

## Examining changes in procedural justice and their influence on problem-solving court outcomes

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### **Abstract:**

The number of problem-solving courts has grown substantially since the mid-1990s. Research consistently indicates that participation in these courts lowers recidivism, which is often attributed to defendants' increased perceptions of procedural justice in these programs. Yet, prior studies are limited in their focus, often examining interactions with the judge in a single court or examining defendant perceptions and outcomes at a single time point. In the present study, we investigate defendant perceptions of procedural justice with judges and case managers across multiple problem-solving courts over time. Findings indicate that procedural justice varies across court actors and over time. Procedural justice is lower among judges than among case managers; however, changes in perceptions of procedural justice with the judge are associated with improved court outcomes. We suggest that defendant perceptions are variable and complex but important in explaining variations in outcomes.

**Keywords:** Procedural justice | Problem-solving courts | Specialty courts | Therapeutic courts

### **Article:**

## **1 INTRODUCTION**

Problem-solving courts (also known as specialty courts or therapeutic courts) have gained prominence since the mid-1990s. Today there are nearly 4,000 problem-solving courts in the United States with drug courts being the most prominent, followed by mental health courts (Huddleson & Marlowe, 2011). Unlike traditional criminal courts, which focus on innocence or guilt and determining punishment, problem-solving courts are an alternative approach to sentencing and supervision in which offenders are linked with community-based treatments or services that address the underlying cause of offenders' criminal behavior (Huddleson & Marlowe, 2011; Miller & Johnson, 2009). Through extended judicial supervision, the problem-

solving court team monitors compliance with these treatments, services or other court mandates and uses sanctions and incentives that will reduce the risk of reoffending.

Scholarship largely finds that participation in drug or mental health courts reduces offender involvement in the criminal justice system. While some raise concerns about the validity of these findings (Berman & Feinblatt, 2005; Griffin & DeMatteo, 2009; Lurigio & Snowden, 2009), meta-analyses consistently conclude that defendants participating in these courts have lower rates of recidivism during court supervision and following court completion than do similar defendants in regular court (Government Accountability Office, 2005; Mitchell, Wilson, Eggers, & MacKenzie, 2012; Sarteschi, Vaughn, & Kim, 2011; Wilson, Michell, & MacKenzie, 2006).

Researchers argue that problem-solving court processes help to elucidate reduced recidivism rates (Carey, Finigan, & Pukstas, 2008; Cissner & Rempel, 2005), and procedural justice has been suggested as a key factor in explaining success among these courts (e.g., Rossman, Roman, & Zweig, 2011). Procedural justice processes are present when defendants perceive being treated with dignity and respect, having an opportunity to voice their side of the dispute, and fair decision-making among court personnel. The presence of procedural justice has been found to lead to greater compliance with legal authorities and engaging in law-abiding behaviors (Lind & Tyler, 1988; Tyler, 2006).

Relatively few studies have systematically examined procedural justice in the problem-solving court setting. Among those few studies, focus has been limited, often examining interactions with the judge in a single court, a single type of court, or examining defendant perceptions and outcomes at a single time point (see Kopelovich, Yanos, Pratt, & Koerner, 2013; Rossman et al., 2011, for exceptions). The present research asks three questions: do defendant perceptions of procedural justice vary across court personnel (i.e., judges and case managers); do defendant perceptions of procedural justice change over time; and are changes in perceptions of procedural justice associated with successful court outcomes? As such, the current study goes beyond previous works by examining survey data at two time points, collected at intake and at 3-month follow up, from defendants in multiple types of problem-solving courts. We include separate items to capture defendant perceptions of procedural justice with the judge and procedural justice with the case manager, and we use these data to examine how they influence defendant court outcomes.

### 1.1 The development of problem-solving courts

While the juvenile court system of the late 19th century is the earliest example of a court with a specialized docket, the problem-solving court movement is commonly associated with the development of drug court (Nolan, 2001). Following the “war on drugs” policies of the 1980s there were vast increases in the arrest, prosecution, and incarceration for drug-related offenses, which resulted in overcrowding in jails and prisons (Clear & Frost, 2014; Glass et al., 2010). Mass incarceration of drug-related offenders resulted in the implementation of various diversion programs, including drug courts. The first drug court was established in Dade County, Florida in 1989.

The drug court model has a specialized docket for defendants with a history of substance abuse. These courts also rely on extended judicial supervision and a team approach that brings together judges, criminal justice and legal personnel, and treatment providers. Sanctions and incentives are implemented to encourage offenders to remain compliant with the law and any additional conditions that the judge imposes (i.e., treatment).

