyler), Maryland (Casper et al., 1988), Michigan (Casper et al., 1988), and New York (Sunshine & Tyler, 2003). Few studies have used a nationally representative sample (cf. Engel, 2005) and only one study has been conducted solely in the South (Atkin-Plunk & Armstrong, 2016). Even in Henry's (2011) multisite evaluation of drug courts, only 5 of the 23 drug courts were located in the south.

Although there were significant differences in perceptions of procedural justice among

White and Black problem-solving court clients, it is important to note that perceptions of procedural justice were high among all surveyed participants. The average score on the procedural justice scale ranged from 3.80 for Black participants to 3.90 for White participants, with Hispanic participants having a mean score of 3.89 (out of 4). Regardless of race/ethnicity, problem-solving court participants felt they were almost always treated in a procedurally just manner. These findings are similar to those of Higgins and colleagues (2009) who reported that even though race differences emerged in perceptions of procedural justice, both Black and White individuals described satisfaction with the court system. Additionally, both Gottfredson et al. (2007) and Henry (2011) report positive perceptions of procedural justice among sampled drug court clients (averaging 3.88 and 4.11 out of 5, respectively).

The second research question sought to determine if differences in recidivism appeared for clients of various racial and ethnic groups, net of perceptions of procedural justice. Contrary to prior literature (cf. Gottfredson et al., 2007; Henry, 2011), perceptions of procedural justice did not significantly impact the likelihood of recidivism of problem-solving court clients. One reason for this null finding may be the limited variation within perceptions of procedural justice. As indicated above, participants were relatively consistent in reporting high levels of perceived judicial procedural justice within the problem-solving courts. If a greater amount of variation existed within this measure, its impact on recidivism may have been statistically significant. However, in light of these results, we believe the impact would be smaller than originally anticipated. Initial expectations were developed based on prior literature within the policing realm and traditional courtroom settings where interactions with authority figures (i.e., police officers and traditional judges) are likely to differ from typical interactions with a problem-solving court judge.

Furthermore, the racial background of problem-solving court clients was significant in predicting the likelihood of recidivism, even when controlling for perceptions of procedural justice. Results, however, were in an unexpected direction from prior research, where Blacks had significantly lower odds of recidivating compared to Whites. Some research has reported that minorities tend to have a lower probability of success in problem-solving courts and higher probabilities of recidivism (Hartley & Phillips, 2001),

which is contradictory to the current findings. Even though prior research has found problem-solving court participants (specifically drug court participants) have lower recidivism rates than nonparticipants (see Mitchell, Wilson, Eggers, & MacKenzie, 2012; Wilson, Mitchell, & MacKenzie, 2006), it may be that this finding is race-specific. Although speculative, one potential explanation for this finding could be based on race differences in prior experiences with the criminal justice system. Due to the historical context of race and oppression of Blacks, perceptions of court experiences may influence future offending behavior in different ways for Whites and Blacks. Compared to Whites, Blacks have a greater involvement in the criminal justice system (see Sun & Wu, 2006), which can translate to more negative perceptions of courtroom experiences. Conversely, in a problem-solving court setting, Blacks may feel that they are given a voice compared to past experiences in traditional courtrooms, and subsequently change their offending behavior. For example, Poythress, Petrila, McGaha, and Boothroyd (2002) found that mental health court clients who felt like they had a voice in court proceedings were more satisfied with their court decision compared to defendants in a traditional court. While the current study examined recidivism as an outcome measure, it parallels prior findings that perceptions of having a voice throughout the program influences problem-solving court outcomes (Gover et al., 2007; Poythress et al., 2002).

Another potential explanation for why Blacks had a lower likelihood of recidivism compared to Whites surrounds the therapeutic nature of problem-solving courts. Compared to adversarial courts, problem-solving courts aim to reduce the stigma associated with the types of clients the courts serve (Walker, Pann, Shapiro, & Van Hasselt, 2016). Since problem-solving courts include increased interactions with clients and court decision-makers, informal court proceedings, and treatment services, Black clients more so than Whites may feel less stigmatized than in traditional courts. The reduced stigmatization of problem-solving courts may be associated with the decreased criminalization (i.e., recidivism) of Black clients compared to Whites.

