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The Stigma of Addiction and Effects on Community Perceptions of Procedural Justice in
Drug Treatment Courts

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Abstract

We present a series of four between-subject multi-factorial, experiments that examine how labelling offenders with addiction, as well as if that psychiatric label is described to be biologically influenced, may affect community perceptions regarding the importance of procedural justice in drug treatment courts. Stigmatization toward addiction is hypothesized to moderate community views on procedural justice. Labelling with addiction garnered non-significant effects on community perceptions of the importance of procedural justice in drug treatment courts. Yet patterns of moderation analyses indicated that participants with higher degrees of stigmatization toward an offender with addiction, and particularly if that psychiatric label was also described to be biologically influenced, rated the importance of offenders experiencing aspects of procedural justice as significantly *higher*. Higher degrees of public stigmatization associated with the “brain disease model” of addiction appear to coexist with increased community support for offenders with such labels experiencing increased procedural justice and fairness.

Keywords: drug treatment courts, experiment, moderation, procedural justice, stigma.

Introduction

In recent years, there has been significant literature demonstrating that individuals, including both offenders and members of the community, believe legal authorities and decisions made by them are legitimate and acceptable based on their evaluations of the justice during the legal process and procedures used (e.g. Lind & Earley, 1992; Paternoster et al. 1997; Tyler & Wakslak, 2004; Tyler, 2006). This concept, termed *procedural justice*, is thought to be present in a legal context when individuals perceive that they or others are experiencing fairness, respect, impartiality, objectivity in decision-making, an opportunity to express one's viewpoint, appropriate representation by attorneys, consistency and accuracy in legal decisions, and "being heard" by decision-makers, particularly judges, who are compassionate, caring, and objective (Tyler & Blader, 2003; Tyler, 2006). Tyler and Blader (2003) argue that allowing offenders to express their views and treating them fairly are the key features that affect views of justice in a legal context, rather than factors solely related to outcomes of legal encounters.

The importance of feeling the legal process is fair, rather than judging fairness solely from the legal outcome, supposedly stems from social cooperation; according to the group-engagement model of procedural justice, legal processes that are fair and just communicate information that the individual experiencing procedural justice has worth and status within a community (Tyler & Blader, 2003). Ultimately, procedural justice communicates the "group value" of a legal system to a community, and people deem authority figures of a system from which they strongly identify as legitimate and acceptable (Lind & Tyler, 1988).

How procedural justice affects perceptions of legitimacy, justice, and fairness in the legal system is not just confined to offenders involved in the system. The importance of procedural justice to the public and its acceptance of the legal system "is one of the most robust findings in the justice literature" (Brockner et al., 2001, p. 301). The greater the perceived fairness of a legal encounter, the higher the likelihood that members of the public will be satisfied with that criminal justice decision, view the legal authorities as legitimate, and comply with legal decisions (Lind & Tyler, 1988; Tyler & Blader, 2003; Tyler & Wakslak, 2004). Further, community perceptions of procedural justice also help to foster legitimacy, or the acceptance of a legal institution and its authority, which results in the belief that a legal institution and its decision-makers should

be obeyed (Sunshine & Tyler, 2003). People respect the authority and decisions of an individual, such as a judge, or an entire institution, such as our criminal justice system, when it is perceived to be procedurally just, and correspondingly, legitimate (Johnson et al., 2006; Tyler, 2006; Long et al., 2013).

There has been an abundance of literature testing community perceptions of the importance of procedural justice in both criminal court and police settings (e.g. Benesh & Howell, 2001; Sunshine & Tyler, 2003; Benesh, 2006; Burke & Leben, 2007; Antrobus et al., 2015; Rosenbaum et al., 2015), but extending community perceptions of the importance of procedural justice to drug treatment courts has not yet been undertaken. However, we argue that community perceptions of procedural justice in drug treatment court contexts may be complicated by the public's views on addiction, which is often at the center of cases in drug treatment courts. Drug addiction is one of the most scrutinized and stigmatized psychiatric conditions in society (Corrigan et al., 2009; Schomerus et al., 2011) and can have harmful effects on the functioning and social exclusion of people with addiction (Livingston & Boyd, 2010). Since procedural justice is largely based on social cooperation and group identification with those experiencing procedural justice (Tyler & Blader, 2003), stigma of the disease, which is a social process, has been thought to potentially modify the process of social cooperation envisaged by procedural justice theory (Watson & Angell, 2013). Therefore, as discussed below, stigma toward addiction may affect how the community perceives the importance regarding if and how offenders are handled justly or fairly in drug treatment courts.

In the current research, we present a series of studies, using multi-factorial experimental designs, that examine community perceptions of procedural justice in drug treatment courts, particularly looking at how labelling offenders with addiction, as well as if the addiction label is described to be biologically influenced, may influence how different aspects of procedural justice, such as fairness, feeling that a defendant and his case are considered objectively in court, feeling like an offender is "heard" in court during the legal process, and if an offender experiences respect, dignity, and, therefore, trusts the justice process, are perceived to be important in drug treatment courts by the community. As stigmatization toward addiction is a known societal reaction to addiction and may disrupt social identification with those who have addiction, the degree to which and the type of stigmatization elicited by participants toward addiction are hypothesized to moderate

their views on procedural justice. Implications for the legitimacy of drug treatment courts are discussed.

Drug Treatment Courts and Procedural Justice

Drug treatment courts are community based specialty courts that integrate treatment principles into the criminal justice process and divert drug offenders from traditional punishments. The objective of drug treatment courts is to treat the underlying problems of drug use among offenders, which is often related to addiction to substances, and reduce future offending associated with drug use (Belenko, 1998; Tauber & Snavelly, 1999; Vrecko, 2006; Gottfredson et al., 2007). The 1990's was the decade of growth for the drug treatment court movement, all of which share a number of key features: identifying offenders most likely to benefit from drug treatment, the use of a non-adversarial approach among legal representation, regular drug and alcohol testing, regular personal interactions and hearings with judges, and intensive drug treatment as an alternative to punishment (Belenko, 1998; Tauber & Snavelly, 1999). These features of drug treatment courts are argued to reduce levels of substance use, offending behavior, and improve offenders' integration into the community by enhancing health outcomes, social connections, and employment (Gottfredson et al., 2007). Overall, evidence has found that that many drug treatment programs significantly reduce drug use and related criminal activity (Torres, 1996; Banks & Gottfredson, 2003; Gottfredson et al., 2003).

Several components of procedural justice are present in drug treatment courts (Gottfredson et al., 2007). Judges, defense attorneys, prosecutors, probation officers, and case managers work together with the goal of reducing offenders' drug use by treating offenders with respect, dignity, encouragement, and providing them with resources to stop drug use (Burke, 2010). Judges take a hands-on approach to managing defendants in drug treatment court by presiding over hearings, knowing all facts of an offender's case, listening to clients and their attorneys share updates about their progress in treatment, carefully considering case updates, providing encouragement and support, and systematically sanctioning clients who are unable to comply with mandates (Atkin-Plunk & Armstrong, 2016). These concepts speak directly to the core aspects of procedural justice, in which both offenders and the community view drug treatment courts as legitimate when offenders are treated with respect, heard by the court, and are treated fairly with regards to evidence, legal process, and in their interactions with legal authorities (Sunshine & Tyler, 2003; Tyler et al., 2007).

To date, there have only been a selected number of studies that have either tested or examined procedural justice in drug treatment court contexts, usually measuring offenders' perceptions of procedural justice and their effects on recidivism. Hirst (1999) found that perceptions of procedural justice, particularly the ability to speak in court, judicial encouragement, and respectful treatment were significantly associated with reduced recidivism in a drug treatment court in Washington DC. Gottfredson et al. (2007) assessed effects of offenders' perceptions of procedural justice in their drug treatment court experiences on general and drug related recidivism, and found participants who viewed they experienced higher levels of procedural justice were significantly less likely to recidivate. McIvor (2009) examined the ethicality, judicial fairness, and representation in a Scottish drug treatment court to suggest the presence of procedural justice. Henry (2011), in several drug treatment courts across the country, found participants' perceptions of procedural justice, specifically feeling positively about their judge, were a significant predictor of adhering to the program, offending, and drug use.

These limited studies, as well as the structure, development and principles of drug treatment courts, provide preliminary evidence that elements of procedural justice are present in and important to drug treatment courts. Although this small body of literature exists, there are no known studies particularly on community perceptions of procedural justice in drug treatment courts and how important it is for members of the community that the procedures and features of drug treatment courts are procedurally just and fair.