Lauded for its innovation and success, the drug court model was quickly imitated and other forms of problem-solving courts were established. The mental health court was the second type of problem-solving court established. Developed in Broward County, Florida, mental health courts responded to the county's "rapidly increasing" misdemeanor arrests of persons with mental illness, which burdened court dockets and increased jail populations (Petrila, Poythress, McGaha, & Boothroyd, 2001). Although these courts address different populations, mental health courts incorporate several of the key components of the drug court model (Drug Court Program Office, 1997). For example, like drug courts, mental health courts are based on a therapeutic philosophy that focuses on linking offenders to community-based treatments and resources and offering incentives and sanctions that encourage pro-social change (Lurigio & Snowden, 2009; Winick & Wexler, 2003).

## 1.2 The problem-solving court processes

Problem-solving policies and procedures differ depending on the population they serve (i.e., drug users, persons with mental illness, etc.), but commonalities across problem-solving courts distinguish them from a traditional criminal court (Berman & Feinblatt, 2001; Huddleson & Marlowe, 2011). Unlike traditional courts, participation in the problem-solving court process is usually voluntary.<sup>1</sup> Defendants are offered the opportunity to participate based on the court's eligibility criteria, which discerns whether the underlying cause of their criminal behavior is an issue that the court is designed to address. After enrollment, the defendant must agree to follow the assigned treatment regimen and be monitored by the court's personnel. Failure to do so, or choosing to opt out, will result in either a return to traditional court or a revocation hearing.

Another distinguishing factor of problem-solving courts is the use of a non-adversarial team approach in which a judge, prosecutor, defense counsel, and other community-based professionals collaborate in the decision-making process. Rather than trying to determine an adequate punishment for a specific criminal offense, the team works together to link an offender to necessary community-based resources in the hope of preventing future criminal offending. Although the type of treatment and service varies by court and defendant needs, it is not uncommon for defendants to be linked to residential services and structured substance abuse treatment.

Finally, problem-solving courts use extended judicial supervision and rely on the authority of the court to hold the defendant accountable for court compliance. In doing so, the defendant agrees to attend regular judicial status hearings. Although the frequency of status hearings differs across courts, research suggests biweekly court hearings for high-risk offenders (Festinger et al., 2002; Marlowe, Festinger, Lee, Dugosh, & Benasutti, 2006; National Association of Drug Court Professionals, 2013). Prior to these hearings, the court team meets to discuss each defendant on the docket. Defendants then appear in court to openly discuss their progress (or lack thereof)

with the judge. Status hearings provide the court with an opportunity to sanction and/or encourage certain behaviors. Defendants receive positive or negative feedback and/or incentives designed to encourage positive change and continued compliance with the law.

### 1.3 Procedural justice research in problem-solving courts

Prior theory and research describe procedural justice as having a variety of features. For example, Tyler and Lind (1992) argue that procedural justice occurs in the presence of trust, standing, and neutrality. They contend that these three elements require exchanges that support human dignity, demonstrate a respect for one's rights and needs, consider parties' standpoint, and exercise impartial, honest, and fact-based decision-making. Leventhal (1980) similarly recognizes the importance of bias-suppression and representativeness but identifies various other factors needed to promote perceptions of justice. Thibaut and Walker (1975) emphasize the importance of process control, which depicts procedural justice as providing an opportunity to voice one's views, thus promoting inclusiveness and feelings of fairness (Lind & Tyler, 1988). Most recently, Tyler (2009, p. 323) argues that the quality of decision-making and interpersonal treatment determines if procedural (in) justice is evident.

Despite differences across these studies, a core tenant in the philosophy of procedural justice is a concern with fairness, but relying on a single, defining feature of procedural justice is imprudent given its complexity. Accordingly, procedurally just court encounters are often characterized as having three primary components: treating parties with dignity and respect; giving the persons involved an opportunity to explain their position and express their views; and operating with a high degree of transparent decision-making (e.g., Tyler, 2006; Tyler & Lind, 1992). Each of these features is expected to produce perceptions of court authority and legitimacy, which results in greater compliance with the court's instructions (Lind & Tyler, 1988; Thibaut & Walker, 1975; Tyler, 1984, 2006, 2009; also see Beetham, 1991). Procedural justice was linked to the problem-solving court movement early on by researchers and legal scholars who were detailing the differences between drug courts and traditional criminal courts. In addition, the procedural justice framework helped to provide a theoretical mechanism by which to explain why drug courts reduce recidivism (Goldkamp, 1999; Goldkamp & Irons-Guynn, 2000; Gottfredson & Exum, 2002; Poythress, Petrila, McGaha, & Boothroyd, 2002; Wexler & Winick, Wexler & Winick, 1991, Wexler & Winick, 1996).

