RACE-GENDER DIFFERENCES IN MEDICALIZATION AND CRIMINALIZATION: THE CONSEQUENCES FOR CRIMINAL JUSTICE INVOLVEMENT AND MENTAL HEALTH TREATMENT

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CHAPTER I

Introduction

In recent years, the exposition of social inequality on a national stage has sparked significant societal upheaval. The COVID-19 pandemic brought attention to longstanding disparities in health and medicine, particularly for marginalized communities. Police brutality and the deaths of George Floyd and Breonna Taylor brought racial injustice to the forefront of the national conversation and sparked protests for criminal justice reform. Additionally, discussions around mental health gained national attention, with advocates calling for greater support and resources for individuals with mental health conditions. The intersection of criminal justice, mental illness, and racial inequality represents a complex challenge that demands a comprehensive approach. Critical scholars voiced concerns that reforms to the criminal justice and medical institutions will only perpetuate inequality unless we, as a society, confront the ways that racism and sexism inform our perceptions of deviance.

How do race and gender shape our interpretation of deviant behaviors as either criminal acts or medical symptoms? The study of deviance and institutional social control has been key in sociological canon, drawing the attention of theorists such as Foucault, Durkheim, and Du Bois (Du Bois 2013; Durkheim 1951; Foucault 2003). One such form of institutional social control is criminalization, defined as "a specific form of social control...authorized by the state; an approach to crime control based on punitive measures" (Jenness 2004). Most studies of criminalization focus on examining the process through which behaviors are defined as criminal and brought under state-sanctioned social control (Jenness 2004). Hand in hand with studies of criminalization is the study of the medicalization of deviance by scholars such as Conrad and

Schneider. This literature similarly examines medicalization as a form of social control, where deviant symptoms or behaviors are framed in medical definitions and brought under the jurisdiction of medical professionals and institutions (Conrad and Schneider 2010). Important within these two literatures is the case of mental illness and disorder because of its history of being socially constructed as both medical and criminal (Conrad and Schneider 2010; Dvoskin, Knoll, and Silva 2020).

Scholars of sociology and critical criminology have pointed to significant race and gender disparities in criminalization in the United States (see e.g., Gabbidon 2015 and Thompson 2010). Black individuals are more likely to be stopped by police, to be arrested, and to be incarcerated than White individuals (Bronson and Carson 2019; Kovera 2019), generating and maintaining severe racial inequalities in wealth, health, and political voice (Pettit and Sykes 2015; Sykes and Maroto 2016; Wacquant 2017; Wildeman and Wang 2017). Men are also more likely to be arrested and incarcerated than women (Starr 2014; Stolzenberg and D'Alessio 2004) and often their criminal charges and recidivism are framed in gendered ways (Cullen, Agnew, and Wilcox 2018a; Wyse 2013).

Similarly, these socially significant categories also shape medicalization; White individuals are more likely to have access to medical care, including therapy (Feagin and Bennefield 2014; Lê Cook et al. 2013; Yearby 2018) and their behavior is more often framed as medical rather than criminal in media (Heitzeg 2015). Women are more likely to utilize mental health services than are men, and their symptoms are also understood in gendered ways (Courtenay 2000; Mirowsky and Ross 1995). As criminal justice involvement and health care constitute major institutions in the social control of citizens, these disparities are theorized as key players in the maintenance of racial and gender inequalities in the United States (Conrad 1992;

Feagin and Bennefield 2014; Wacquant 2001). However, mental illness and personality are still theorized as criminogenic without accounting for these biases (Caspi et al. 1994; Hirschi and Gottfredson 2000) and policies that medicalize mental illness are not uniformly adopted across contexts (SAMHSA 2023).

This three-study dissertation contributes to this literature by exploring the role of race and gender bias in the likelihood of criminalization or medicalization. I focus on this issue for several reasons. First, I seek to further connect the rich literature of social constructionism and race-gender stratification into the study of personality and mental health as criminogenic factors. I do this by examining how race and gender moderate the relationship of personality characteristics and mental illness to the likelihood of arrest. Mental illness and personality are often theorized as determinants of deviance. Some criminologists argue that certain psychopathic or antisocial traits predispose one to greater chances of criminal justice involvement (DeLisi 2009; Van Gelder and De Vries 2012; Gottfredson and Hirschi 1990; Moore 2011). However, as deviance is interpreted through the lens of race and gender, it is important to question this relationship more fully. This intersection is particularly important to my own research agenda and interests as a sociologist studying mental health and deviance.

Second, I seek to document existing race-gender disparities in the societal response to mental illness. I accomplish this by exploring how race-gender status moderates the relationships between mental health and arrest, and between health-care access and arrest. The existence of race-gender disparities in mental health treatment access, treatment utilization, and arrest rates are well-documented in several bodies of research literature (Courtenay 2000; Feagin and Bennefield 2014; Kovera 2019). However, researchers have rarely studied the outcomes of mental health treatment and arrests simultaneously. Documenting disparities in both arrests and

health-care access of those with mental illness offers innovation to existing studies. Further, this approach offers more insight into the pathways of treatment options that individuals with mental illness now experience in the wake of the de-institutionalization movement of the late 20th century (Bao 2020; Dvoskin et al. 2020; Kim 2016; Steadman et al. 1984).

Finally, I seek to expand our knowledge of the contextual factors that influence medicalization at the policy level. Scholars of medicalization have offered several mechanisms through which deviance is framed as illness. These mechanisms include both individual consumers and broader medical and political organizations (Conrad 2005; Halfmann 2019). Less work is dedicated to understanding how medicalization progresses unevenly across various settings in the United States (Halfmann 2019; Heitzeg 2015; Ramey 2018). The United States is characterized by significant regional variations in racial and gender demographics, socioeconomic status, and political views. Beliefs about who requires social control and who can enforce it are intertwined with racial, gender, and socioeconomic stratification. By documenting how these demographics contribute to the uneven medicalization of deviance, we can gain insights into how medicalization serves as a tool of social control.

THEORETICAL FRAMEWORK AND KEY CONCEPTS

In each of my studies I focus heavily on the processes of criminalization and medicalization. To explain the role of race and gender in these two processes I use theoretical conceptualizations associated with social constructionism and symbolic interactionism. First, I approach each of these paper topics from the perspective of the social construction of deviance, particularly as it relates to racial and gender inequality in the United States. Rather than taking for granted that certain behaviors are criminal and certain individuals are predisposed to

criminality, this perspective argues that deviance is socially constructed in response to social and historical conditions. The United States' history of white supremacy and patriarchy is particularly relevant in the development of both the modern criminal justice system and the modern mental health care industry in the United States (Metzl 2010; Offen 1986; Thompson 2010; Wacquant 2017).

Within this perspective of social constructionism, I focus on the processes of criminalization and medicalization. I approach both of these concepts as "specific form[s] of social control connected to larger processes of institutionalization" (Grattet, Jenness, and Curry 1998; Jenness 2004). For the purposes of this dissertation, criminalization is defined as the process of defining a problem or behavior as criminal, and targeting those behaviors with criminal justice intervention (Hirschfield and Celinska 2011; Jenness 2004). Similarly, medicalization is the process of "defining a problem in medical terms, usually as an illness or disorder" and "using a medical intervention to treat it" (Conrad 2005). These two frames are important for understanding rates of arrest or mental health treatment (Abramson 1972; Conrad and Schneider 2010; Dvoskin et al. 2020).

I also draw upon the framework of symbolic interactionism, particularly in the first paper, to theorize how individuals' personality traits are interpreted through the frames of race and gender to be deviant or normative. Symbolic interactionism emphasizes the role of subjective social meanings attached to objects, persons, and situations. These associations are learned through social interactions, and individuals behave and interact with others in reaction to these social meanings (Blumer 1986). I argue that in the case of arrests, police interpret personality traits and mental health symptoms as either deviant or normative through subjective schemas of

meaning that are attached to race and gender. These definitions inform whether police move to arrest individuals for the behavior, or not.

OVERVIEW OF PAPER ONE

In Paper One I address the research question: How does race-gender status inform the interpretation of personality traits as deviant? Many criminological theories include personality traits as a determinant of criminal behavior and therefore arrest likelihood. For example, many criminologists argue that someone who is warm, empathetic, organized, dependable, conventional, and emotionally stable is a pro-social individual and is therefore less likely to be involved in criminal behavior. However, these theories ignore the racial and gendered frames through which personality is interpreted as deviant (Caspi et al. 1994; Van Gelder and De Vries 2012; Samuels et al. 2004). Paper One of this dissertation uses measures of the Big 5 personality characteristics and arrest history from the 1997 cohort of the National Longitudinal Survey of Youth to examine how race-gender status moderates the relationship of personality to arrest.

Paper One contributes to the literature in three ways. First, this research further illuminates inequalities in arrest rates across race-gender statuses. Past research has explored disparities in resources such as socioeconomic status, disparities in stressors such as neighborhood context, and disparities in policing as mechanisms for racial inequalities in criminal justice contact (Chalfin et al. 2022; Kirk 2008; Nance 2015). By including personality characteristics, my research offers insight into the biases which contribute to race-gender disparities in arrests. Second, as previously mentioned, this paper clarifies the relationship between personality and arrest rates as conditional rather than universal. These findings caution those who would use personality as criminogenic theory to instead consider the ways in which

personality is constructed to be deviant based on race-gender status. Finally, this paper expounds upon the ways that race and gender are socially constructed, by highlighting which personality traits are interpreted as deviant (and penalized through arrest) for certain groups but not others.

In Paper One, I find that personality traits are significant predictors of arrest, but racegender status moderates this relationship. The personality traits of extraversion and openness to experience increased the likelihood of arrest, and the traits of emotional stability, conscientiousness, and agreeability decreased the likelihood of arrest, consistent with expectations from personality theories of crime (Van Gelder and De Vries 2012; Gottfredson and Hirschi 1990). However, these relationships were not consistent across Black, Hispanic, and White men and women. For example, emotional stability was significant for predicting the arrests of all women and of White men but was not significant in predicting arrests of Black or Hispanic men. This pattern is generally consistent with the role of emotion and neuroticism in the stereotype of the female offender (Beaver and Wright 2019; Wyse 2013), and also reveals that the personality traits of calm and emotional stability are beneficial for White men but not for men of color in the likelihood of arrest. Conversely, agreeability was significant for Black and Hispanic men, but not for White men. In other words, White men could be exceptionally disagreeable (or quarrelsome) and it would not affect the likelihood of arrest, but the traits of agreeableness (or warmth) decrease the likelihood of arrest for men of color. Personality traits are not pure measures of prosocial or antisocial behavior that universally explain criminal justice involvement. These findings demonstrate that personality traits such as emotional stability or agreeableness matter as a form of social communication in a social interaction that is shaped by race and gender stereotypes and stratification.

OVERVIEW OF PAPER TWO

In Paper Two, I address the research question: How is mental illness differentially criminalized and medicalized for those of different race-gender statuses? Racial and gender disparities in mental health treatment and arrest are well-documented. In 2020, the National Institute of Mental Health estimated that 52% of White individuals with mental illness accessed care, compared to only 37% of Black individuals and 31% of Hispanic individuals with mental illness (NIMH 2022). Additionally, more women accessed mental health treatment than men (51% vs. 37%) (NIMH 2022). The reverse pattern is true of arrest rates. In 2018, men had an arrest rate 2.7 times that of women, and Black individuals were arrested at a rate 2.44 times that of White individuals (FBI Uniform Crime Reporting Division 2019). In the wake of the de-institutionalization of state mental health hospitals in the late 20th century, many have debated and voiced concerns over the potential trans-institutionalization of those with mental illness into prisons and jails (Bao 2020; Dvoskin et al. 2020; Kim 2016; Steadman et al. 1984).

In Paper Two, I examine whether mental illness is more likely to result in arrest or in treatment access by race and gender, using data from the 2020 National Survey of Drug Use and Health. This study contributes to the literature in three ways. First, while racial and gender disparities in mental illness prevalence among incarcerated individuals is known, this study expands our knowledge of race-gender disparities in criminal justice involvement by including the less studied measure of mental illness as a mechanism (James and Glaze 2016). Second, the results contribute to our understanding of the (trans)institutionalization of those with mental illness in the modern day, showing for whom mental illness has been criminalized. The exact effect of the de-institutionalization of asylums on incarceration rates has been debated (Kim 2016; Steadman et al. 1984), and this research shows that certain groups are more likely to be

arrested for mental illness than others. Finally, this study deepens our understanding of barriers to mental health treatment that different race-gender groups face.

In Paper Two, my results show evidence for differential criminalization and medicalization of mental illness by race-gender status. For example, mental illness significantly increases the likelihood of arrest for Black, Hispanic, and White women, but not for their male counterparts. White women have the highest rates of treatment usage, followed by Hispanic women and White men, but Black women have the lowest likelihood of treatment. These findings reveal that Black women are more likely to be criminalized, and less likely to be medicalized, for their mental illness than other groups.

OVERVIEW OF PAPER THREE

Paper Three is guided by one broad research question. What social and political contexts are most likely to adopt policies that espouse medicalized views of deviant behavior? More specifically, what is the effect of a county's racial demographics, gender demographics, socioeconomic characteristics, and political environment on the number of treatment courts utilized by a county? Since the 1990s, treatment court programs have grown in popularity across the United States (Almquist and Dodd 2009). Treatment courts are an alternative form of criminal justice sentencing for those whose mental illness or substance use contribute significantly to their charges. These programs seek to reduce recidivism and the mistreatment of those with mental illness by redirecting them from traditional sentencing (i.e., incarceration) into mandated therapy, medication, and other forms of medical treatment. These court programs represent a shift in viewing deviant behavior from criminal to medical at the policy level. However, studies on the contextual characteristics that facilitate policy-level medicalization are limited (with the notable exceptions of work by Halfmann (2019) and Carpenter (2010)) (Conrad

2013). In Paper Three of this dissertation, I will use data on treatment courts from the Substance Abuse and Mental Health Services Administration, supplemented with data on county-level racial, gender, socioeconomic, and political characteristics from the American Community Survey and other sources, to examine the conditions under which the medicalization of deviance occurs.

This study contributes to the literature in three ways. First, it expands our knowledge of the mechanisms of medicalization by identifying the role of race, gender, and class characteristics as predictors of treatment court programs. Second, this study extends the work of Halfmann and others in examining the role of policy legacies and political contexts in medicalization at the policy level, particularly the role of criminal justice policy (Benoit 2003; Carpenter 2010; Halfmann 2019). Finally, this study quantifies disparities in criminal justice policy across counties, and the role of race, gender, class, and politics in those disparities, which broadens our knowledge of the factors that contribute to the disparate life outcomes of individuals with mental illness (and substance use) in the United States.

I find in Paper Three that counties with higher proportions of Black residents have higher numbers of treatment courts. Counties with higher proportions of women compared to men also have higher numbers of treatment courts, and counties with higher levels of education also report more treatment courts. Counties located in southern states, in red states, and in states that use three strikes laws and the death penalty have fewer treatment courts than counties in other political contexts. These findings underscore the role that context plays in the medicalization of criminal justice policy.