Addiction and Stigma

However, we argue there may be one influential factor that could affect community perceptions of the importance of procedural justice in drug treatment courts: perceptions of addiction (diagnosed as *addictive disorder* in Diagnostic and Statistical Manual of Mental Disorders-V). Addiction is not only thought to significantly contribute to drug use but also is sought to be treated in drug treatment courts. Particularly, drug addiction is one of the most stigmatized conditions in society, even compared to other major psychiatric illnesses like depression and schizophrenia (Corrigan, Larson, & Ruesch, 2009; Schomerus et al., 2011). For the reasons outline below, we suggest that stigma may act as a moderator for the relationships between an offender labelled with addiction and community perceptions of the importance of

procedural justice in a drug treatment court context.

Stigmatization can be defined as an “overall stereotypical and prejudicial social process” (Corrigan & Wassel, 2008, p. 43) that includes reductive labeling, loss of an individual’s or group’s status, and discrimination (Link & Phelan, 2001). Through social interaction, certain characteristics come to convey a devalued social identity which reduces the standing of the affected individual in society (Link & Phelan, 2001). Public stigma refers to attitudes of the community toward individuals of a particular social group; previous research on public stigma has shown that people labeled with addiction are viewed as more blameworthy and dangerous than people without the disease (Racine et al., 2015; Sattler et al., 2017). Members of the public have been found to exhibit social distance toward those labelled with addiction (Marie & Miles, 2008). Endorsement of such stereotypes related to addiction often leads to less “helping” behavior and social exclusion of people with addiction by the community (Corrigan & Wassel, 2008; Link & Phelan, 2001; Thornicroft, 2008).

There is no research on how stigmatization may affect community perceptions of procedural justice, but previous research has found that an offender’s perceptions of procedural justice, particularly feeling as though one is treated fairly and respectfully by legal authorities, is moderated by whether the defendant feels that he is stigmatized during the legal process; this is especially true in contexts involving psychiatric illnesses (Watson & Angell, 2013). Although it is unknown if community perceptions of procedural justice may also be affected by their stigmatization of individuals labelled with addiction, we suggest their views on how important it is for a defendant labelled with addiction to be treated fairly or justly during the legal process might be moderated by their potential stigmatization of addiction. The importance of procedural justice rests upon the sense of solidarity the defendant has with a social group (i.e. the community), and correspondingly, the legitimacy and “group value” of a legal institution to a community is based upon having legal processes and procedures that are fair for individuals with “worth and status” within a community (Tyler & Blader, 2003). As stigmatization signals that an individual is a social “outsider,” stigma may modify the process of social cooperation envisioned by procedural justice theory (Watson & Angell, 2013).

Finally, it is possible that recent scientific research on the neurobiological attributions to addiction

may also affect community perceptions of how important procedural justice is in drug treatment court contexts. Lay perspectives of addiction that reinforce stigmatization, particularly that individuals with addiction lack self-control or moral character, have been countered by biological research that shows addiction is a complex physiological process through which addictive substances, as well as the environment and social characteristics, coalesce to impair the brain (Buchman & Reiner, 2009; Volkow & Li, 2004). Neuroscience has identified physiological mechanisms involved in addiction, particularly an individual's substance tolerance, withdrawal, and related dependence (Volkow & Li, 2004). Ultimately, the "brain disease model" of addiction argues that brain changes associated with repeatedly using drugs biologically impedes one's impulse control and ability to stop using drugs (Dackis & O'Brien, 2005).

There are two camps on how the "brain disease model" of addiction may affect perceptions of the disease. Some advocates argue that an increase in the public's understanding of the biological factors that influence addiction may reduce stigma, as well as mitigate blame for the disease and impulses associated with it, responsibility for behaviors related to addiction, and augment support for treatment, as the difficulties refraining from drugs develop as a result of drugs "hijacking" the brain's reward system and not poor moral character (Leshner, 1997). Conversely, others argue that describing addiction as neurobiologically influenced may have unintended consequences for those labelled with addiction, and may increase stigmatization, particularly that the addicted person's brain is damaged and untreatable, and de-emphasize the role of social and environmental influences in the etiology and treatment of addiction (Read, 2007; Meurk et al., 2014b). Adopting the "brain disease model" of addiction may propagate the view that individuals with addiction are neurobiologically "abnormal," needing to be socially distanced, and may emphasize addiction as a chronic condition that is likely incurable (Thornicroft et al., 2007).

Ultimately, the social consequences of whether or not the public accepts the "brain disease model" of addiction, and how this may affect stigmatization of the disease, depends on how members of the public understand addiction (Meurk et al., 2014a). According to the literature, this biological "labelling" of the disease may either increase or decrease stigmatization of addiction, entirely depending on how members of the community understand the disease (Meurk et al., 2014a; Meurk et al., 2014b). In the current context,

since it is possible that community views on the importance of procedural justice in drug treatment court settings may be moderated by their potential stigmatization of addiction, it is also possible that community perceptions of procedural justice may be affected by whether the disorder is described to be biologically influenced, à la the “brain disease model,” if participants’ stigmatization of addiction is either positively or negatively affected by that information.

Current Research

The current research presents a series of four studies, using multi-factorial experimental designs, that examine community perceptions of procedural justice in drug treatment courts, particularly looking at how labelling offenders with addiction, as well as if that label is also described to be biologically influenced, may influence community perceptions of the importance of different aspects of procedural justice in drug treatment courts by the community. Lay samples of community members are utilized in all four studies. For reasons described above, stigmatization elicited by participants toward addiction are hypothesized to moderate their views on procedural justice.

This research is driven by two overarching research questions and hypotheses:

1. How does an offender’s psychiatric label with addiction affect community perceptions regarding the importance of procedural justice in drug treatment courts?
2. How does a biological label to addiction, in which additional information on the illness’ biological influences is given alongside the psychiatric label, affect community perceptions of the importance of procedural justice in drug treatment courts?

Hypothesis 1: Stigmas associated with addiction moderate the relationship between an offender’s psychiatric label with addiction and community perceptions of the importance of procedural justice in drug treatment courts.

Hypothesis 2: A biological label to an offender’s addiction, in addition to the psychiatric label, produces unique moderating effects of stigmas on community perceptions of the importance of procedural justice in drug treatment courts.

In addition to these two overarching research questions and hypotheses, we were also interested in seeing how labelling offenders with addiction, as well as if that label is described to be biologically influenced, would interact with three other factors relevant to affecting community perceptions of procedural justice across the final three studies in this research: differences in the consistency of legal decisions (Study 2), differences in representation (Study 3), and differences in ascribed characteristics,

particularly the race, of the defendant (Study 4). These studies are all discussed below.

Study 1

Study 1 presents a three-level experiment that examines how labelling an offender with addiction, as well as if that psychiatric label is also described to be biologically influenced, affects community perceptions of the importance of procedural justice in drug treatment courts. This study speaks directly to our two overarching research questions and also helps to set the stage for Studies 2 through 4 that vary different aspects of procedural justice along with these three-levels. Further, participants' ratings of their stigmatization toward an offender across five dimensions are examined in order to see if stigmas associated with addiction moderate the relationship between an offender's label with addiction and community perceptions regarding the importance of procedural justice in the offender's case in drug treatment court. The two overarching hypotheses are listed above for Study 1.

Methods

Participants, garnered from Amazon's Mechanical Turk, gave consent through Qualtrics to participate in a survey and all participants were asked to read a vignette about an offender, Joe, whose assault case has been diverted to drug treatment court. Details about the assault case were given to the participants, as well as some information on what drug treatment courts are and their objectives (see Supplemental Information for vignettes and outcome variables for Studies 1 to 4). Joe was said to have a lawyer who represented him in court and he would receive 50 days in jail along with intensive drug treatment, regular drug tests, and check ins with the judge every two weeks as a sentence for his crime. Participants were told that if Joe does this, then this crime would be wiped from his record.

Independent variables

Although the details mentioned above were the same across stimuli, vignettes varied in three main ways, and therefore, participants were randomly assigned one of three label conditions: (1) a control, in which only the above information was included and no information on Joe's diagnosis with addiction was included; (2) a psychiatric label condition, in which further information was provided to participants that Joe had been diagnosed with addictive disorder and its characteristics; and (3) a psychiatric + biological label

condition, in which information was provided that addictive disorder is a biologically influenced disorder including neurological and genetic characteristics, in addition to psychiatric information on Joe's diagnosis with addictive disorder.

Outcome variables

Regardless of their vignette condition, all participants were then asked to answer the same set of questions. First, participants were given an amended 13-item validated procedural justice questionnaire from Gottfredson et al. (2007) that assessed two concepts: (1) their average overall rating of how important it is that Joe experiences procedural justice in drug treatment court related to representation, consistency, impartiality, accuracy, correctability, and ethicality (10 items combined to one score on a scale from 1 to 5) and (2) their average overall rating of how important it is that Joe experiences fairness in drug treatment court (3-items combined to one score on a scale from 1 to 4).