Furthermore, regardless of race/ethnicity, it is meaningful to mention that problem-solving court participants in the current study had relatively low recidivism rates. A total of 29% of White participants were rearrested, compared to 18% of Blacks and 15% of Hispanics. However, since race differences did emerge between Black and White

clients in the likelihood of recidivism, it may be that Blacks who are involved in problem-solving courts are taking advantage of treatment opportunities that were not available to them in prior court experiences. Although not measured in this study, we believe that this factor decreases problem-solving court clients' risk of recidivism across racial lines. Paralleling this explanation, there may be additional elements that can account for the link between race and recidivism of problem-solving court clients above and beyond the opportunity to participate in a nonadversarial court. For example, measures pertaining to the number of treatment days, degree of social support, marital status, education, employment, and co-occurring disorders (e.g., post-traumatic stress disorder, substance use, history of violence) may help to understand the details of race differences in recidivism in the sample.

Policy Implications

Although the results from this study did not find perceptions of procedural justice to significantly influence recidivism, other noteworthy findings did emerge which impacts both researchers' and policy makers' strategies to more fully understand the complex relationship between race/ethnicity and procedural justice in problem-solving courts. First, problem-solving courts should implement diversity training to all staff involved throughout the court system, since Blacks reported significantly lower perceptions of procedural justice compared to Whites. Procedural justice is still an important theoretical component of problem-solving courts, and has the ability to predict other types of criminal justice outcomes that are not operationalized through recidivism. Education and awareness training for judges, treatment providers, supervision officers, and other court actors is integral to the continued operation of problem-solving courts and is directly applicable to the therapeutic jurisprudence aspect of the integrated theory of specialized courts (Kaiser & Holtfreter, 2016).

As found in the current study, in order to maintain high levels of procedural justice as perceived by problem-solving court clients and foster desistance from offending, diversity training and continued education is essential (see also Bureau of Justice Assistance, 2004). For example, the implementation of training programs can encourage new methods that support the importance of procedural justice regardless of client race/

ethnicity and to ensure that therapeutic jurisprudence is an approach that is embodied by all court actors in a problem-solving court to foster positive change in its clients. Since prior research indicates that clients who believe they have a voice (Casper et al., 1988) and are treated with respect throughout courtroom proceedings (Tyler, 2006) have higher levels of procedural justice (which stems from a treatment team that embodies the base assumptions of therapeutic jurisprudence), a supportive and nonadversarial environment is crucial for positive long-term outcomes for problem-solving court clients.

Problem-solving courts should also attempt to increase the racial/ethnic diversity of problem-solving court judges as well as other staff. In this sample, 58% of the problem-solving court clients were Black or Hispanic, while only one of the five judges (20%) was of a racial/ethnic minority. Recent research has indicated that racial/ethnic minorities are significantly more likely to have positive attitudes toward criminal justice professionals if the individual they encounter is also a racial/ethnic minority (Baker et al., 2015). While Baker and colleagues (2015) examined shared race/ethnicity with prosecutors in traditional courtrooms, the judge plays a more central role in problem-solving courts (Portillo, Rudes, Viglione, & Nelson, 2013). Problem-solving court clients have more frequent interactions with their judge than the prosecutors who are assigned to the case. Increasing the diversity of problem-solving court judges could have a positive impact on problem-solving court clients.

Limitations

It must be acknowledged that the present study is not without limitations. First, our findings are based on a convenience sample of problem-solving court clients. The sample was comprised of individuals who agreed to participate in the problem-solving court (instead of an alternative sentence) and who also responded to the survey. Choosing to participate in the research study could be evidence of self-selection bias among the respondents. It is possible that clients who responded to the survey had higher levels of procedural justice and more beneficial interactions with the problem-solving court judge compared to clients who chose not to complete the survey. Moreover, the location of survey administration (i.e., in the courtroom) could bias results in a positive direction. Although participants were assured of confidentiality and the

judge was not present in the courtroom during survey administration, some participants might have felt uncomfortable admitting to receiving unfair treatment by their judge. As with all survey-based research, the issue of nonresponse bias could also influence the current findings if clients with neutral or negative perceptions and interactions were not included in the sample. In turn, the omission of this specific type of problem-solving court client may skew results.

