

Unlocking the Black Box of Mental Health Court Case Processing: An Event History Analysis of  
Extralegal Characteristics & Behavior on Case Revocation

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**Abstract**

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Problem solving courts are a bastion of judicial innovation and pragmatic optimism, however, their structure and case processing dynamics reintroduce high-levels of discretion to the courtroom. Past research indicates that discretionary legal environments may be vulnerable to unconscious extralegal bias and disparate treatment based defendant behavior. This paper explores the role of extralegal bias and disparate treatment in a well-established MHC. A Cox-proportional hazard analysis is used to determine the effects of defendant characteristics, during-court behavior, and interactions terms on MHC case revocation. This project builds on prior research by introducing time-dependent measures of defendant behavior, which more accurately capture the complex dynamics of MHC case processing. Findings are discussed in the context with the therapeutic ideologies and broader objectives of problem solving courts.

“Nothing works.” After Lipton, Martinson, and Wilks penned this phrase in 1975, it quickly became shorthand for the perceived futility of carceral rehabilitation. In hindsight, this pessimistic take on corrections was but one iteration of a general malaise toward the curative potential of social control institutions (Szasz 1961; Piven and Cloward 1993; Collins 2007; Green 2013; Roberts and Kurtz 2015) – hope for the rehabilitative power of punishment waned in tandem with American support for widespread mental institutionalization. As a result, carceral institutions doubled-down on the incapacitation and retribution goals of punishment (Clarke and Neuhard 2004:25), the state redirected funds to community psychiatric treatment and medications (Scull 1977:98; Grob 1994:230); the prison and the asylum turned away from corrective optimism and became holding cells for the different, deviant, and distressed (Gottschalk 2008).

Institutional pessimism, at a theoretical level, is cheap; at a human level, it is costly; and in the criminal justice system everyone pays. Suspects, defendants, and inmates pay in the form of negative stereotyping (Schneider and Ingram 1993; Steffensmeier, Ulmer, and Kramer 1998), limited rehabilitative resources (Government Accountability Office 2012), and increasingly severe sentences (Public Safety Performance Project 2012). Attorneys pay when their heavy caseloads prevent proper discovery and representation (Gershowitz and Killinger 2011; Lefstein 2011), when they repeatedly represent or prosecute the same clients for the same crimes, when their advocacy for defendant rights and public safety is supplanted by bureaucratic tedium. Judges bear the cost of pessimism through constraints placed on their discretionary power (Frankel 1973; Stith and Cabranes 1998; Tonry 2005), restricted sentencing options (Frankel 1973; Stith and Cabranes 1998; Tonry 2005; Dharmapala, Garoupa, and Shepard 2010), and the

“McDonaldization” of their court dockets (Shichor 1997). In particular, defendants with severe mental illness, and the court actors who process them, pay a premium for institutional pessimism.

Persons with severe mental illness are overrepresented in state and federal prisons (James and Glaze 2006; Prins 2014), a problem that became particularly acute after the deinstitutionalization of patients in the 1970s and 1980s (Steadman et al 1984; Fakhoury and Priebe 2007). As the number of mentally ill defendants in the criminal justice system increased, criminal case processing also underwent significant transformation. Reform efforts focused on the ‘problem of discretion’ (Walker 1993) and curbed the power of judges by implementing structured sentencing guidelines, mandatory minimums, and removing contextualization from the courtroom (Frankel 1973; Stith and Cabranes 1998; Tonry 2005). These solutions aimed to structure, standardize, and routinize judicial decision-making points viewed as vulnerable to biased and lenient outcomes; as a result, they significantly restrained judicial discretion.

Decreased discretion and increased standardization left defendants with complex problems particularly vulnerable to actuarial methodologies (Simon 1988) and judges frustrated with the futility of system involvement (Berman and Feinblatt 2001). In response, entrepreneurial judges developed alternative court models to process defendants with substance dependence problems, mental illness, family dysfunction, combat trauma, and other complicating circumstances (Berman & Feinblatt 2001; Butts 2001). These problem solving courts recenter the rehabilitative aim of punishment, recast criminal justice contact as potentially therapeutic, and reintroduce pragmatic optimism to the courtroom (Dorf and Fagan 2003; Higgins and Mackinem 2009). As a result, problem solving courts are a vanguard of the renewed neoliberal interest in transforming subjects through coercive state institutions.

And while problem solving courts are a dramatic reimagining of criminal justice involvement, they also reopen pathways for possible unconscious bias to effect case processing and outcomes. Prior responses to biased treatment in the criminal justice system were addressed by limiting judicial discretion – an understandable but wholly inadequate response to unconscious forms of discrimination. Research indicates that limiting judicial discretion reduces some forms of gross inequality in the system (Crutchfield, Fernandes, Martinez 2010), displaces discretion to prosecutors (Farrell 2003; Stith and Cabranes 1998), and does not fully eliminate unconscious bias in case processing and sentencing (Albonetti 1991; Kramer and Steffensmeier 1993; Stolzenberg, D’Alessio, and Eitle 2013). However, the influence of discretion on biased case processing and outcomes in problem solving courts has received much less academic scrutiny.

This project explores the possibility of disparate case processing in problem solving courts by examining the impact of extralegal characteristics and compliant behavior on case outcomes in one mental health court. Specifically looking at the outcome of case revocation, I build on a small body of research by incorporating measures of during-court defendant behavior to the analysis of mental health court case processing. Here I, 1) describe the institutional structure and ideological motivations of mental health courts, 2) outline the role of extralegal characteristics in the evaluation of defendant court participation, 3) model the effects of defendant characteristics and behavior on case revocation through an event history analysis, 4) and discuss my findings in light of renewed judicial optimism.

## MHC Overview

Mental health courts (MHCs) began in the late 1990s as a judicial innovation modeled after early drug courts (Berman and Feinblatt 2001) to address a broad social problem: the overrepresentation and frequent cycling of persons with mental illness through the criminal justice system (Miller and Pearlman 2009; Council of State Governments Justice Center 2008). To address this complicated problem, MHCs employ a non-adversarial model where judges, defense attorneys, prosecutors, and trained therapeutic and court staff work together to craft individualized treatment plans for defendants who voluntarily participate in the court (Miller and Perelman 2009; Dorf and Fagan 2003; Nolan 2010). MHC actors take seriously the prior extenuating circumstances of defendants, changing behavioral patterns over the course of a defendant's case, and the therapeutic impact of court interventions and outcomes (Nolan 2003; Redlich et al 2006). This institutional optimism is built on a foundation of therapeutic rehabilitation, therapeutic jurisprudence, and judicial discretion.

Therapeutic rehabilitation assumes a medical model of crime (Rotman 1990; Johnston 2012), where court involvement is analogous to social welfare – the participant is 'sick' and in need of a state-generated 'cure'. Proponents of the rehabilitative model posit that criminal behavior is symptomatic of underlying pathologies such as untreated mental illness, substance abuse, or PTSD, among others (Wootton 1963; Johnston 2012). Problem solving court interventions focus on ameliorating these root problems, with the ultimate goal of decreasing future criminal recidivism (Kaiser and Holtfreter 2016).

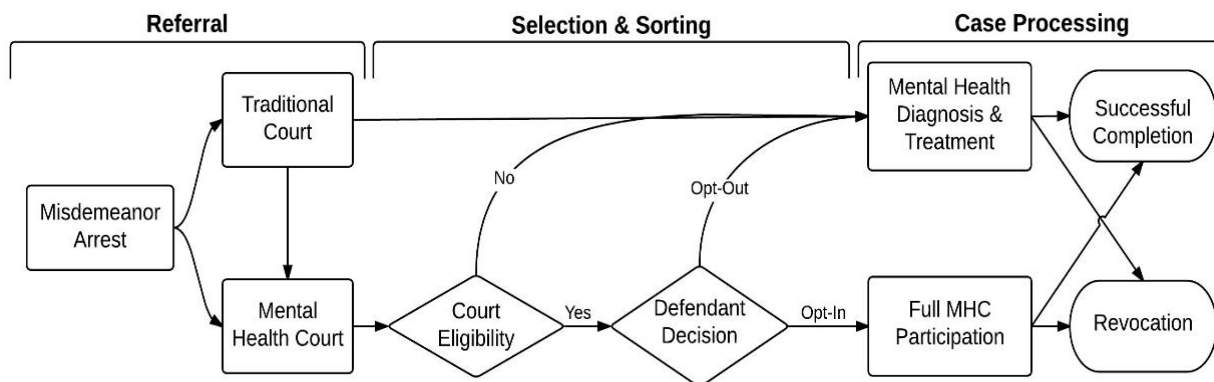
Similarly, therapeutic jurisprudence forefronts the psychological and physical wellbeing of court participants and suggests that court involvement is therapeutic or anti-therapeutic for all involved individuals (Nolan 2003). Additionally, therapeutic jurisprudence highlights, 1) the

need for court actors to consult social science research when implementing best practices and interventions, and 2) the importance of carefully considering the influence of a defendant's social context and the extenuating circumstances associated with their criminal behavior (Wexler and Winick 1991). As a theory, therapeutic jurisprudence does not provide a prescriptive list of duties for court actors to fulfill; it sensitizes these actors to the therapeutic potential of their interactions with defendants, encouraging them to carefully consider the ramifications of all their interactions in the courtroom (Johnston 2012).

Judicial discretion also plays a central role in problem solving courts. Judges are key figures who significantly shape defendant experiences with the court, from the texture of informal court interactions between the bench and defendant, to crafting formal behavioral expectations for the defendant (Wales, Hiday, Ray 2010). Nolan (2010) characterizes the approach of U.S. problem solving court judges as activist, innovative, highly involved, informal, personal, and proactive. In contrast to 'classical judges,' who are characterized by their "modesty, impartiality, restraint, and interpretive skills," Glendon (1994) considers problem solving judges to be 'romantic judges,' who are "bold, creative, compassionate, result-oriented and liberated from legal technicalities" (Nolan 2010:69). Problem solving judges embody the flexibility and optimism of therapeutic jurisprudence through their discretionary power. This increased discretion is also met with a "broadened judicial horizon" (Richter 2000) and an expansive legal toolbox of both criminal justice sanctions and modifiable treatment requirements (Burns and Peyrot 2008).