Moderator variables

Finally, participants were asked to complete a validated 17-item questionnaire, previously used in its entirety by Berryessa (2018), to assess participants' stigmatization of Joe. This 17-item questionnaire, with each item on a scale of 1 to 100, assesses stigmatization of psychiatric illnesses across five dimensions, resulting in five stigma factor scores as described by Berryessa (2018):

1. *Lack of recovery* (alpha = 0.91): modified 2-item factor measuring support regarding whether individuals cannot recover from psychiatric illnesses (validated by Day et al. 2007).
2. *Lack of treatability* (alpha = 0.76): modified 3-item factor measured support regarding whether diagnosed individuals cannot be successfully treated (validated by Day et al. 2007).
3. *Dangerousness* (alpha = 0.87): modified 4-item factor measured support regarding the association between psychiatric diagnoses and dangerousness (validated by Penn et al. 1999).
4. *Social acceptance* (alpha = 0.89): modified 5-item factor measured support for social acceptance of individuals with psychiatric diagnoses (validated by Lebowitz et al. 2012).
5. *Personal responsibility* (alpha = 0.86): modified 3-item factor measured support regarding responsibility individuals with psychiatric illnesses have for his disease (validated by Corrigan et al. 2003).

Lastly, participants completed a set of demographic questions before completing the survey.

Results

Participants

The target population was U.S. adults. The sample was drawn from Amazon's Mechanical Turk, and they were paid \$0.50 for completing the survey. Of the 120 participants that took part, six were removed for invalid or in proper data, giving us a final sample of 114 respondents (47.4% female; $M_{\text{age}} = 35.08$ years, $SD = 10.62$; 71.9% white; 64% college/post-graduate education). A power analysis of $f = 0.25$ and power = 0.80 confirmed the sample size allowed for sufficient statistical power. An IP blocker was used so that respondents could only take the survey once. Check/honesty questions ensured respondents understood the stimuli. Other demographics, such as income, political affiliation, and religion, are available upon request.

Main Effect of Condition on Overall Procedural Justice and Overall Fairness

To assess the views of procedural justice in our experiment, we took the two procedural justice outcome variables (overall procedural justice and overall fairness) and placed them into Multivariate Analysis of Variance (MANOVA) as the dependent variables, with the label condition [control ($N = 38$), psychiatric label ($N = 39$), or psychiatric + biological label ($N = 37$)] as the independent variable. All post-hoc analysis was conducted with a Bonferroni Correction. A Wilk's Lambda multivariate test was not significant for label condition ($F(4, 220) = 1.99, p = 0.10, \text{Wilk's } \Lambda = 0.93, \eta_p^2 = 0.04$).

Therefore, regardless of the label condition, participants views on how important it is that Joe experiences procedural justice and fairness in drug treatment court did not differ. Descriptively across conditions, average ratings of the importance of overall procedural justice in Joe's case in drug treatment court was $M = 4.21$ ($SD = 0.66$) (on a scale of 1 to 5) and the importance of the overall fairness in Joe's case in drug treatment court was $M = 3.55$ ($SD = 0.60$) (on a scale of 1 to 4).

Stigmatization Variables Moderation Analysis

Per Aiken, West and Reno (1991), we conducted moderation analyses using Ordinary Least Squares (OLS) linear regression in order to examine how participants' ratings of the five different dimensions of stigmatization moderated their ratings for the importance of the (1) overall procedural justice and (2) overall fairness experienced by the offender in drug treatment court, depending on what version of the vignette they received (control, psychiatric label, or psychiatric + biological label).

For those individuals receiving the vignette in which the offender received a psychiatric +

biological label of addiction, participants with higher ratings on the stigmatization of the offender's personal responsibility rated the importance of the overall procedural justice ($B = 0.747, t = 2.15, p = 0.03$) and overall fairness ($B = 0.724, t = 2.18, p = 0.03$) experienced by Joe in drug treatment court as significantly *higher* than participants with lower stigmatization ratings on Joe's personal responsibility. No other dimensions of stigmatization were found to moderate ratings of overall procedural justice or fairness, regardless of the vignette condition. Non-significant moderation analyses are available upon request.

Discussion for Study 1

The results of Study 1 indicated that neither an offender's psychiatric label with addiction, nor an additional biological label, affected community perceptions regarding the importance of procedural justice in drug treatment courts. Instead, as descriptively noted above, participants across all three label conditions appeared to rate the overall procedural justice and overall fairness in Joe's case in drug treatment court as highly important to them. Gottfredson et al. (2007)'s ten-item procedural justice score rates perceptions related to the representation, consistency, impartiality, accuracy, correctability, and ethicality in drug treatment courts, which suggests it highly important for participants that Joe experience these features in drug treatment court. As these core aspects of procedural justice are thought to be the cornerstone of drug treatment courts (Sunshine & Tyler, 2003; Tyler et al., 2007), it is unsurprising that community members believe them to be important; yet, as Gottfredson et al. (2007)'s scale creates one score for overall procedural justice and does not differentiate what features of procedural justice are being particularly measured by each item, it is unclear what specific aspects of procedural justice, aside from fairness, that community members are reporting to be important.

As for our hypotheses related to moderation, only the second hypothesis was supported in Study 1. For those individuals receiving the vignette in which the offender received a psychiatric + biological label of addiction, participants with *higher* stigmatization ratings on the offender's personal responsibility, representing greater support that the individual in the vignette is to blame for his psychiatric illness, character attributes, and life outcomes, rated the importance of the overall procedural justice and overall fairness experienced by Joe in drug treatment court as *significantly higher*, compared to participants with lower

stigmatization ratings on the offender's personal responsibility. This finding was counterintuitive than to what may have been expected, as higher levels of stigmatization, particularly related to understanding addiction as biologically influenced and according to the "brain disease" model, has been thought to potentially create grave social consequences for those with addiction (Meurk et al., 2014a; Meurk et al., 2014b). However, it is possible that participants, although highly stigmatizing Joe, may still believe that because of his addiction's biological etiology, Joe is in need of increased fair and just treatment, potentially in order to attain proper resources to address his addiction. The other four studies in this research should hopefully help to see if this pattern of moderation persists.

Study 2

In Study 2, using a 3 x 3 fully-crossed multi-factorial experimental design, we were interested in testing if the addiction labelling effect would interact with consistency in legal decisions, particularly if an offender's sentence is less or more than what is expected or normal for that offense, in affecting participants' perceptions of the importance of procedural justice. Consistency in legal decisions across offenders is one of the cornerstones of procedural justice (Lind & Earley, 1992; Paternoster et al. 1997; Tyler & Wakslak, 2004; Tyler, 2006). For example, Tyler (1984) found that if an outcome is worse than what was expected from a judge because of how other offenders like the defendant have been sentenced, dissatisfaction ensues because it is viewed as unfair. As Tyler (1984, p. 55) wrote, "one would predict that a driver who anticipates a \$20.00 fine for speeding will be unhappy if fined \$50.00, but satisfied if fined \$20.00." Based on this literature, we hypothesized that sentences in drug courts that are either shorter (25 days) or longer (75 days) than a sentence that is consistent to what a judge has sentenced to other offenders (50 days) may affect participants' views on the importance of procedural justice in drug treatment courts.

Methods

Research Design

The overall design of this study was predominately the same as in Study 1. The same vignette was used, along with the three levels of vignettes including a (1) control; (2) psychiatric label condition; and (3) psychiatric + biological label condition, but one further change was made that also varied between vignettes,

resulting in a 3 x 3 fully-crossed multi-factorial design. Participants were told one of three sentences, 25, 50, or 75 days, for how many days the judge has sentenced Joe to jail, as well as intensive drug treatment, regular drug tests, and check ins with the judge every two weeks. Yet all participants were told that the judge's average drug court sentence for a case and offender like Joe's is 50-days, regardless if they were told that Joe received 25, 50, or 75 days in jail. Participants were randomly assigned one label condition (control, psychiatric label, or psychiatric + biological label) and one sentence (25 days, 50 days, or 75 days), for a total of nine different conditions. Outcome and moderator variables were unchanged from Study 1.

Results

Participants

The target population was U.S. adults. The sample was drawn from Amazon's Mechanical Turk, and they were paid \$0.25 for completing the survey. Of the 357 participants that took part, seven were removed for invalid or in proper data, giving us a final sample of 350 respondents across the nine different conditions (cells N ranged from 34 to 44; 51.7% female; $M_{\text{age}} = 35.08$ years, $SD = 10.62$; 81.1% white; 63.4% college/post-graduate education). A power analysis of $f = 0.25$ and power = 0.80 confirmed the sample size allowed for sufficient statistical power. An IP blocker was used so that respondents could only take the survey once. Check/honesty questions ensured respondents understood the stimuli. Other demographics, such as income, political affiliation, and religion, are available upon request.