Second, compared to the number of overall clients enrolled in the problem-solving courts ($N = 272$), the final sample size was comparatively small ($N = 132$). Initially, 215 clients (of the 272) were contacted to participate in the study. Due to the scope and constraints of the original data collection procedure, we were unable to contact all 272 problem-solving court clients. The final response rate of client participation in the survey was 61.4% (or 48.5% of the total problem-solving court population). These features of the sample limit the generalizability of the findings, even though the purpose of the current study was exploratory in nature. Although we do not know why 83 court clients refused to take the survey, we speculate that, because the survey was administered *after* the court session was over (court started at 3:00 p.m. and ended at approximately 4:00 p.m.), clients had prior obligations (e.g., picking up a child from school) and/or transportation issues (e.g., a bus to catch, person waiting to take them home). If it were possible in the original data collection procedure to find a larger and more representative sample of problem-solving court clients, the effect of this limitation would be attenuated.

Finally, while the operationalization and inclusion of key variables were based on prior research of procedural justice, there is always the potential issue of unobserved measures influencing the current results. As described earlier, there may be factors that were unaccounted for in the current study that provides a more detailed explanation for why Blacks had a lower likelihood of recidivating than similarly situated Whites. Therefore, omitted variable bias could potentially account for some of the effects between race/ethnicity and procedural justice and, in particular, race/ethnicity and recidivism.

Directions for Future Research

Due to the mixed support for the research questions, there are a number of areas for future research to investigate. Researchers seeking to examine the role of procedural justice and race/ethnicity in problem-solving courts should move beyond a focus on drug courts. To date, research investigating the association between procedural justice and long-term outcomes has only occurred in drug courts (Atkin-Plunk & Armstrong, 2016; Gottfredson et al., 2007; Henry, 2011). While previous research on procedural justice and problem-solving courts has included various racial/ethnic groups in the samples, little research examines the differences in perceptions of procedural justice (Gottfredson et al., 2007; Henry, 2011) or outcome measures for participants of various race/ethnicities (Gottfredson et al., 2007). Both Gottfredson and colleagues (2007) and Henry (2011) examined these issues within drug courts, while the current study moved beyond a focus of drug courts to examine the long-term outcomes of drug and veterans' court clients. Future research should continue this line of inquiry to examine the effects of procedural justice and race/ethnicity in other problem-solving courts including mental health courts, veterans' courts, domestic violence courts, and reentry courts. Even though procedural justice did not significantly predict recidivism outcomes, and race/ethnicity continued to exert an effect on recidivism even when taking into consideration perceptions of procedural justice, future research would benefit from testing Kaiser and Holtfreter's (2016) integrated theory of specialized courts to uncover *why* certain outcomes occur in problem-solving courts. It may be that indicators of therapeutic jurisprudence (not measured in the current study) influence both program-specific and long-term outcomes of court clients. Therefore, while procedural justice did not attenuate the relationship between race/ethnicity and recidivism, these null findings should not prevent resources and future research from inquiring about the various components not yet fully examined in the problem-solving court literature. The incorporation of therapeutic jurisprudence (both individually and in combination with procedural justice) may result in different findings in future work on this topic.

In addition, future studies should examine the effects of shared race/ethnicity between problem-solving court clients and various courtroom actors including judges, supervision officers, and other courtroom staff. Despite important policy and program implications based on this area of research in traditional courtroom settings (see Baker et

al., 2015), there are no studies to date on this topic in problem-solving courts. The increase in racially and ethnically diverse problem-solving court decision-makers and staff may help to increase positive perceptions of procedural justice and result in prosocial long-term outcomes of clients.