MHC participation occurs in multiple stages: initial entry through case referral, determination of program eligibility, and interest in court involvement; case processing; and final case outcome. Figure 1 details the possible pathways through MHC.

**Figure 1.** MHC Defendant Referral, Selection, and Case Processing



The first stage of the selection process is referral to the MHC. After an individual is arrested, they can be referred to the MHC by a variety of individuals; most commonly these referrals come from defense attorneys (Wolff, Fabrikant, and Belenko 2011:405), but may also come from arresting police officers, jail screeners, traditional court judges, probation officers, court coordinators, case managers, or family members (DuBois and Martin 2013:12; Steadman et al 2005). The second stage is a two-part process: 1) the MHC's determination of defendant eligibility, and 2) a defendant's voluntary decision to opt-in or -out of the program. Defendants must meet criteria based on legal, psychiatric, and other factors to be institutionally eligible.<sup>i</sup> These criteria vary by court, are largely undocumented, and are partially depend on the subjective evaluation of court actors (Wolff, Fabrikant, and Belenko 2011).<sup>ii</sup> The final stage of the selection process requires eligible defendants to either voluntarily opt-in to the MHC program or remain in traditional court (Redlich et al 2010a). Many MHCs require defendants who opt-in to MHC plead guilty to their charges (Wolff, Fabrikant, and Belenko 2011:409-412; Sarteschi, Vaughn, Kim 2011:14), waive their right to a jury trial (Stafford and Wygant 2005),

and agree to court obligations outlined in their individualized treatment plans (Redlich 2005; Miller and Perelman 2009).

As a result, the selection process sorts defendants into two groups: full MHC participants and non-participants. In many jurisdictions, institutional ineligibility or choosing not to opt-in to the court results in a defendant's case being rerouted back to the traditional court (Almquist and Dodd 2009). In the MHC analyzed here, defendants who do not fully participate are still processed in the MHC context and seen by probation officers with training in mental health issues, however they have less access to resources and are held to different behavioral standards. These defendants receive less supervision by the court and there is less emphasis on the therapeutic potential of court involvement.

The behavior of full MHC participants is measured against their individualized treatment plan. Individual treatment plans are developed by an interdisciplinary court team and outline court expectations for compliance with mental health treatment, substance abuse treatment, court reviews, and other mandatory court obligations (Lurigio and Snowden 2009).<sup>iii</sup> Full MHC participants must also agree to frequent status reviews before a MHC judge, where their progress in their individualized plans to tracked and noncompliant behavior is detected (Redlich et al 2010b).

After a defendant chooses to participate in MHC, the processing of their case is marked by high levels of behavioral supervision and graduated sanctioning to curb noncompliant behavior (Burns and Peyrot 2008). Behavioral supervision occurs through frequent meetings with probation officers and case managers, collaborative pre-court meetings, frequent review hearings in court, and reports from outside organizations such as treatment providers, electronic home monitoring systems, community service organizations, and supportive housing agencies

(Redlich et al 2010b). Behavioral supervision and staff collaboration is partially facilitated through pre-court meetings, where court actors--with the exception of the presiding judge-- discuss the status, compliance, and progress of defendants who will be seen in MHC later that day (Castellano 2011; Ray and Dollar 2013). These discussions frequently result in informal agreements among team members regarding the best possible course of action for each defendant and shape how information is later presented to the judge in the courtroom (Castellano 2011).

After noncompliant behavior is presented in the court, the judge must decide whether, and how, to sanction the defendant. Prior research finds that these judicial decisions are largely based on the appraisals of other MHC team members (Ray and Dollar 2013:663) and discussed in terms of compliance. Here, compliance is any behavior that fulfills the expectations outlined in a defendant's individualized treatment plan. Similarly, any behavior that does not fulfill the court expectations, or is threatening to the court's therapeutic interventions, is categorized as noncompliant. A certain level of defendant noncompliance is often expected (Lurigio and Snowden 2009:199) and sanctions are imposed to guide defendants back into compliance with their treatment plans. Sanctions range from increased monitoring by probation officers, increased reporting to the court for updates and progress hearings, reprimands and admonishments at court hearings, modification of treatment conditions, community service, or jail, among other possibilities (Nolan 2010; Redlich et al 2010b; Griffin et al 2002).

At some point, a defendant's case must close and their participation in MHC court must come to an end. Defendants exit MHC either positively by successfully graduating from court or negatively, receiving an unsuccessful case revocation (Council of State Governments Justice Center 2008). Eligibility for court graduation is determined by the length of a defendant's participation in the court, successful completion of program goals, and some degree of mental

health stabilization (McNiel and Binder 2010; Ray and Dollar 2013). These decisions are made collaboratively by an interdisciplinary court team and the MHC judge (McNiel and Binder 2010:229). While defendants must meet benchmarks to successfully complete the court, the notion of success is relative and is measured as an improvement above their original state (Almquist and Dodd 2009:22). Successful completion may be rewarded by dropping or reducing a defendant's original criminal charges (Sarteschi et al 2011:14; Ray and Dollar 2013:648) and through public praise on a job well done (Callahan et al 2013:1).

Case revocation results in the termination of a defendant's case from the MHC, severing the therapeutic relationship between client and provider in this alternative legal environment. As a result, defendants become ineligible to have their charges reduced or dropped (Finkle 2006:243). Defendants may also be sent to jail to serve the remainder of their sentence in custody (Callahan et al 2013). The decision to revoke a defendant's case can be made for a variety of reasons: repeated non-compliant behavior, determination that court participation is no longer a suitable arrangement for the defendant, or if all therapeutic options have been exhausted without success (Ray and Dollar 2013; Dirks-Linhorst et al 2013). Ultimately, case revocation is a discretionary decision made by the presiding judge, with input from defense attorneys, case managers, and other court staff (Castellano 2011; Ray and Dollar 2013). Because MHC environments are motivated by therapeutic optimism and rehabilitative justice principles, the revocation of a defendant's case could be viewed as the court giving up on a defendant, determining that their case is not worth the effort, or viewing their noncompliance as an insurmountable obstacle for the legal system to curb.

The decision to grant a defendant successful graduation or to terminate their case from the court is based on a combination of factors and prior research suggests defendant

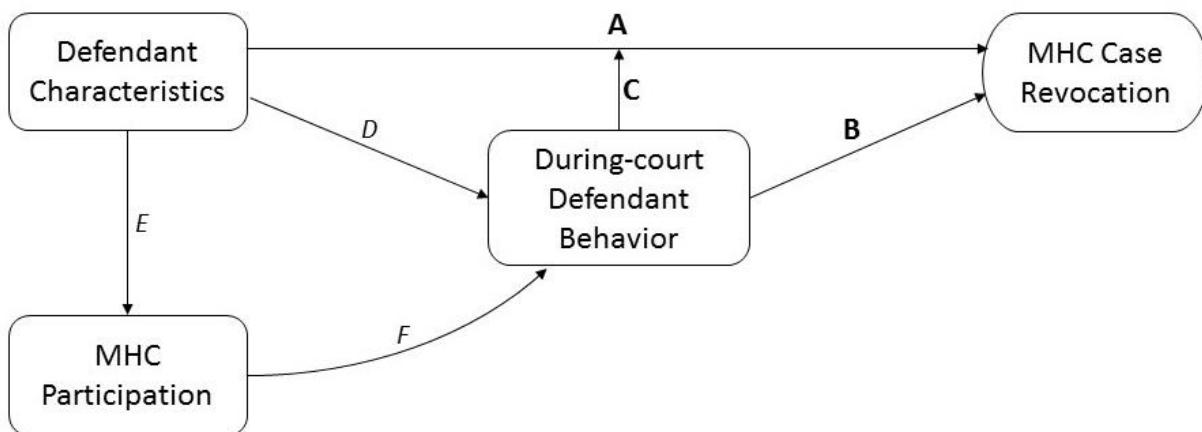
characteristics and during-court behavior are both influential in determining case outcomes. Ray and Dollar (2013) find that white women are the least likely to have their cases revoked and white men are 5.25 times more likely than their female counterparts to be negatively terminated from the court. They find that after three months of court participation “32 percent of the nonwhite males and 45 percent of the nonwhite females in the court had been terminated as compared with only 18 percent of the white males and 5 percent of the white females” (Ray and Dollar 2013:661). However, Redlich and colleagues find white defendants are no more likely to experience case revocation than other defendants (2010b:277). In their study, the relationship between defendant race and case termination was mediated by compliant behavior – white defendants were more likely to be perceived as compliant by the court and compliant behavior strongly increased the likelihood of successful graduation.

Similarly, Dirks-Linhorst and colleagues (2013) find that case termination depends on a combination of defendant characteristics and during-court behavior. Using logistic regression, they find the likelihood of negative termination increases with the following defendant characteristics: being male, racial minority status, and having multiple mental health diagnoses. Negative termination was less likely for defendants with a history of substance dependence and a prescription for psychiatric medication. Defendants who commit a new crime while in court experienced an increased likelihood of negative termination, whereas high levels of mental health court attendance decreased the odds of revocation.

These studies probe the black box of MHC case processing, revealing that defendant characteristics and behavior are consequential in court decisions about case outcomes. The relationship between extralegal defendant characteristics, defendant behavior, and case outcomes provide a complex, yet realistic, picture of MHC case processing. The conceptual relationship

between these various factors is mapped in Figure 2. Pathways D, E, and F may influence case revocation, but their effects are unanalyzed in this analysis; previously existing research on these pathways is summarized in Appendix A.

**Figure 2.** Conceptual Model of Factors Influencing MHC Case Revocation



Three possible pathways link defendant characteristics to case revocation: A) extralegal bias, B) graduated sanctioning as a result of persistent noncompliant behavior, and C) disparate bias.

Prior research from Redlich et al (2010b), Ray and Dollar (2013), and Dirks-Linhorst et al (2013) provides partial support for all three pathways, however these analyses leave aspects of MHC case processing largely unexplored.