CONCLUSION

Historically, deviant behavior has been framed as a result of a flawed mental state or criminal personality, with attempts to control this behavior through medical or criminal justice interventions. This dissertation focuses on the role of race and gender as key moderators in this process. I draw on the perspectives of social construction and symbolic interaction to explore this relationship, with the overarching goal of demonstrating how the social constructs of race and gender ultimately shape the construction of deviance as criminal or medical. The findings show that race and gender influence the relationship of personality characteristics to arrest, the relationship of mental illness to arrest and mental health treatment, and that race, gender, class, and political context influence the use of medicalized approaches in criminal justice policy. This underscores the importance of examining race and gender as predictors of medicalization and criminalization. This also reveals crucial areas where marginalized populations are at greater risk of harm and oversight by the criminal justice system. These findings are particularly important as we move forward in reconceptualizing the role of the criminal justice system in the management of mental illness and in eliminating race-gender inequalities.

CHAPTER II

Deconstructing the Concept of "Deviant Personality":

Race-Gender Differences in the Effect of Personality on Criminal Justice Involvement

ABSTRACT

In this chapter, I challenge personality theories of crime by demonstrating the role of race-gender status in the social construction of deviance. Using longitudinal data on Black, White, and Hispanic men and women from the 1997 cohort of the National Longitudinal Survey of Youth, I analyze whether personality characteristics are connected to the likelihood of getting arrested, and whether these relationships vary by race-gender status. I hypothesize that while personality characteristics may be positive (e.g., anxious) or negative (e.g., calm) predictors of the likelihood of arrest, the expectations for "normative" personality and behavior are gendered and racialized. The result is differential relationships between each of the Big 5 personality characteristics and arrest by race-gender status. Findings show that race-gender status moderates the relationship of personality to arrest. For example, being calm/emotionally stable decreases the likelihood of arrest only for women and for White men, whereas it is not significant for Black or Hispanic men. These findings not only highlight the differences in criminal justice involvement by race-gender status already described in previous literature, but also demonstrate how race-gender status influences the interpretation of personality characteristics as deviant.

INTRODUCTION

What is the relationship between personality characteristics and criminal justice involvement (e.g., arrests, incarceration)? Many criminologists have argued that deviant behavior is at least partially explained by individual traits such as self-control, agreeableness, and emotional stability, to name a few (Agnew et al. 2002; Van Gelder and De Vries 2012; Gottfredson and Hirschi 1990; Pratt and Cullen 2000). However, this is hotly debated in the criminological literature (Akers, Sellers, and Jennings 2017; Andrews and Wormith 1989).

While studies have found a significant relationship between these traits and deviant behavior (Caspi et al. 1994; Delcea and Enache 2021; Van Gelder and De Vries 2012), sociologists emphasize that deviance is a socially transient category, based heavily on legal and social definitions of expected behavior that are rooted in place and time (Spitzer 1975). Racial and gender stereotypes influence perceptions of personality and deviant behavior. Considering the pervasive bias against Black and Hispanic men in the criminal justice system (Beaver and Wright 2019; Pettit and Gutierrez 2018; Pettit and Western 2004), it is important to investigate the ways that race and gender stereotypes influence the interpretation of personality traits as crime-prone. As of yet, research has not examined the relationship between personality traits and arrests by race-gender status in the United States context (although some studies have examined race and gender in relation to personality and criminal behavior, eg, Caspi et al. 1994, Krueger et al. 1994, Naffin 1985). However, doing so will shed further light onto the race-gender disparities in the criminal justice system and the utility of personality theories of crime.

In this study, I analyze whether race-gender status moderates the relationship between personality traits and arrests to explore the role of race and gender in the interpretation of personality traits as deviant. Arrest has been an important measure of criminalization since the

term was first coined by Abramson (1972), as it marks the initiation of criminal justice system involvement in response to a behavior, and affects more individuals than incarceration or other measures of criminal justice contact (Abramson 1972; Engel and Silver 2001; Williams and Drake 1980a). Using longitudinal data from the 1997 cohort of the National Longitudinal Survey of Youth, I explore whether the relationship between personality and arrest varies for Black, Hispanic, and White men and women.

This analysis contributes to the research literature in three ways. First, it highlights the limitations of relying on personality as an explanation for crime. Rather than theorizing criminal justice involvement as explained only through the propensity of individuals for deviant behavior based on psycho-social traits, examining race-gender variation will demonstrate that personality is not a universal predictor for criminal justice involvement. Second, it provides useful information into the kinds of personality traits deemed "deviant" for specific race-gender groups by examining which traits are associated with arrest for which groups. Finally, it clarifies race-gender inequalities in criminal justice involvement by incorporating the role of personality traits alongside previously studied measures of socioeconomic status, social integration, and demographics. Given that criminal justice involvement erodes well-being and cuts off opportunities for economic and social mobility, it is crucial that we more thoroughly investigate the role of personality in the racial and gender inequality present in the criminal justice system.

LITERATURE REVIEW

Personality Trait Theories of Crime

Revived by Gottfredson & Hirschi's 1990 description of self-control as a predictor of crime, researchers have sought to more fully document the relationship between personality traits

and deviant behavior (Agnew et al. 2002; Van Gelder and De Vries 2012; Gottfredson and Hirschi 1990; Miller and Lynam 2001). These studies most often define personality as an individual's stable set of characteristics, or traits, that influence their behavior. Most criminologists analyze "the Big 5" personality traits: extraversion, agreeableness, openness to experience, conscientiousness, and neuroticism. Past studies have linked these traits with aggression, delinquency, and arrests, arguing that certain traits may predispose one to criminal justice involvement. (Caspi et al. 1994; Van Gelder et al. 2022; Van Gelder and De Vries 2012; Samuels et al. 2004). Extraversion (extraverted/enthused rather than reserved/quiet) is expected to be positively associated with crime, since those who are reserved or quiet are expected to adhere to social pressure for conventional behavior (although, this is debated) (Delcea and Enache 2021; Van Gelder and De Vries 2012). Agreeableness (sympathetic/warm instead of critical/quarrelsome) is seen as evidence of prosocial behaviors and attitudes. Individuals who are more agreeable are expected to be less likely to commit crime and to be involved in the criminal justice system (Van Gelder and De Vries 2012). Conscientiousness (dependable, selfdisciplined rather than disorganized, careless) is also viewed as evidence of a prosocial personality. Stemming from Gottfredson & Hirschi's description of the crime-prone individual with low self-control, conscientiousness is thought to be evidence of high self-control (Gottfredson and Hirschi 1990). Openness to experience (open, complex rather than conventional or uncreative), on the other hand, is expected to increase the likelihood that an individual commits crime because it represents that the individual is less likely to adhere to conventions and social norms (Gottfredson and Hirschi 1990). Additionally, emotional instability (anxious, easily upset rather than emotionally stable, calm) is expected to increase the likelihood

of criminal involvement because individuals who are "neurotic" in personality are expected to have less self-control (Van Gelder and De Vries 2012).

However, what is defined as crime is socially constructed across time and place in ways that reflect inequalities in power and resources (Menzies 1987; Spitzer 1975). Critics point out that trait theories of crime ignore the role of social inequality and discrimination entirely (Geis 2000). Instead, these approaches to explaining criminal behavior promote ideas about parenting and biology which reinforce a racial hierarchy that labels Black and Hispanic communities as inherently criminal. These theories do little to grapple with documented discrimination in arrests and sentencing.

Through a symbolic interactionist perspective, we understand that criminal justice involvement, such as arrests, is made up of micro-level social interactions between actors. Within these interactions, actors draw on repertoires of social behaviors and definitions in pursuing different courses of action. Observers rely on these definitions for determining police intervention into observed behaviors, and police rely on these definitions for determining arrests. While to some extent these definitions of deviant behavior are codified in laws and regulations, their application can vary by the context and by the social characteristics of those involved. Thus, arrests are not only based on commission of a crime (and therefore on personality traits that supposedly predispose one to crime), but also on the interpretation of behaviors and personalities by police and community members as being deviant (Menzies 1987).

Personality and Deviance as Racialized

One example of a socially significant category that influences the outcomes of these interactions is race and ethnicity. Black Americans receive differential treatment by police officers and are more likely to be stopped by police, to be searched, and to be arrested for petty

crimes than White Americans (Pierson et al. 2020; Stevenson and Mayson 2018). White individuals are less likely to be arrested or prosecuted for deviant behaviors, and are more likely to be medicalized or referred to therapy or treatment for deviant behaviors (see e.g., Dollar 2019).

These differences in rates of criminal justice involvement stem from cultural stereotypes that frame bodies racialized as Black as inherently criminal or dangerous (Heitzeg 2015; Smiley and Fakunle 2016). These stereotypes often shape impressions of personality traits, including those used to theorize criminal behavior. Black individuals are more often stereotyped as aggressive/overly assertive, as disagreeable, and as lazy than are White individuals (Baldwin 2018; Jones and Norwood 2016; Slakoff 2020). Hispanic individuals are also more often stereotyped as lazy and criminal than White individuals (Slakoff 2020). Race and ethnicity also bias our perceptions of personality more broadly. For example, a study of impressions of personality among college students found that Hispanic students were rated as less extroverted, more conventional, and more agreeable than White students (Cooper and Evans 2012).

Trait theories of crime do little to explain racial disparities in criminal justice involvement, beyond stating that racially minoritized individuals are more likely to develop deviant personality traits than White individuals (Forrest et al. 2019; Gottfredson and Hirschi 1990). However, socially constructed meanings associated with physical features racialized as Black or as Hispanic bias our interpretations of personality traits in social interactions. In other words, agreeableness or conscientiousness can mean different things in the context of one's racialized physical features.

Personality and Deviance as Gendered

Another example of a socially significant category is gender. Personality trait theories of crime explain gender differences in criminal justice involvement by pointing to biological or sociological arguments for why men and women possess different personality traits. For example, either men are less self-disciplined than women by their very nature, or women are more strictly socialized into self-discipline in accordance with gender norms (Forrest et al. 2019; Gottfredson and Hirschi 1990). However, this argument fails to account for the ways that gender stereotypes shape the interpretation of men and women's personalities as deviant.

Men are generally perceived as more capable of violence and crime than are women (Weare 2013). When women do commit crime, it is typically framed in gendered narratives. Female perpetrators are understood as more emotionally-driven, less rational, and more susceptible to peer influences than their male counterparts (Beaver and Wright 2019; Cullen et al. 2018a; Stolzenberg and D'Alessio 2004; Wyse 2013). The media more often frames women's violent behavior as a result of psychological disturbance, or as a result of extenuating circumstances causing a temporary lapse in sanity, compared to men (Quintero Johnson and Miller 2016). This framing has consequences for sentencing—for example, women are more likely than men to be granted the insanity defense (Breheney, Groscup, and Galietta 2007).

Personality, as well, is gendered. Reflective of gendered expectations and socialization, women on average express more extraversion, agreeableness, and neuroticism than do men (Weisberg, DeYoung, and Hirsh 2011). These trends suggest that high levels of extraversion, agreeableness, and neuroticism may be perceived by others as more exceptional when expressed by men. Gender also shapes the way that personality is *assumed*. For example, although women are typically stereotyped as more warm than men, when women are competent in professional

positions they are assumed to be colder than men regardless of actual behavior (Brands and Kilduff 2014). This results in greater social and economic penalties against women in the workplace who do not express high levels of warmth (Brands and Kilduff 2014; Nesdoly, Tulk, and Mantler 2020).

Connecting Race and Gender

Not only do race and gender each individually influence social expectations surrounding deviance and personality, but they also intersect in ways that represent unique experiences (Paik 2017). For example, Black women are more often stereotyped as irrational, angry, and overly aggressive through the trope of the "Angry Black woman." This stereotype penalizes Black women who voice their needs or opinions (Ashley 2014; Jones and Norwood 2016). Other examples include the stereotyping of Hispanic women as being hot-tempered and promiscuous (Slakoff 2020) and the stereotyping of Hispanic men as ignorant, sneaky, and prone to violence (this common media stereotype Berg refers to as "*El Bandido*" (the bandit)) (Berg 2002). It is important to account for the unique experiences of different race-gender statuses to understand the effect of race and gender bias in criminal justice involvement more fully.

In summary, a growing literature has drawn upon personality traits as explanations of criminal behavior. However, criminal justice involvement is fundamentally a social interaction, in which actors draw upon socially constructed meanings of behaviors that are gendered and racialized. This fact is particularly true in the case of arrests, which require police to make decisions based on their perceptions of risk and deviance. In this study, I seek to expand our knowledge of how personality traits are interpreted as deviant through the lens of race and gender by examining how the relationship of personality traits to arrests varies by race and gender status. These findings will show the crucial role of systemic inequalities in the

administration of social control, and the limitations of using personality traits as a general theory of crime.

HYPOTHESES

I argue that social expectations of race-gender status influence the relationship between personality traits and likelihood of arrest. In the literature, personality traits referred to as the "Big 5" are often operationalized in measuring the relationship between personality and criminal justice involvement: extraversion, openness to experience, emotional stability, conscientiousness, and agreeability. These five traits are measured using two opposing sub-traits, resulting in a Ten Item Personality Index (TIPI) (for example, extraversion is measured with both extraversion and reservedness). Based on past literature, I expect to find the following patterns:

Extraversion

H1a: Extraversion/enthusiasm will be positively associated with likelihood of arrest (Delcea and Enache 2021; Van Gelder and De Vries 2012).

H1b: Reservedness/quiet will be negatively associated with likelihood of arrest.

Openness to Experience

H2a: Openness/complexity will be positively associated with likelihood of arrest (Van Gelder and De Vries 2012; Hirschi and Gottfredson 2000).

H2b: Conventionality/un-creativity will be negatively associated with likelihood of arrest. Emotional Stability

H3a: Calm/emotional stability will be negatively associated with likelihood of arrest (van Gelder 2012)

H3b: Anxiety/being easily upset will be positively associated with likelihood of arrest.

Conscientiousness

H4a: Dependability/self-discipline will be negatively associated with likelihood of arrest (Gottfredson & Hirschi 1990).

H4b: Disorganization/carelessness will be positively associated with likelihood of arrest. Agreeability

H5a: Sympathy/warmth will be negatively associated with likelihood of arrest (Van Gelder and De Vries 2012).

H5b: Criticality/quarrelsomeness will be positively associated with likelihood of arrest. I will further examine each of the above hypotheses by race-gender status to test if these relationships are consistent across race and gender. I expect to find that the significance, directionality, and magnitude of the coefficients for each of the personality characteristics will vary across race-gender groups, after controlling for socioeconomic, social, and demographic factors.

DATA AND METHODS

Data come from the 1997 cohort of the National Longitudinal Survey of Youth (NLSY) (Moore et al. 2000). The NLSY is a multi-wave panel survey which follows 8,984 adolescents between the ages of 12-16 years old in 1996, surveying them each year until 2011 and every two years since. The NLSY includes questions about family life, education, work, health, cognitive functioning and behavior, health, and criminal justice involvement. This survey oversamples Black and Hispanic participants, providing substantial samples for analyzing interaction effects by race-gender status. For this study, I utilize data from waves beginning in 2008 through 2019.

Except for race-gender status, familial incarceration, and peer delinquency, each variable is time-varying and collected at each of the waves used in this study (2008-2019). For the dependent variable, arrest history, I use a dichotomous variable that measures whether an individual had been arrested since 2008 (1=yes). To operationalize my main predictor variables of interest, I use ten self-reported measures of personality characteristics collected in 2008 which are drawn from the Ten Item Personality Inventory (TIPI), meant as a summary of the Big 5 Personality characteristics. Respondents were asked to use a Likert scale to rate their agreement with whether ten personality characteristics described them (range from 1=disagree strongly to 7=agree strongly). This coding resulted in ten separate personality variables that range from 1-7 in scale: extraversion, reservedness, emotional stability, anxiousness, dependability, carelessness, open to experience, conventionality, warmth, and criticality.