Finally, based on the “what works” movement to reduce recidivism and increase positive long-term behaviors, future studies should consider broadening the scope of research beyond the examination of problem-solving court judges. Instead of only investigating the link between perceptions of procedural justice and interactions with problem-solving court judges, research should also consider how levels of procedural justice may vary based on interactions with other court staff. For example, supervision officers are one type of court staff who frequently interact with problem-solving court clients. One requirement of most problem-solving courts is for clients to be on probation throughout their duration in the court. Many problem-solving courts require clients to be on intensive supervision probation, which includes increased meetings with their supervision officer above and beyond that of traditional probation. Also based on court regulations, the same type of interactions between problem-solving court clients and supervision officers also occurs with treatment providers. Therefore, future research that examines the relationship between perceptions of procedural justice and interactions with supervision officers and treatment providers is also warranted.

Despite the exploratory nature of the current study, findings emerged which both parallel and contradict previous research findings. Results suggest that Black problem-solving court clients had lower perceptions of procedural justice compared to White clients. Despite this, results also indicated that Blacks in this sample were significantly less likely to recidivate in the 2 year follow-up. In light of the findings, this study provides a foundation for others interested in exploring the complex relationship between procedural justice and race/ethnicity in problem-solving court clients.

Appendix A

Judicial Procedural Justice Scale.

| Items on Judicial Procedural Justice Scale | Mean |
|---|------|
| How often does your judge in the drug court | |

| | |
|---|------|
| Make decisions in a fair way | 3.81 |
| Treat you fairly | 3.89 |
| Treat you with dignity and respect | 3.94 |
| Accurately understand and apply rules | 3.89 |
| Make decisions based on facts, not opinions | 3.82 |
| Try to get facts before deciding how to act | 3.80 |
| Give honest explanations for actions | 3.89 |
| Apply rules consistently to different people | 3.56 |
| Treat everyone equally | 3.88 |
| Respect your rights | 3.91 |
| Give you a chance to express views before making decision | 3.85 |
| Treat you politely | 3.91 |

Declaration of Conflicting Interests

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

Funding

The authors received no financial support for the research, authorship, and/or publication of this article.

Notes

1. The adult drug court in this study was developed in 2003 with the purpose of connecting justice-involved individuals with a history of alcohol and drug abuse with therapeutic treatment. Individuals are eligible to participate in the drug court if they meet the following requirements (a) have a prior drug conviction, two prior drug related arrests, or have a history of drug/alcohol dependency; (b) have a pending felony drug, credit card abuse, felony prostitution, felony forgery, felony theft, or tampering/fabricating evidence charge; (c) be an adult or a juvenile certified to stand trial as an adult; (d) be a legal resident of the United States and the county in which the drug court is located; and (e) have a drug dependency. This drug court parallels other modern day drug courts and consists of a three-phase program. Clients receive intensive supervision and treatment, submit to random drug testing, and frequently appear before their judge. Once a client successfully completes the three phases, they are required to complete 12 months of a specialized aftercare program. Each client must also be compliant with all drug court

requirements and are required to serve 4 years of probation.

2. The veterans' court in this study was established in November 2009 with the purpose of assisting veterans involved in the criminal justice system who are suffering from drug abuse, mental health issues, or other disorders related to their military involvement (e.g., post-traumatic stress disorder or traumatic brain injury). A defendant is eligible for the veterans' court if he or she meets the following requirements: (a) is a current member of the U.S. armed forces or veteran of the U.S. armed forces who has an honorable discharge or general discharge; (b) is charged with an eligible felony (excluded felonies include sexual offenses, drug delivery, aggravated offenses other than aggravated assault); (c) is a legal resident or citizen of the United States; (d) is a resident of the county in which the veterans' court is located or the surrounding counties; (e) suffers from a mental illness/disorder, brain injury, or substance abuse that is related to the criminal offense; (f) is eligible for Veterans Affairs services; (g) is a first time offender and/or served in a combat and/or hazardous duty zone; and (h) has not previously been terminated or graduated from the veterans' court.