MHC case processing is dynamic and complex. Modeled here, defendant characteristics are stable and exogenous to the process. Their possible direct effect on case revocation would be the result of extralegal bias, where demographic characteristics influence the termination decisions of court actors and judges without consideration of defendant behavior (Pathway A). These direct effects can be analyzed through basic analysis; Redlich et al use Spearman correlations (2010b), Dirks-Linhorst et al use logistic regression (2011), and Ray and Dollar use

a competing-risk hazard model (2013). These input-output models evaluate the stable relationship between extralegal characteristics and case outcomes, however the ideological motivations and structural design of MHCs suggest defendant behaviors should have a much stronger effect on case revocation (Pathway B), above (and possibly eliminating) the direct influence of defendant characteristics on case revocation. Finally, it is possible that defendant characteristics and behaviors work together to produce disparate outcomes for specific defendants. Here, in Pathway C, similar patterns of behavior would differ in their influence on case revocation depending on the characteristics of the defendants, an effect discussed as ‘disparate bias’ here.

Redlich et al (2010b) and Dirks-Linhorst et al (2013) both test the relationship between defendant behavior and case outcomes by including during-court behavioral measures in their analyses. These variables include an ordinal measure of MHC coordinators’ perceptions of defendant compliance (Redlich et al 2010b),<sup>iv</sup> frequency of court appearances (Redlich et al 2010b; Dirks-Linhorst et al 2013), and new criminal charges occurring while under court supervision (Dirks-Linhorst et al 2013). Dirks-Linhorst and colleagues (2013:693) also include the following proxy measures of during-court defendant behavior: receipt of disability benefits, employment, living arrangements, and a prescription for psychotropic drugs.

While these measures of during-court behavior offer a first step in capturing the court’s responsiveness to defendant compliance, they are static measures of an inherently dynamic process. Time-invariant measures of defendant behavior can capture only one aspect of court decision-making – the presence of behavioral thresholds, i.e. a pattern of compliance that must be achieved for successful graduation or a pattern of noncompliance that triggers termination. However, the jurisprudence and therapeutic motivations of MHCs suggest quotas and thresholds

are contrary to how court staff imagine their work. MHCs create individualized treatment plans for defendants and monitor their adherence to the plans over time. As a result, case processing is intentionally dynamic and highly discretionary, with defendant behavior shaping court responses and court sanctioning altering subsequent defendant behavior. Static measures fail to adequately capture the processing dynamics of MHCs, where behavior is evaluated continuously.

Behavioral measures focusing on the type, patterning, and accumulation of during-court compliance and noncompliance would more accurately capture multiple components of dynamic case processing.

In addition to evaluating the patterning and levels of defendant behavior over time, the length of time to successful graduation or case revocation is another important dimension of court participation. Evaluating time to program exit captures two aspects of mental health courts: therapeutic dosage and court tolerance to noncompliance. First, MHC participation is often discussed in terms of ‘dosage,’ where exposure to court treatment, services, structure, supervision, and encouragement are the ameliorative components of therapeutic jurisprudence (Miller and Perelman 2009). Dosage is frequently operationalized as a dichotomous outcome (graduating versus failing to complete MHC), but the ideological framing of MHC participation and the practical requirements of court involvement cast dosage as a multidimensional concept composed of participation length,<sup>v</sup> intensity, and treatment plan adherence. Secondly, case duration partially captures the tolerance of court actors and judges are toward noncompliant behavior. For defendants who are primarily compliant with court obligations, continued participation in the program is assumed. However, the situation for noncompliant defendants is more complicated, requiring court actors and judges to detect and make judgements about instances and patterns of defendant noncompliance -- and then sanction accordingly. MHCs can

choose to either sanction a defendant while allowing them to continue with program participation, or sever the therapeutic relationship between the court and the defendant via case revocation. Determining not only whether revocation should occur but also how quickly to initiate termination may reveal foundational assumptions about which defendants are treatable and have rehabilitative potential (Thompson 2010).

These two aspects of the MHC process highlight the conceptual and practical importance of examining time to court exit. Carefully considering both the type of court exit and time to exit evaluates important moments in MHC processing – points of institutional decision making, the documented history of a defendant’s behavior over time, and the likelihood of case revocation. This level of detailed examination provides insight into the ‘black box’ of MHC case processing, exploring how the court respond to different defendants with varying characteristics and behavior. Current research of the criminal justice system suggests that MHC case processing should be influenced by a host of practical restrictions, subconscious biases, and the complex realities of working with persons with severe mental illnesses. As such, it is important to evaluate how defendant extralegal characteristics may interact with perceptions of defendant behavior during case processing.

Figure 2, and the structure of MHCs, suggest three hypotheses, which will be explored through qualitative analysis:

- H<sub>1</sub>:** The extralegal characteristics of race and gender will have a have a small but significant effect on MHC case revocation. Based on prior studies, I hypothesize black defendants will experience an increased risk of revocation and female defendants will have a decreased risk of termination.
- H<sub>2</sub>:** Time-dependent measures of defendant behavior will attenuate the effect of extralegal characteristics on case revocation, with patterns of compliance decreasing risk of revocation and general noncompliance increasing risk of revocation.

**H<sub>3</sub>:** Interactions terms of defendant characteristics and behaviors will show a significant relationship to case revocation. These interaction terms are evidence of disparate bias.

## **DATA**

Data used to test these hypotheses describe an exit-cohort of defendants from a well-established municipal MHC. This cohort of 136 defendants all exited the court via successful completion, case revocation, or administrative termination in 2008. For this analysis, the total cohort is restricted to a subsample of 115 defendants who successfully graduated or had their case revoked from MHC.<sup>vi</sup> Additionally, only defendants whose race is administratively categorized as black or white are included in this analysis.<sup>vii</sup> Although all defendants exited the court in 2008, defendant case length varies due to differences in case start dates. As a result, case lengths range from 26 days to over 7 years, with an average of 1.26 years for defendants in this sample. Two types of variables are incorporated in this analysis: time-independent variables capturing defendant characteristics such as age at court entry, sex, race, prior criminal history, and prior mental health treatment and time-dependent variables measuring defendant behavior during case processing.

### Administrative Data

Administrative data provide information on defendant demographic characteristics, mental health treatment participation, and criminal history. These data come from the MHC, public mental health care and substance abuse providers, and the state court system. They provide information on three distinct time periods: the two years prior to MHC entrance, the duration of MHC case processing, and the two years after exiting the court. All administrative

data are time-invariant measures, which capture stable extralegal characteristics such as age at court entry, sex, and race, as well as stable case characteristics such as the number of focal charges, focal charge type, MHC participation type, and whether or not the defendant was in custody at the beginning of their case. Defendant age corresponds to age when the defendant he or she entered the court for the adjudication of their focal case. Sex and race measures are taken from administrative court records and are operationalized as dichotomous variables – male or female for sex and black or white for race.

Other cross-sectional behavioral measures, such as prior crisis and non-crisis mental health treatment and conviction history, are counts from two years prior to defendant’s court entry. Mental health treatment variables describe the aggregate number of mental health treatment service contacts for crisis and non-crisis treatment.<sup>viii</sup> Data on criminal justice system involvement are organized by the date of offense (i.e., arrest). Here, conviction history is a count of the number of guilty convictions occurring in the state of interest in the two years prior to a defendant’s court entrance.<sup>ix</sup> Descriptive statistics for these time-invariant variables are displayed below in Table 1.

**Table 1.** Descriptive Statistics for Sampled MHC Defendants (N=115)

<b>Defendant Characteristics</b>	<b>Count</b>	<b>Percentage</b>	<b>Mean (SD)</b>	<b>Range</b>
Sex – Male	85	74%		
Female	30	26%		
Race – White	78	68%		
Black	37	32%		
Age at MHC Entry			38 (11)	18 – 76
Prior Crisis MH Treatment			22 (97)	0 – 732
Prior Non-crisis MH Treatment			68 (150)	0 – 828
Conviction History (2-years Prior)			1.77 (2.66)	0 – 16
<b>Case Characteristics</b>				
Full MHC Participation	50	43%		
Partial MHC Participation	65	57%		
In Custody	41	36%		

Focal Charge <sup>1</sup> - Personal	60	52%		
Property	23	20%		
Public Order	13	11%		
Drug	13	11%		
Other	6	5%		
Number of Focal Charges			1.45 (0.91)	1 – 5
Case Length in Days			674.18 (449.61)	26 – 2638
Successful Case Completion	66	57%		
Case Revocation	49	43%		

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### Court Records

Case information for each defendant’s focal MHC case was collected from publicly available municipal court records to supplement administrative data and court documents were linked to unique defendants by case identification numbers available to the author in the administrative data. Case records were accessed through the municipal court website. A focal case is defined, here, as the criminal case that brought the defendant to MHC and was processed over the course of their MHC participation. Several defendants had more than one case adjudicated during their court participation – when the court approved multiple case tracking for administrative expediency or as the result of a plea agreement, information relevant to the focal MHC case was coded from other linked court cases to fully capture the court’s categorization of defendant behavior. Multiple case tracking is stated clearly in the records of the focal case, along with the identification numbers of the tracked cases. The majority of sampled defendants had one case (N = 95), sixteen defendants had an additional tracked case, and four defendants had three additional cases tracked along with their focal case.

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<sup>1</sup> Focal charge type is included for descriptive purposes only. Due to the small sample size used for this analysis, focal charge is not included in the Cox models.

Measures of defendant behavior come from these court case records, which offer official accounts of defendant court participation. These documents provide a thorough (albeit, incomplete)<sup>x</sup> description of defendant behavior through information on in-court proceedings and judicial decisions. In addition, these data document a defendant's legal timeline and case events, such as scheduled court dates, court appearances, judicial decisions, sanctions, and attorney motions and recommendations. This detailed administrative information is organized by event date.