The first study to measure perceived procedural justice was in the Broward County, Florida, mental health court. Initial observations revealed that defendants' interactions with the judge differed from traditional court defendants in that the judge was more likely to engage defendants in dialogue that revolved around the therapeutic process rather than criminal offending (Poythress et al., 2002). To examine these interactions, Poythress and colleagues modified procedural justice and coercion items that had previously been used in involuntary commitment studies (e.g., Cascardi, Poythress, & Hall, 2000; Cascardi, Poythress, & Ritterband, 1997; Gardner et al., 1993). The study concluded that mental health court defendants perceived more procedural justice and less coercion than a comparison group of defendants in traditional court (Poythress et al., 2002).

Since this initial study, procedural justice has been examined in numerous mental health courts, and on the whole, we see some consistency in findings. For example, studies find that mental health court defendants perceive higher levels of procedural justice than do persons participating in assisted outpatient treatment (Munetz, Ritter, Teller, & Bonfine, 2014), that procedural justice is associated with decreases in psychiatric impairment (Kopelovich et al., 2013) and improved coping strategies at exit (Ray & Dollar, 2014), and that voluntariness and procedural justice are associated with increased court compliance and completion (Redlich & Han, 2014).

Research has also investigated procedural justice effects on drug court experiences and outcomes. In one of the first studies, Gottfredson, Kearley, Najaka, and Rocha (2007) found that attending drug court's mandated judicial hearings increased perceptions of procedural justice, which decreased criminal participation. In the largest study to date, Rossman et al. (2011) compared defendants in 23 drug courts with defendants in six comparable traditional courts. Relying on survey data from defendants collected at baseline, 6 months, and 18 months, this Multi-Site Adult Drug Court Evaluation (MADCE) concluded that perceptions of procedural justice are greater in the problem-solving court context and that higher levels of procedural justice are associated with compliance and reduced crime at follow-up. Interestingly, the MADCE data also revealed that perceptions of procedural justice did not vary over time but did vary from court to court.

While studies reveal the judge as the most likely person to convey procedural justice (Marlowe, Festinger, Dugosh, & Lee, 2005; Marlowe, Festinger, & Lee, 2004; Wales, Hiday, & Ray, 2010), other mental health court team members (case workers, probation, legal representatives) are also vital in forming defendant perceptions. Canada and Watson (2013) examined defendant perceptions of procedural justice with judges and other mental health court staff. Their data suggest that defendants feel a strong sense of procedural justice when interacting with court team members. Interestingly, however, in-depth interviews revealed differing degrees of procedural justice between judges and other court team members. For example, although there were variations by court, participants consistently reported that they felt heard and validated by the judge but expressed less validation and respect in their interactions with case managers.

#### 1.4 The current study

While the MADCE study provided some of the most conclusive evidence of procedural justice in a drug court context, few studies have attempted to replicate these results by looking at procedural justice across multiple court settings. Much of the extant literature focuses on a single court, uses cross-sectional data collected at intake or exit, and focuses specifically on procedurally (un)just interactions with the judge. The present study attempts to extend the literature. Using survey data collected from defendants at intake and at a 3-month follow-up at multiple problem-solving courts (two drug courts and one mental health court), we examine whether perceptions of judicial procedural justice and case management procedural justice vary over time and the effects of such change on court outcomes.

## 2 METHOD

### 2.1 Data collection

The data for this study were collected with support from a Bureau of Justice Assistance grant that was awarded to the Indiana Judicial Center (IJC) to examine implementation of best practices in problem-solving courts. The IJC coordinated with university researchers to develop a project whereby operating problem-solving courts would collect survey data from incoming defendants. The IJC sent out a solicitation to participate in the study to 12 problem-solving courts. Each of these courts had been previously certified by the IJC; thus, the courts' policies and procedures have been reviewed and deemed compliant with state and federal statutes and practiced the essential elements of a problem-solving court model as identified by the Council of State Governments (2009). Five courts responded with interest in participating in the study; however, two of those courts included fewer than 20 active cases. Given low enrollment and to minimize risk in revealing the identity of defendants in these small courts, they were not selected to participate in the study.

The courts examined for the present study are located in different jurisdictions. Court A is a mental health court that also handles drug-related cases and is located in an urban area with a county population of over 350,000. Court B is a drug court located in a suburb outside a large metropolitan statistical area and has a county population of approximately 275,000, and Court C is a drug court in a rural area with a county population of approximately 20,000. As stated earlier, each court had been previously certified by the IJC as compliant with state and federal statutes and operating using the essential elements of a problem-solving court model (Council of State Governments, 2009). The courts have been in operation since 2009, 2010, and 2004, respectively.

Survey instruments and data collection procedures were approved by the author's respective university institutional review boards. Researchers and IJC staff agreed that survey administrators would be persons who were not a part of any defendant's treatment team. Given their familiarity with the court schedule and their lack of authority to levy sanctions on defendants, the trial court coordinator and at least one substitute staff member were selected as the survey administrators. Survey implementation training was held at the IJC office, which was centrally located and had ample space to accommodate all trainees and trainers.