Findings on Procedural Justice

As mentioned above, Study 1 used a single overall ten-item procedural justice factor utilized in previous research. According to Gottfredson et al. (2007), this score represented perceptions of procedural justice of drug treatment court related to representation, consistency, impartiality, accuracy, correctability, and ethicality. Gottfredson et al. (2007) also had a three-item overall fairness measure related to the perceived fairness of drug treatment court. As the previous researchers do not know which items in the 10-item scale corresponded to which elements of procedural justice (Private Correspondence, 2018), and because the scope of the items varied from one another, we wanted to see if these ten items clustered into different factors representing different aspects of procedural justice. Thus, in Study 2, we ran a common

factor analysis with this sample of their responses on the 10 items in the overall procedural justice score, specifically a principal axis factor (PAF).

[Insert Table 1]

Exploratory Factor Analysis. All participants responses were placed into the PAF analysis with an oblimin rotation (Kaiser, 1958), delta set to 0, and only eigenvalues of greater than 1 being accepted. What we found was a three-factor model that accounted for 72.18% of the total variance, with a significant Bartlett's test of sphericity [$\chi^2(45) = 1,784.45, p < .001$], a Kaiser-Meyer-Olkin (KMO) score at 0.861 (> 0.8 recommended), and had all 10 items successfully load on. The three procedural justice factors broke down as follows: "being heard" (3-items); dignity and respect (3-items); and objectivity (4-items) (see Table 1).

1. *"Being Heard"* (alpha = 0.82; 3-items): items involve the defendant or his lawyer being able to vocalize his case, side of the story, and provide evidence to the judge, and that the other parties fully listened or took into account this information in the offender's case.
2. *Dignity and Respect* (alpha = 0.81; 3-items): items involve the defendant being treated politely and with respect by the lawyer and judge, leading to trust in the court.
3. *Objectivity* (alpha = 0.82; 4-items): items involve the defendant being treated objectively and consistently by a judge (who has accurate information and full facts to make decisions), as well as being treated similarly to other defendants.

We also ran a factor analysis that ensured that Gottfredson et al. (2007)'s original three-item overall fairness score still clustered into a fairness factor (alpha = 0.81). Based on these findings, we decided to conduct further multivariate analysis based on the scores of these three procedural justice factors (versus the one full score from original 10-item scale), as well as Gottfredson et al.'s (2007) overall fairness 3-item measure. This resulted in four procedural justice factors: "being heard," dignity and respect, objectivity, and overall fairness.

Main Effect of Independent Variables on Procedural Justice Factors. We compared how the label condition type (control, psychiatric label, or psychiatric + biological label) and length of the sentence (25 days, 50 days, or 75 days) differed with regard to participants' ratings of the four procedural justice factors ("being heard," dignity and respect, objectivity, and overall fairness) in a MANOVA. All post-hoc analysis was conducted with a Bonferroni Correction. A Wilk's Lambda multivariate test was not significant

for label condition ($F(8, 676) = 0.68, p = 0.71, \text{Wilk's } \Lambda = 0.98, \eta_p^2 = 0.008$), sentence length ($F(8, 676) = 1.19, p = 0.31, \text{Wilk's } \Lambda = 0.97, \eta_p^2 = 0.01$), or the interaction of the two ($F(16, 1033.24) = 1.43, p = 0.12, \text{Wilk's } \Lambda = 0.94, \eta_p^2 = 0.02$).

We see that participants' views on the importance of the four procedural justice factors studied did not significantly differ, regardless of the label condition or the offender's sentence length. Descriptively across conditions, average ratings of the importance of "being heard" in Joe's case in drug treatment court was $M = 4.12$ ($SD = 0.87$) (on a scale of 1 to 5), the importance of dignity and respect in Joe's case in drug treatment court was $M = 4.09$ ($SD = 0.86$) (on a scale of 1 to 5), the importance of objectivity in Joe's case in drug treatment court was $M = 4.38$ ($SD = 0.73$) (on a scale of 1 to 5), and the importance of the overall fairness in Joe's case in drug treatment court was $M = 3.43$ ($SD = 0.67$) (on a scale of 1 to 4).

Stigmatization Variables Moderation Analysis

Per the method described by Aiken, West and Reno (1991), we conducted mediation analyses for each independent variable in this research and their interactions, examining how participants' ratings of the five different dimensions of stigmatization moderated their ratings on the importance of the four procedural justice factors ("being heard," dignity and respect, objectivity, and overall fairness), depending on the label condition they received (control, psychiatric label, or psychiatric + biological label) and the sentence of the offender in their vignette (25 days, 50 days, or 75 days). We present both significant simple slopes for moderation of each main effect, as well as slopes for significant interaction effects.

Dignity and Respect. For those individuals receiving a vignette in which the offender received a 75-day sentence, participants with higher stigmatization ratings on the offender's personal responsibility rated the importance of the *Dignity and Respect* ($B = -0.92, t = -3.35, p = 0.001$) experienced by Joe significantly lower than participants with lower ratings on personal responsibility. However, for the interaction of those individuals receiving the vignette in which the offender was received a psychiatric + biological label of addiction and received a 75-day sentence, participants with higher stigmatization ratings on the offender's personal responsibility rated the importance of the *Dignity and Respect* ($B = 0.78, t = 2.74, p = 0.006$)

experienced by the defendant significantly higher than participants with lower ratings on personal responsibility.

Objectivity. For those individuals receiving the vignette in which the offender received a 75-day sentence, participants with higher stigmatization ratings on the offender's personal responsibility, rated the importance of *Objectivity* ($B = -0.98, t = -3.47, p = 0.001$) experienced by the defendant significantly lower than participants with lower ratings on personal responsibility.

However, significant moderation for the interaction effects showed results in the opposite direction. For the interaction of those individuals receiving the vignette in which either the offender received a psychiatric or psychiatric + biological label of addiction, but received a 50-day sentence, participants with higher stigmatization ratings on the offender's personal responsibility rated the importance of the *Objectivity* experienced by the defendant as significantly higher than participants with lower ratings on personal responsibility (psychiatric label: $B = 0.75, t = 2.57, p = 0.01$; psychiatric + biological label: $B = 0.64, t = 2.21, p = 0.03$). For the interaction of those individuals receiving the vignette in which either the offender received a psychiatric or psychiatric + biological label of addiction, but received a 75-day sentence, participants with higher stigmatization ratings on the offender's personal responsibility rated the importance of the *Objectivity* experienced by the defendant as significantly higher than participants with lower ratings on personal responsibility (psychiatric label: $B = 0.84, t = 2.55, p = 0.01$; psychiatric + biological label: $B = 0.79, t = 2.92, p = 0.004$).

No other dimensions of stigmatization besides personal responsibility were found to moderate any ratings of procedural justice or fairness. Non-significant moderation analyses are available upon request.

Discussion for Study 2

Akin to Study 1, the results of Study 2 also indicated that an offender's psychiatric label with addiction, or an additional biological label, did not affect community perceptions regarding the importance of procedural justice in drug treatment courts; the length of the offender's sentence also did not appear to affect participant views. Once again, all participants, regardless of the independent variables in their vignettes, appeared to rate procedural justice and fairness in Joe's case in drug treatment court as highly

important to them.

As we were able to run a PAF to examine what particular aspects of procedural justice were being measured by the original 10-item procedural justice factor (Gottfredson et al., 2007), we found that, in addition to overall fairness, having Joe “heard” by the court, treating Joe with dignity and respect, and having Joe’s case handled objectively by the drug treatment court were found to be important to participants. Particularly, having Joe’s case handled objectively by the drug treatment court was rated by participants as the most important. Yet once again, none of these aspects of procedural justice were affected by Joe’s addiction label or the length of sentence he received, whether it was shorter or longer than a sentence of an offender like him would receive. Although this was counter to our hypothesis, these results may suggest that the importance of these four aspects of procedural justice transcends these independent variables, in that these four features of procedural justice are important for all cases in drug treatment court regardless of characteristics or outcomes, and, given the well-known principles of drug treatment courts, may indicate overall support of the normative procedures and proceedings of drug treatment courts. However, it is important note that other untested aspects of the vignettes, such as the lack of detail and context on Joe’s condition and addiction and the fact that the variations in sentence lengths were quite small (i.e. 50 vs. 75 days) and might not be sufficiently divergent to trigger participants into thinking there was failed objectivity, may have also possibly contributed to the lack of variation in participants’ perceptions of the importance of procedural justice, and future work is needed to replicate these results. Finally, along with the original fairness measures, this study also provides a new three-factor procedural justice instrument.