These case records were coded for each defendant, where compliant and noncompliant behavior were highlighted over the duration of a defendant's case. Because court records contain a large amount of extraneous information unrelated to this project, a structured coding process was developed to categorize relevant court events into useful categories of defendant behavior. The first step in the coding process was to eliminate information unrelated to defendant behavior from the case records. Compliant and noncompliant behaviors are frequently and clearly identified by probation officers, defense attorneys, other staff, or the judge in the records. Language denoting compliant behavior was generally broad and used by court actors as a global assessment of defendant adherence to court requirements. For example, a defendant may be described as being 'currently in compliance' or as 'doing well' without specific details about what the requirements they are fulfilling or the conditions with which they are 'doing well'. Occurrences of this language were coded as general episodes of compliance; the lack of detail regarding compliance episodes prevented the development of a more specific typology.

In contrast, the language used to describe defendant noncompliance was much more detailed and specific, allowing for the creation of specific noncompliant types: mental health noncompliance, substance abuse noncompliance, administrative noncompliance, or a new

criminal law violation. The mental health violation code was applied to instances of medication noncompliance, failure to appear for mental health treatment in-take interviews, failure to schedule mental health treatment appointments, and other forms of noncompliance explicitly related to mental health treatment. Substance abuse violations was coded for instances of urine analysis testing positive for drugs and/or alcohol, missed substance abuse treatment appointments, missed Alcoholic Anonymous meetings, probation officers suspecting a defendant of having relapsed, and other behaviors associated with alcohol or illicit drug use. Administrative violations pertain to a defendant’s failure to comply with scheduled court dates, probation appointments, or other official appointment unrelated to their mental health or substance abuse treatment. New criminal law violations were recorded when the court highlighted this form of noncompliance. Table 2 provides examples of court language indicative of compliant or noncompliant behavior.

**Table 2.** Code Categories and Example Court Language from MHC Defendant Cases

<b>Compliant Behavior</b>	
	“In compliance,” “negative UA today,” “in full compliance,” “has set up treatment,” “proof of sobriety meetings provided,” “all conditions met,” “def is doing well but needs to get evaluation”
<b>Noncompliant Behavior</b>	
	“Allegations failure to comply new criminal law violation,” “failure to comply mental health treatment,” “failure to comply abstinence,” “not in compliance with meds,” “failed to report to day reporting agency,” “def has a diluted UA,” “failure to report to probation,” “willful failure to appear”

After cases were coded for episodes of compliance, noncompliance, and types of noncompliance, these codes are converted to numeric counts in an effort to measure defendant

behavior over the duration of their case. One episode of compliance and/or general noncompliance was counted for each date in the court record that documented defendant behavior; in effect, with this coding protocol a defendant could only accumulate one episode of compliance and/or general noncompliance per date recorded in the case record. While general noncompliance captures the broad assessment of noncompliant behavior, type-specific measures of noncompliance were also counted. Type-specific counts measure any instance of defendant noncompliance with mental health treatment, substance abuse treatment, or administrative requirements, or a new criminal law violation. For this reason, the total number of *specific* noncompliant episodes may be greater than the number of *general* noncompliant episodes for a defendant in a given time period. Descriptive statistics for these time-dependent variables are included below in Table 3.

**Table 3.** Descriptive Statistics of During-Court Defendant Behavior (N=115)

<b>Defendant Behavior</b>	<b>Total</b>	<b>Mean (SD)</b>	<b>Range</b>
Compliant Episodes	465	4.64 (5.58)	0 – 25
Noncompliant Episodes	284	2.47 (2.78)	0 – 13
Mental Health Violations	120	1.04 (1.43)	0 – 7
Substance Abuse Violations	104	0.9 (1.66)	0 – 10
Administrative Violations	108	0.94 (1.25)	0 – 6
New Criminal Law Violations	48	0.42 (0.77)	0 – 4
During State Convictions <sup>2</sup>	81	0.7 (1.38)	0 – 7

Administrative data and measures of defendant behavior are combined to create a long-form person-month dataset. Time periods of one month were selected to capture the maximum variation of time-dependent variables over the course of case proceedings. For this analysis,

<sup>2</sup> These data are obtained from state court records. This measure is a time-dependent variable capturing all criminal convictions over the duration of their MHC participation.

month is operationalized as 30 day increments; calendar months were not used to simplify the data transformation process. In the municipal MHC examined here, review hearings occurred monthly for the average fully-participating defendant. The review frequency of this court is similar to 35% of the courts (N = 90) evaluated by Redlich et al (2006), but longer than the modal MHC participation length of six months. The resulting dataset offers a life history of each defendant's participation in court and is comprised of 2,535 person months, with time-independent values repeated in each row and time-dependent measures accumulating over the course of each defendant's case. Time-dependent variables are constructed to account for change in and accumulation of behavioral counts over time. For example, if a defendant has one noncompliance episode in month one and four noncompliance episodes in month two, the noncompliance variable would have a count of one in month one and five in month two. Missingness is very limited throughout the dataset – all variables are complete for all defendants, with the exception of crisis and non-crisis mental health treatment variables for five defendants. In models where mental health treatment variables are included, listwise deletion is used to remove defendants with missing treatment information. These defendants include three white males, one white female, and one black male, all of whom successfully completed the court. Due to small sample size, multiple imputation was not used.

## **METHODS**

Of central interest to this analysis is evaluating the effect of time-independent variables (defendant characteristics) and time-dependent covariates (defendant behavior) on the risk of case revocation. This project uses event history modeling to analyze these relationships. In similar studies, this relationship is analyzed using t-tests and Chi-square tests of differences in

defendant characteristics between court completion outcomes (Moore and Hiday 2006), logistic regression on negative court termination (Dirks-Linhorst et al 2013), and competing-risk survival analysis of court graduation and case revocation (Ray and Dollar 2013). Here, a Cox proportional hazard model is used for several reasons.

Although Ray and Dollar (2013) use a competing-risk model, incorporating time-dependent variables to this specific form of analysis produces biased estimates and is strongly discouraged (Latouche, Porcher, and Chevert 2005). The flexibility of Cox models allows for the introduction of time-dependent variables without this bias (Latouche, Porcher, and Chevert 2005). In addition, competing-risk survival models are only appropriate when subjects are at risk for all outcomes throughout the observation period and when only one outcome can occur (Kleinbaum and Klein 2012). MHC defendants are not ‘at risk’ of successfully graduating throughout the duration of their court participation because the therapeutic approach of the court requires defendants to establish patterns of court compliance before successful graduation becomes a possibility. However, a defendant can experience case revocation at any time after entering court. In short, defendants are at risk of revocation for the entirety of their court participation but only at risk for successful completion after meeting certain requirements. As evidence, in the MHC studied here, one full MHC participant had his case revoked after being the court for 26 days, whereas the first successful graduation of a full participant occurred one year after court entrance. The assumption that defendants are simultaneously at risk of multiple outcomes from the start of their court participation is not accurate, therefore a competing-risk model fails to fully capture the therapeutic intentions and processing structure of MHCs. For these reasons, a Cox model is used.

The Cox proportional-hazard model is comprised of two parts: 1) an underlying baseline hazard function ( $\lambda_{k,0}$ ), which describes how risk of experiencing an event during a given time period changes over time ( $t$ ), and 2) effect parameters, which capture the effects of a set of explanatory variables ( $Z$ ) on the baseline hazard rate over time. This relationship is detailed in the following equation:

$$\lambda_k(t|Z) = \lambda_{k,0}(t) \exp(\beta_k \cdot Z)$$

For this analysis, the event of interest (i.e., the dependent variable in an event history model) is whether or not a defendant experiences case revocation. Forty-three percent of defendants experienced case revocation. This revocation rate is higher than other MHCs, where revocation rates range from 14% (McNiel and Binder 2007) to 37% of MHC defendants (Moore and Hiday 2006). Defendants who do not experience case revocation (i.e., those who successfully complete the court) are treated as right-censored in the data, as they do not experience the event of interest. All defendants within the sample are treated as being at risk for case revocation at all points of their court participation. Time is operationalized as case length in days, the endpoint of all cases is known, and data for all defendants is complete during the period of observation. To accommodate time-dependent measures of defendant behavior, a counting process formulation of the Cox model is used (Anderson and Gill 1982). The counting process measures the cumulative number of events--such as noncompliant episodes, mental health noncompliance, or compliant behaviors--occurring over a specific period of time. The coding language *R* was used for this analysis, along with the statistical packages *survival*, *coxph* (with the counting-process extension), *cox.zph*, and the *surv.fit* commands.

To evaluate the hypotheses proposed in this project, variables are introduced in three blocks. The first are stable, exogenous variables measuring extralegal characteristics, the second

are time-varying counts of defendant in-court behavior, and the third are interaction terms between defendant characteristics and behavior. These three sets of variables capture the processing pathways suggested previously in Figure 2: exogenous variables, such as race, gender, and conviction history, test for extralegal bias (Pathway A); time-varying covariates evaluate the sanctioning response of MHCs (Pathway B); and characteristic-behavior interaction terms further investigate the complex decision-making processes of MHCs.

## RESULTS

Descriptive explorations of race, sex, and case revocation reveal possible patterning along these extralegal characteristics. Table 4 indicates that 62% of black defendants experienced case revocation, compared to only 33% of white defendants. While the total number of case revocations is similar between these groups, black defendants experienced a proportionally higher rate of case revocation than their white counterparts.

**Table 4.** Timing of Case Revocation by Defendant Race and Sex

	<b>All Defendants</b>	<b>White Defendants</b>	<b>Black Defendants</b>	<b>Female Defendants</b>	<b>Male Defendants</b>
All Cases	115	78	37	30	84
Revoked Cases	49 (43%)	26 (33%)	23 (62%)	9 (30%)	40 (48%)
0 – 6 months	15 (13%)	8 (10%)	7 (19%)	4 (13%)	11 (13%)
6 – 12 months	8 (7%)	3 (4%)	5 (16%)	1 (3%)	7 (8%)
1 – 2 years	18 (16%)	11 (14%)	7 (19%)	2 (7%)	15 (18%)
Over 2 years	8 (7%)	4 (5%)	4 (11%)	2 (7%)	7 (8%)

This extralegal relationship is further affirmed through bivariate hazard models of these variables on time to case revocation. Black defendants were 84% more likely to have their cases revoked than white defendants over the duration of their court participation (HR = 1.84, p =

0.042). The increased risk of revocation for male defendants observed in Table 4 is not statistically significant in bivariate Cox analysis (HR = 1.24,  $p = 0.33$ ). Defendant age at court entry does not significantly affect revocation risk, however a defendant's prior history of guilty charges does increase the risk of negative termination. These bivariate results provide partial support for extralegal bias in the determination of case revocation, however, these effects may be overstated without examining alternative pathways through multivariate analysis of extralegal characteristics, time-varying behavioral measures, and interaction effects. The results of these models are displayed in Table 5. These results are discussed in order of importance, starting with the effects of race and gender in all model specification, the effect of participation type, and finally other, less central findings.