Race and gender, the main moderators of interest, were collected at the beginning of the survey in 1997. Gender is operationalized as a dichotomous measure of sex, where 1=female and 0=male. Race/ethnicity is measured in the NLSY as either Black, Hispanic, Mixed-Race (Non-Hispanic), or Non-Black/Non-Hispanic in a series of dummy variables. Since Mixed Race yielded a very small number of respondents (n=83), I excluded this group from analysis. These were then coded into six discrete race-gender categories: Black men, Black women, Hispanic men, Hispanic women, White men, and White women.

The models below adjust for additional variables included to better estimate the true relationships among personality, race/gender status, and arrest. Age is measured in years for each wave. Socioeconomic status was measured using gross family income (logged, in dollars) and whether the individual had attended any post-secondary education (1=yes). I compared those who were married (1=yes) and those who were parents (1=yes) to those who did not hold those

social roles. Additionally, I include two relevant measures of geography: living in a southeastern state (1=yes) and living in an urban area (1=yes). I included two social influences that may shape likelihood of arrest: familial incarceration (1=yes) and peer delinquency. Peer delinquency is measured as an index of five items that indicate delinquent behavior of friends, collected in the first wave of the survey (1997). These items include smoking, underage drinking, drug use, gang involvement, and truancy. These items were summed together create a scale ranging from 5 (low delinquency) to 25 (high delinquency). All these control variables, except for familial incarceration and peer delinquency, were recorded at each wave of the data from 2008 to 2019. *Analytic Strategy*

The initial step in my analysis is to present descriptive statistics of the observations in the dataset (Table 1). I have separated each of the race-gender statuses (Black men, Black women, Hispanic men, Hispanic women, White men, and White women) into subsamples for comparison. Black men, with the highest rate of arrest, are the reference category in all analyses. As arrest history is a dichotomous measure, I estimate a series of logistic regressions for each race-gender status. Due to the correlated nature of the data, I utilize generalized estimating equations with a logistic link function and exchangeable correlation structures to allow for dependence between repeated measures for the same subject (Boynton-Jarrett et al. 2008; Christie-Mizell et al. 2022). In the first model, I establish the effect of the ten personality traits and race-gender status on likelihood of arrest, controlling for the relevant variables previously mentioned (Table 2). The next six models then estimate the relationship between the Big 5 personality traits and the likelihood of arrest for each of the race-gender statuses as separate subsamples, also controlling for the relevant covariates (Table 3). Log likelihood and AIC are

reported for each of the models. I retained outliers in all analyses, and used listwise deletion to remove those with missing responses.

RESULTS

Table 1 shows means, proportions, and standard deviations for all the variables in the study, by each race-gender status. Arrest history varies across race-gender statuses; Black men report the most years with an arrest history (9%), followed closely by White men (8%), then Hispanic men (6%) and Hispanic women (5%), and finally Black and White women report the fewest years with an arrest history (4%). There is also variation in personality traits reported across race-gender status. For example, Hispanic women report the highest extraversion, Black men report the highest emotional stability, Black women report the highest dependability, and White women report the highest warmth, on average. It is important to note that these may be subject to desirability bias in responses. In general, the results indicate that individuals tend to report high levels of traits that are assumed to be positive, such as warmth, with less variation around the means. For example, all groups report high levels of dependability, with standard deviations ranging from 0.94 to 1.18; but in terms of introversion (where there is arguably less social desirability for a particular answer), the standard deviations range from 1.87 to 1.99. Regardless, it is important to note that the Ten Item Personality Inventory typically performs well in tests of validity and reliability compared to other measures of personality (Gosling, Rentfrow, and Swann 2003; Myszkowski, Storme, and Tavani 2019).

	Black Hispanic					White						
	<u>Men^b</u> <u>Women</u> <u>Men</u> <u>Women</u>			en	Men Wome		nen					
	Mean/		Mean/		Mean/		Mean/		Mean/		Mean/	
Variables	Prop.	Std.	Prop.	Std.	Prop.	Std.	Prop.	Std	Prop.	Std.	Prop.	Std.
Arrest History (1=yes)	.09		.04*		.06*		.05*		.08		.04*	
Personality Characteristics												
Extraverted, Enthusiastic	5.29	1.50	5.38*	1.42	5.39*	1.33	5.41*	1.23	5.15*	1.32	5.28	1.36
Reserved, Quiet	4.61	1.94	4.24*	1.99	4.16*	1.95	3.81*	1.92	3.85*	1.91	3.46*	1.87
Open, Complex	5.77	1.37	5.85*	1.30	5.87*	1.22	5.80	1.19	5.70*	1.18	5.65*	1.19
Conventional, Uncreative	2.68	1.79	2.85*	1.83	2.89*	1.62	2.90*	1.60	2.78*	1.50	2.76	1.52
Calm, Emotionally Stable	5.72	1.42	5.52*	1.45	5.66	1.27	5.38*	1.34	5.58*	1.27	5.22*	1.37
Anxious, Easily Upset	3.53	1.93	3.73*	1.92	3.43	1.78	3.70*	1.79	3.19*	1.68	3.72*	1.78
Dependable, Self-Disciplined	6.22	1.15	6.25	1.10	6.05*	1.18	6.12*	1.04	6.01*	1.01	6.13*	0.94
Disorganized, Careless	2.58	1.70	2.67*	1.82	2.83*	1.62	2.64	1.68	2.95*	1.63	2.68*	1.64
Sympathetic, Warm	5.11	1.60	5.76*	1.32	5.33*	1.26	5.81*	1.23	5.20*	1.31	5.94*	1.05
Critical, Quarrelsome	3.66	1.70	3.48*	1.75	3.90*	1.57	3.73	1.63	3.67	1.59	3.36*	1.60
Controls												
Age	30.49	3.86	30.54	3.86	30.39	3.87	30.48	3.88	30.39	3.88	30.47	3.86
Gross Family Income (thousands)	48.52	47.79	43.90*	47.77	67.80*	63.72	71.36*	63.59	64.66*	56.30	64.68*	52.68
College Attendance (1=yes)	.13		.22*		.16		.18*		.28*		.35*	
Familial Incarceration (1=yes)	.03		.03		.02		.03		.01*	—	.02*	
Peer Delinquency	11.59	4.93	12.47*	5.09	10.27*	4.67	11.68	4.95	9.88*	4.35	11.00*	4.69
Married (1=yes)	.24		.20*		.36*		.44*		.43*		.52*	
Parenthood (1=yes)	.63		.72*		.54*		.70*		.45*	—	.59*	
Southeast (1=yes)	.64		.64		.33*		.30*		.31*	—	.35*	
Urban (1=yes)	.81		.86*		.89*		.89*		.73*		.71*	
<i>N</i> ^{<i>a</i>}	5,4	06	6,41	5	4,54	18	4,86	5	12,12	24	11,3	52

Table 1. Mean/Proportions for all Study Variables by Race-gender Status. National Longitudinal Survey of Youth 1997 cohort (2008-2019) (N=5,050 individuals, 44,710 person-years).

Notes:

^a Reported sample sizes refer to number of person-years. For number of unique individuals: N =881 for Black men; N = 977 for Black women; N = 708 for Hispanic men; N = 740 for Hispanic women; N = 1,862 for White men; and N = 1,747 for White women.

^b Asterisks denote significance between Black men (reference category) and other race-gender subsamples at *p<.001.

The ages of respondents across waves range from 24 to 39 years old, with an average of 30 years old. White women report the highest frequency of attending college (35%), followed by White men (28%), Black women (22%), Hispanic women (18%), Hispanic men (16%), and Black men (13%). Few respondents reported familial incarceration, with the largest frequency among Black men and women (3%). Black women reported the highest levels of peer delinquency (12.47) and White women reported the lowest (9.88). Roughly a third of Hispanic and White respondents, and two thirds of Black respondents, lived in the south-eastern region of the United States. Most respondents lived in urban areas across the waves of the survey (Table 1).

Table 2. Logistic Regression Estimating Personality Characteristics and Race-gender
status on Arrest History. National Longitudinal Survey of Youth (NLSY97), 2008-2019
(N=6,915 individuals, 44,710 person-years).

Variables	Odds Ratios	95% CI
Personality Characteristics		
Extraverted, Enthusiastic	.94***	(0.91 - 0.97)
Reserved, Quiet	.93***	(0.91 - 0.95)
Open, Complex	1.05**	(1.02 - 1.09)
Conventional, Uncreative	.91***	(0.89 - 0.94)
Calm, Emotionally Stable	.91***	(0.88 - 0.94)
Anxious, Easily Upset	1.05***	(1.03 - 1.08)
Dependable, Self-Disciplined	.93**	(0.90 - 0.97)
Disorganized, Careless	1.06***	(1.03 - 1.08)
Sympathetic, Warm	.96*	(0.93 - 0.99)
Critical, Quarrelsome	1.08***	(1.05 - 1.11)
Race-gender Status ^a		
Black women	.38***	(0.32 - 0.44)
Hispanic men	.70***	(0.59 - 0.82)
Hispanic women	.55***	(0.46 - 0.65)
White men	1.12	(0.99 - 1.28)
White women	.57***	(0.49 - 0.65)
AIC	18,685.48	
-2 Log Likelihood	-9317.73	
N (person-years)	44,710	

Notes:

^aBlack men are the reference category.

^bResults shown are after controlling for age, income, college attendance, familial incarceration, peer delinquency, marital status, parenthood, urbanicity and region.

*p<.05; **p<.01; ***p<.001 (two-tailed tests).

Table 2 shows that, as predicted, each of the personality traits are significantly associated with the odds of arrest when controlling for race-gender status and the relevant covariates. I find support for Hypotheses 1-5; the traits extraversion and openness are positively associated with arrest, and emotional stability, conscientiousness, and agreeableness are negatively associated with arrest. Black men have the highest odds of arrest compared to Hispanic men and to Black, Hispanic, and White women; the differences in arrest between Black men and White men were nonsignificant after controlling for other variables in the model.

Table 3 shows the effect of the ten measures of personality on arrest history for each race-gender status, after controlling for the relevant covariates. The differences in the relationships between personality traits and arrest across race-gender statuses are apparent. While certain traits are significantly associated with the odds of arrest, this is not the case for all groups. Other traits, such as the case of warmth and quarrelsomeness, increase the odds of arrest for some groups but decrease the odds for others.

Among Black men, higher levels of reservedness, dependability, and sympathy are negatively associated with the odds of arrest; disorganization and criticality are positively associated with the odds of arrest after controlling for the relevant socioeconomic and demographic covariates. This is somewhat consistent with expectations from the literature. However, openness to new experiences and conventionality, both theorized in the literature as predictive of criminal justice involvement (Van Gelder and De Vries 2012), are insignificant. Being calm/emotionally stable and being anxious/easily upset are also insignificant predictors of arrest among Black men (Table 3).

Among Hispanic men, every unit increase in the measure of reservedness is associated with a 13% decrease in the odds of arrest. Interestingly, extraversion also decreases the odds of

arrest, with every unit increase decreasing the odds of arrest by 27%. Like Black men, Hispanic men who have higher scores of criticality/quarrelsomeness have increased odds of arrest. But, unlike Black men whose disorganization and warmth decrease the odds of arrest, for every unit increase in disorganization Hispanic men experience 10% higher odds of arrest, and for every unit increase in warmth Hispanic men experience 26% higher odds of arrest. Being calm/emotionally stable decrease the odds of arrest. Again, like Black men, conventionality and openness to experience are insignificant predictors of arrest after controlling for the relevant covariates in the model (Table 3).

Among White men, extraversion and reservedness are insignificant, unlike Black and Hispanic men. Warmth and criticality are also insignificant, unlike Black and Hispanic men. A one unit increase in openness to experience is associated with 17% higher odds of arrest for White men, and a one unit increase in conventionality is associated with a 11% decrease in odds of arrest. Being calm is also associated with decreased odds of arrest among White men (Table 3).

Among Black women, there are a few similarities with Black men in the relationship between personality traits and arrests, but not many. Like Black men, Black women experience decreased odds of arrest if they rate their personality as more reserved, but the measure of extraversion is insignificant. Openness to experience is also insignificant among Black women as it is among Black men. A one unit increase in dependability is associated with 19% lower odds of arrest, and a one unit increase in criticality is associated with 10% higher odds of arrest, after controlling for other factors. But Black women and Black men differ in the significance of conventionality, emotional stability, anxiety, disorganization, and warmth in predicting the odds of arrest. Being calm/emotionally stable decreases the odds of arrest and being anxious/easily

	Black	men	Hispanic men		White men	
Variables ^a	Odds Ratios	95% CI	Odds Ratios	95% CI	Odds Ratios	95% CI
Personality Characteristics						
Extraverted, Enthusiastic	.93	(0.86 - 1.00)	.73***	(0.66 - 0.80)	1.03	(0.97 - 1.10)
Reserved, Quiet	.83***	(0.79 - 0.88)	.87***	(0.81 - 0.93)	1.01	(0.97 - 1.05)
Open, Complex	1.03	(0.96 - 1.11)	.98	(0.87 - 1.10)	1.17***	(1.10 - 1.25)
Conventional, Uncreative	.96	(0.91 - 1.02)	.95	(0.88 - 1.04)	.89***	(0.84 - 0.93)
Calm, Emotionally Stable	1.07	(0.99 - 1.15)	.82***	(0.74 - 0.91)	.87***	(0.82 - 0.92)
Anxious, Easily Upset	1.05	(0.99 - 1.10)	.96	(0.88 - 1.04)	.98	(0.94 - 1.03)
Dependable, Self-Disciplined	.82***	(0.75 - 0.89)	1.12	(0.98 - 1.28)	.92*	(0.85 - 0.98)
Disorganized, Careless	.94*	(0.88 - 1.00)	1.10*	(1.01 - 1.19)	1.04	(1.00 - 1.09)
Sympathetic, Warm	.86***	(0.81 - 0.92)	1.26***	(1.11 - 1.42)	1.03	(0.97 - 1.09)
Critical, Quarrelsome	1.23***	(1.16 - 1.31)	1.23***	(1.13 - 1.35)	1.03	(0.98 - 1.08)
AIC	2992.42		1904.83		6375.48	
-2 Log Likelihood	-1476.13		-932.41		-3117.74	
N (person-years)	5,406		4,548		12,124	

Table 3. Logistic Regression Models Estimating Personality Characteristics on Likelihood of Arrest, by Race Gender Status. National Longitudinal Survey of Youth (NLSY97), 2008-2019.