Interestingly, like Study 1, we found similar patterns of moderation in Study 2. For those individuals receiving the vignette in which the offender received a psychiatric + biological label of addiction and a 75-day sentence, participants with *higher* stigmatization ratings on the offender’s personal responsibility, representing greater support that the individual in the vignettes to blame for his psychiatric illness, character attributes, and life outcomes, rated the importance of the *Dignity and Respect* experienced by the defendant significantly higher than participants with lower ratings on the stigmatization of Joe’s personal responsibility. We also found that for perceptions regarding the importance of *Objectivity*, both the psychiatric and

psychiatric + biological label for addiction resulted in this pattern as well; for the interactions of those individuals receiving the vignette in which either the offender received a psychiatric or psychiatric + biological label of addiction, but received either a 50- or 75-day sentence, participants with *higher* stigmatization ratings on the offender's personal responsibility rated the importance of the *Objectivity* experienced by the defendant as significantly *higher* than participants with lower ratings on the stigmatization of Joe's personal responsibility. Once again, these findings at first feel counterintuitive than to what may have been expected, but support the findings from Study 1. As mentioned above, it appears that stigmatization of addiction might not necessarily result in negative consequences for those labelled with the illness, and instead, may be able to coexist with concern and care, related to treatment, also potentially arising for participants from labelling of the illness.

Finally, it is also interesting that we found that individuals with *higher* stigmatization ratings on the offender's personal responsibility, and receiving the vignette in which the offender received a 75-day sentence, rated the importance of *Dignity and Respect* and *Objectivity* experienced by the defendant significantly *lower* than participants with lower ratings on personal responsibility. This effect is in the direction one may expect based on the literature (with higher levels of stigma associated with lower ratings on the importance of the *Dignity and Respect* and *Objectivity* experienced by Joe). Yet, since this effect direction shifts when interacting with Joe being in some way labelled with addiction, this may indicate that the addiction label (either psychiatric label or psychiatric + biological label) may manipulate the direction of the effect.

Study 3

In Study 3, using a 3 x 2 fully-crossed multi-factorial experimental design, we were interested in testing if the addiction labelling effect would interact with perceived differences in representation, particularly if an offender has a private attorney or a public defender. Procedural justice research has shown that private representation can create more procedural satisfaction of defendants compared to those with public attorneys, which is related to increased feelings of "being heard" (Raaijmakers et al., 2015). Our hypothesis was that participants would more highly rate their views on the importance of procedural justice

in drug treatment court, particularly related to “being heard,” if the defendant was described to have a private lawyer compared to a defendant assigned a public defender.

Methods

Research Design

The overall design of this study was predominately the same as in Studies 1 and 2; the same vignette and questions were used, along with the three levels of vignettes including a (1) control; (2) psychiatric label condition; and (3) psychiatric + biological label condition, but an additional change was made that also varied between vignettes, resulting in a 3 x 2 fully-crossed multi-factorial design. For Study 3, we altered the lawyer type associated with the defendant (either a public defender assigned to the defendant or a private lawyer hired by the defendant) to see if this would affect how participants viewed the outcome of the case. Participants were randomly assigned one label condition (control, psychiatric label, or psychiatric + biological label) and one type of lawyer (private attorney or public defender), for a total of six different conditions. In Study 3, sentence length for Joe was not varied, and all participants were told that Joe he would receive 50 days in jail along with intensive drug treatment, regular drug tests, and check ins with the judge every two weeks. If Joe does this, then this crime would be wiped from his record.

Results

Participants

The target population was U.S. adults. The sample was drawn from Amazon’s Mechanical Turk, and they were paid \$0.25 for completing the survey. We had a sample of 231 respondents across the six different conditions (cells N ranged from 36 to 41; 50.6% female; $M_{\text{age}} = 42.05$ years, $SD = 12.34$; 77.5% white; 54.5% college/post-graduate education). A power analysis of $f = 0.25$ and power = 0.80 confirmed the sample size allowed for sufficient statistical power. An IP blocker was used so that respondents could only take the survey once. Check/honesty questions ensured respondents understood the stimuli. Other demographics are available upon request.

Main Effect of Independent Variables on Procedural Justice Factors

We compared how the label condition type (control, psychiatric label, or psychiatric + biological

label) and lawyer type (public defender or private lawyer) affected ratings of the four procedural justice factors (“being heard,” dignity and respect, objectivity and overall fairness) in a MANOVA. All post-hoc analysis was conducted with a Bonferroni Correction. A Wilk’s Lambda multivariate test was not significant for label condition ($F(8, 444) = 0.58, p = 0.80, \text{Wilk’s } \Lambda = 0.98, \eta_p^2 = 0.01$), lawyer type ($F(4, 222) = 0.79, p = 0.53, \text{Wilk’s } \Lambda = 0.99, \eta_p^2 = 0.01$), or the interaction of the two ($F(8, 444) = 0.78, p = 0.62, \text{Wilk’s } \Lambda = 0.97, \eta_p^2 = 0.01$).

Once again, we see that regardless of the label condition or the type of lawyer, participants did not significantly differ in their ratings on the importance of the four procedural justice factors. Descriptively across conditions, average ratings of the importance of “being heard” in Joe’s case in drug treatment court was $M = 4.26$ ($SD = 0.70$) (on a scale of 1 to 5), the importance of dignity and respect in Joe’s case in drug treatment court was $M = 4.21$ ($SD = 0.80$) (on a scale of 1 to 5), the importance of objectivity in Joe’s case in drug treatment court was $M = 4.45$ ($SD = 0.66$) (on a scale of 1 to 5), and the importance of the overall fairness in Joe’s case in drug treatment court was $M = 3.55$ ($SD = 0.58$) (on a scale of 1 to 4).

Stigmatization Variables Moderation Analysis

Per the method described by Aiken, West, and Reno (1991), we conducted mediation analyses for each independent variable in this research (label condition and the offender’s lawyer), and their interactions, examining how participants’ ratings of the five different dimensions of stigmatization moderated their ratings for the four procedural justice factors (“being heard,” dignity, objectivity, and overall fairness), depending on label condition they received (control, psychiatric label, psychiatric + biological label) and the lawyer of the offender in their vignette (private attorney or public defender). No dimensions of stigmatization were found to significantly moderate any participant ratings of the importance of the four procedural justice factors, regardless of the vignette condition. Non-significant moderation analyses are available upon request.

Discussion for Study 3

The results of Study 3 support those of Studies 1 and 2, in that neither the offender’s psychiatric label with addiction, nor an additional biological label, affected community perceptions regarding the importance of procedural justice in drug treatment courts. Similar to Study 2’s finding for sentence length,

Joe's lawyer type also did not appear to affect participant views on procedural justice. Although this was counter to our hypothesis, particularly related to "being heard," these results once again may suggest that the importance of these four aspects of procedural justice transcends these independent variables, in that these four features of procedural justice may be important to members of the community for all cases in drug treatment court, regardless of characteristics or outcomes. Indeed, all participants, regardless of the independent variables in their vignettes, descriptively rated that overall fairness, having Joe "being heard," treated with dignity and respect, and having his case handled objectively are highly important to them. Once again, having Joe's case handled objectively by the drug treatment court was rated by participants as the most important. However, unlike Studies 1 and 2, we did not find similar patterns of moderation, nor any significant moderation results in Study 3.

Study 4

In Study 4, using a 3 x 2 fully-crossed multi-factorial experimental design, we were interested in testing if the addiction labelling effect would interact with an ascribed characteristic, particularly the race, of the defendant. In each encounter between a legal authority and a defendant, the actions of the authority may be based upon ascribed characteristics, such as race (Tyler, 2003). Relatedly, community members make inferences if a legal authority's actions and procedures are acceptable and legitimate in a legal encounter, and if the authority's actions should be amended or influenced if certain ascribed characteristics affect whether certain offenders receive fair treatment (Tyler, 2003). Ultimately, community members are less likely to view the actions and powers of legal authorities as procedurally just if such authorities are perceived to unfairly distribute outcomes based upon ascribed characteristics, including the race of the defendant (Nix et al., 2015). Indeed, research has shown that much of the public generally believes that members of particular races, specifically Black and Hispanic defendants, are routinely treated unfairly in court contexts in large part due to their race, and that authorities must be open to amending procedure to better ensure equitable and just outcomes for offenders of different races (Bobo & Thompson, 2006; Sun & Wu, 2006).

Based on these principles, in Study 4, we were interested in seeing if participants viewed certain aspects of procedural justice as more important for defendants of particular races that are often perceived to

be treated unfairly in court contexts. Our hypothesis for this study was that participants would rate their views on the importance of procedural justice as significantly higher when given vignettes involving a drug treatment court case involving a black defendant, compared to participants given vignettes involving drug treatment cases involving a white defendant.