**Table 5.** Cox Proportional-Hazard Model of MHC Defendant Characteristics & Behavior on the Risk of Case Revocation<sup>3</sup>

	<b>Pathway A</b>			<b>Pathway B</b>			<b>Pathway C</b>		
	Extralegal Bias			Sanctioning			Disparate Bias		
	Coef	(SE)	HR	Coef	(SE)	HR	Coef	(SE)	HR
<b>Defendant Characteristics</b>									
Race (Black)	.58*	(.29)	1.78	.13	(.33)	1.14	1.35***	(.37)	3.85
Sex (Female)	-.5	(.41)	.6	-.25	(.47)	.77	-1.02	(.63)	.36
MHC Participation (Full)	.39	(.32)	1.47	1.15**	(.44)	3.17	1.19*	(.51)	3.3
Conviction History	.29***	(.04)	1.33	.18**	(.07)	1.2	.09	(.08)	1.09
Conviction History*Time				.0007*	(.0004)	1.000	.001**	(.0004)	1.001
<b>Defendant Behavior</b>									
Compliant Counts				-.13*	(.07)	.88	-.14	(.46)	.87
General Noncompliant Counts				.38**	(.14)	1.46	.27	(.16)	1.31
Mental Health Violations				.01	(.2)	1.01	.58*	(.23)	1.79
New Criminal Law Violations				.57†	(.33)	1.76	.99**	(.31)	2.71
<b>Interaction Terms</b>									
Compliant Counts*Full Participation							.008	(.43)	1.01
Female*Mental Health Violations							.89*	(.44)	2.45
Black*Mental Health Violations							-.93***	(.27)	.39
R-square		.015			.031			.04	
Likelihood-ratio Test		37.45***			80.33***			103.7***	
AIC		346.37			313.49			296.17	

<sup>3</sup>All variables displayed in Tables 1 and 3 were included in exploratory model analysis. The following variables were thoroughly examined and were not significant in any model: age at court entry, prior mental health treatment history (both crisis and non-crisis), defendants appearing in court while in custody, focal charge type, the number of focal charges, substance noncompliance, administrative noncompliance, and state convictions during court participation.

The first block of variables is used to reveal possible extralegal bias in the determination of MHC case outcomes. Here we see partial evidence of extralegal bias in a multivariate analysis: black defendants experience risk of revocation that is 78% higher than white defendant, after controlling for other defendant characteristics (HR = 1.78,  $p < 0.05$ ). After time-dependent measures of behavior are introduced (compliance, general noncompliance, mental health violations, and new criminal law violations), the direct effect of race on case revocation is no longer statistically significant (HR = 1.14), indicating that race may be less important than behavior in sanctioning decisions. Additionally, when characteristic-behavior interactions are introduced in the disparate bias model, black defendants are at a significantly elevated risk of having their cases revoked, assuming mental health violations to be zero (HR = 3.85,  $p < 0.001$ ). Furthermore, the interaction between race and mental health violations indicates that black defendants experience increased risk of case revocation for increased levels of mental health violations in a way that white defendants do not (HR = 1.52,  $p < 0.001$ ).<sup>xi</sup> The effect of mental health violations on case revocation depend on the race of the violator. The effect of race holds consistent throughout many of the variable introductions, providing support for the extralegal and disparate bias hypotheses but not for the sanctioning hypothesis.

Gender, in contrast to defendant race, is less consequential for MHC case revocation. The direct effect of gender on case revocation, when controlling for other defendant characteristics, reveals that women are at a reduced risk of case revocation, however this coefficient is insignificant (HR = .6,  $p > 0.05$ ). The direct effects of gender remain insignificant even when variables measuring sanctioning and disparate bias are added to the models. Despite this insignificance, the effects are directionally consistent after all three variable additions, indicating that women are at reduced risk of case revocation than their similarly situated male counterparts.

While these direct effects are consistent and insignificant, the interaction between gender and mental health violations reveals effects that are strong, significant, and counterintuitive: for female defendants, additional mental health treatment violations increase their risk of case revocation by 335% above their male counterparts. This finding indicates that MHCs respond strongly – and negatively – to the mental health noncompliance of female defendants, in a way that is particularly dependent on the defendant’s gender. Defendant gender appears to have a very specific influence on MHC case revocation; rather than generally influencing revocation decisions through extralegal bias, gender appears to disparately impact defendants when there are high-levels of mental health treatment noncompliance.

Finally, the role of MHC participation type on case revocation is important to consider. As detailed earlier, fully-participating MHC defendants are held to a different set of behavioral expectations (i.e., different individualized treatment plans) than those mandated to MHC participation. Patterns of compliant behavior are of central importance in the progress evaluation of full participants and are of less importance to evaluating partial participants. When controlling for defendant characteristics, participation type is not a significant predictor of revocation (HR = 1.47,  $p > 0.05$ ), however full participants are at 47% greater risk of case revocation compared to partial participants. After behavioral measures are introduced, full participants are at an elevated risk of case revocation (HR = 3.17,  $p < 0.01$ ). This direct effect continues to be strong and significant (HR = 3.3,  $p < 0.05$ ), even after introducing an interaction term between participation type and compliant behavior to the model. This direct effect indicates that full participants are at a 230% increased risk of experiencing revocation above the revocation risk of partial participants, assuming compliance to be zero. The interaction term between compliance and participation type reveals that effect of compliant behavior for full and partial participants is

effectively similar; additional episodes of compliant behavior decrease the risk of revocation by 22% for full participants, however this coefficient is statistically insignificant ( $HR = .88, p > 0.05$ ). Based on these results, it is clear that there is a relationship between defendant behavior and participation type.

This analysis reveals additional patterns that, while not central to the questions asked in this project, are illuminating to the case revocation process in MHCs. Having a large conviction history significantly increases the risk of experiencing case revocation when controlling for other characteristics and defendant behaviors, respectively ( $HR = 1.33, p < 0.001$ ;  $HR = 1.2, p < 0.01$ ). After introducing characteristic-behavior interaction terms, the effect size of conviction history is reduced and becomes an insignificant predictor of revocation. A defendant's conviction history also has a differential effect on case revocation over time, violating the proportional hazards assumption.<sup>4</sup> To correct for this violation conviction history was interacted with time, allowing the effect of conviction history on case revocation to become non-proportional at various moments during a defendant's case.

Defendant behaviors also provide significant support for the sanctioning hypothesis. Committing a new criminal law violation while in court increases the risk of negative termination after controlling for other defendant characteristics ( $HR = 1.76, p < 0.1$ ) and characteristic-behavior interaction terms ( $HR = 2.71, p < 0.01$ ). Episodes of general noncompliant behavior increase the risk of revocation when characteristics and behaviors are controlled for ( $HR = 1.46, p < 0.01$ ), as predicted by the sanctioning hypothesis. However, this

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<sup>4</sup> The Cox proportional-hazard assumption states that the survival curves for comparable groups (i.e., white and black defendants, male and female defendants, full participants and partial participants) have hazard functions that are proportional over time. The *R* function *cox.zph* was used to test this assumption for all variables included in the model. This test evaluates the proportionality of the hazards by interacting each variable with time, which create Pearson product-moment correlations between scaled Schoenfeld residuals and time. A p-value of less than 0.05 for the Pearson result indicates that hazards violate the proportionality assumption and should be corrected by interacting the variable with time in the model (Grambsch and Therneau 1994).

effect becomes insignificant once interaction terms are introduced to the model (HR = 1.31,  $p > 0.05$ ). In contrast, defendant compliance decreases the likelihood of case revocation; for each additional episode of compliance the risk of revocation decreases by 22% (HR = .88,  $p < 0.01$ ). Based on the coefficient sizes of variables measuring general compliant and noncompliant behavioral counts, defendant noncompliance is more consequential in revocation decisions than compliance. Mental health noncompliance also slightly increases the risk of case revocation; however, this effect is not significant when controlling for other defendant behaviors.

The introduction of time-varying variables and interaction terms significantly improve the fit of the model to this sample. Over the introduction of the three variable blocks, the overall explanatory power of the model increased: the R-square value grows by .025 between the first and final sets of variables. The progressive addition of time-varying behavioral measures also improve the fit of the model, where the AIC measures indicate that the final model is 25 times as probable as the first model to minimize information loss (Anderson 2002). This pattern of improvement is unsurprising. Mental health courts are legal environments are marked by complexity, nuance, and discretion, and therefore increasing complex model specifications are a better reflection of how MHCs operate.

## **DISCUSSION**

This study explores the possible factors and pathways that effect case revocation decisions in mental health courts. Results from the Cox proportional-hazards model support several of the proposed hypotheses: there is evidence for extralegal bias based on defendant race, patterns of defendant compliance and non-compliance are used by MHC staff to inform termination practices (i.e., defendant behavior results in court sanctioning), and the influence of

mental health treatment violations depends upon the race and gender of a defendant, providing support for the disparate bias hypothesis. While these results are both illuminating and largely unsurprising in light of prior research, they are consequential when considered in the broader context of therapeutic jurisprudence and renewed judicial optimism.

The stated goals of MHCs do not explicitly attempt to address demographic inequality within the criminal justice system; however, their liberal motivations and therapeutic ideals would suggest that aggravating these disparities would be counterproductive to the overall project of improving the system. Addressing one shortcoming of the criminal justice system – the increased representation and rapid cycling of persons with mental illnesses – does not preclude the possibility that other inequalities may continue to persist or become inflamed in the highly discretionary environment of MHCs.