Two of the authors trained the selected court personnel on survey administration and data collection. As stated earlier, the trial court coordinator for each court attended the training with the expectation that they would be administering the survey to each defendant. One to two other court administrators attended the training for each court in the event that the trial court coordinator was unable to interview the defendant for any reason. During training, the two authors present reviewed the survey in detail. Each trainee practiced administering the survey to one another twice and to one of the authors once. Training lasted approximately 5 hours and was completed in a single day.

Defendants completed the surveys in a private room within the courthouse where they could not be seen or overheard by others. Prior to survey initiation, the administrator obtained verbal consent from defendants, informing them that participation in the survey would not influence their case or treatment in any way. Once consent was obtained, defendants completed the survey.

The present study examines a 1-year cohort of nearly all defendants who had either completed or been terminated from the three courts. Data collection for this study began in April 2014 and ended in December 2015. During this time, survey data were collected from defendants at two time points: after the defendant's first appearance in the problem-solving court (baseline) and again 3 months later (follow-up). We selected a 3-month follow-up for two reasons. It provided ample time for the defendants to have had multiple interactions with the judge and case manager, and prior research indicates that most persons are terminated from the court within this time period (see Ray & Dollar, 2013).

Baseline survey data were collected on 109 defendants across the three sites (with eight refusals). At the 3-month follow-up, 81 defendants completed a follow-up survey, so we retained approximately 74% of our original sample. Attrition was due to court termination.<sup>2</sup> While the overall sample size may be low, the data are uniquely informative as few studies have examined perceptions of judges and case managers, fewer have looked across multiple courts, and even fewer have attempted to test how these perceptions may change over time.

## 2.2 Measures

To measure perceived procedural justice, we rely on items from the MADCE study. As we are interested in measuring procedural justice with the judge and case manager, we include questions that separately assess perceptions based on interactions with the judge (eight items) and interactions with the defendant's case manager (seven items). Survey items assess various aspects of procedural justice, including the defendant's feelings about being treated fairly and respectfully, the court's knowledge about the defendant and his/her case, the court's willingness to listen to and validate the defendant's point of view, and the court's willingness and emphasis on assisting and helping the defendant.<sup>3</sup> Each of these items relate to the three commonly cited components of procedural justice mentioned above. For example, dignity and respect is reflected in six items, which ask about being treated respectfully and fairly and the court's knowledge about the defendant and his/her case. The court's willingness to listen to the defendant's point of view indicates one's opportunity to voice his/her standpoint, and transparency in decision-making is measured by items regarding the court's willingness to help the defendant and emphasize treatment needs.

All survey questions use a five-point likert scale response ranging from “strongly disagree” to “strongly agree.” Each set of items was asked after the defendant's first problem-solving court hearing and at the 3-month follow up. The eight-item index measuring *judicial* procedural justice have a Cronbach's alpha score of 0.90 at baseline and 0.89 at follow-up. The seven-item procedural justice with the *case manager* index have a Cronbach's alpha score of 0.93 at baseline and 0.94 at follow-up.

To measure court outcomes, we create a dichotomous measure that captures whether the defendant successfully completed the court (completion = 1) or was negatively terminated from the court (termination = 0). We also include several individual-level demographics, including age, sex, and race as well as defendant's key arrest type (i.e., felony or misdemeanor). Finally, we capture self-reported lifetime number of prior arrests and a “risk score” measure using the Indiana Risk Assessment System (IRAS) for each defendant. The IRAS consists of six

instruments that are completed at specific phases of the criminal justice process. By identifying an offender's needs and risks of reoffending, the instruments are used to establish individualized case plans [see IRAS, 2010 for a full explanation of instrument assessment and scoring]. Higher risk scores indicate higher criminogenic needs and risk of reoffending.

### 2.3 Analytic technique

We employ various analytic techniques given our specific research questions. To measure differences in procedural justice, we rely on *t*-tests, which assess mean score variance. Specifically, to examine across-group differences in procedural justice (i.e., differences between the case manager and the judge), we employ a series of independent-sample *t*-tests. As we collected data at two time points, we also examined within-group differences in procedural justice over time using a series of paired-sample *t*-tests. Finally, to investigate how procedural justice influences court outcomes, we relied on logistic regression analyses as our measure of court outcomes is dichotomous (i.e., completion versus termination).