	Black v	vomen	Hispanic women		White women	
Variables	Odds Ratios	95% CI	Odds Ratios	95% CI	Odds Ratios	95% CI
Personality Characteristics						
Extraverted, Enthusiastic	1.08	(0.97 - 1.19)	1.05	(0.92 - 1.19)	.84***	(0.78 - 0.91)
Reserved, Quiet	.84***	(0.78 - 0.90)	.92*	(0.85 - 1.00)	.94*	(0.89 - 0.99)
Open, Complex	1.03	(0.93 - 1.14)	1.12	(0.99 - 1.28)	.97	(0.9 - 1.05)
Conventional, Uncreative	.86***	(0.79 - 0.93)	.88**	(0.80 - 0.97)	1.01	(0.95 - 1.08)
Calm, Emotionally Stable	.90*	(0.82 - 0.97)	.77***	(0.69 - 0.86)	.91*	(0.84 - 0.98)
Anxious, Easily Upset	1.11**	(1.03 - 1.19)	1.21***	(1.11 - 1.32)	1.11**	(1.04 - 1.18)
Dependable, Self-Disciplined	.81***	(0.73 - 0.90)	1.01	(0.88 - 1.16)	1.04	(0.94 - 1.15)
Disorganized, Careless	1.07	(1.00 - 1.15)	1.24***	(1.15 - 1.35)	1.06	(1.00 - 1.12)
Sympathetic, Warm	0.96	(0.87 - 1.06)	.88*	(0.79 - 0.98)	.87***	(0.80 - 0.94)
Critical, Quarrelsome	1.10*	(1.02 - 1.19)	.88**	(0.80 - 0.96)	1.04	(0.98 - 1.11)
AIC	1876.78		1674.30		3486.23	
-2 Log Likelihood	-918.32		-817.07		-1723.12	
N (person-years)	6,415		4,865		11,352	

Notes:

^a Results shown are after controlling for age, income, college attendance, familial incarceration, peer delinquency, marital status, parenthood, urbanicity and region.

*p<.05; **p<.01; ***p<.001 (two-tailed tests).

upset increases the odds of arrest for Black women. Conventionality also is negatively associated with the odds of arrest for Black women; a one unit increase in conventionality is associated with 14% lower odds of arrest. Disorganization and warmth are insignificant in predicting the odds of arrest for Black women, unlike for Black and Hispanic men.

Hispanic women also report different relationships between personality traits and the odds of arrest than other race-gender statuses, after controlling for the other socioeconomic and demographic variables in the model. Like Black women (but unlike Hispanic men), extraversion is insignificant in predicting arrest among Hispanic women. Being reserved is significantly negatively associated with the odds of arrest among Hispanic women, like it is for Hispanic men, Black women, and Black men. As with Black women, conventionality is negatively associated with the odds of arrest for every one unit increase in conventionality, the odds of arrest decrease by 12%. Emotional stability is negatively associated with arrest history, and Hispanic women who report higher scores of being anxious/easily upset have higher odds of arrest. While dependability was insignificant, its counterpart—disorganization—was positively associated with odds of arrest. This is similar to Hispanic men, but different from Black women. Finally, warmth decreased the odds of arrest (Table 3).

Among White women, there are many similarities in the relationships between personality traits and arrest with Black and Hispanic women, but some unique patterns as well. Like Black and Hispanic women, among White women a one unit increase in reservedness decreases the odds of arrest by 6%. But unlike Black and Hispanic women (and like Hispanic men) White women's extraversion also was negatively associated with arrest. Openness to experience was insignificant in predicting arrest (unlike White men, but like every other race-gender status), but conventionality was also insignificant. As with women of other race/ethnicities in the study,

emotional stability/calm was negatively associated with the odds of arrest; a one unit increase in this measure decreased the odds of arrest by 9%. A one unit increase of its counterpart anxiety—also increased the odds of arrest by 11%. Both measures of conscientiousness (dependability, disorganization) were insignificant in predicting arrests among White women. Warmth decreased the odds of arrest among White women, and criticality was insignificant in predicting arrests after controlling for other variables in the model (Table 3).

DISCUSSION

A few notable patterns emerge from the findings. First, while there is a significant relationship between personality traits and arrest history as personality trait theories would suggest, these relationships vary across race and gender. In many cases, personality traits are only significant in predicting arrest likelihood among certain groups, revealing that personality is not a universal explanation for criminal behavior as past research has asserted.

Second, traits associated with emotional stability (such as anxiety) are significant predictors of arrest only in the case of Black, Hispanic, and White women and White men, but are not significant for Black and Hispanic men. This is consistent with literature on the role of emotion and neuroticism in the stereotype of the female offender (Beaver and Wright 2019; Cullen, Agnew, and Wilcox 2018b; Stolzenberg and D'Alessio 2004; Wyse 2013). For men of color in the sample, being anxious/easily upset did not increase the odds of arrest. For Black men specifically, being calm/emotionally stable also did not decrease the odds of arrest. This is an important finding in the context of modern debate over victims' behavior in police brutality incidents. Black men in particular are expected to exhibit greater emotional calm and deference in interactions with police than other race-gender statuses (Williams and Fields 2023) even

prompting the suggestion that Black children should be instructed to remain calm and compliant to avoid harm if stopped (Nettles and Eng 2019). But these findings suggest that police appraisals of guilt or criminality do not hinge solely on Black men's anxiety or calm.

But, unlike White men, men of color's conscientiousness and agreeableness/warmth negatively affected their odds of arrest. White men could be exceptionally quarrelsome or exceptionally warm and not have any change in their likelihood of arrest; White men could also be disorganized or self-disciplined and not have this personality trait factor into their likelihood of arrest. For Black and Hispanic men, however, being conscientious and being agreeable decreased the odds of arrest. In other words, going out of one's way to express self-discipline and warmth is particularly significant for men of color in diffusing perceptions of dangerousness or criminality. Rather than purely representing pro-social behavior that decreases the likelihood of arrest, these findings demonstrate that agreeableness and conscientiousness matter as a form of social communication in a social interaction shaped by power disparities.

Additionally, Black, Hispanic, and White women differed in ways consistent with racial stereotyping in the relationship of personality to arrest. While sympathy and warmth decreased the odds of arrest for most other race-gender statuses, it was not significant in predicting arrest among Black women. Black women were, however, more likely arrested if they reported higher scores of criticality/quarrelsomeness. This pattern is consistent with stereotypes of the "angry Black woman" described by scholars such as Walley-Jean (2009) and Freeman (2018), suggesting that Black women are penalized more often for being quarrelsome but do not benefit from being warm and sympathetic in the ways that women of other races/ethnicities do (Freeman 2018; Jones, Harris, and Reynolds 2021; Walley-Jean 2009). Additionally, being conventional decreased the odds of arrest for women of color. White women, however, could be

unconventional without experiencing the same increased risk.

Finally, the negative coefficients for both extraversion and reservedness among Hispanic men and among White women show an interesting paradox. Being exceptionally reserved and quiet decreases one's odds of arrest among these two groups, but so does being exceptionally outgoing and extraverted. Warmth was also significant in both groups, as was emotional stability. These kinds of patterns likely reflect different ways that individuals can express personalities consistent with societal expectations of their race-gender status. The warm, extraverted White woman and the calm, meek White woman can both be performing gender in ways that diffuse perceptions of potential criminality. But, again, the reception of these gendered performances is influenced by one's racial or ethnic status, as extraversion was not significant for Black or Hispanic women.

CONCLUSION

This study is limited to the measures of race and gender contained within the National Longitudinal Survey of Youth. Other racial/ethnic identities, such as indigenous or Asian identities, have unique historical relationships to the criminal justice institution and should be explored in future research. Additionally, individuals can perform gender in a variety of ways that then portray different sets of social meanings. Limiting gender to the discrete categories of male and female limits our view of the relationship between gendered performance, personality, and the experience of social control. Future studies should also examine whether other measures of social control, such as incarceration, yield similar findings.

These patterns in the relationship between personality traits and arrest across race-gender statuses are consistent with literature on gender and racial stereotypes and bias in the criminal

justice system. This finding further supports the argument that criminal justice involvement is not simply a matter of one's predisposition for deviant behavior but involves the social construction of an individual's traits and characteristics as deviant or normative. Taking personality traits at face value, without considering the ways that those traits are informed by the social meanings attached to gendered and racialized physical features, limits our understanding of criminal justice involvement. These findings underscore that racial and gender disparities in criminal justice involvement are a function of cultural frames that favor White individuals and punish Black and Hispanic individuals, and frames that dismiss women but criminalize men. Rather than placing the burden of blame for criminal justice involvement on the communities abused by this system, researchers and policymakers should aggressively combat the bias woven into our systems of social control.

CHAPTER III

Race-Gender Bias in the Criminalization and Medicalization of Mental Illness

ABSTRACT

The high prevalence of mental illness in the criminal justice system has drawn national attention amidst calls for defunding police and reimagining the criminal justice system. How does race-gender status shape the experience of social control for those with mental illness? Using data from the 2020 wave of the National Survey on Drug Use and Health, I explore whether the conditions under which mental illness leads to arrest versus mental health treatment and how these conditions vary by race-gender status. I find significant patterns of difference among Black, Hispanic, and White men and women. Black, Hispanic, and White women with mental illness are more likely to be arrested and to receive mental health treatment than their male counterparts. Black women are more likely to be arrested for mental illness but have the lowest rates of mental health treatment use, suggesting they are more often criminalized than their peers for their mental illness. Hispanic men, similarly, are more likely to be arrested for mental health treatment. I discuss the implications of these findings for race-gender inequalities in criminal justice involvement and healthcare utilization and offer suggestions for future research.

INTRODUCTION

How do race and gender shape the interpretation of deviant behaviors as either criminal acts or medical symptoms? The study of deviance and institutional social control has been key in the sociological canon, drawing the attention of theorists such as Foucault, Durkheim, and Du Bois (Du Bois 2013; Durkheim 1951; Foucault 2003). One such form of institutional social control is medicalization, which is the process of "defining a problem in medical terms, usually as an illness or disorder, or using a medical intervention to treat it" (Conrad 2005). Most studies of medicalization focus on examining medical treatments and definitions as evidence. Hand in hand with studies of medicalization is the study of the criminalization of deviance. This literature similarly examines criminalization as a form of social control, where deviant behavior is framed in legal terms, and addressed using criminal justice intervention. This results in different outcomes for well-being depending on the framework through which deviance is understood (Jenness 2004; Williams and Drake 1980b).

Important within these two literatures is the case of mental illness and disorder because of its history of being socially constructed as both medical and criminal (Conrad and Slodden 2013; Engel and Silver 2001; Monahan 1992; Steadman et al. 1984). While serious mental illnesses stem from social and biological processes, the behaviors associated with mental illness are interpreted in diverse ways. With the closure of state mental institutions in the second half of the 20th century, and the failure to provide resources to fill the gap in treatment, many individuals with mental illness are at an increased risk of entering shelters, prisons, and jails. Today, it is estimated that 37% of prison inmates and 44% of jail inmates have been diagnosed with a mental illness, and while budgets vary by state and institution, it has been estimated that incarcerating

those with psychiatric disorders costs \$15 billion annually (Bao 2020; Bronson and Berzofsky 2017).

For those with mental illness, criminal justice involvement does little to improve their circumstances or to reduce the likelihood of future arrests. Instead, arrest, processing, and incarceration compound psychological stressors and can trigger emotional difficulty (Baćak and Nowotny 2018; Massoglia and Pridemore 2015; Patterson 2010; Sugie and Turney 2017; Wildeman and Wang 2017). Further, a criminal record limits access to employment, housing, and other necessary resources (Pager 2003; Sykes and Maroto 2016; Travis, Western, and Redburn 2014). Statistics also show that police contact is more often life-threatening for those with mental illness, especially for Black men (Fuller et al. 2015; Thomas, Jewell, and Allen 2021). Nationwide protests in response to the police murders of individuals with mental illness, such as Daniel Prude and Walter Wallace Jr., have only increased public attention to the role that policing has played in the management of those with mental illness (Gross 2021; Sandoval 2020). Nevertheless, not all those who have mental illness find themselves under criminal justice jurisdiction. Individuals with greater social and economic resources still access medical care such as in-patient clinics, counseling, and various forms of out-patient treatment for assistance with mental health problems. It is important to understand for whom mental illness has become criminalized. Not only has the extent of this trans-institutionalization has been debated in the literature (Kim 2016; Steadman et al. 1984), but also disparities in this process contribute to the inequality in life chances for individuals with mental illness in the United States.

To explore issues of medicalization and criminalization, I utilize data from the 2020 wave of the National Survey on Drug Use and Health (NSDUH 2020). Specifically, I assess the ways in which mental illness is related to the likelihood of arrest versus the probability of mental

health treatment, by race-gender status. My primary goal is in this study is to understand how the criminalization and medicalization of mental illness varies by race-gender status (e.g., for Black Women versus Hispanic men). Inequalities in criminalization and medicalization can further harm mental health, broaden dangerous involvement in the criminal justice system and dampen overall life chances for marginalized groups.

This work provides three key innovations for the research literature in this area. First, while racial and gender disparities in mental illness prevalence among incarcerated individuals is known, this study will expand our knowledge of race-gender disparities in criminal justice involvement by including the less studied measure of mental illness as a mechanism (James and Glaze 2016). Second, it will contribute to our understanding of the (trans)institutionalization of those with mental illness in the modern day, showing for whom mental illness is criminalized. The exact effect of the de-institutionalization of asylums on incarceration rates has been debated (Kim 2016; Steadman et al. 1984) and this research would show whether certain groups are more likely to be arrested for mental illness than others. Finally, this deepens our understanding of barriers to mental health treatment that different race-gender groups face.

LITERATURE REVIEW

Race-Gender Differences in Criminalization

Critical criminologists have pointed to the important role of the social constructs of race and gender in understanding significant disparities in criminal justice involvement in the United States context. Compared to Whites, racial minorities are more likely to be stopped, arrested, and incarcerated. With the most severe consequences for Black men, this unequal pattern of criminal justice involvement generates and maintains racial inequalities in wealth, health, and political

voice (Kovera 2019; Massoglia 2008; Sykes and Maroto 2016; Wacquant 2017; Western 2006). Bias in these encounters is not always related to the personal malice of officers or judges towards specific individuals, but rather racialized cultural stereotypes that position Black individuals as criminals (Correll et al. 2007; Eberhardt et al. 2006; Kovera 2019). For example, Black offenders are less likely to be granted parole. Prior research shows that this difference is related to racial biases in professionals' assessments of psychological and behavioral readiness, rather than individuals failing to demonstrative self-rehabilitation (Young and Pearlman 2022).

Black individuals are not the only group that is over-criminalized relative to White individuals. Racial anxieties fuel the criminalization of immigration, and the stereotyping of Hispanic individuals as criminal (Gardner and Kohli 2009; Provine and Doty 2011). As a result, Hispanic individuals are more likely to be stopped, arrested, and convicted for a crime, compared to their White counterparts (Lanuza, Petersen, and Omori 2021; Lopez, Livingston, and Center 2009).

Men are also more likely to be arrested and incarcerated than women and often their criminal charges and recidivism are framed in gendered ways. Historically women were more often punished for crimes of "moral turpitude," such as prostitution, than for violent crime. Women's prisons often attempted to shape women into a feminine ideal through teaching domestic skills such as sewing (Pishko 2015). While rationality became a dominant frame for understanding the men's criminal behavior, women's behavior is more often understood as stemming from emotional distress, insanity, or irrationality (Breheney et al. 2007; Chesney-Lind and Pasko 2012; Noh, Lee, and Feltey 2010; Weare 2013). Men are more likely to receive harsher sentencing than women as a result (Breheney et al. 2007; Spohn and Beichner 2000).