A large body of research demonstrates that latent stereotypes based on the extralegal characteristics of criminal defendants influence the behavior of court actors in subtle but consequential ways. In the MHC analyzed here, it is clear that black defendants experience an increased risk of case revocation when compared to their white counterparts, a finding that is unsurprising in light of broader patterns within traditional and problem solving courts. This analysis further nuances the general impact of race by revealing that MHCs respond differently to the mental health treatment violations of black and white defendants – mental health treatment violations of black defendants increase their risk for case revocation by 52% above the risk of comparably-situated white defendants.

The increased risk associated with specific defendants behaving specific ways exacerbates a mental health treatment system already fraught with inefficiency, mistrust, barriers to entry for black Americans. In America, the relationship between race and mental health

treatment has been culturally difficult (George, Duran, and Norriss 2014; Alegría et al 2015), with black citizens experiencing a long history of scientific racism in psychiatry (Sadowsky 2003; Summers 2010), differential rates of diagnosis for depression and schizophrenia (Jarvis 2012), and institutionalization as a social response to protest (Metzl 2010). Perhaps MHC actors perceive the mental health treatment violations of black defendants as more harmful or defiant than the mental health noncompliance of white defendants. If this subconscious perception affirms cultural stereotypes about race and mental health treatment, MHCs are unknowingly perpetuating the fraught relationship between black individuals and these services. Additionally, black defendants may be paying a cost – in the form of case revocation – for the structural and cultural inadequacies of mental health treatment services. If black defendants are required to access resources from institutions insensitive to their culturally-specific needs, they may experience higher levels of mental health treatment noncompliance, an increased risk of case revocation, and subsequent incarceration and additional guilty convictions on their criminal record. For black MHC defendants, the institutional biases of the criminal justice system and mental health services may compound in this court context.

For female defendants, the relationship between mental health noncompliance and risk of revocation is similarly complex. We see here that female defendants with high levels of noncompliance with mental health treatment experience an increased risk of case revocation. This result may also stem from subconscious assumptions about how women interact with mental health treatment more broadly. Women are more likely than men to seek out psychiatric treatment (Oliver et al 2005) and adhere with their treatment regimens (Pampollona et al 2002; Olfson et al. 2006). Therefore, noncompliance with mental health treatment by female offenders may violate cultural stereotypes of women's amenability to treatment. If this is the case, these

violations may read as an egregious form of noncompliance to court actors, invoking a stronger court response than the mental health noncompliance of male defendants. Male noncompliance with mental health treatment may be an expected outcome and therefore perceived as a less threatening, predictable form of noncompliance.

This analysis, when combined with the previous body of literature on MHC outcomes, suggest mental health court advocates and scholars should pay more attention to the stratifying potential of problem solving courts. Problem solving courts embody a radical departure from business as usual in the criminal justice system: a jurisprudence logic focusing on the therapeutic potential of court participation (Winick 2003; Lurigio and Snowden 2009); non-adversarial teamwork between court actors for the presumed benefit of the defendant (Castellano 2011); a highly-adaptive, discretionary environment allowing for a broad range of intervention and institutional responses to defendant noncompliance (Griffin, Steadman, and Petrila 2002; Callahan et al 2013); and the broader embodiment of the neoliberal project to shape and correct the lives of citizens (Foucault 1995; Soss, Fording, and Schram 2011). Problem solving courts offer a unique site to analyze the opportunities created by broad punitive motivations and institutional structures to meet the real needs of specific populations (in the case of MHCs, untreated mental illness due to a weak social safety net), while also considering the continued inability of the criminal justice system to curb the social inequalities replicated and increased by system involvement.

For defendants with mental illnesses, system exposure is both the result of a grossly inadequate social safety net (Torrey 1997) and an aggravating condition that frequently worsens their mental health (Haney 2002; Schnittker, Massoglia, and Uggen 2012; Kaba et al 2014). The ambitious goals of mental health courts are structurally blunted by the failures of a neoliberal

state to invest in preventative health care and a criminal justice system motivated by punishment. However, the expansive response to these institutional limitations in the form of boundless judicial discretion, non-adversarial court representation, extensive supervision, and prolonged court involvement create opportunities for unexamined bias to permeate these spaces of institutional optimism. While these forms of bias may be deeply hidden behind the complex structure of MHCs and the dynamic relationship between institution and defendants, they are no less consequential. Defendants who experience case revocation can be sent to jail, have additional convictions added to their criminal records, and denied valuable resources. If the discretionary decision to revoke defendant cases is based, in part, on their demographic characteristics, the idealistic goals of MHCs may be proactively undermining their larger social project of governance.

## **APPENDIX A.**

The conceptual model for MHC case processing presented in Figure 2 (page 12) includes three unexplored pathways between variables that impact case revocation decisions. While the analytic exploration of these pathways is outside the scope of this project, prior research does speak to these relationships. Here, a brief description and references to relevant studies is provided.

### *Pathway D – Effect of Defendant Characteristics on Defendant Behavior:*

- An obvious connection between defendant characteristics and defendant behavior occurs between a defendant's prior conviction history and new criminal law violations. Using a meta-analysis of recidivism studies, Gendreau, Little, and Goggin (1996) find that a defendant's prior criminal history is a strong predictor of later recidivism.
- There is likely a great deal of unobserved heterogeneity in defendant characteristics that contribute to later defendant behavior. Examples of such factors are the amenability of defendants towards court interventions, acquiescence to authority, and trust in the criminal justice and mental health treatment systems. Furthermore, the administrative data used in this analysis does not provide information on mental health diagnoses, prior substance abuse treatment, housing accommodations, work status, and other characteristics that

may influence a defendant's stability. Dirks-Linhorst et al (2013) find that several of these factors are significant predictors of MHC case revocation. It is possible that these significant results are evidence of the influence of these characteristics on later behavior and subsequent case revocation decisions.

- Extralegal characteristics may not directly influence defendant behavior, but may influence court actors' perceptions of defendant behavior. Ray and Dollar (2013) find that MHC actors spend more time during pre-court meetings contextualizing the noncompliance of female defendants than they do explaining the noncompliance of male defendants. Female noncompliance is discussed in the context of their familial obligations and romantic relationships, however these conditions are not discussed for male defendants. Bridges and Steen (1998) also find that probation officers perceive the causes of juvenile crime differently depending on the race of the defendant. These perceptions influence probation officers' assessment of future risk of reoffending and sentencing recommendations.

*Pathway E – Effect of Defendant Characteristics on MHC Participation:*

- Several studies explore the case characteristics of those who choose to participate and opt-out of MHC. According to the existing literature on mental health courts, white males, and in some cases, white females are over-represented in the larger population of mental health court participants (Redlich et al 2006; Sarteschi et al 2011). An additional study of jail diversion programs found that participants were disproportionately older, white, and female than the broader population of potential participants (Naples, Morris, and Steadman 2007). Furthermore, in Sarteschi et al's (2011) meta-analysis of mental health court outcomes, participants tended to be white males in their mid-thirties. The remaining sample population similarly lacked variability in participant age, race, and sex. Specifically, they noted that there was a significantly higher proportion of African Americans who did not participate in the mental health court system than who did (Neiswender 2005; Sarteschi et al 2011). It is unknown if the lack of participation was due to self-selection out of the program or as a failure to meet the eligibility requirements of the program.
- As mentioned in Pathway D, it is possible that unobserved heterogeneity in defendant characteristics influence both an individual's eligibility for MHC and/or their likelihood to opt-in to the program. A thorough review of this process is provided by Wolff, Fabrikant, and Belenko (2010) and Dirks-Linhorst (2013) provides an overview of the factors associated with participation.

*Pathway F – Effect of Participation Type on Defendant Behavior:*

- This pathway is partially explored through interacting variables measuring participation type and compliance episodes. This interaction effect is not significant, indicating that the compliance of full participants does not decrease the risk of revocation above the effect of compliance episodes on partial participants.
- It is possible that a defendant's selection into (or out of) MHC depends partially on the set of unobserved measures outlined in Pathway D, and that these

characteristics similarly influence a defendant's behavior. In this case, measuring and controlling for these character variables in a model that also contains participation and behavior measures would adjust for these influences.

- It is also possible that participation within a MHC influences a defendant's behavior over the course of their court case. This, in fact, is the causal relationship assumed by MHC actors – the supervision and intervention of MHCs curb defendant behavior away from noncompliance toward compliance. This dynamic relationship between the court and defendant would require comparative analysis of defendant behavior trajectories over time, and that these trajectories are stratified by participation type. This analysis requires complex data collection methods and quantitative analysis, which have yet to be completed by scholars in the field.

## REFERENCES

- Albonetti, Celesta A. "An Integration of Theories to Explain Judicial Discretion." *Social Problems* 38(2):247-266.
- Alegría, Margarita, et al. 2015. "Disparity in Depression Treatment among Racial and Ethnic Minority Populations in the United States." *Psychiatric Services* (2015).
- Almquist, Lauren, and Elizabeth Dodd. 2009. "Mental Health Courts: A Guide to Research-Informed Policy and Practice." Council of State Governments Justice Center.
- Anderson, David Raymond. 2002. *Model Selection and Multi-model Inference: A Practical Information-theoretic Approach*. New York, NY: Springer.
- Anderson, Per Kragh and Richard Gill. 1982. "Cox's Regression Model for Counting Processes: A Large Sample Study." *The Annals of Statistics* 10(4):1100-1120.
- Baker, F.M., and Carl Bell. 1999. "Issues in the Psychiatric Treatment of African Americans." *Psychiatric Services* 50:362-368.