Methods

Research Design

The overall design of this study was predominately the same as in Studies 1 to 3; the same vignette was used, along with the three levels of vignettes including a (1) control; (2) psychiatric label condition; and (3) psychiatric + biological label condition, but a further change was made that also varied between vignettes, resulting in a 3 x 2 fully-crossed multi-factorial design. For Study 4, we presented an image of Joe to participants, which was one of two facial photographs (either a black or white male controlled for attractiveness from the Chicago Face Database (Ma, Correll, & Wittenbrink, 2015)) to see if this would affect how participants viewed the importance of procedural justice in Joe's case in drug treatment court. Participants were randomly assigned one label condition (psychiatric label, psychiatric + biological label, or control) and one picture of Joe (white photo of Joe's face or black photo of Joe's face), for a total of six different conditions. In Study 3, sentence length and attorney type for Joe were not varied, and all participants were told that Joe had a lawyer and he would receive 50 days in jail along with intensive drug treatment, regular drug tests, and check ins with the judge every two weeks. If Joe does this, then this crime would be wiped from his record.

Results

Participants

The target population was U.S. adults. The sample was drawn from Amazon's Mechanical Turk, and they were paid \$0.25 for completing the survey. Of the 241 participants that took part, 3 were removed for invalid or in proper data, giving us a final sample of 238 respondents across the six different conditions (cells N range from 34 to 43; 54.2% female; $M_{\text{age}} = 42.28$ years, $SD = 13.05$; 78.6% white; 67.6% college/post-graduate education). A power analysis of $f = 0.25$ and power = 0.80 confirmed the sample size allowed for

sufficient statistical power. An IP blocker was used so that respondents could only take the survey once.

Check/honesty questions ensured respondents understood the stimuli. Other demographics, such as income, political affiliation, and religion, are available upon request.

Main Effect of Independent Variables on Procedural Justice Factors

We compared how the label (control, psychiatric label, or psychiatric + biological label) and race of the defendant (black or white) differed in participants' ratings regarding the importance of the four procedural justice factors ("being heard," dignity and respect, objectivity, overall fairness) in a MANOVA. All post-hoc analysis was conducted with a Bonferroni Correction. A Wilk's Lambda multivariate test found there was no statistically significant difference for label condition ($F(8, 458) = 0.72, p = 0.67$, Wilk's $\Lambda = 0.98, \eta_p^2 = 0.01$), for race ($F(4, 229) = 0.76, p = 0.55$, Wilk's $\Lambda = 0.99, \eta_p^2 = 0.01$), or the interaction of label condition and race ($F(8, 458) = 1.25, p = 0.27$, Wilk's $\Lambda = 0.96, \eta_p^2 = 0.02$).

Once again, participants did not significantly differ on their ratings for the importance of procedural justice in Joe's case, regardless of Joe's race or psychiatric label. Descriptively across conditions, average ratings of the importance of "being heard" in Joe's case in drug treatment court was $M = 4.17$ ($SD = 0.86$) (on a scale of 1 to 5), the importance of dignity and respect in Joe's case in drug treatment court was $M = 4.14$ ($SD = 0.85$) (on a scale of 1 to 5), the importance of objectivity in Joe's case in drug treatment court was $M = 4.47$ ($SD = 0.76$) (on a scale of 1 to 5), and the importance of the overall fairness in Joe's case in drug treatment court was $M = 3.55$ ($SD = 0.62$) (on a scale of 1 to 4).

Stigmatization Variables Moderation Analysis

Per the method described by Aiken, West, and Reno (1991), we conducted moderation analyses for each independent variable in this research and their interactions. This examined how participants' ratings of the five different dimensions of stigmatization moderated their ratings regarding the importance of the four procedural justice factors ("being heard," dignity and respect, objectivity, and overall fairness) in Joe's case, depending on label condition they received (control, psychiatric label, psychiatric + biological label) and the race of the offender in their vignette (white or black). We present both significant simple slopes for moderation of each main effect, as well as slopes for significant interaction effects. Non-significant

moderation analyses are available upon request.

Objectivity. For those individuals receiving the vignette in which the offender was black, participants with higher stigmatization ratings on the offender's dangerousness, lack of recovery, and lack of treatability rated the importance of *Objectivity* experienced by the defendant significantly lower than participants with lower ratings on those stigma factors (dangerousness: $B = -0.98$, $t = -3.47$, $p = 0.001$; lack of recovery: $B = -0.59$, $t = -2.25$, $p = 0.02$; lack of treatability: $B = -0.60$, $t = -2.47$, $p = 0.01$). For the interaction of those individuals receiving the vignette in the offender received a psychiatric + biological label of addiction, and the defendant was black, participants with higher stigmatization ratings on the offender's lack of recovery and lack of treatability rated the importance of *Objectivity* experienced by the defendant as significantly higher than participants with lower ratings on lack of recovery (lack of recovery: $B = 0.70$, $t = 2.49$, $p = 0.01$; lack of treatability: $B = 0.48$, $t = 2.01$, $p = 0.04$).

Overall Fairness. For those individuals receiving the vignette in which the offender was black, participants with higher ratings on the dangerousness, lack of recovery, and lack of treatability of the offender rated the importance of *Overall Fairness* experienced by the defendant significantly lower than participants with lower ratings on those stigma factors (dangerousness: $B = -0.88$, $t = -2.81$, $p = 0.005$; lack of recovery: $B = -0.54$, $t = -2.09$, $p = 0.04$; lack of treatability: $B = -0.67$, $t = -2.84$, $p = 0.005$). However, for the interaction of individuals receiving a vignette in which the offender received a psychiatric + biological label of addiction and the offender was black, participants with higher ratings on the offender's dangerousness, lack of recovery, and lack of treatability rated the importance of *Overall Fairness* experienced by the defendant significantly higher than participants with lower ratings on dangerousness (dangerousness: $B = 0.72$, $t = 2.05$, $p = 0.03$; lack of recovery: $B = 0.65$, $t = 2.34$, $p = 0.02$; lack of treatability: $B = 0.60$, $t = 2.63$, $p = 0.009$).

Discussion for Study 4

Data from Study 4, supporting the null results from Studies 1 to 3, also show that the addiction label did not affect community perceptions regarding the importance of any tested feature of procedural justice in drug treatment courts. Similar to Study 2's finding for sentence length and Study 3's finding for lawyer type,

Joe's race did not significantly affect participants' ratings on the importance of these four facets of procedural justice, which may indicate that their importance in all drug treatment court cases transcends not only sentence length and lawyer type, but also race. All participants rated overall fairness, having Joe "being heard," treated with dignity and respect, and having his case handled objectively as important in drug treatment court as highly important, regardless of the independent variables in their vignettes. Like Studies 2 and 3, having Joe's case handled objectively was rated by participants as the most important.

For Study 4, we found similar patterns of moderation as those in Studies 1 and 2. Similar to Study 1, for participants receiving the vignette in the offender received a psychiatric + biological label of addiction, and the defendant was black, those with *higher* ratings on the stigmatization of the offender's lack of recovery and lack of treatability rated the importance of the *Objectivity* experienced by the defendant in drug treatment court as significantly *higher* than participants with lower ratings on these two stigmatization dimensions. Similarly, for the interaction of individuals receiving a vignette in which the offender received a psychiatric + biological label of addiction and the offender was black, participants with *higher* ratings on the offender's dangerousness, lack of recovery, and lack of treatability rated the importance of the *Overall Fairness* experienced by the defendant significantly *higher* than participants with lower ratings on these stigmatization factors of Joe.

The direction of these findings supports those observed in Studies 1 and 2, and, in these contexts related to stigmatization, the positive effect of the psychiatric + biological label of addiction on ratings of the importance of procedural justice is supported across all three studies. Thus, stigmatization of addiction, particularly biological "labelling" of the illness, may be able to exist in participant views, yet not result adverse consequences (and instead, lead to increased support for the importance of procedural justice and fairness for individuals labelled in this way).

Similar to Study 2, it is also interesting that we found a main effect illustrating individuals with *higher* stigmatization ratings on the offender's dangerousness, lack of recovery, and lack of treatability, when receiving a vignette in which the offender was black, rated the importance of *Overall Fairness* and *Objectivity* experienced by the defendant significantly *lower* than participants with lower ratings on these

three stigma factors. Once again, as higher levels of stigmatization in these areas might be expected to be associated with lower ratings on the importance of the *Overall Fairness* and *Objectivity* experienced by Joe, this effect is in the direction one would anticipate with the offender being black in the vignette. Indeed, that would support our hypothesis. However, like Study 2, since this effect direction shifts when interacting with Joe being “biologically” labelled with addiction, it appears that the labelling effect for addiction, describing it as the “brain disease model” of the illness (psychiatric + biological label), may be influential enough to shift that effect’s direction.