## 3 RESULTS

### 3.1 Sample description

Table 1 displays descriptive statistics of the full sample and by court subsample (i.e., Court A, B, and C). The average age was 36.5 years ( $SD = 12.8$ ), and the sample was largely male (67.0%) and White (92.7%). The majority of defendants in this sample have a felony arrest (89.0%), and self-reported prior arrests range from 1 to 40, with an average of 6.3 ( $SD = 6.4$ ). The average IRAS score, which can range from 0 to 49, was 20.5 ( $SD = 6.5$ ), indicating a “moderate” risk for recidivism. Finally, slightly less than half (45.9%) successfully completed the problem-solving court. When examining the sample characteristics across courts, we find that the only significant difference is in regard to age. Specifically, Court A has a significantly older population than Court B and Court C ( $F_{2, 106} = 6.23, p < 0.01$ ).

**Table 1.** Sample characteristics

	<b>Full Sample</b>	<b>Court A</b>	<b>Court B</b>	<b>Court C</b>
	<b><i>M</i> (SD)</b>	<b><i>M</i> (SD)</b>	<b><i>M</i> (SD)</b>	<b><i>M</i> (SD)</b>
Age a*	36.5 (12.8)	41.3 (12.9)	34.9 (11.1)	31.7 (12.2)
Sex	<b><i>N</i> (%)</b>	<b><i>N</i> (%)</b>	<b><i>N</i> (%)</b>	<b><i>N</i> (%)</b>
Male	73 (67.0)	33 (75.0)	19 (61.3)	21 (61.8)
Female	36 (33.0)	11 (25.0)	12 (38.7)	13 (38.2)
Race/minority Status				
White	101 (92.7)	40 (90.9)	30 (96.8)	31 (91.2)
Black/Hispanic	8 (7.3)	4 (9.1)	1 (3.2)	3 (8.8)
Key arrest type				
Felony	97 (89.0)	38 (86.4)	27 (87.1)	38 (86.4)
Misdemeanor	12 (11.0)	6 (13.6)	4 (12.9)	6 (13.6)
Court Outcome				
Completed	50 (45.9)	23 (52.3)	11 (35.5)	16 (47.1)
Terminated	59 (54.1)	21 (47.7)	20 (64.5)	18 (52.9)



	<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)	<i>M</i> (SD)
Prior arrests	6.3 (6.4)	6.6 (7.7)	5.8 (5.1)	6.3 (5.8)
Risk score	20.5 (6.9)	19.6 (8.3)	21.0 (5.6)	21.1 (6.3)
Total	109	44	31	34

a ANOVA test;

\*  $p < 0.05$ .

Table 2 shows the mean responses for perceived procedural justice with both the judge and the case manager at baseline and follow-up. The data suggest that defendants generally have positive attitudes about their court experience with judges and case managers. Defendants reported high scores for most elements of procedural justice. For example, 94.5% agreed or strongly agreed that the judge treated them with respect while 97.3% agreed or strongly agreed that the case manager treated them with respect.

**Table 2.** Responses from perceived procedural justice (PJ) items

	PJ component	Baseline ( <i>N</i> = 109)	Follow-up ( <i>N</i> = 81)
		<i>M</i> (SD)	<i>M</i> (SD)
<i>Perceived procedural justice with judge</i>			
Your judge treats you with respect.	Dignity and respect	4.39 (0.62)	4.58 (0.54)
Your judge is intimidating and unapproachable. <sup>a</sup>	Dignity and respect	2.02 (0.95)	1.85 (0.90)
Your judge can be trusted to treat you fairly.	Dignity and respect	4.24 (0.78)	4.41 (0.67)
Your judge is knowledgeable about your case.	Dignity and respect	4.22 (0.83)	4.42 (0.93)
Your judge knows you by name.	Dignity and respect	4.14 (0.92)	4.51 (0.81)
Your judge gives you a chance to tell your side of the story.	Voice standpoint	4.07 (0.92)	4.38 (0.81)
Your judge helps you to succeed.	Transparency	4.14 (0.80)	4.48 (0.69)
Your judge emphasizes the importance of treatment.	Transparency	4.46 (0.62)	4.69 (0.49)
<i>Perceived procedural justice with case manager</i>			
Your case manager treats you with respect.	Dignity and respect	4.50 (0.59)	4.59 (0.57)
Your case manager can be trusted to treat you fairly.	Dignity and respect	4.38 (0.69)	4.43 (0.81)
Your case manager is knowledgeable about your case.	Dignity and respect	4.39 (0.71)	4.57 (0.65)
Your case manager knows you by name.	Dignity and respect	4.52 (0.54)	4.67 (0.55)
Your case manager gives you a chance to tell your side of the story.	Voice standpoint	4.43 (0.63)	4.49 (0.79)
Your case manager helps you to succeed.	Transparency	4.40 (0.68)	4.56 (0.67)