The veterans' court consists of a four-phase program where clients receive intensive supervision and treatment, submit to random drug testing, and frequently appear before their judge. During Phase I (orientation phase), clients attend court twice a month, meet with their supervision officer, and begin treatment. Phase I lasts approximately 30 days. Clients in Phase II (treatment phase) attend court twice a month, meet with their supervision officer, attend and successfully complete core treatment, and attend additional specialty treatment. Phase II lasts 90–120 days. During Phase III (transitional phase), clients attend court once a month, continue to meet with their supervision officer, and attend therapy and other support activities. Phase III is designed to last approximately 180 days. Phase IV is a specialized aftercare component that clients attend after they have graduated from the veterans' court. Phase IV lasts 120–180 days, and during this phase, clients attend court quarterly, meet with their supervision officer, attend supportive counseling, and remain alcohol and drug free, as well as medication compliant. If a client successfully completes the veterans' court, the pending criminal charge against the client can be dismissed and the charge will not go on the veteran's

record.

3. Due to the structure of both courts (i.e., court clients in different phases attend court on different weeks), and the fact that data were collected over a 2 weeks period, the researchers were unable to contact all 272 clients enrolled in court at the time of the survey.
4. Three participants answered some but not all of the items on the index (ranging from 5 to 11 items answered). In these three cases, answered items were summed and divided by the total number of items answered. Scale scores were also computed by summing all items together, thus creating a “summated scale.” Participants who did not answer all items in the scale were excluded from the analysis. Analyses were conducted using both the scores described above and the summated scale. There were no substantive differences between results therefore we chose to retain as many cases as possible for the analyses.
5. The official records do not provide information on out-of-state arrests. Therefore, arrest data are limited to in-state arrests. Due to the location of this drug court, we do not anticipate this data parameter had a substantial impact on the results.
6. Tests for multicollinearity resulted in all correlations below .80 and all tolerance statistics above .10.
7. Unfortunately, due to sample size limitations, we were unable to estimate separate ordinary least squares (OLS) and logistic regression models for each racial and ethnic group in order to examine possible differences in perceptions of procedural justice and recidivism between each group. Also due to sample size, we were unable to conduct coefficient comparison tests involving z-scores (Paternoster, Brame, Mazerolle, & Piquero, 1998) to examine potential significant effects that may vary by race and ethnicity when predicting both dependent variables. Future research would benefit from conducting the above analyses with a larger sample of problem-solving court clients.

References

- Atkin-Plunk, C. A., & Armstrong, G. S. (2016). An examination of the impact of drug court clients' perceptions of procedural justice on graduation rates and recidivism. *Journal of Offender Rehabilitation, 55*, 525–547.

- Baker, T., Pelfrey, W. V., Bedard, L. E., Dhungana, K., Gertz, M., & Golden, K. (2013). Female inmates' procedural justice perceptions of the police and courts: Is there a spill-over of police effects? *Criminal Justice and Behavior, 41*, 144–162.
- Baker, T., Pickett, J. T., Amin, D. M., Golden, K., Dhungana, K., Gertz, M., ... Bedard, L. (2015). Shared race/ethnicity, court procedural justice, and self-regulating beliefs: A study of female offenders. *Law & Society Review, 49*, 433–466.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology, 51*, 1173–1182.
- Bureau of Justice Assistance. (2004). *Defining drug courts: The key components* (NCJ 205621). Washington, DC: U.S. Department of Justice Office of Justice Programs.
- Caldeira, G. A., & Gibson, J. L. (1992). The etiology of public support for the Supreme Court. *American Journal of Political Science, 36*, 635–664.
- Canada, K. E., & Watson, A. C. (2013). "Cause everybody likes to be treated good": Perceptions of procedural justice among mental health court participants. *American Behavioral Scientist, 57*, 209–230.
- Casper, J. D., Tyler, T., & Fisher, B. (1988). Procedural justice in felony cases. *Law & Society Review, 22*, 483–508.
- Castellano, U. (2011). Problem-solving courts: Theory and practice. *Sociology Compass, 5*, 957–967.
- Council of State Governments Justice Center. (2007). *Improving responses to people with mental illnesses: The essential elements of a mental health court*. New York, NY: Council of State Governments Justice Center.
- Engel, R. S. (2005). Citizens' perceptions of distributive and procedural injustice during traffic stops with police. *Journal of Research in Crime and Delinquency, 42*, 445–481.
- Gibson, J. L., & Caldeira, G. A. (1992). Blacks and the United States Supreme Court: Models of diffuse support. *Journal of Politics, 54*, 1120–1145.
- Gottfredson, D. C., Kearley, B. W., Najaka, S. S., & Rocha, C. M. (2007). How drug treatment courts work: An analysis of mediators. *Journal of Research in Crime and*