- Berman, Greg and John Feinblatt. 2001. "Problem Solving Courts: A Brief Primer." *Law & Policy* 23(2):125-140.
- Bridges, George S., and Sara Steen. 1998. "Racial Disparities in Official Assessments of Juvenile Offenders: Attributional Stereotypes as Mediating Mechanisms." *American Sociological Review* 63(4):554-570.
- Burns, Stacy Lee and Mark Peyrot. 2008. "Reclaiming Discretion Judicial Sanctioning Strategy in Court-Supervised Drug Treatment." *Journal of Contemporary Ethnography* 37:720-746.
- Butts, Jeffrey. 2001. "Introduction: Problem-Solving Courts." *Law & Policy* 23(2):121-124.
- Callahan, Lisa et al. 2013. "A Multi-Site Study of the Use of Sanctions and Incentives in Mental Health Courts." *Law and Human Behavior* 37(1):1-9.
- Castellano, Ursula. 2011. "Court Compliance: Case Managers as 'Double-Agents' in the Mental Health Court." *Law & Social Inquiry* 36(2):484-514.
- Clarke, Cait and James Neuhard. 2004-2005. "'From Day One': Who's in Control as Problem Solving and Client-Centered Sentencing Take Center Stage." *New York University Review of Law and Social Change* 29:11-56.
- Collins, Robert. 2007. *Transforming America: Politics and Culture During the Reagan Years*. New York, NY: Columbia University Press
- Council of State Governments Justice Center. 2008. "Improving Responses to People with Mental Illnesses: The Essential Elements of a Mental Health Court." *Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice* New York: NY.
- Crutchfield, Robert, April Fernandes, and Jorge Martinez. 2010. "Racial and Ethnic Disparity and Criminal Justice: How Much is Too Much." *The Journal of Criminal Law & Criminology* 100(3):903-932.
- Dharmapala, Dhammika, Nuno Garoupa, and Joanna Shepherd. 2010. "Legislatures, Judges, and Parole Boards: The Allocation of Discretion Under Determinate Sentencing." *Florida Law Review* 62:1037-1090.
- Dirks-Linhorst, P. Ann et al. 2013. "Factors Associated with Mental Health Court Nonparticipation and Negative Termination." *Justice Quarterly* 30(4):681-710.
- Dorf, Michael and Jeffery Fagan. 2003. "Problem Solving Courts: From Innovation to Institutionalization." *American Criminal Law Review* 40(4):1501-1511.
- DuBois, Lois and Teri Martin. 2013. "Seattle Municipal Mental Health Court Evaluation." Portland, OR: Law & Policy Associates 1-77.

- Fakhoury, Walid and Stefan Priebe. 2007. "Deinstitutionalization and Reinstitutionalization: Major Changes in the Provision of Mental Healthcare." *Psychiatry* 6(8):313-316.
- Farrell, Jill. 2003. "Mandatory Minimum Firearm Penalties: A Source of Sentencing Disparity." *Justice Research and Policy* 5(1):95-115.
- Finkle, Michael. 2006. "Washington's Criminal Competency Laws: Getting from Where We are to Where We Should Be." *Seattle Journal for Social Justice* 5(1):201-283.
- Foucault, Michel. 1995 [1977]. *Discipline and Punish: The Birth of the Prison*. New York, NY: Vintage Books.
- Frankel, Marvin. 1973. *Criminal Sentences: Law without Order*. New York, NY: Hill and Wang.
- Gendreau, Paul, Tracy Little, and Claire Goggin. 1996. "A Meta-analysis of the Predictors of Adult Offender Recidivism: What Works!." *Criminology* 34(4):575-608.
- George, Sheba, Nelida Duran, and Keith Norris. 2014. "A Systematic Review of Barriers and Facilitators to Minority Research Participation among African Americans, Latinos, Asian Americans, and Pacific Islanders." *American Journal of Public Health* 104(2):e16-e31.
- Gershowitz, Adam and Laura Killinger. 2011. "The State (Never) Rests: How Excessive Prosecutor Caseloads Harm Criminal Defendants." *William & Mary Law School Scholarship Repository* 105(1):262-301.
- Glendon, Mary Ann. 1994. *A Nation under Lawyers: How the Crisis in the Legal Profession is Transforming American Society*. New York, NY: Farrar, Straus, and Giroux.
- Gottschalk, Marie. 2008. "Hiding in Plain Sight: American Politics and the Carceral State." *Annual Review of Political Science* 11:235-60.
- Government Accountability Office. 2012. *Growing Inmate Crowding Negatively Affects Inmates, Staff, and Infrastructure*. GAO-12-743. Washington, DC: General Accounting Office.
- Grambsch, Patricia M., and Terry M. Therneau. 1994. "Proportional Hazards Tests and Diagnostics Based on Weighted Residuals." *Biometrika* 81(3):515-526.
- Green, David A. 2013. "Penal Optimism and Second Changes: The Legacies of American Protestantism and the Prospects for Penal Reform." *Punishment & Society* 15(2):123-146.
- Griffin, Patricia, Henry Steadman, and John Petrila. 2002. "The Use of Criminal Charges and Sanctioning in Mental Health Courts." *Psychiatric Services* 53(10):1285-1289.
- Grob, Gerald N. 1994. *The Mad Among Us: A History of the Care of America's Mentally Ill*.

- New York, NY: The Free Press.
- Haney, Craig. 2002. "The Psychological Impact of Incarceration: Implications of Post-Prison Adjustment." Presented at the conference "From Prison to Home", January 30-31.
- Higgins, Paul and Mitchell Mackinem. 2009. *Problem-solving Courts: Justice for the Twenty-first Century*. Santa Barbara, CA: ABC-CLIO.
- James, Doris and Lauren Glaze. 2006. "Mental Health Problems of Prison and Jail Inmates." *Bureau of Justice Statistics Special Report*. NCJ 213600.
- Jarvis, G. Eric. 2012. "Changing Psychiatric Perception of African-Americans with Affective Disorders." *Journal of Nervous and Mental Disease* 200(12): 1031-1040.
- Johnston, E. Lea. 2012. "Theorizing Mental Health Courts." *Washington University Law Review* 89: 519-579.
- Kaba, Fatos et al. 2014. "Solitary Confinement and Risk of Self-Harm Among Jail Inmates." *American Journal of Public Health* 104(33):442-447.
- Kaiser, Kimberly and Kristy Holtfreter. 2016. "An Integrated Theory of Specialized Court Programs: Using Procedural Justice and Therapeutic Jurisprudence to Promote Offender Compliance and Rehabilitation." *Criminal Justice and Behavior* 43(1):45-62.
- Kleinbaum, David and Mitchel Klein. 2012. "Competing Risks Survival Analysis." in *Survival Analysis: A Self-learning Text* New York, NY: Springer.
- Kramer, John and Darrell Steffensmeir. 1993. "Race and Imprisonment Decisions." *The Sociological Quarterly* 34(2):357-376.
- Latouche, Aurelien, Raphael Porcher, and Sylvie Chevret. 2005. "A Note on Including Time-dependent Covariate in Regression Model for Competing Risks Data." *Biometrical Journal* 47(6):807-814.
- Lefstein, Norman. 2011. "Securing Reasonable Caseloads: Ethics and Law in Public Defense." *American Bar Association Standing Committee on Legal Aid and Indigent Defendants*.
- Lurigio, Arthur J., and Jessica Snowden. 2009. "Putting Therapeutic Jurisprudence into Practice: The Growth, Operations, and Effectiveness of Mental Health Court." *Justice System Journal* 30(2):196-218.
- McNiel, Dale and Renee Binder. 2007. "Effectiveness of a Mental Health Court in Reducing Criminal Recidivism and Violence." *American Journal of Psychiatry* 164:1395-1403.
- McNiel, Dale and Renee Binder. 2010. "Stakeholder Views of a Mental Health Court." *International Journal of Law and Psychiatry* 33:227-235.

- Metzl, Jonathan M. 2009. *The Protest Psychosis: How Schizophrenia Became a Black Disease*. Boston, MA: Beacon Press.
- Miller, Sarah, and Abigayl Perelman. 2009. "Mental Health Courts: An Overview and Redefinition of Tasks and Goals." *Law & Psychiatry Review* 33:113-123.
- Naples, Michelle, Laura S. Morris, and Henry J. Steadman. 2007. "Factors in Disproportionate Representation Among Persons Recommended by Programs and Accepted by Courts for Jail Diversion." *Psychiatric Services* 58(8):1095-1101.
- Neiswender, John. 2005. "An Outcome Evaluation of the Mental Health Court of King County, Washington: An Affirmation of the Specialty Court System." PhD dissertation, Washington State University.
- Nolan, James L. 2003. "Redefining Criminal Courts: Problem-Solving and the Meaning of Justice." *American Criminal Law Review* 40:1541-1565.
- Nolan, James L. 2010. "Freedom, Social Control, and the Problem Solving Court Movement." in *Social Control: Informal, Legal and Medical* 5:65-89.
- Olfson, Mark, Steven Marcus, Michael Tedeschi, and George Wan. 2006. "Continuity of Antidepressant Treatment for Adults with Depression in the United States." *American Journal of Psychiatry* 63:101-8.
- Oliver, Maria, et al. 2005. "Help-seeking Behaviour in Men and Women with Common Mental Health Problems: Cross-sectional Study." *The British Journal of Psychiatry* 186(4):297-301.
- Pampallona, Sandro et al. 2002. "Patient Adherence in the Treatment of Depression." *British Journal of Psychiatry*. 180:104-109.
- Piven, Frances Fox and Richard A. Cloward. 1993. *Regulating the Poor: The Function of Public Welfare*. New York, NY: Vintage Books.
- Prins, Seth. 2014. "Prevalence of Mental Illnesses in US State Prisons: A Systematic Review." *Psychiatric Services* 65(7):862-872.
- Public Safety Performance Project. 2012. "Time Served: The High Cost, Low Return of Longer Prison Terms." *The Pew Charitable Trust*.
- Ray, Bradley and Cindy Brooks Dollar. 2013. "Examining Mental Health Court Completion: A Focal Concerns Perspective." *The Sociological Quarterly* 54: 647-669.
- Redlich, Allison. 2005. "Voluntary, but Knowing and Intelligent? Comprehension in Mental Health Courts." *Psychology, Public Policy, and Law* 11(4):605-619.