These gendered differences in the framing of criminal behavior persist throughout all aspects of the criminal justice system. For example, in a 2013 study published in *Gender and Society*, Wyse found that parole officers often framed women and men's deviance as stemming from different root causes. Therefore, different kinds of intervention or guidance is required by gender. Women's criminal behavior was often framed as a result of deviant peers and romantic relationships, leading parole officers to emphasize that female parolees draw stronger emotional and social boundaries. Men's criminal behavior was framed in economic terms, leading officers to emphasize that male parolees need to obtain employment in order to integrate into society and desist from criminal behavior (Wyse 2013). Through these examples, feminist and critical criminologists have shown that race and gender shape the ways individuals are understood as being deviant or non-deviant, generating disparities in criminal justice involvement.

Race-Gender Differences in Medicalization

Similarly, race and gender also shape medicalization. White individuals are more likely to have access to mental health treatment, such as therapy (Feagin and Bennefield 2014; Lê Cook and Alegría 2011; Yearby 2018) and their behavior is more often framed as medical rather than criminal in media (Heitzeg 2015; Lindsay and Vuolo 2021). Even mental health diagnostic categories are influenced by racial bias; for example, Black individuals are more often diagnosed with schizophrenia as a result of cultural framing during the civil rights movement (Metzl 2010).

Women are more likely to utilize mental health services than are men, and their symptoms are also understood in gendered ways (Courtenay 2000; Mirowsky and Ross 1995). Women's mental health has historically been tied to their womanhood. A good example of this is the case of hysteria, a diagnosis which would most closely resemble depression today. This diagnosis was applied almost exclusively to women through the nineteenth century (Tasca et al.

2012). The word hysteria stems from the Greek word for uterus, *hystera*, as women's nonconforming behavior was originally believed to be a medical condition caused by their wombs wandering their bodies (Tasca et al. 2012). Feminist scholars argue that today, women's bodies are still framed as deviant in ways that subject them to greater oversight from the medical system, for better or worse (Kempner 2017; Offman and Kleinplatz 2004; Parens 2013).

Both feminist and critical race scholars argue that disparities in the rates of social control through either medical or legal institutions are key players in the maintenance of racial and gender hierarchies in the United States context. Nevertheless, studies have not yet fully examined the differential pathways of those with mental illness by race-gender status. Racegender statuses represent unique sets of resources, histories, and experiences beyond the separate concepts of race and gender. For example, Black men are more likely to experience what has been termed "John Henryism" - the pressure to cope with stress through expending high levels of effort at the expense of their well-being – which contributes to stigma of seeking care (Cadaret and Speight 2018; Robinson and Thomas Tobin 2021). Black women also experience similar pressures to cope with stress and discrimination through what is referred to as "Superwoman Schema," which is similar to John Henryism but differs in that it includes prioritizing others needs ahead of one's own (Perez et al. 2023). Many Hispanic men experience mental health stigma through the culture of machismo, which emphasizes bravado, physical dominance, and emotional invulnerability as masculine ideals (Lindinger-Sternart 2015; Rastogi, Massey-Hastings, and Wieling 2012).

Competing Mechanisms of Social Control

Other scholars of social control have compared medicalization and criminalization in past work. For example, Heitzeg (2015) argues that White individuals are typically medicalized, and

their deviant behavior more often understood and treated as medical flaws that can be addressed. However, within this same racial framework, Black individuals are more often viewed as criminal by nature (Heitzeg 2015). This double standard of medicalizing White individuals while criminalizing Black individuals is evidenced by studies of many different forms of deviant behavior. In studies of disruptive behavior in schools, White students are more likely to be given ADHD diagnoses or otherwise treated in ways that supported academic success, and Black and Hispanic students are more likely to be disciplined for disruptive behavior in classrooms (Fish 2022; Ramey 2015, 2018). Previous research has also documented the differential pathways for substance use by race. White individuals' opioid abuse is more likely to be framed as substance use disorder, as an epidemic, or in other medical terms. However, Black and Hispanic individuals are more likely to be criminalized and prosecuted for substance use (Heitzeg 2015; Kerrison 2015; Lindsay and Vuolo 2021).

Other studies that attempt to discover the rates of criminalization of mental illness have also found racial disparities. Previous studies have documented racial biases in mental health screening both during and prior to incarceration, finding that White men are more likely to be identified as having a mental health issue and diverted than Black and Hispanic men (Appel et al. 2020; Prins et al. 2012; Schlesinger 2013). Other studies of incarcerated individuals find that Black and Hispanic men and women are often overrepresented among those with mental illness (Appel et al. 2020; Teplin et al. 2002; Teplin, Abram, and McClelland 1996). These studies of prevalence did not control for socioeconomic status or other demographics, and this area of research is often limited in scope to specific cities or counties.

HYPOTHESES

I contribute to this literature by exploring the criminalization and medicalization of mental illness by race-gender status using nationally representative survey data. I consider arrest and treatment utilization as evidence of criminalization and medicalization, respectively. To operationalize mental illness, I consider both any mental illness and serious mental illness (defined as significantly interfering with major life activities). While milder forms of mental illness could potentially result in higher rates of medical or criminal justice intervention, I expect that this will be particularly true of serious mental illnesses, which often manifest with more visible and socially debilitating symptoms. However, as these conditions affect only a small percent of the population, I include any mental illness as a variable to consider the effect of milder conditions which affect significantly more people. These measures are both included in the National Survey on Drug Use and Health and are not reliant on professional diagnosis, which reduces the likelihood that mental health treatment and the mental illness label would be confounded. I include my specific hypotheses below:

H1a: Any mental illness will be positively associated with being arrested in the past year.H1b: Serious mental illness will be positively associated with being arrested in the past year.

H1 c: Race-gender status moderates these relationships (H1a-H1b), such that Black and Hispanic men with mental illness are more likely to be arrested than White men or women of any race or ethnicity.

H2a: Any mental illness will be positively associated with receiving mental health treatment in the past year.

H2b: Serious mental illness will be positively associated with receiving mental health treatment in the past year.

H2c: Race-gender status moderates these relationships (H2a-H2b), such that women of any race or ethnicity with mental illness are more likely to receive mental health treatment than men of any race or ethnicity.

By clarifying the role of race-gender status in the experience of social control among those with mental illness, we are better equipped to interpret the disparities in life course trajectories of these individuals. We are also better able to address these inequalities by proactively providing support to populations that are more likely to be incarcerated rather than treated in the case of mental illness.

DATA AND METHODS

To test these hypotheses, I use data from the National Survey on Drug Use and Health, which is a nationally representative cross-sectional survey administered by the Substance Abuse and Mental Health Services Administration to roughly 70,000 individuals across all 50 states (NSDUH 2020). The National Survey on Drug Use and Health (NSDUH) collects data on substance use, health and psychological well-being, criminal justice involvement, and factors that contribute to substance abuse such as youth experiences. This instrument is the most extensive survey which measures mental health treatment, history of arrest, and mental health collected in the United States over recent years. SAMHSA administers this survey primarily to estimate rates of substance use and mental disorder across states and counties across different subpopulations for use by local and federal governments. This survey also includes measures of socioeconomic status, demographics, and family life. Participants were selected using a

multistage area probability sampling technique, identifying segments from census blocks from census tracts, spread out within and across all 50 states (Anon 2020).

The NSDUH surveys a cross sectional sample every year since 1971; in this study, I use the most recent wave of data from 2020. I choose this year because of its recency and because this year is the first that uses the fifth edition of the Diagnostic Statistical Manual of Mental Disorders (DSM-5) in estimating rates of mental illness. While there remains some debate over changes introduced to fifth edition within the psychiatric literature, a benefit of the DSM-5 over previous versions is its revisions to address potential cultural biases in question wording (Pickersgill 2014; Regier, Kuhl, and Kupfer 2013). This is particularly important in a study that seeks to identify racial and ethnic biases in the experience of mental illness. Participants were surveyed via in-person interviews in the first quarter of 2020, and in the final quarter participants were also surveyed using web-based interviewing due to social distancing restrictions relating to the COVID-19 pandemic (Anon 2020).

In the NSDUH Black and Hispanic individuals are oversampled to provide a stronger understanding of these groups. Additionally, adolescents (12-17 years old) and young adults (18-25 years old) are oversampled compared to older age groups. I limit my sample to adults 18 and older who were asked questions related to mental illness, arrest, and healthcare. I also limit my sample to Black, Hispanic, and White men and women. This results in a sample of 39,369 individuals (2,383 Black men, 2,948 Black women, 3,462 Hispanic men, 3,991 Hispanic women, 11,609 White men, and 13,335 White women).

Dependent variables. To operationalize criminalization, I rely on past research traditions established by scholars such as Ramey (2015, 2018) who go beyond measures of law or legislation to instead focus on the concepts of discipline or criminal justice contact as evidence

for criminalization. Specifically, I use a dichotomous measure of whether the respondent reported being arrested and charged with a crime in the past year (1=yes, 0=never arrested and charged).

Similarly, I rely on past sociological work that uses treatment utilization as a proxy for medicalization (Dollar 2019; Ramey 2018). I use a dichotomous measure of whether the respondent received mental health treatment in the past year. This measure includes 5% of respondents whose care was mandated (by the court system, for example). Arrest history and treatment history in the past year had minimal correlation with each other (.04).

Predictor variables. A unique benefit to this data is that the measures of mental illness does not rely on a history of diagnosis, which would be confounded with my outcome measures. In the 2020 NSDUH, adults aged 18 years or older were administered a battery of questions relating to their emotional, mental, and behavioral states. Adults were classified as having Any Mental Illness (AMI) if they had any mental, behavioral, or emotional disorder in the past year of sufficient duration to meet criteria listed in the DSM-5. This category excludes developmental disorders and substance use disorders. This creates a dichotomous variable, where adults expected to have any mental illness based on their answers are coded as "1" and those who are not expected to have mental illness are coded as "0." Adults who were classified as having Any Mental Illness were also classified as having Serious Mental Illness (SMI) if these symptoms substantially limited or interfered with one or more of their major life activities (1=yes, 0=not expected to have SMI). As mental illness represents a broad spectrum of experiences ranging from mild to severe, I use both of these dichotomous measures taken directly from the NSDUH dataset in my analyses.

Race and ethnicity are measured in the NSDUH as seven discrete categories: White, Black, Native American/Alaska Native, Native Hawaiian/Pacific Islander, Asian, Mixed Race, and Hispanic. I drew from this measure to create a categorical variable with three possible options: Black, Hispanic, and White. Due to smaller sample sizes, I excluded other designations from the final sample for analysis. Respondents were also asked to identify as either male or female in the survey. From these questions I created six discrete categories: Black men, Black women, Hispanic men, Hispanic women, White men, and White women.

Control variables. Age is measured categorically in the survey. Since young adults (ages 18-25 years) were oversampled, I compare them to older adults by including a dichotomous measure of whether an individual was aged 18-25 years old (1=yes). I include two variables related to economic resources that influence both the likelihood of arrest and the likelihood of mental health treatment. Income is measured as four ordered categories in the NSDUH: less than \$20K, \$20K to \$50K, \$50K to \$75K, and over \$75K in total annual family income. After running some preliminary analyses, I code each of these categories as its own dummy variable and exclude those above \$75K as the reference category. I also include whether the individual had health insurance (1=yes, 0=did not have insurance).

I also include measures of social integration that would influence the likelihood of arrest and the likelihood of receiving care. Education is measured categorically, and I compare those with less than a high school degree to those who graduated from high school, those who have completed some college, and those who graduated from college. Employment status is collected by the NSDUH as nine possible categories, which I collapse into four groups: employed (which includes both full and part time work), unemployed, retired, and otherwise not in the labor force (which includes those who are disabled, students, keeping house, and other). As I am

conceptualizing employment status as evidence of social integration and not just economic status, I exclude the "unemployed" category as the reference group. The third measure of social integration is marital status. This is measured as four discrete categories: married, single, divorced or separated, and widowed. I exclude those who are married as the reference group. The final measure of social integration is religious attendance. I include both whether the respondent attended religious services in the past year (1=yes, 0=did not attend yearly) and whether the respondent attended at least once a week in the past year, on average (1=yes, 0=did not attend weekly).

Analytic Strategy

I start by presenting descriptive statistics for my sample, broken down by race-gender status (Table 1). Since my outcome variables (arrest and treatment history) are both dichotomous, I use logistic regression models. Arrest history and treatment history were found to have a correlation of .04. I retain all outliers in my data and use listwise deletion to handle missing responses.

I aim to see whether the relationship between mental illness and these two outcome variables are different across the race-gender statuses that I have included. I use interaction terms between race-gender status and my measures of mental illness to estimate these relationships. As Black men have the highest rates of arrest and the lowest rates of treatment history, they are excluded as the reference category in all models. Before exploring these interaction effects, I will show results from models without the interaction effects to establish the relationship between mental illness, arrests, and treatment regardless of race-gender status. Then, I show results from models with the interaction effects. I report odds ratios in the resulting tables.

RESULTS

Below I present descriptive statistics for my study measures, by each race-gender status (Table 1). Because all variables are categorical or dichotomous, I report percentages. The sample sizes for each race-gender status are listed at the bottom of the table. More men report arrests in the past year than do women, with Black men reporting the highest rates of arrest (28%) followed by White men (25%). Hispanic women report the lowest rates of arrest (8%) (Table 1). White women report the highest rates of mental health treatment utilization (29%) followed by White men (15%) and Hispanic women (14%). Hispanic men (7%) and Black men (7%) report the lowest rates of treatment utilization.

One in three White women gave answers that qualified them as having any mental illness, according to the measures in the NSDUH. Black and Hispanic women also reported high rates of any mental illness (25%, both) followed by White men (21%). Black and Hispanic men reported the lowest incidence of any mental illness (7%, both) (Table 1). When looking at serious mental illness, specifically, patterns are similar. White women report the highest rate of serious mental illness (10%) followed by Hispanic women (7%), Black women (6%), White men (6%), Hispanic men (4%, and Black men (3%).

Roughly one third of respondents were aged 18-25 years old, which reflects the oversampling of this group by the NSDUH. Hispanic men reflect the youngest age demographic (43% were young adults) followed by Black men (39%), Hispanic women (39%), and Black women (33%). White men and women reflected an older age demographic (31% and 29%, respectively, were young adults). The majority had health insurance, ranging from 71% (Hispanic men) to 93% (White women). Respondents reported less total family income than the general US population, which is indicative of the oversampling of young adults in this survey.