Delinquency, 44, 3–35.

- Gover, A. R., Brank, E. M., & MacDonald, J. M. (2007). A specialized domestic violence court in South Carolina: An example of procedural justice for victims and defendants. *Violence Against Women*, 13, 603–626.
- Hagan, J., & Albonetti, C. (1982). Race, class, and the perception of criminal injustice in America. *American Journal of Sociology*, 88, 329–355.
- Hartley, R. E., & Phillips, R. C. (2001). Who graduates from drug courts? Correlates of client success. *American Journal of Criminal Justice*, 26, 107–119.
- Heinz, A. M. (1985). Procedure versus consequences: Experimental evidence of preferences for procedural and distributive justice. In S. M. Talarico (Ed.), *Courts and criminal justice: Emerging issues* (pp. 13–34). Beverly Hills, CA: Sage.
- Henderson, M., Cullen, F., Cao, L., Browning, S., & Kopache, R. (1997). Impact of race on perceptions of criminal injustice. *Journal of Criminal Justice*, 25, 447–462.
- Henderson, H., Wells, W., Maguire, E. R., & Gray, J. (2010). Evaluating the measurement properties of procedural justice in a correctional setting. *Criminal Justice and Behavior*, 37, 384–399.
- Henry, K. (2011). The role of drug court participant attitudes and perceptions. In S. B. Rossman, J. M. Zweig, D. Kralstein, K. Henry, P. M. Downey, & C. H. Lindquist (Eds.), *The multi-site adult drug court evaluation: The drug court experience* (Vol. 3, pp. 84–100). Washington, DC: Urban Institute.
- Higgins, G., Wolfe, S., Mahoney, M., & Walters, N. (2009). Race, ethnicity, and experience: Modeling the public's perceptions of justice, satisfaction, and attitude toward the court. *Journal of Ethnicity in Criminal Justice*, 7, 293–310.
- Higgins, G. E., & Jordan, K. L. (2005). Race and gender: An examination of the models that explain evaluations of the court system for differences. *Criminal Justice Studies*, 18, 81–97.
- Huddleston, W., & Marlowe, D. B. (2011). *Painting the current picture: A national report on drug courts and other problem-solving court programs in the United States*. Washington, DC: National Drug Court Institute.
- Kaiser, K. A., & Holtfreter, K. (2016). An integrated theory of specialized court programs. Using procedural justice and therapeutic jurisprudence to promote