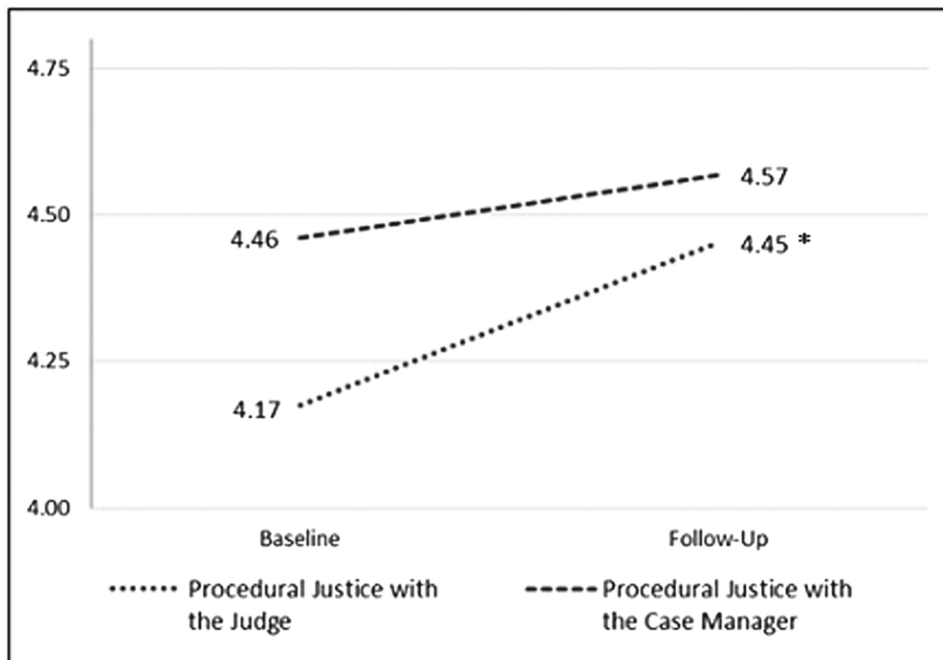
Your case manager emphasizes the importance of treatment.	Transparency	4.50 (0.60)	4.67 (0.50)
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Responses ranged from 1 (strongly disagree) to 5 (strongly agree)  
 a Item reverse-coded for scale.

### 3.2 Across- and within-group differences in procedural justice

These data allow us to compare perceptions of procedural justice across groups [i.e., case managers at time 1 (T1) compared with judges at T1; case managers at time 2 (T2) compared with judges at T2) and within groups over time (case managers at T1 and T2; judges at T1 and T2). In most of these analyses, we find compelling differences in procedural justice.

When examining across-group differences, the data reveal that the average score for procedural justice with the case manager is higher than procedural justice with the judge, and this finding is true at baseline and follow-up. Figure 1 illustrates this finding. More specifically stated, the baseline data reveal that the average score for procedural justice with the case managers is 4.45 (SD = 0.56) as compared with 4.17 for judges (SD = 0.60), which is a statistically significant difference ( $t = 3.21, df = 80, p < 0.01$ ). At follow-up, the average score for case manager procedural justice is 4.57 (SD = 0.56) compared with 4.45 (SD = 0.56) for judges, which again is statistically significant ( $t = 2.83, df = 76, p < 0.01$ ). At both time points, then, the average scores for procedural justice with the case manager exceed those with the judge. In fact, we note only 12 cases (14.8%) where procedural justice scores for the judge were higher than scores for the case manager at baseline, and each of these occurred at baseline.



\*=p.05

**Figure 1.** Changes in procedural justice. \* $p = 0.05$

In comparing within-group differences in procedural justice over time, we find that while procedural justice with the case manager increased from 4.46 to 4.57 from baseline to follow-up, this change is not statistically significant. Changes in procedural justice with the judge increased from 4.17 to 4.45, and this change is statistically significant ( $t = 3.21, df = 80, p < 0.01$ ). Nonetheless, as illustrated in Figure 1, the average score for procedural justice with the case manager remains slightly higher than for procedural justice with the judge (4.57 and 4.45, respectively).<sup>8</sup>

### 3.3 Procedural justice and court outcomes

We estimate a series of logistic regression models to investigate how procedural justice influences court outcomes. We began by examining whether procedural justice with the case manager and judge (at baseline and follow-up) influenced court outcome, but we found that none of these measures was statistically significantly associated with court completion (results not shown). However, given the changes in average procedural justice scores between baseline and follow-up (particularly with the judge), which we discussed in the previous section, we created two variables that capture individual-level change in perceptions. One variable measures changes in perceptions of procedural justice with the case manager between baseline and follow-up, and the other variable measures temporal changes in judicial procedural justice. To calculate these change measures, we subtracted each defendant's procedural justice score with the case manager and judge at follow-up from their respective score at baseline. The procedural justice with the case manager had an average change score of 0.11 (SD = 0.81) and ranged from -2.12 to 1.57. The average change score of judicial procedural justice was 0.28 (SD = 0.78) and ranged from change of -1.38 to +2.0.