	Bla	Black		Hispanic		White	
Variables	Men ^c	Women	Men	Women	Men	Women	
Arrest History (1=yes)	27.92%	12.89%*	19.77%*	7.88%*	24.58%*	11.07%*	
Treatment History (1=yes)	7.40%	12.79%*	7.21%	13.72%*	14.80%*	28.82%*	
Any Mental Illness (1=yes)	15.61%	25.20%*	17.01%	25.27%*	21.53%*	33.30%*	
Serious Mental Illness (1=yes)	3.13%	5.69%*	4.45%	7.22%*	5.64%*	10.06%*	
Controls							
Health Insurance (1=yes)	80.63%	88.61%*	71.31%*	77.41%	89.36%*	92.77%*	
Age							
18-25 years	39.47%	33.72%*	43.28%*	38.90%	31.15%*	27.71%*	
26+ years	60.54%	66.28%*	56.72%*	61.10%	68.85%*	72.29%*	
Total Family Income							
Less than \$20,000	26.95%	34.88%*	15.44%*	23.20%*	13.14%*	15.45%*	
\$20,000 - \$49,999	36.04%	34.71%	40.47%*	40.75%*	25.23%*	27.95%*	
\$50,000 - \$74,999	14.34%	12.17%	17.56%	14.41%	16.96%	16.99%	
\$75,000 or more	22.67%	18.24%*	26.54%*	21.65%	44.67%*	39.62%*	
Education Level							
Less than high school	16.27%	14.11%	25.26%*	22.13%*	9.25%*	7.51%*	
High school graduate	36.72%	29.59%*	32.44%*	27.22%*	27.42%*	22.33%*	
Some college ^a	31.73%	38.46%*	30.06%*	33.98%	32.65%	36.15%*	
College graduate or higher	15.27%	17.83%	12.24%*	16.66%	30.69%*	34.00%*	
Employment Status							
Employed	62.31%	62.02%	72.06%*	60.14%	74.69%*	66.80%*	
Retired	5.46%	6.21%	2.59%*	3.32%*	8.90%*	10.11%*	
Unemployed	9.81%	7.98%	5.99%*	5.82%*	3.74%*	2.94%*	
Other ^b	22.43%	23.80%	19.36%	30.71%*	12.67%*	20.15%	
Marital Status							
Married	25.00%	20.25%*	33.63%*	37.68%*	43.88%*	46.44%*	
Widowed	1.61%	4.64%*	0.84%	2.48%	2.11%	5.05%*	
Divorced or separated	9.22%	12.72%*	7.38%	11.02%	10.01%	12.49%*	
Never married	64.17%	62.39%	58.14%*	48.82%*	44.00%*	36.01%*	
Attended religious services							
In the past year	51.14%	62.29%*	44.01%*	55.13%	48.46%	53.78%	
Weekly	8.80%	13.06%*	7.09%	11.57%*	8.28%	10.33%	
N	2,364	2,933	3,440	3,949	11,564	13,281	

Table 1. Percentages for all Study Variables by Race-gender Status. National Survey on Drug Use and Health (NSDUH) 2020 (N=39,531).

Notes:

^a Includes those with an Associate degree.

^b Includes disabled, keeping house, student, and does not have job for other reasons.

^c Asterisks denote significance between Black men (reference category) and other race-gender subsamples at *p<.001.

White men and women reported the highest income, with as much as 45% and 40% reporting over \$75,000. Fewer Hispanic men and women reported making more than \$75,000 (27% and 22%, respectively) and Black men and women reported the lowest total family income, on average (23% and 18%, respectively, making over \$75,000).

White men and women also reported the highest educational attainment; only 9% and 8%, respectively, did not graduate high school, and 31% of White men and 34% of White women graduated from college. Comparatively, 25% of Hispanic men and 22% of Hispanic women did not graduate from high school; only 12% of Hispanic men and 17% of Hispanic women graduated from college. While Black men and women graduated college at similar rates to Hispanic men and women (15% and 18%), more had graduated from high school (only 16% and 14%, respectively, had not graduated from high school).

In considering social integration, I am less concerned with employment rates than I am with the social integration that employment statuses represent. Black men had the highest level of unemployment (10%), followed by Black women (8%), Hispanic men and women (both 6%), White men (4%), and White women (3%). White men and women reported the highest levels of retirement (9% and 10%), which is in line with the older age demographics of the group. Women of any race or ethnicity were more likely to be labelled as "Other" employment status relative to their male counterparts. For example, only 19% of Hispanic men are classed as "Other" and 30% of Hispanic women are classed as "Other." This is reflective of broader gender differences in labor force participation. The majority of Black men, Black women, and Hispanic men reported having never been married. Black women were the least likely to be married (20%) and White women were the most likely to be married (46%). Nearly half of all participants reported some religious attendance in the past year. Women of any race or ethnicity reported more religious

attendance than their male counterparts, both annually and weekly. Black women reported the highest annual and weekly religious attendance (62% and 13%), but Hispanic men reported the least (44% annually, 7% weekly).

Table 2. Logistic Regressions Estimating Race-gender status and Any Mental Illness on Arrest History and on
Treatment History. ^b National Survey on Drug Use and Health (NSDUH) 2020

	Arrest I	History	Treatment History	
Variables	Odds Ratios	95% CI	Odds Ratios	95% CI
Any Mental Illness	1.63***	(1.53 - 1.74)	7.64***	(7.20 - 8.10)
Black Women ^a	0.47***	(0.41 - 0.54)	1.03	(0.89 - 1.20)
Hispanic Men	1.01	(0.89 - 1.13)	0.86	(0.73 - 1.01)
Hispanic Women	0.34***	(0.29 - 0.39)	1.37***	(1.20 - 1.56)
White Men	1.46***	(1.35 - 1.58)	1.54***	(1.39 - 1.71)
White Women	0.50***	(0.46 - 0.55)	2.96***	(2.69 - 3.25)
AIC	31,458.85		30,247.35	
-2 Log Likelihood	31,410.85		30,199.35	
N	39,393	39,370		

Notes:

^a Black men are the reference category.

^b All models shown adjust for relevant covariates, including health insurance, age, income, education, employment, marital status, and religiosity.

*p<.05; **p<.01; ***p<.001 (two-tailed tests).

Table 3. Logistic Regressions Estimating Race-gender status and Serious Mental Illness on Arrest History and on
Treatment History. ^b National Survey on Drug Use and Health (NSDUH) 2020

	Arrest	Treatment History		
Variables	Odds Ratios	95% CI	Odds Ratios	95% CI
Serious Mental Illness	1.76***	(1.60 - 1.94)	9.62***	(8.83 - 10.49)
Black Women ^a	0.48***	(0.42 - 0.55)	1.13	(0.98 - 1.31)
Hispanic Men	0.99	(0.88 - 1.12)	0.80**	(0.68 - 0.95)
Hispanic Women	0.52***	(0.30 - 0.39)	1.45***	(1.27 - 1.65)
White Men	1.47***	(1.35 - 1.59)	1.56***	(1.41 - 1.73)
White Women	0.52***	(0.48 - 0.57)	3.32***	(3.02 - 3.65)
AIC	31,562.45		32,357.17	
-2 Log Likelihood	31,514.45		32,309.17	
N	39,393		39,370	

Notes:

^aBlack men are the reference category.

^b All models shown adjust for relevant covariates, including health insurance, age, income, education, employment, marital status, and religiosity.

*p<.05; **p<.01; ***p<.001 (two-tailed tests).

Next, I present results from logistic regressions without the interaction effects (Tables 2 & 3). Regardless of race-gender status, individuals with any mental illness have 63% higher odds of arrest than those without any mental illness, after controlling for age, income, health insurance, and the measures of social integration I have previously described. Not surprisingly, having any mental illness also significantly increases the odds of receiving mental health treatment as well. Those with mental illness had 664% higher odds of treatment than those without (Table 2). This pattern is repeated among those with serious mental illness. Having a serious mental illness increased the odds of arrest by 76%, and increased the odds of treatment by 862%, after controlling for relevant covariates (Table 3).

After controlling for mental health status, I find race-gender differences in both the likelihood of arrest and likelihood of mental health treatment. Compared to Black men, Black women, Hispanic women, and White women have lower odds of arrest (53%, 66%, and 50% lower, respectively) (Table 2). White men had 46% higher odds of arrest than Black men after controlling for any mental illness, age, income, health insurance, and the measures of social integration previously described. Hispanic men did not significantly differ from Black men in their odds of arrest (Table 2). This pattern is repeated when controlling for serious mental illness as shown in Table 3: Black, Hispanic, and White women have lower odds of arrest than Black men. White men have higher odds of arrest, and Hispanic men do not significantly differ from Black men Black men. White men have higher odds of arrest, and Hispanic men do not significantly differ from Black

Racial and ethnic disparities are also prevalent in mental health treatment utilization. Compared to Black men, Hispanic men and Black women do not differ significantly. But after controlling for any mental illness and the other economic and demographic variables, Hispanic women have 37% higher odds of treatment, White men have 54% higher odds of treatment, and

	Arrest I	History	Treatment History	
Variables	Odds Ratios	95% CI	Odds Ratios	95% CI
Any Mental Illness	1.43***	(1.23 - 1.66)	8.32***	(7.02 - 9.87)
Black Women ^a	0.43***	(0.37 - 0.51)	1.13	(0.91 - 1.41)
Black Women x Any Mental Illness	1.36*	(1.02 - 1.82)	0.84	(0.63 - 1.13)
Hispanic Men	0.94	(0.83 - 1.08)	0.77*	(0.60 - 0.98)
Hispanic Men x Any Mental Illness	1.31	(0.99 - 1.72)	1.24	(0.88 - 1.73)
Hispanic Women	0.26***	(0.22 - 0.32)	1.19	(0.97 - 1.47)
Hispanic Women x Any Mental Illness	1.98***	(1.47 - 2.67)	1.26	(0.96 - 1.66)
White Men	1.49***	(1.36 - 1.64)	1.58***	(1.36 - 1.83
White Men x Any Mental Illness	0.93	(0.77 - 1.11)	0.96	(0.78 - 1.18)
White Women	0.45***	(0.41 - 0.51)	3.28***	(2.85 - 3.77
White Women x Any Mental Illness	1.32**	(1.09 - 1.60)	0.82*	(0.68 - 0.99)
AIC	31,424.24		30,235.33	
-2 Log Likelihood	31,366.24 3		30,177.33	
N	39,393	39,370		

Table 4. Logistic Regressions Estimating Race-gender status and Any Mental Illness Interactions on Arrest History and on Treatment History.^b National Survey on Drug Use and Health (NSDUH) 2020

Notes:

^aBlack men are the reference category.

^b All models shown adjust for relevant covariates, including health insurance, age, income, education, employment, marital status, and religiosity.

*p<.05; **p<.01; ***p<.001 (two-tailed tests).

Table 5. Logistic Regressions Estimating Race-gender status and Serious Mental Illness Interactions on Arrest
History and on Treatment History. ^b National Survey on Drug Use and Health (NSDUH) 2020

	Arrest I	History	Treatment History		
Variables	Odds Ratios	95% CI	Odds Ratios	95% CI	
Serious Mental Illness	1.28	(0.99 - 1.66)	12.10***	(9.64 - 15.20	
Black Women ^a	0.47***	(0.41 - 0.54)	1.17	(1.00 - 1.37)	
Black Women x Serious Mental Illness	1.30	(0.78 - 2.17)	0.80	(0.53 - 1.21)	
Hispanic Men	0.94	(0.84 - 1.07)	0.78**	(0.65 - 0.93)	
Hispanic Men x Serious Mental Illness	2.00**	(1.28 - 3.14)	1.16	(0.75 - 1.78)	
Hispanic Women	0.32***	(0.27 - 0.37)	1.48***	(1.28 - 1.71)	
Hispanic Women x Serious Mental Illness	2.07**	(1.32 - 3.24)	0.90	(0.63 - 1.28)	
White Men	1.47***	(1.35 - 1.60)	1.61***	(1.45 - 1.80)	
White Men x Serious Mental Illness	1.01	(0.73 - 1.38)	0.83	(0.63 - 1.10)	
White Women	0.49***	(0.45 - 0.54)	3.52***	(3.17 - 3.90	
White Women x Serious Mental Illness	1.74**	(1.29 - 2.36)	0.66**	(0.51 - 0.86)	
AIC	31,537.65		32,350.57		
-2 Log Likelihood	31,479.65		32,292.57		
N	39,393		39,370		

Notes:

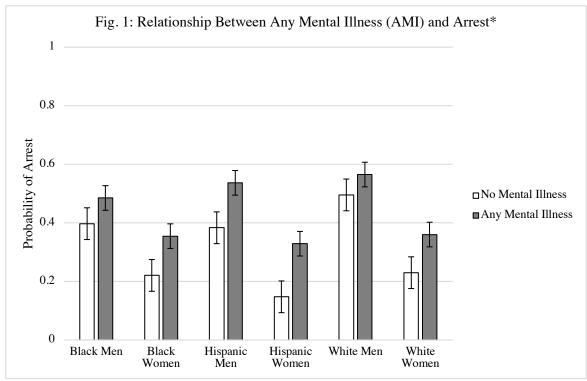
^aBlack men are the reference category.

^b All models shown adjust for relevant covariates, including health insurance, age, income, education, employment, marital status, and religiosity.

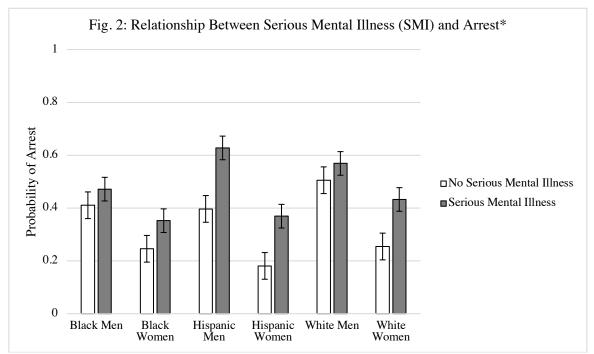
*p<.05; **p<.01; ***p<.001 (two-tailed tests).

White women have 196% higher odds of treatment than Black men in the sample (Table 2). This pattern is similar when controlling for serious mental illness in a main effects model, but I find that Hispanic men have 20% lower odds of treatment than Black men (Table 3). In the next two tables, I examine whether race-gender status moderates the relationship between Any Mental Illness (Table 4) or Serious Mental Illness (Table 5) on my outcomes of arrest history and treatment history. I exclude Black men as the reference category. The significance of the interaction terms indicates that these relationships do differ by race-gender status. Because of the difficulty of interpreting interaction effects, I also provide four bar graphs that show the relationships between my measures of mental illness, arrest history, and treatment history for each race-gender status (Figures 1-4).

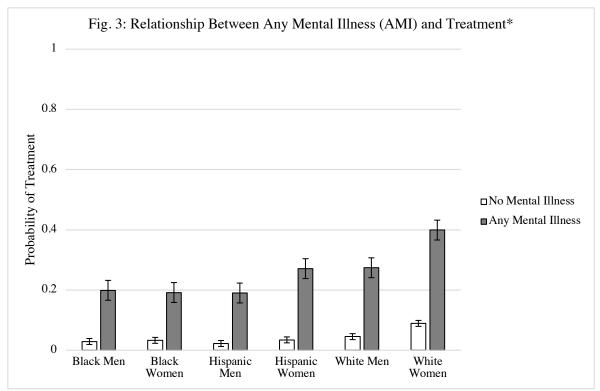
Among those without any mental illness, men of any race or ethnicity have a significantly higher probability of arrest than women of any race or ethnicity in the sample studied, after controlling for relevant covariates. Similarly, among those with any mental illness, men of any race or ethnicity have a significantly higher probability of arrest than women of any race or ethnicity. Men do not significantly differ from each other in their probability of arrest, whether they have mental illness or do not, after controlling for relevant covariates (Figure 1). I find the same pattern when looking specifically at serious mental illness. Men have a higher probability of arrest than women, both among those with serious mental illness and those without serious mental illness, after controlling for the other variables in the model. However, when looking among those with serious mental illness specifically, Hispanic men have a significantly higher probability of arrest than Black men; White men do not significantly differ from either Hispanic men or Black men (Figure 2).