- Redlich, Allison et al. 2006. "Patterns of Practice in Mental Health Courts: A National Survey." *Law and Human Behavior* 30:347-362.
- Redlich, Allison et al. 2010a. "The Use of Mental Health Court Appearance in Supervision." *International Journal of Law and Psychiatry* 33:272-277.
- Redlich, Allison et al. 2010b. "Enrollment in Mental Health Courts: Voluntariness, Knowingness, and Adjudicative Competence." *Law and Human Behavior* 34:91-104.
- Richter, Rosalyn. 2000. "Judicial Roundtable: Reflections of Problem-Court Justices." *Journal of the New York State Bar Association* 72(5): 9.
- Roberts, Albert and Linda Farms Kurtz. 2015. "Historical Perspectives on the Care and Treatment of the Mentally Ill." *The Journal of Sociology & Social Welfare* 14(4):75-94.
- Rotman, Edgardo. 1990. *Beyond Punishment: A New View on the Rehabilitation of Criminal Offenders*. Westport, CT: Greenwood Press.
- Sadowsky, Jonathan. 2003. "The Social World and the Reality of Mental Illness: Lessons from Colonial Psychiatry." *Harvard Review of Psychiatry* 11:210-214.
- Sarteschi, Christine, Michael Vaughn, and Kevin Kim. 2011. "Assessing the Effectiveness of Mental Health Courts: A Quantitative Review." *Journal of Criminal Justice* 39:12-20.
- Shichor, David. 1997. "Three Strikes as a Public Policy: The Convergence of the New Penology and the McDonalidization of Punishment." *Crime & Delinquency* 43(4):470-492.
- Schneider, Richard. 2010. "Mental Health Courts and Diversion Programs: A Global Survey." *International Journal of Law and Psychiatry* 33:201-206.
- Schneider, Anne and Helen Ingram. 1993. "Social Construction of Target Populations: Implications for Politics and Policy." *American Political Science Review* 87:334-47.
- Schnittker, Jason, Michael Massoglia, and Christopher Uggen. 2012. "Out and Down Incarceration and Psychiatric Disorders." *Journal of Health and Social Behavior* 53(4):448-464.
- Scull, Andrew. 1977. *Decarceration: Community Treatment and the Deviant – A Radical View*. New Brunswick, NJ: Rutgers University Press.
- Simon, Jonathan. 1988. "The Ideological Effects of Actuarial Practices." *Law and Society Review* 22(4): 771-800.

- Soss, Joe, Richard C. Fording, and Sanford F. Schram. 2011. *Disciplining the Poor: Neoliberal Paternalism and the Persistent Power of Race*. Chicago, IL: University of Chicago Press.
- Stafford, Kathleen and Dustin Wygant. 2005. "The Role of Competency to Stand Trial in Mental Health Courts." *Behavioral Sciences and the Law* 23:245-258.
- Steadman, Henry et al. 1984. "The Impact of State Mental Hospital Deinstitutionalization on United States Prison Populations, 1968-1978." *The Journal of Criminal Law and Criminology* 75(2):474-490.
- Steadman, Henry et al. 2005. "From Referral to Disposition: Case Processing in Seven Mental Health Courts." *Behavioral Sciences and the Law* 23:215-226.
- Steffensmeier, Darrell, Jeffery Ulmer, and John Kramer. 1998. "The Interaction of Race, Gender, and Age in Criminal Sentencing: The Punishment Cost of Being Young, Black, and Male." *Criminology* 36:763-798.
- Stith, Kate, and Jose A. Cabranes. 1998. *Fear of Judging: Sentencing Guidelines in the Federal Courts*. Chicago, IL: University of Chicago Press.
- Stolzenberg, Lisa, Stewart J. D'Alessio, and David Eitle. 2013. "Race and Cumulative Discrimination in the Prosecution of Criminal Defendants." *Race & Justice* 3(4):275-299.
- Summers, Martin. 2010. "'Suitable Care of the African When Afflicted with Insanity': Race, Madness, and Social Order in Comparative Perspective." *Bulletin of the History of Medicine* 84(1):58-91.
- Szasz, Thomas S. 1961 (2010). *The Myth of Mental Illness: Foundation of a Theory of Personal Conduct*. New York, NY: Harper Perennial.
- Thompson, Michael, Fred Osher, and Denise Tomasini-Joshi. 2007. "Improving Responses to People with Mental Illnesses: The Essential Elements of a Mental Health Court." *Council of State Governments Justice Center Criminal Justice/Mental Health Consensus Project, Bureau of Justice Assistance, Office of Justice Programs, U.S. Department of Justice* New York, NY.
- Thompson, Melissa. 2010. "Race, Gender, and the Social Construction of Mental Illness in the Criminal Justice System." *Sociological Perspectives* 53(1):99-126.
- Tonry, Michael. 2005. "Obsolescence and Immanence in Penal Theory and Policy." *Columbia Law Review* 105(4):1233-1275.
- Torrey, Edwin Fuller. 1997. *Out of the shadows: Confronting America's Mental Illness Crisis*. New York, NY: John Wiley.
- Wales, Heathcote, Virginia Hiday, and Bradley Ray. 2010. "Procedural Justice and the Mental

Health Court Judge's Role in Reducing Recidivism." *International Journal of Law and Psychiatry* 33:265-271.

Walker, Samuel. 1993. *Taming the System: The Control of Discretion in Criminal Justice, 1950-1990*. New York, NY: Oxford University Press.

Wexler, David and Bruce Winick. 1991. *Essays in Therapeutic Jurisprudence*. Durham, NC: Carolina Academic Press.

Winick, Bruce. 2003. "Therapeutic Jurisprudence and Problem Solving Courts." *Fordham Urban Law Journal* XXX:1055-1103.

Wolff, Nancy. 2002. "Courts as Therapeutic Agents: Thinking Past the Novelty of Mental Health Courts." *Journal of the American Academy of Psychiatry and Law* 30(3): 31-437.

Wolff, Nancy, Nicole Fabrikant, and Steven Belenko. 2011. "Mental Health Courts and their Selection Processes: Modeling Variation for Consistency." *Law and Human Behavior* 35(5):402-412.

Wolff, Nancy and Wendy Pogorzelski. 2005. "Measuring the Effectiveness of Mental Health Courts: Challenges and Recommendations." *Psychology, Public Policy, and Law* 11(4):539-569.

Wootton, Barbara. 1963. *Crime and the Criminal Law: Reflections of a Magistrate and Social Scientists*. London, UK: Stevens & Sons Ltd.

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<sup>i</sup> Defendants must be charged with crimes that fall within the category of cases adjudicated by the MHC. Many MHCs are limited to misdemeanor and non-violent charges (Wolff 2002; Wolff and Pogorzelski 2005; Wolff, Fabrikant, and Belenko 2011), however an increasing number of courts accept defendants with felony charges (Redlich et al 2005; Miller and Perelman 2009). Defendants must also have a mental illness that either contributed to or was associated with their criminal behavior (Thompson, Osher, and Tomasini-Joshi 2007:2) and must have a psychiatric diagnosis that falls within the court's criteria (Wolff, Fabrikant, and Belenko 2011:406). Additionally, defendants must be found legally competent to plead guilty (Redlich et al 2010a:91).

<sup>ii</sup> Included in these final eligibility criteria are defendants' prior criminal histories, evidence of treatability, co-occurring substance disorders, the strength of the connection between a defendant's criminal behavior and mental illness, risk of violence, and a defendant's motivation to participate in the program (Wolff, Fabrikant, and Belenko 2011:406).

<sup>iii</sup> Abstaining from the use of alcohol and illicit substances, regular substance use screening (UAs), and not committing a new criminal law violation

<sup>iv</sup> Redlich et al describe the construction of the compliance variable as follows: "To assess court compliance, we developed a brief instrument for MHC coordinators to complete. The

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coordinators were asked to rate compliance for the first year on three aspects: 1) judicial and court orders; 2) keeping treatment appointments in the community; and 3) taking prescribed medications. Compliance was rated on a five-point Likert scale, 1= Poor/Not so good throughout to 5= Excellent/Very good throughout. Coordinators were instructed to consider the entire year (or however long the person remained in the court) and the frequency and severity of positive and negative events” (2010b:274).

<sup>v</sup> Successful completion (or, full dosage) requires defendants participate in the program for an extended period of time – ranging from a short program of four to six months (Hiday, Wales, and Ray 2013:402) to the modal program length of one to two years (Schneider 2010).

<sup>vi</sup> Defendants whose cases were closed for other reasons were excluded from this analysis as their case outcomes likely result from characteristics and/or processes outside the focus of this project. Other reasons for case closures include administrative termination (7 defendants), lack of legal competency (4 defendants), death (1 defendant), and duplicated case plans (1 defendant).

<sup>vii</sup> Defendants from other racial groups were excluded due to their low representation in the broader sample and the resulting lack of power for appropriate comparative analysis. These include: 4 Asian-American defendants, 3 Native-American defendants, and 1 defendant whose race was unmarked in the administrative data.

<sup>viii</sup> ‘Non-crisis’ services are defined by the treatment provider as routine outpatient services in a patient’s structured treatment plan. ‘Crisis’ services are used for urgent or emergent mental health issues. Data on mental health treatment only includes county funded services. This measure excludes services funded by private insurance, other government organizations, and/or non-profits.

<sup>ix</sup> A second measure of prior criminal history was also developed and used in preliminary models. This measure captures the total number of misdemeanor and felony criminal charges the defendant received in the two years prior to court entrance. Due to a variety of structural factors, this measure may capture processes other than an individual’s relevant criminal history (such as the possibility of prosecutors overcharging defendants for leverage during plea bargaining, charges that were later dropped for administrative reason or competency issues, etc.). Between the two measures of criminal justice history, counts of guilty charges is the more conservative approach.

<sup>x</sup> It should be noted that court records are specific to in-court proceedings; they do not document discussions between the mental health court team during their pre-court meetings or meetings between case managers and their clients. As a result, official court records provide a filtered set of information. The possible effect of these undocumented interactions is unknowable without direct ethnographic observation or participant interviews (see Ray and Dollar 2013 and Castellano 2011 for studies using these approaches), which is outside the scope of this study.

<sup>xi</sup> The equation for this interaction term is as follows:  $Y = (\alpha + \beta_2) + (\beta_1 + \beta_3)X + \varepsilon$ , where  $(\alpha + \beta_2)$  captures the y-intercept for black defendant and  $(\beta_1 + \beta_3)$  is the combined slope for the direct and interaction effects of being black on MHC case revocation.