Conclusions

The current research presents a series of multi-factorial experimental studies that examines if labelling offenders with addiction, as well as if the addiction label is described to be biologically influenced, may influence community perceptions of the importance of procedural justice, particularly fairness, feeling that a defendant and his case are considered objectively in court, feeling like an offender is “being heard” during the legal process, and if an offender experiences respect, dignity, and, therefore, trusts the justice process, in drug treatment courts. Additionally, we also examined how labelling offenders with addiction would interact with factors relevant procedural justice, including differences in the consistency of legal decisions in drug treatment court (Study 2), differences in a defendant’s representation (Study 3), and differences in ascribed characteristics, particularly the race, of the defendant (Study 4). Stigmatization elicited by participants toward addiction is hypothesized to moderate community views on procedural justice. Although existing research has tested community perceptions on the importance of procedural justice in both criminal court and police settings (Benesh & Howell, 2001; Sunshine & Tyler, 2003; Benesh, 2006; Burke & Leben, 2007; Antrobus et al., 2015), this is the first known research extending community perceptions of the importance of procedural justice to drug treatment court contexts.

Across all four studies, participants consistently gave high ratings on how important it was to them for Joe, our defendant, to experience procedural justice in drug treatment court. In the three studies in which we conducted analyses with four factors of procedural justice (“being heard,” dignity and respect, objectivity, overall fairness), the *Overall Fairness* and *Objectivity* experienced by the defendant were both rated as

potentially the most important of the studied factors for participants; yet, all four factors received high ratings. These results indicate these four core aspects of procedural justice, as discussed by the literature, are important in the drug treatment court process for members of the community (Tyler & Blader, 2003; Tyler, 2006). As the importance of procedural justice to the public “is one of the most robust findings in the justice literature” (Brockner et al., 2001, p. 301), these findings are not surprising, but are encouraging as they were consistently shown across all four experiments. Indeed, as evaluations of fair and just legal processes and procedures are associated with perceptions of whether a legal context is legitimate and acceptable (Lind & Earley, 1992; Paternoster et al. 1997; Tyler & Wakslak, 2004; Tyler, 2006), these data indicate that the presence of these four elements of procedural justice in a drug treatment court may dictate whether or not members of the community believe the decisions being made in that court are acceptable and legitimate (Sunshine & Tyler, 2003).

Further, community perceptions on the high importance of these elements of procedural justice in drug treatment courts were not affected by any of the independent variables in any of the four studies. This suggests that the importance defendants in drug treatment court experiencing procedural justice in may outweigh different social or legal factors relevant to procedural justice, or a defendant being in some way labelled with addiction, in that procedural justice is important in *all* drug treatment court cases and offenders regardless of the particular characteristics of a case or defendant.

This is an interesting finding, as the importance of procedural justice supposedly stems from social cooperation, and particularly, the group-engagement model of procedural justice. According to this model, legal processes that are procedurally just communicate that the individual experiencing procedural justice is *accepted* within a community (Tyler & Blader, 2003). Indeed, the value of police, courts, or other legal institution to a community is based upon having legal processes that are fair and just for individuals with “worth and status” within a community (Tyler & Blader, 2003). As the community members in this study perceived procedural justice as highly important to cases and defendants with all tested characteristics, whether they be labelled with addiction in some way, black, or represented by a public defender, these studies may indicate that the community believes *all* offenders, regardless of the particular characteristics of

a case or defendant, have “worth and status” within a community and are deserving of experiencing procedural justice and fairness in drug treatment court contexts.

However, regarding the potential moderation of stigmatization, the moderation results across Studies 1, 2, and 4 appeared to communicate that certain aspects of procedural justice may be more important to defendants labelled with the “brain disease model” of the illness for some participants. We did find that community views on how important it is for a defendant labelled with addiction to be treated justly during the legal process was moderated by their potential stigmatization of that individual, per the aims of our research, but not in the hypothesized or expected direction. Although at first counterintuitive, moderation analyses across three studies indicated that participants with *higher* ratings on different dimensions of stigmatization of an offender with addiction, specifically in instances if that psychiatric label is also described to be biologically influenced and sometimes when interacting with factors relevant procedural justice, were *more* likely to rate certain aspects of procedural justice as important, compared to participants exhibiting lower levels of stigmatization.

This does not support previous literature showing a negative association between perceived procedural justice and whether a defendant is stigmatized during the legal process (Watson & Angell, 2013). As addiction is known to be highly stigmatized, which can have harmful social effects for people with addiction (Corrigan et al., 2009; Schomerus et al., 2011; Livingston & Boyd, 2010), we expected that higher levels of stigmatization toward an individual with the disease would lead participants to believe procedural justice is less important for that defendant. Indeed, as procedural justice is based on social cooperation and group identification with those experiencing procedural justice (Tyler & Blader, 2003), we assumed the stigma of the disease, which is characterized as a social interaction that devalues the social standing of the affected individual in society (Link & Phelan, 2001), would negatively affect the “group-value” model of procedural justice theory as noted in the literature (Watson & Angell, 2013).

Indeed, the fact that labelling an offender with the “brain disease model” of addiction resulted in stigmatization, as well as when interacting with factors relevant procedural justice in Studies 2 and 4, is not surprising. As mentioned previously, describing addiction as biologically influenced has been thought to

increase stigmatization (Read, 2007; Meurk et al., 2014b). Indeed, we did find that many participants viewed individuals labeled with the “brain disease model” of addiction as having personal responsibility or blame for the disease and outcomes, as well as being untreatable, unlikely to recover, and dangerous, all of which supports previous literature (Racine et al., 2015; Sattler et al., 2017; Thornicroft et al., 2007).

Yet, findings that show that *higher* levels of stigmatization in these areas were associated with *increased* support for the importance of procedural justice in that offender’s case, at first, appears puzzling. However, we argue that it is possible that the “brain disease model” of addiction may result in increased stigmatization for some members of the community, but at the same time, might also foster support by those same individuals that the offender needs to be treated fairly and justly, potentially so the offender can receive resources to help or address his addiction in drug treatment courts. Although the lay public’s understanding of the biological factors of addiction may not necessarily reduce stigma, these data may support existing literature that the “brain disease model” of addiction can augment support for treatment (Leshner, 1997; Volkow & Li, 2004). This would make sense in the particular context tested here, as the objective of drug treatment courts is said to be treating the underlying problems of drug use among offenders, which is often related to addiction to substances, and reduce future offending associated with drug use through treatment (Belenko, 1998; Tauber & Snavely, 1999; Vrecko, 2006; Gottfredson et al., 2007). Indeed, as described above, the key characteristics of drug treatment courts that work to affect the underlying behaviors of drug use among offenders speak directly to the core aspects of procedural justice, such as treating offenders with respect, “being heard” by legal authorities, and believing offenders will be treated fairly with regards to the evidence and process (Hirst, 1999; Gottfredson et al., 2007; McIvor, 2009; Henry, 2011).

Therefore, members of the community, although stigmatizing offenders described to have the “brain disease model” of addiction related to personal responsibility, dangerousness, lack of recovery, and lack of treatability, may also believe that drug treatment courts are the place in which offenders’ addiction, as a neurobiologically influenced disease, can be effectively addressed, as well as have the resources to improve these offenders’ integration into the community by enhancing health outcomes, social connections, and employment (Gottfredson et al., 2007). Meurk et al. (2014a; 2014b) argue that the social consequences of

whether or not the public accepts the “brain disease model” of addiction, as well as how this may affect stigmatization of the disease, depends on how the community understands addiction. Ultimately, higher levels of stigmatization, as well as increased support for drug treatment courts fairly and justly addressing an offender’s addiction, may be able to coexist without ill effects. Our results suggest that community perceptions regarding the importance of procedural justice, and the positive consequences that may come from it, in drug treatment courts are positively affected by whether the disorder is described to be biologically influenced, à la the “brain disease model,” even when participants’ stigmatization of addiction regarding dangerousness, treatability, recovery and blame is negatively affected.

However, it is of course possible that these results may be due to other participant views. For example, as negative expressions of their stigmatization toward Joe, participants showing higher levels of stigmatization toward Joe might actually desire that drug courts “get it right” in sentencing and that higher standards of procedural justice are more likely to ensure that an offender receives the just punishment he deserves. Therefore, in order to see if the underlying reasons for participants’ increased support for procedural justice align with those suggested above, future research should, in addition to replicating these results, explicitly probe participants who express higher levels of stigmatization toward addiction on their reasons for why they believe procedural justice is more important for labelled offenders.