We entered the respective change variable into a series of logistic regression models to examine if change in procedural justice influences court outcomes. Model 1 of Table 3 reports the results of a baseline model that regresses the change measure for judicial perceptions on court outcome. The data show that changes in judicial procedural justice are statistically significantly associated with court outcomes. Indeed, this relationship is positive, suggesting that increases in the defendant's perception of judicial procedural justice is associated with successful court completion. To investigate if this relationship remains when relevant legal and social covariates are added to the model, we estimated an elaborated model, which includes the control variables. As shown in Model 2 of Table 3, we find that even after controlling for age, sex, race, felony status, prior arrests, and risk score, a positive and statistically significant association between change in procedural justice with the judge and successful completion remains (odds ratio = 2.09,  $p < 0.05$ ).

**Table 3.** Logistic regression predicting successful completion ( $n = 81$ ). Data are odds ratio (SE) [confidence interval]

	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
	<b>Judicial PJ</b>	<b>Judicial PJ</b>	<b>Case manager PJ</b>	<b>Case manager PJ</b>
Changes in procedural justice (PJ)	1.97*	2.09*	1.60	1.51
	(0.31)	(0.34)	(0.29)	(0.31)
	[1.07–3.60]	[1.06–4.10]	[0.84–2.58]	[0.83–2.75]

Age		0.99 (0.02) [0.94–1.02]		0.99 (0.02) [0.95–1.03]
Female (1 = yes)		0.44 (0.55) [0.15–1.27]		0.44 (0.54) [0.15–1.26]
White (1 = yes)		0.58 (0.88) [0.10–3.22]		0.45 (0.54) [0.08–2.46]
Felony (1 = yes)		1.18 (0.98) [0.06–21.61]		1.62 (1.41) [0.10–25.55]
Prior arrests		1.00 (0.04) [0.93–1.08]		1.01 (0.04) [0.93–1.08]
Risk score		0.96 (0.04) [0.89–1.03]		0.95 (0.04) [0.88–1.02]
Nagelkerke $R^2$	0.11	0.17	0.04	0.12
-2 log likelihood $\times 2$	102.10	98.27	106.24	101.31

\*  $p \leq 0.05$ .

Model 3 of Table 3 presents the results for models estimating how change in procedural justice with the case manager influences court outcome. As shown, the data indicate no statistical association between changes in judicial procedural justice with the case manager and a defendant's likelihood of completion. The relationship remains statistically insignificant when elaborating the model to include control variables (see Model 4 of Table 3).

#### 4 DISCUSSION AND CONCLUSION

In the present paper, we investigate how procedurally just interactions with various court personnel may influence court outcomes. The data reveal several interesting findings. First, we find that the majority of the defendants reported being treated fairly and with respect. These findings are consistent with earlier studies concluding that perceptions of procedural justice are relatively high for problem-solving court participants (e.g., Gottfredson et al., 2007; Poythress et al., 2002; Redlich & Han, 2014; Rossman et al., 2011; Wales et al., 2010).

Second, despite the generally high perceptions of procedural justice across court actors, our data indicate that defendants seem to perceive more procedural justice from case managers than from judges, and this is especially true at baseline. While many prior studies focused solely on perceptions of procedural justice with the judge, our findings seem to contradict the few studies that have investigated procedurally (un)just interactions between the defendant and other court personnel. For example, Canada and Watson (2013) found that mental health court respondents reported lower perceptions of procedural justice compared with previous studies. They related this finding to their inclusion of various mental health court staff (i.e., case worker and probation officer), citing that previous studies reporting higher levels of procedural justice had focused

solely on interactions with the judge. They also acknowledge that procedural justice may be time-relevant such that perceptions of procedural justice may change as court interactions continue, a supposition that has been supported by studies evaluating changes in mental health court judicial procedural justice over time (e.g., Kopelovich et al., 2013). As mentioned earlier, our project is unique in that we examine defendants enrolled in both mental health and drug courts, and we assess procedural justice at two time points. The present findings thus accentuate earlier arguments that perceptions of procedural justice are dynamic and complex (e.g., Canada & Watson, 2013; Rossman et al., 2011).

Our data reveal a small, statistically insignificant increase in procedural justice among case managers between baseline and follow-up. Rossman et al. (2011) also reported largely insignificant changes in procedural justice with case managers among their sample of drug court participants. While we appreciate their argument that these changes may not be linear and could change over more extended periods of time, we expect that the small degree of change we see in our data is due to the relatively high scores of procedural justice with the case manager at baseline, which left little room for significant increases. In other words, our data may be demonstrating a ceiling effect (Hessling, Traxel, & Schmidt, 2004) whereby perceptions of procedural justice had reached a virtual maximum level among most of the respondents.