- offender compliance and rehabilitation. *Criminal Justice and Behavior*, 43, 45–62.
- Kirk, D. S., & Matsuda, M. (2011). Legal cynicism, collective efficacy, and the ecology of arrest. *Criminology*, 49, 443–472.
- Kopelovich, S., Yanos, P., Pratt, C., & Koerner, J. (2013). Procedural justice in mental health courts: Judicial practices, participant perceptions, and outcomes related to mental health recovery. *International Journal of Law and Psychiatry*, 36, 113–120.
- Landis, J. M., & Goodstein, L. (1986). When is justice fair? An integrated approach to the outcome versus procedure debate. *American Bar Foundation Research Journal*, 11, 675–707.
- Leventhal, G. S. (1980). What should be done with equity theory? New approaches to the study of fairness in social relationships. In K. J. Gergen, M. S. Greenberg, & R. H. Willis (Eds.), *Social exchange: Advances in theory and research* (pp. 27–55). New York, NY: Plenum Press.
- Longazel, J. G., Parker, L. S., & Sun, I. Y. (2011). Experiencing court, experiencing race: Perceived procedural injustice among court users. *Race and Justice*, 1, 202–227.
- MacKenzie, D. L. (2006). *What works in corrections: Reducing the criminal activities of offenders and delinquents*. New York, NY: Cambridge University Press.
- Mazerolle, L., Bennett, S., Antrobus, E., & Eggers, E. (2012). Procedural justice, routine encounters and citizen perceptions of police: Main findings from the Queensland Community Engagement Trial (QCET). *Journal of Experimental Criminology*, 8, 343–367.
- McIvor, G. (2009). Therapeutic jurisprudence and procedural justice in Scottish Drug Courts. *Criminology and Criminal Justice*, 9, 29–49.
- Mitchell, O., Wilson, D. B., Eggers, A., & MacKenzie, D. L. (2012). Assessing the effectiveness of drug courts on recidivism: A meta-analytic review of traditional and non-traditional drug courts. *Journal of Criminal Justice*, 40, 60–71.
- National Association of Drug Court Professionals. (n.d.). *Drug court history*. Retrieved from <http://www.nadcp.org/learn/what-are-drug-courts/drug-court-history>
- Paternoster, R., Brame, R., Mazerolle, P., & Piquero, A. (1998). Using the correct

- statistical test for the equality of regression coefficients. *Criminology*, 36, 859–866.
- Peck, J. H. (2015). Minority perceptions of the police: A state-of-the-art review. *Policing: An International Journal of Police Strategies & Management*, 38, 173–203.
- Portillo, S., Rudes, D. S., Viglione, J., & Nelson, M. (2013). Front-stage stars and backstage producers: The role of judges in problem-solving courts. *Victims and Offenders*, 8, 1–22.
- Poythress, N. G., Petrila, J., McGaha, A., & Boothroyd, R. (2002). Perceived coercion and procedural justice in the Broward mental health court. *Law and Psychiatry*, 25, 517–533.
- Reisig, M. D., & Parks, R. B. (2000). Experience, quality of life, and neighborhood context: A hierarchical analysis of satisfaction with police. *Justice Quarterly*, 17, 607–630.
- Rottman, D., Hansen, R., Mott, N., & Grimes, L. (2003). *Perceptions of the courts in your community: The influence of experience, race and ethnicity (final report)*. Williamsburg, VA: National Center for State Courts.
- Rottman, D. B. (2000). Does effective therapeutic jurisprudence require specialized courts (and do specialized courts imply specialist judges)? *Court Review*, 37, 22–54.
- Rottman, D. B. (2005). *Trust and confidence in the California courts: A survey of the public and attorneys*. California: Judicial Council of California/Administrative Office of the Courts. Retrieved from http://www.courts.ca.gov/documents/4_37pubtrust1.pdf
- Sampson, R. J., & Bartusch, D. J. (1998). Legal cynicism and (subcultural?) tolerance of deviance: The neighborhood context of racial differences. *Law & Society Review*, 32, 777–804.
- Shaffer, D. K. (2011). Looking inside the back box of drug courts: A meta-analytic review. *Justice Quarterly*, 28, 493–521.
- Senjo, S. R., & Leip, L. A. (2001). Testing and developing theory in drug court: A four-part logit model to predict program completion. *Criminal Justice Policy Review*, 12, 66–87.