This research has its limitations. First, the use of Amazon’s Mechanical Turk for our sample pool does limit the sample to those who participate in that service, and demographics are not nationally representative; however, Amazon’s Mechanical Turk is routinely used in social science research and known to provide robust data comparable to other sources of survey data with lay samples (Bartneck, Duenser, Moltchanova, & Zawieska, 2015; Walter, Seibert, Goering, & O’Boyle, 2016). Even so, this research should be replicated with more diverse research samples. Second, as it is with all research using vignettes, the ecological validity of our findings is unknown (Bieneck, 2009), and this work should be replicated using more real-world research designs to increase the robustness of the findings. Third, as we only studied the existing constructs in a context involving drug treatment courts, we do not know how these findings may extend to inquiries involving community perceptions of procedural justice in other courts, specialty courts, or

other criminal justice contexts. As alluded to above, the results here on procedural justice may be only particular to drug treatment courts, as we studied addiction and a court that is thought to help address the behaviors associated with it. Therefore, in other contexts, the pattern of results noted here, particularly related to moderation, might not be observed.

Relatedly, future research should also examine whether these results could be at least partially attributed to the idea that drug treatment courts themselves, and their procedures, are viewed as inherently different by the community from “regular” criminal trial courts and that procedural justice may be more generally important to community members in specialty court contexts. There is some research to show that the public is exceedingly supportive of drug treatment courts for offenders whose crimes are directly related to their addiction, compared to the use of criminal courts for those offenses, and this strong support appears transcend differences in political orientation and sociodemographic characteristics (Thielo, Cullen, Burton, Moon & Burton, 2019). This arguably shows that the community views drug treatment courts as “different” from criminal courts, but to our knowledge, there is no existing research on the role or potential importance of procedural justice in this community support for drug treatment courts specifically (or its relationship to the potential stigmatization of addiction) or specialty courts generally, as compared to the potential importance of procedural justice in criminal courts for the community. Even so, it is possible that our choice to use a drug treatment court context in this study, rather than a criminal court context, may have inherently affected the ways in which participants viewed or stigmatized the defendant’s addiction and could have contributed to participants’ views on the importance of procedural justice.

Future work should not only attempt to examine if and why these results may align with or differ from the extent to which the community supports procedural justice for drug offenders in “regular” criminal trial courts, compared to drug treatment courts, but should also seek to understand how other stigmas that may operate in criminal courts around certain crimes, such as domestic abuse or crimes involving children, or offender characteristics, such as the homeless or mentally ill, could influence community perceptions of procedural justice. The public has shown support for the use of specialty courts for the homeless, veterans, mentally ill, and even domestic abusers, due to their focus on rehabilitation, compared to the use of criminal

courts for those offenders (Thielo et al., 2019). Since the public has shown similar support for trying offenders with addiction in drug treatment courts (Thielo et al., 2019), the results of this study could indicate that the community, even if stigmatizing certain defendants due to their crimes or characteristics, also may believe in the importance of procedural justice in specialty courts for other stigmatized populations. Yet, it remains unclear with regards to how these results may map onto community views of criminal courts in comparable contexts. Future research should examine if these results, and particularly patterns of moderation for stigmatization, hold true in other inquiries examining community perceptions of procedural justice in specialty courts contexts of stigmatized populations (e.g. mental health or veteran courts), as well as survey if, how, and why these results could differ for drug cases involving addiction, as well as for other stigmatized cases or offenders, in “regular” criminal trial courts.

Regardless of these limitations, these results may have implications for the legitimacy of drug treatment courts, meaning its acceptance as a legal institution and its authority by the community (Sunshine & Tyler, 2003). Although it is unknown from existing work whether the community perceives drug treatment courts to be specifically “legitimate,” as mentioned above, the public appears to be exceedingly supportive of drug treatment courts for offenders whose crimes are directly related to their addiction in large part due to the courts’ rehabilitative focus (Thielo et al., 2019). Boldt (2014) argues that public support for specialty courts is commensurate to their views on courts’ legitimacy: the public must believe that specialty courts help to “solve problems,” or otherwise, their legitimacy would be questioned by the community. Thus, as it generally appears to be strongly supportive of drug treatment courts, this literature appears to suggest that the community may perceive drug treatment courts as helping to “solve problems” of addiction, and therefore, such courts are likely considered legitimate by a large portion of the public. As community perceptions of procedural justice are said to be the key normative feature that fosters perceptions of legitimacy (Sunshine & Tyler, 2003; Tyler, 2006), it would be expected that community perceptions of drug treatment courts as procedurally just toward offenders would lead to their respect, admiration, and support of them as a legitimate legal institution (Tyler, 2006; Long et al., 2013).

In this study, as the community appears to support the increased importance of procedural justice for

those offenders with the “brain disease model” of addiction (across and in relation to different factors relevant procedural justice), one would expect the perceived legitimacy of drug treatment courts for the community to be influenced by whether or not such offenders are treated with higher levels of procedural justice and fairness in the drug treatment court process. As perceptions of procedural justice stem from social cooperation, our participants appear to be conveying that there is some “group value” of offenders with a biological “label” of addiction, even if they exhibit stigmatization toward them, and it is important that they experience procedural justice in drug treatment courts (Lind & Tyler, 1988; Tyler & Blader, 2003). Research indicates that support for drug treatment courts appears to be widespread, transcending differences in political orientation and sociodemographic attributes (Thielo et al., 2019). Indeed, the results of this study also suggest overall support for procedural justice for offenders in drug treatment courts with addiction, regardless of participants’ level of stigmatization toward addiction. Although the relationship between community support for drug treatment courts as institutions and stigmatization of addiction is unknown, the fact that such support for drug treatment court appears to cross gender, age, racial, political, and educational lines may suggest that stigmatization does not affect support for or views on the legitimacy of drug treatment courts as a legal institution (although future inquiries should examine such a relationship).

Overall, in order to maintain overall community support for drug treatment courts and to keep them legitimate in the public’s eye, special attention to the procedural justice and fairness experienced by offenders with addiction, particularly when considering the disease as one that is biologically influenced, will likely need to be considered. Although the concepts of legitimacy and procedural justice are intrinsically tied together (Sunshine & Tyler, 2003), future research should examine whether perceptions of drug treatment court legitimacy, and not just procedural justice concerns in such contexts, are also moderated by the stigmatization of addiction.

In conclusion, as members of the community appear to support procedural justice for those with the “brain disease model” of addiction, future research should attempt to maximize positive outcomes for these offenders in addressing their addiction in drug treatment courts. The phenomenon of self-stigma in addiction, which can also have grave social consequences (Corrigan et al., 2009), and how offenders who self-

stigmatize their own addiction may perceive the importance of procedural justice in their own cases, would be a logical next step in this line of research. Future inquiries may also want to examine how applying therapeutic jurisprudence principles affects or augments the importance of procedural justice for offenders with the “brain disease model” of addiction in drug treatment court settings. Therapeutic jurisprudence frames the law as a therapeutic agent in order to “reshape law and legal processes in ways that can improve the psychological functioning and emotional well-being of those affected” (Winick & Wexler, 2001, p. 479). Since therapeutic jurisprudence places strong emphasis on how legal actors can directly influence offender rehabilitation, it seems a natural companion to procedural justice in drug treatment courts (Rottman, 2007). Indeed, the application of therapeutic jurisprudence principles has been found to increase perceptions of both legitimacy and procedural justice in drug treatment courts (McIvor, 2009; Wiener et al., 2010). Thus, it would be interesting to examine if and how applying such principles to cases involving offenders with addiction may affect the community’s perceived importance of procedural justice in such cases.

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Table 1. PAF factor loadings for Gottfredson et al. (2007)'s 10-item overall procedural justice score, resulting in three procedural justice factors: "*being heard*" (3-items); *dignity and respect* (3-items); and *objectivity* (4-items).

Item in 10-item Procedural Justice Scale (Gottfredson et al., 2007)	Factor 1 ("Being Heard")	Factor 2 (Dignity and Respect)	Factor 3 (Objectivity)
Joe and his lawyer had a chance to tell his side of the story when you came to court	0.749		
The judge listened to what Joe and his lawyer said when he came to court.	0.912		
The judge relied on reports from Joe's lawyer at the court hearings.	0.509		
The information the judge had on Joe's drug tests and treatment attendance accurate.			0.570
The judge tried to consider all the facts.			0.620
The judge applied the rules about going to drug tests and drug treatment the same way for Joe as for other defendants.			0.720
The judge followed the same rules every time about what would happen if Joe failed a drug test, skipped a drug test, or did not attend treatment.			0.763
The judge treated Joe politely and with respect.		0.899	
Joe's lawyer treated him politely and with respect.		0.826	
Joe trusts the judge to be fair to him in the hearings.		0.557	