Interestingly, with regard to interactions with the judge, defendants report a notable increase in perceptions of procedural justice between baseline and follow-up. Our findings, therefore, indicate a clear differential between defendants' changing views of procedural justice across court team members (i.e., case manager and judge). Future researchers investigating procedural justice should continue to assess perceptions of procedural justice by court staff separately, as doing so is necessary to better evaluate who, where, and how procedural justice may be transmitted.

Finally, we reveal that it is not perceptions of procedural justice itself that influence court outcomes. Rather it is changes in perceptions of *judicial* procedural justice that are related to court outcomes, which may explain why previous studies have found no association between procedural justice and court outcome (e.g., Atkin-Plunk & Armstrong, 2016). Still, our results indicate that individuals reporting increases in perceptions of procedural justice with the judge during their first 3 months were more likely to successfully complete the court process. Changes in procedural justice with the case manager, however, were not associated with court outcomes, although this is probably due to the small, statistically insignificant change in case manager perceptions, as mentioned earlier. Although we are unable to ascertain what factors contribute to changing perceptions of procedural justice, future studies should investigate this matter. Changes could result from a variety of mechanisms, including participation in court-mandated judicial supervision, building rapport through repeated interactions, an increased familiarity with court procedures and proceedings, and/or receiving training or treatments that reduce mental and emotional stress. By identifying why and how changes in procedural justice occur, we will be better able to inform court personnel on how to engender just court experiences and successful outcomes.

Our findings bolster arguments that the relationship between the judge and defendant are foundational to specialty court success (e.g. Marlowe et al., 2004; Rossman et al., 2011). These

results may also support arguments that when judges treat defendants fairly and with respect, their perceptions of the court's authority and legitimacy increase, which results in greater compliance (Lind & Tyler, 1988; Thibaut & Walker, 1975; Tyler, 1984, 1990, 2009). As a reminder, our analysis of court outcomes includes 74% of the initial sample, because about 26% ( $n = 28$ ) defendants were terminated from the court process between baseline and follow-up. We are unable to determine if perceptions of procedural justice among these terminated defendants changed or how any changes may have influenced their experiences in the courts. While those data are unavailable for the present research, future studies examining court perceptions and outcomes would benefit from tracking terminated defendants to see if their perceptions differ significantly from non-terminated defendants.

To be clear, the present paper goes beyond prior research in several ways. First, we examine multiple problem-solving courts (i.e., drug and mental health courts). Second, we collect data on perceptions of procedural justice with multiple court personnel (i.e., judges and case managers). Third, we gather data about procedural justice interactions at multiple time points (i.e., court entry and 3-month follow-up). Finally, we use these data to assess how changes in procedural justice perceptions influence court outcomes. Despite these strengths, there are limitations. For example, like the majority of research on procedural justice in problem-solving court, we were unable to collect survey data from a comparison group of defendants in the same court jurisdiction. Moreover, we do not have complete longitudinal data on defendants during their time in the court. Ideally, we would have complete survey data for those who were terminated from the problem-solving process. With such data, we would be able to more fully examine the extent to which perceptions of the court determine compliant or non-compliant behaviors. Finally, while we were able to collect data from multiple courts, and multiple defendants from these courts, the present study is limited in the sample size. Given limited resources, we were only able to collect data from three, modestly sized, racially homogeneous problem-solving courts. We expect that minority exclusion in problem-solving courts is reflective of broader criminal justice inequities whereby racial minorities are treated more harshly than Whites. Additional research directly addressing this issue is vital to better understand and resolve the pervasiveness of racial bias in criminal control settings.

Notwithstanding these limitations, this study contributes to the literature on procedural justice in several ways. While it confirms earlier results showing relatively high levels of procedural justice, it is the first to directly compare perceptions of procedural justice between the judge and the case manager. Moreover, we collected longitudinal data across multiple courts, which allowed us to examine variation over time. In doing so, we revealed the complex nature of temporal changes in procedural justice and how this change is associated with court outcomes.

Understanding the role of procedural justice is necessary in developing successful programs that offer parties' satisfying results, including reduced recidivism. What is more, procedurally just encounters help to establish trust and confidence in the criminal justice system (Tyler, 2006). Treating people with dignity and respect is important for everyone, but it is vital in the context of criminal adjudication (Liebling, 2011). Following criminal participation, a person is traditionally confronted with an adversarial method of criminal adjudication. Problem-solving courts provide an alternative method. Research on problem-solving courts is accumulating; however, gaps in our knowledge remain. As such, we must continue to investigate the courts' aim, operation,

procedures, and proceedings so that we can work towards establishing just, therapeutic, and effective experiences.

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