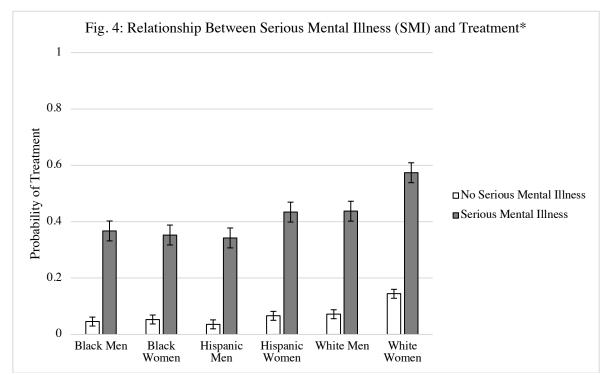
*After controlling for the effect of age, income, health insurance, education, employment, marital status, and religious attendance; NSDUH 2020



*After controlling for the effect of age, income, health insurance, education, employment, marital status, and religious attendance; NSDUH 2020



^{*}After controlling for the effect of age, income, health insurance, education, employment, marital status, and religious attendance; NSDUH 2020



*After controlling for the effect of age, income, health insurance, education, employment, marital status, and religious attendance; NSDUH 2020

As hypothesized, both any and serious mental illness are associated with a higher probability of arrest, but only among certain race-gender statuses. Having any mental illness is associated with a significantly higher probability of arrest for Black, Hispanic, and White women, but not Black or White men (Figure 1). I find the same pattern when looking specifically at serious mental illness. Having a serious mental illness is associated with a significantly higher probability of arrest for Black women, Hispanic women, and White women, but not for Black or White men, after controlling for the other variables in the model. An interesting finding here, however, is that the relationship between mental illness and arrest differs for Hispanic men compared to Black or White men. For Hispanic men, having any mental illness (Figure 1) or having serious mental illness (Figure 2) is associated with a significantly higher probability of arrest.

In the next two graphs, I depict the relationships between any mental illness (Figure 3), serious mental illness (Figure 4), and mental health treatment. Not surprisingly, having any mental illness (Figure 3) or serious mental illness (Figure 4) is significantly associated with a higher probability of mental health treatment. Those without any mental illness have a very low probability of treatment, regardless of race-gender status. Those with serious mental illness have a very high probability of treatment, regardless of race-gender status. However, there are significant differences between race-gender statuses, after controlling for the relevant covariates in the models.

Among those with any mental illness, Black men, Black women, and Hispanic women have the lowest probabilities of treatment relative to the other race-gender statuses, and do not significantly differ from each other. Hispanic women and White men with any mental illness both have significantly higher probabilities of receiving treatment than Black men, Black

women, and Hispanic women. White women with any mental illness have the highest probability of all race-gender statuses of receiving mental health treatment (Figure 3). Even among those without any mental illness, White women have a significantly higher probability of receiving mental health treatment (Figure 3). These results are mirrored in the model that examines serious mental illness, specifically. Among those with serious mental illness, White women have the highest probability of receiving mental health treatment, followed by Hispanic women and White men (who do not significantly differ from each other), and Black men, Black women, and Hispanic men have the lowest probability of treatment (Figure 4). White women also have the highest probability of treatment among those without serious mental illness (Figure 4).

DISCUSSION

Mental illness increases the probability of arrest for women, but not for Black or White men. This was unexpected as this suggests women are criminalized for mental illness more so than men, even though men are generally more criminalized than women overall. This finding is consistent, however, with other work that has documented gender differences in the framing of deviant behavior as either rational or irrational. Women's criminal behavior is more often viewed as stemming from psychological maladjustment (Chesney-Lind and Pasko 2012; Noh et al. 2010; Weare 2013). These findings underscore that mental illness is a driver of criminalization for women, while men experience greater criminalization irrespective of their mental health status.

White and Hispanic women are also more likely to receive treatment for mental illness than their male counterparts. It was interesting to find that White women are the most likely to receive treatment even when their responses were not sufficient to be classified as mental illness in the survey. This is consistent with research by feminist scholars that has shown the

medicalization of women's mental health (Tasca et al. 2012; Ussher 2010). However, by looking at race-gender status rather than just gender, I find that Black women do not follow these same patterns as White women. Black women with mental illness are more likely to be arrested, meaning that mental illness is criminalized among this group. But Black women are much less likely to receive treatment than other race-gender groups and are not significantly different from Black or Hispanic men. Given the historic and ongoing abuse and discrimination faced by Black women in healthcare and psychiatry, and stereotypes surrounding the "angry Black woman" that minimize Black women's experiences, it shouldn't be surprising that Black women with mental illness experience more criminalization and less medical support (Ashley 2014; Conteh et al. 2022; Washington 2006).

Interestingly, the analyses also showed that mental illness appears to be more heavily criminalized for Hispanic men than for Black and White men. Hispanic men were more likely to be arrested if they had mental illness, unlike Black and White men. Additionally, Hispanic men with mental illness were less likely to receive treatment than Hispanic women, White men, and White women. In investigating the literature for evidence of why Hispanic men would experience greater criminalization of mental illness than Black or White men, I found a few interesting patterns. In a study of the Los Angeles county jail system, Hispanic men were overrepresented among those incarcerated but underrepresented in mental health diversion programs, and this was not attributable to differences in rates of mental illness (Appel et al. 2020). In general, being Hispanic and being male is associated with a lower likelihood of utilizing mental health services among those involved in the criminal justice system, although this is also true of Black men in many studies (Baglivio et al. 2017; Rawal et al. 2004; Teplin et al. 2002). Cultural differences between US residents and Hispanic immigrants are offered as a

possible explanation for the patterns; in essence, that Hispanic men may be less able to access psychiatric services due to cultural and linguistic barriers (Appel et al. 2020). While the NSDUH doesn't publicize citizenship in their datafiles, my inclusion of English language speaking ability was not significant in any regression models. Other research finds inconsistencies with the transinstitutionalization of Hispanic men from state hospitals to prisons as a result of the deinstitutionalization of mental illness (Raphael and Stoll 2013). There is an opportunity here for more robust theorizing in explaining the unique experiences of Hispanic men with mental illness in the criminal justice system.

Understanding the institutional trajectories of those with mental illness is particularly relevant in our current context. Stressors related to the COVID-19 pandemic are expected to have long-lasting detrimental effects on the mental well-being of the US population. Understanding race-gender disparities in the treatment and policing of those with mental illness is necessary for mitigating these effects. Recent police brutality incidents have highlighted stark racial inequalities in the criminal justice system and called into question the role of police in the management of mental illness. These findings help us to better understand the relevance of race-gender status in the policing and criminalization of mental illness.

CONCLUSION

Race-gender status matters in shaping the institutional trajectories of those with mental illness. I find in particular strong evidence for gendered differences in the criminalization and medicalization of mental illness, specifically that women experience greater probability of arrest and treatment due to mental illness. But exploring this relationship by race and ethnicity offers us a more complex picture. Rather than seeing that women are all equally likely to be medicalized, I

find that White women have an advantage in accessing those resources. I also find that Hispanic men and Black women are both at greater risk of criminalization than other race-gender statuses.

This study is limited to the measure of arrest, but other forms of criminal justice involvement such as probation, incarceration, and parole should be examined in future work. I also limited my analyses to racial and ethnic groups for which I had substantial sample sizes, but Asian, Pacific Islander, and Native American individuals all also have unique experiences and histories within the criminal justice and medical systems (Baluran 2022; Findling et al. 2022; Hu and Esthappan 2017; Leong and Lau 2001; Tighe 2014). Future studies should examine how mental illness may be medicalized or criminalized for these communities. Finally, I assume a lot based on the indicated sex of the individual, as this survey is limited to the discrete categories of "male" and "female." Gender and sexual minorities are not examined in this study but are at particular risk for mental distress and are overrepresented in the criminal justice system (Argüello 2020). Even cisgender individuals can express their gender in different ways that hold different social meanings in the interaction between patient and doctor, or citizen and state. For example, cisgender women who present as more feminine may experience different labelling and different treatment than cisgender women who present as more masculine. Understanding the role of gender expression, gender identity, and sexual orientation in the experience of social control of mental illness demands continued research.

These findings also offer theoretically fruitful avenues for future study. Efforts should be made to better understand the factors contributing to Hispanic men's trajectories stemming from mental illness. If cultural differences play a role as others have suggested (Appel et al. 2020; Rawal et al. 2004), then the specific elements of culture that act as a barrier or mechanism need to be identified. These identified differences would also need to be tested against the cultural

assumptions/stereotypes of normative and nonnormative behavior for individuals that are racialized as Hispanic by the dominant culture within the United Status. Additional research is also needed to understand the ways in which Black women experience criminalization in the United States context, and the factors that prevent Black women with mental illness from receiving supportive, high quality, mental health treatment.

As our society is grappling with re-imagining the role of policing and criminal justice in the management of mental illness, particular care should be given to provide meaningful supports for Black women and Hispanic men. This includes extending the work of researchers and activists in facilitating trust between medical professionals and communities that have had that trust violated, including Black women, and other efforts to dismantle racial and gender inequality in policing and in doctor-patient interactions.

CHAPTER IV

Uneven Medicalization: The Effect of County Characteristics on the Number of Treatment Courts

ABSTRACT

What contexts are more likely to adopt policies that medicalize deviant behavior? Using a compiled dataset of 3,132 U.S. counties across all 50 states in 2020, I examine the effect of racial demographics, gender makeup, socioeconomic status, political factors, and criminal justice characteristics on the existence and number of treatment courts, which are alternatives to traditional criminal justice involvement (e.g., incarceration). Regardless of the prevalence of mental distress, substance use, crime rates, population size, and other relevant measures, I find that counties with higher proportions of Black residents, women, and college educated residents are more likely to have mental health treatment courts. I also find that counties in red states and in the south have fewer treatment courts. I discuss the implications of these findings for our understanding of the contexts that facilitate medicalization and for inequalities in criminal justice outcomes.

INTRODUCTION

Which U.S. counties are more likely to adopt treatment courts? Treatment courts represent an alternative approach to criminal justice that frames criminal behavior as stemming from psychosocial root causes, particularly mental illness and substance use. These entities seek to redirect these individuals into mandated medical treatment, housing assistance and job training. While there are critics of the use of criminal justice courts to manage mental illness, studies have shown that individuals in these programs have improved mental health, reduced substance use, increased employment, and decreased recidivism relative to individuals processed through traditional court systems (Almquist and Dodd 2009; Sarteschi, Vaughn, and Kim 2011; Wittouck et al. 2013). Compared to traditional sentencing, I argue that treatment courts represent a form of policy that medicalizes criminal behavior. However, not all counties employ these programs, and it is uncertain what conditions facilitate their adoption.

Medicalization can have both positive and negative consequences. On the one hand, medicalization can lead to treatments for conditions not otherwise available, which can improve health outcomes for individuals. On the other hand, medicalization runs the risk of framing normal human experiences as illness, which may not improve well-being and instead create unnecessary healthcare interventions and costs (Conrad 2013). Research on the medicalization of deviant behavior has identified several different mechanisms through which deviance is framed as illness, such as the role of biotechnology, consumers, and managed care (Conrad 2005). However, newly medicalized deviant behaviors are not treated as medical conditions equally across all situations. More research is needed to understand inequalities present in whether medical definitions and treatments are applied (Conrad 2013).

This study contributes to our knowledge of the process of medicalization by examining the characteristics of counties that adopt treatment courts. I argue that treatment courts represent a medicalized view of deviant behavior at the policy level, as they satisfy two components of definitions of medicalization. First, they redefine the criminal behavior as medical, since they identify medical conditions (e.g., mental illness and substance use) as the root of the offender's behavior. Second, medical interventions are used to address the behavior, rather than criminal interventions. These individuals are redirected from traditional sentencing into mandated medical treatments. Using data from over 3,000 U.S. counties across all 50 states, I explore the impact of race, gender, class, and political context on the number of treatment courts in counties.

This study of contributes to three areas of the literature. First, studying the contexts most likely to adopt treatment courts identifies additional mechanisms of medicalization. This builds on work by scholars such as Conrad and Halfmann (Conrad 2005; Halfmann 2019). Specifically, I expand the examination of political and institutional contexts as a predictor of medicalization to include the social demographics of race, gender, and class. Second, this work contributes to the critical study of the criminal justice system by examining the role of race, gender, and class stratification in the medicalization of criminal justice interventions. Finally, this work contributes to the debates surrounding the ethics of treatment courts. Much of this debate consists of what the ideal approach to social control would be, and whether criminal justice is an appropriate response to mental illness, poverty, or other needs. While this study does not measure the impact of treatment courts, it contributes to this debate by clarifying which political and social contexts are likely to use these policies.

LITERATURE REVIEW

Medicalization and Criminal Justice

Medicalization is defined as the process of "defining a problem in medical terms, usually as an illness or disorder, or using a medical intervention to treat it" (Conrad 2005). Certain circumstances are known to contribute to medicalization. Most notably in the medical sociology literature, Conrad (2005, 2013) identified three key engines of medicalization in the modern era: 1) biotechnology (e.g., pharmaceuticals and medical testing technologies); 2) consumers (e.g., media, the internet, and consumer advocacy groups), and 3) managed care (e.g., insurance coverage). Many studies stemming from this work have explored additional mechanisms. One example is the political economy of the medical institution, highlighting the ways that money and the market facilitate or constrain the process of medicalization (Conrad 2013; Horwitz and Wakefield 2007). However, less is known about inequality in medicalization, or what predicts the likelihood that an individuals' behavior will be treated as medical in those "grey areas" where medicalization is relatively new or unevenly applied.

In considering the context of the United States, sociologists often point to racial, gender, and economic inequality in understanding disparities in health and health care utilization. One notable pattern is that as a condition becomes newly treatable, socioeconomic inequality in health outcomes increases as those with more financial resources are better able to pursue limited care options (Phelan and Link 2013). Some studies of medicalization support that those of higher socioeconomic status are better able to pursue medical treatments for conditions such as ADHD or substance use disorders as they become medicalized (Conrad and Slodden 2013; King, Jennings, and Fletcher 2014). Others point out that those of higher socioeconomic status more often use medical interventions to respond to pressures for success and achieve academic goals (King et al. 2014).

Racial stratification in the United States influences medicalization. One example is the case of disruptive school behavior and addiction where White individuals are more often medicalized than their Black or Hispanic counterparts (Fish 2022; Kerrison 2015; Ramey 2018). Another example is healthcare policy, where it has been found that racialized perceptions of "deservedness" influence the likelihood of individuals voting for Medicaid expansion (Metzl 2019). Feminist scholars have also pointed out gender disparities in medicalization through the relative over-medicalization of women's health, such as in the well-studied cases of menopause and pregnancy (Barker 1998; Bell 1987).

Some studies have identified the important role of political-institutional contexts in shaping medicalization, particularly the role of policy legacies (Carpenter 2010; Halfmann 2019; Van Kersbergen and Vis 2014). Policy legacies are defined as the lasting impacts that earlier policies have on the formation or adoption of future policies (Halfmann 2003). Policy legacies can promote or discourage medicalization by shaping the interests and power of stakeholders (e.g., communities, patients, healthcare providers, and pharmaceutical companies). For example, the adoption of the National Health Service in Great Britain resulted in greater involvement of medical associations in state political reform as a concession to doctors. Because of this history of clinical freedom in Great Britain, doctors in the United Kingdom were given greater medical landscapes and health-care and welfare policy legacies have been shown to shape medicalization (Halfmann 2019). However, less work is dedicated to the role of criminal justice policy legacies on the process of medicalization.