- Sun, I. Y., & Wu, Y. (2006). Citizens' perceptions of the courts: The impact of race, gender, and recent experience. *Journal of Criminal Justice*, *34*, 457–467.
- Sunshine, J., & Tyler, T. R. (2003). The role of procedural justice and legitimacy in shaping public support for policing. *Law & Society Review*, *37*, 513–547.
- Tankebe, J. (2013). Viewing things differently: The dimensions of public perceptions of police legitimacy. *Criminology*, *51*, 103–135.
- Taxman, F. S., & Bouffard, J. A. (2005). Treatment as part of drug court: The impact on graduation rates. *Journal of Offender Rehabilitation*, *42*, 23–50.
- Thibaut, J., & Walker, L. (1975). *Procedural justice: A psychological analysis*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Tyler, T. R. (1984). The role of perceived injustice in defendants' evaluations of their court-room experience. *Law & Society Review*, *18*, 51–74.
- Tyler, T. R. (2001). Public trust and confidence in legal authorities: What do majority and minority group members want from the law and legal authorities? *Behavioral Sciences and the Law*, *19*, 215–235.
- Tyler, T. R. (2006). *Why people obey the law*. Princeton, NJ: Princeton University Press.
- Tyler, T. R. (2007). Procedural justice and the courts. *Court Review*, *44*, 26–31.
- Tyler, T. R., & Folger, R. (1980). Distributional and procedural aspects of satisfaction with citizen-police encounters. *Basic and Applied Social Psychology*, *1*, 281–292.
- Tyler, T. R., & Huo, Y. J. (2002). *Trust in the law: Encouraging public cooperation with the police and courts*. New York, NY: Russell Sage Foundation.
- Tyler, T. R., Sherman, L., Strang, H., Barnes, G. C., & Woods, D. (2007). Reintegrative shaming, procedural justice, and recidivism: The engagement of offenders' psychological mechanisms in the Canberra RISE drinking-and-driving experiment. *Law & Society Review*, *41*, 553–585.
- Tyler, T. R., & Wakslak, C. J. (2004). Profiling and police legitimacy: Procedural justice, attributions of motive, and acceptance of police authority. *Criminology*, *42*, 253–281.
- Wales, H. W., Hiday, V. A., & Ray, B. (2010). Procedural justice and the mental health court judge's role in reducing recidivism. *International Journal of Law and Psychiatry*, *33*, 265–271.

- Walker, L., Lind, E. A., & Thibaut, J. (1979). The relation between procedural and distributive justice. *Virginia Law Review*, *65*, 1401–1420.
- Walker, L. E., Pann, J. M., Shapiro, D. L., & Van Hasselt, V. B. (2016). *Best practices for the mentally ill in the criminal justice system*. New York, NY: Springer International Publishing.
- Wexler, D. B. (1990). Inducing therapeutic compliance through the criminal law. *Law & Psychology Review*, *14*, 43–57.
- Wiener, R. L., Winick, B. J., Georges, L. S., & Castro, A. (2010). A testable theory of problem-solving courts: Avoiding past empirical and legal failures. *International Journal of Law and Psychiatry*, *33*, 417–427.
- Winick, B. J., & Wexler, D. B. (2002). Drug treatment court: Therapeutic jurisprudence applied. *Touro Law Review*, *18*, 479–485.
- Wilson, D. B., Mitchell, O., & MacKenzie, D. L. (2006). A systematic review of drug court effects on recidivism. *Journal of Experimental Criminology*, *2*, 459–487.
- Woolard, J., Harvell, S., & Graham, S. (2008). Anticipatory injustice among adolescents: Age and racial/ethnic differences in perceived unfairness of the justice system. *Behavioral Sciences and the Law*, *26*, 207–226.
- Wu, Y., Sun, I. Y., & Triplett, R. A. (2009). Race, class or neighborhood context: Which matters more in measuring satisfaction with police? *Justice Quarterly*, *26*, 125–156.

Author Biographies

Cassandra A. Atkin-Plunk, PhD, is an assistant professor in the School of Criminology and Criminal Justice at Florida Atlantic University. Her research interests span both institutional and community corrections with an emphasis on evidence-based practices and program/policy evaluation.

Jennifer H. Peck, PhD, is an assistant professor in the Department of Criminal Justice at the University of Central Florida. Her most recent research appears in *Justice Quarterly*, *Law and Human Behavior*, and *Crime & Delinquency*. Her research interests include the role of race and ethnicity in the juvenile justice system and the treatment of disadvantaged groups in court and correctional settings.

Gaylene S. Armstrong, PhD, is the director and professor in the School of Criminology and Criminal Justice at the University of Nebraska at Omaha. Her research focuses broadly on criminal justice policy research.