One example is the legacy of "tough on crime" policies. This perspective prioritizes harsh punishments and strict policing, rather than rehabilitation or reintegration. The "tough on crime" approach conceptualizes behavior, such as substance abuse, as solely the result of individual choice. Repeat offenders are often viewed as irreformable. Addressing crime, then, demands the permanent removal of certain individuals from society. This belief is reflected in policies such as the death penalty and three-strikes laws (Thomas and Edelman 1988). This perspective is in stark contrast to medical beliefs surrounding substance use and mental illness which prioritize treatment and rehabilitation. Given the role of the criminal justice system in the modern management of substance use and mental illness (NIDA 2020), these policies represent an important opportunity for studying the role of context in the process of medicalization.

I seek to contribute to this expanding literature that examines the social contexts under which medicalization occurs. In this study, I focus on demographic, socioeconomic, and political characteristics that often are linked with inequality in the United States (i.e., race, ethnicity, class, gender, and policy legacies). I study the impact of these characteristics by examining an emerging form of medicalized policy in the criminal justice system (i.e., treatment courts). *Treatment Courts as Medicalized Policy*

The criminal justice system plays a significant role in society's response to individuals with mental illness and substance use disorder. Often, those with mental illness come into contact with the criminal justice system through behaviors or incidents (e.g., drug use, homelessness, or public outbursts) related to their condition. It is estimated that 37% of prison inmates and 44% of jail inmates have been diagnosed with a mental illness and 85% have substance use disorder or are incarcerated for crimes relating to substance use (NIDA 2020; Bao 2020). Traditional forms of punishment generate various harms to individuals and communities,

including increased rates of unemployment and homelessness, worsened physical and mental health, and decreased life expectancy (Massoglia and Remster 2019; Patterson 2010; Sykes and Maroto 2016; Travis et al. 2014). In turn, these problems associated with criminal justice contact (e.g., homelessness) are related to the onset and worsening of mental health problems, substance use and addiction, and future crime commission. This creates cycles of disadvantage, distress, and poverty, particularly for individuals with fewer economic or social resources. To break these cycles, many states have turned to treatment courts as a new approach.

Treatment courts are specialized programs designed to identify and remediate underlying issues of criminal behavior, focusing on rehabilitation and treatment rather than traditional forms of punishment. There are several types of treatment courts, including mental health courts, drug courts, veteran courts, and co-occurring disorder courts. These courts can be focused on either adult or juvenile offenders. The goal of these courts is to identify individuals whose criminal behavior is a result of substance abuse or mental illness, and to reroute these individuals from traditional courts into mandated services that often include psychological counseling, substance abuse treatment, job training, and housing assistance (Almquist and Dodd 2009; Kaiser and Holtfreter 2016; Wittouck et al. 2013). Individuals typically are only eligible if they are charged with nonviolent offenses. Individuals must sign away their rights to due process and plead guilty to charges to qualify. Processing through a treatment court consists of regular in-court appearances and progress reviews in addition to mandated treatment. The administration of treatment courts are a collaborative effort among judges, attorneys, treatment providers, welfare organizations, and other stakeholders (Almquist and Dodd 2009; Lurigio 2008). Some of these courts focus on specific sub-populations. The most common example is veterans courts, which deal specifically with veterans who are involved in the criminal justice system and struggle with

substance abuse, mental distress, and other issues related to their military service (Douds et al. 2017).

Research has shown that treatment courts reduce recidivism rates and decrease substance use (Sarteschi et al. 2011; Wittouck et al. 2013). Generally these programs receive bipartisan support, and their proponents argue that they represent a more humane and effective approach to criminal justice (Almquist and Dodd 2009). However, others have raised concerns over the requirements that treatment courts place on defendants, such as waiving their rights to due process and signing a guilty plea. Treatment courts also mandate care, and many question the ethics and long-term effectiveness of coerced care (Cooper 2017). There also remains a broader question about the role of the criminal justice system in managing substance abuse and mental illness in the first place. Many critics of treatment courts argue that this approach allocates greater responsibility to the criminal justice system, in essence further "criminalizing" these conditions (Cooper 2017). Others point out that treatment courts are also subject to biases present in the criminal justice system, finding that White men and women are generally overrepresented in these programs (Naples, Morris, and Steadman 2007; Sarteschi et al. 2011; Steadman and Redlich 2005). Regardless of these limitations, I argue that rerouting individuals from incarceration and into mandated mental health and/or substance use treatment represents an institutional shift towards medicalizing deviant behavior. These programs take conditions that were once purely understood as criminal and redefine them as medical and treatable.

What contexts are most likely, then, to adopt this new medicalized view of criminal behavior? I build upon the work of Halfmann (2003, 2019) and other scholars (M. Carpenter 2000; L. Carpenter 2010) who argue that political environments limit or facilitate medicalization. I extend this definition to include the other measures of the social environment. Critical

criminologists and critical race scholars argue that racial, gender, and socioeconomic stratification present within the United States have fundamentally shaped the development of its social institutions and legal frameworks (Cullen et al. 2018a; Gabbidon 2015; Spitzer 1975). Following this literature, I use these court programs as a case for understanding the role of race, gender, class, and political contexts in shaping the medicalization of deviant behavior.

Additional Control Variables

Racial and ethnic demographics vary by rurality and population size. Black and Hispanic individuals are more likely to live in urban counties, and rural counties are more often predominantly White. Larger populations require more court programs and resources in general to address the needs of more residents, whether they are treatment courts or not. This is evidenced by the data, as the highest number of treatment courts are most often located in urban counties such as Los Angeles and Detroit.

Additionally, I expect that populations with greater criminal justice needs will have more court programs. Populations that report higher rates of criminal activity have higher numbers of individuals processed through the court system. If a county uses treatment courts, a higher crime rate is expected to increase the number of treatment courts present in that county. This also applies to pressures on the criminal justice operations beyond criminal activity. Many treatment court programs are dedicated to specific needs, such as mental illness, substance abuse, homelessness, and veterans. I expect that counties with a large veteran population would be more likely to have veteran courts than counties without many veterans, for example. To account for this potential variation and to clarify the relationship between race, gender, class, political context, and treatment courts, I include several control variables for population size, criminal justice involvement, mental health, substance use, homelessness, and veteran status.

HYPOTHESES

I hypothesize that race and ethnicity will be significant in predicting the number of treatment courts in counties, after controlling for population size, levels of crime, incarceration, substance abuse, mental illness, homelessness, and veteran status. Specifically, that:

H1a: Compared to counties with higher proportions of White residents, counties with higher proportions of Black residents will have more treatment courts.

H1b: Compared to counties with higher proportions of White residents, counties with higher proportions of Hispanic residents will have more treatment courts.

Similarly, I expect that gender also is significantly associated with treatment courts. I hypothesize that:

H2: Counties with a greater proportion of men will have fewer treatment courts than counties with a greater proportion of women.

I also hypothesize that counties with greater socioeconomic resources will have higher numbers of treatment courts, after controlling for the above factors. Specifically, that:

H3a: The percentage of county residents in poverty will be negatively associated with the number of treatment courts.

H3b: The county unemployment rate will be negatively associated with the number of treatment courts.

H3c: The percentage of the population with a bachelor's degree will be positively associated with the number of treatment courts.

Finally, I expect to find that counties in a conservative political context with a traditional, punitive approach towards addressing crime will be less likely to support rehabilitative criminal justice reform, including treatment courts. While both Republican and Democratic politicians

advocated a "tough on crime" stance in the 1980s and 1990s, this stance is a primarily a conservative approach to crime (Thomas and Edelman 1988). Another relevant policy legacy is the history of racial segregation and the civil rights movement in southern states which has shaped their harsh criminal justice context. For example, backlash from southern states prevented the abolition of the death penalty in 1972 (Bellware 2022). Specifically, I hypothesize that:

H4a: Counties in conservative states will have fewer treatment courts than counties in liberal states.

H4b: Counties located in the south will have fewer treatment courts than counties in other regions of the United States.

H4c: Counties in states with three-strikes policies will have fewer treatment courts than counties in states without such policies.

H4d: Counties in states with the death penalty will have fewer treatment courts than counties in states where the death penalty is abolished.

DATA AND METHODS

The units of observation for the following analysis are counties. The data for this study are county-level estimates compiled from the Substance Abuse and Mental Health Services Administration (SAMHSA), the Center for Disease Control (CDC), and the Census Bureau's American Community Survey (ACS). Each observation in the dataset is uniquely identified by the county FIPS code, which was used to merge data from these different sources. In selecting my variables, I rely on the most recent data available (most often the year 2020). The final dataset contains all 3,143 counties in the United States. I describe each of the variables used in analysis, and their sources, below.

Dependent variable. To operationalize the medicalization of deviant behavior through criminal justice policy, I focus on the presence of treatment courts. SAMHSA has a comprehensive database of all treatment courts located within the United States: their location, their specialty (such as mental health, substance abuse, and co-occurring disorders for both adults and juveniles), and the year in which they began operation (SAMHSA 2023). The earliest presence of a treatment court is 1996, the most recent is recorded as beginning in 2019. This information is available as downloadable spreadsheets, containing the county FIPS code and the number of different types of treatment courts in each corresponding county. Because of the limited number of specific subtypes of treatment courts, I focus on the total number of treatment courts by county.

Predictor variables. To operationalize race and ethnicity, I use measures of racial and ethnic identity collected by the American Community Survey (ACS) carried out by the US Census Bureau. The ACS is administered annually to 3.5 million households nationwide via online and mailed surveys. It asks questions regarding various social, economic, housing, and demographic characteristics for the purpose of governmental decision-making such as the allocation of federal and state budgets for infrastructure, education, and welfare (U.S. Census Bureau 2020). From this survey the Census Bureau publicly reports percentages for each race (including the categories of White, Black, American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, other, and multi-racial) and ethnicity (whether Hispanic or not) for all counties in the United States. For my analysis, I sum together the measures of American Indian/Alaska Native, Asian, Native Hawaiian/Pacific Islander, other, and multi-racial to create an "Other Race" category. I then use the percent Non-Hispanic Black, Non-Hispanic White, Hispanic, and Other Race at the county-level for the year 2020. Because these four measures

equal 100% across all counties when summed together, I exclude the largest group (percent White) to address the issue of collinearity in the model.

I also include additional variables from the ACS that let me test the effect of gender and socioeconomic status on the number of treatment courts. To operationalize gender, I use the sex ratio of each county. This is a measure of the number of men per 100 women (with higher numbers indicating a higher number of men relative to women). To measure socioeconomic status, I include in my analysis the percent of families in the county whose income falls below the national poverty line, the unemployment rate, and the percent of adults aged 25 and older who have completed a bachelor's degree. Each of these measures are 5-year estimates, recorded for all counties in the United States.

To measure political context relevant to criminal justice policy, I incorporate four measures from four different sources. The first is whether the county is in the south as defined by the US Census (1=yes, 0=not located in the south) from the ACS. This region includes Texas, Oklahoma, Arkansas, Louisiana, Kentucky, Tennessee, Mississippi, Alabama, West Virginia, Maryland, Delaware, Virginia, North Carolina, South Carolina, Georgia, Florida, and the District of Columbia. The second relevant measure of social context that I include is whether the county is in a "red state," or a state that voted primarily for Trump in the 2020 presidential election (1=yes, 0=voted primarily for Biden in 2020). The third is whether the state uses a three-strikes policy as of the year 2020, collected from the LegalMatch website (1=yes, 0=does not have three-strikes policy) (Corbett and Rivera 2023). The final measure is whether the county is located in a state with an active death penalty, according to the Death Penalty Information Center (DPIC 2020). This is a categorical measure, comparing states that have abolished the death

penalty to states that have an active death penalty and to states that have a temporary moratorium on executions.

Control variables. It is important to account for additional factors that increase the likelihood that a county uses treatment courts. I expect that highly populated urban areas, areas with significant mental health and substance use crises, areas with high numbers of veterans or homeless individuals who would be served by these specialized courts, and areas with high crime rates would all have higher demand for treatment court programs. I include several measures to account for this variation.

To operationalize mental health, I use the age-adjusted rate of adults aged 18 years or older in the county who report 14 or more days in the past 30 days where their mental health was not good. This measure comes from PLACES, an interactive website hosted through the Center for Disease Control (CDC). Through the PLACES project, the CDC provides 27 different measures of health at the county and census tract level to better inform local health departments of the health concerns of their jurisdictions. These measures are constructed by the CDC using an innovative multilevel regression and poststratification (MRP) approach, which draws on data from geocoded health and population surveys (namely, the CDC's Behavioral Risk Factor Surveillance System (BRFSS) and the American Community Survey (ACS)) to estimate individual disease risk and health behaviors (CDC n.d.).

To account for substance use rates that influence criminal justice involvement, I utilize the percent of the state population who used illicit drugs (excluding marijuana) in the past 30 days, and the percent of the state population with alcohol use disorder in the past year, both from the 2020 wave of the NSDUH. The NSDUH is a nationally representative, cross-sectional survey administered each year by the Substance Abuse and Mental Health Services Administration

(SAMHSA) beginning in 2014. Questions from the NSDUH focus on substance use, health and psychological well-being, criminal justice involvement, and factors that contribute to substance abuse such as youth experiences. This is the most extensive survey which measures mental health care, history of arrest, and mental health collected in the United States over recent years and is administered primarily to estimate rates of substance use and mental disorder across states and counties across different subpopulations for use by local and federal government. The NSDUH provides state-level estimates from their surveys in public-use datafiles (SAMHSA 2020).

To account for demographic and socioeconomic characteristics of the counties, I use several county-level measures collected by the American Community Survey in the year 2020. Specifically, I include the population size of the county (in thousands), the percent who are veterans, and the median age (in years). I also use a measure of rurality, recorded for each county by the National Center for Health Statistics (NCHS). The NCHS has developed a rural-urban classification system for counties drawing from the Office of Management and Budget's delineation of metropolitan statistical areas (Ingram and Franco 2014). This scheme results in a continuum code from 1 (large, central, urban areas) to 6 (noncentral rural areas) for each county. I use the most recent data available, which is the year 2013.

I include the state-level estimate of violent crimes per 100,000 residents in the year 2020 as reported by the Federal Bureau of Investigation through the National Incident-Based Reporting System (NIBRS). I also include a county-level measure of incarceration rate for every 10,000 residents, drawn from the Census of Jails (COJ) carried out by the Bureau of Justice Statistics. Finally, to account for the potential effect of homelessness, I use Point-In-Time data from the U.S. Department of Housing and Urban Development (HUD). HUD requires an annual

count of all sheltered and unsheltered individuals experiencing homelessness from their Continuums of Care every January. These numbers are reported in public-use datafiles. From this measure, I divided the total number of individuals experiencing homelessness by the total state population and multiply it by 10,000 to obtain a rate of homelessness per 10,000 in the state population.

Analytic Strategy

Because the dependent variable is a count variable, I use a zero-inflated negative binomial regression. Likelihood ratio test for overdispersion confirms that the negative binomial model performed better than a Poisson. A zero-inflated regression distinguishes between two groups of zero values – those that are considered "true" or "structural" zeroes, and those that are not. It then analyzes the data in two models. The first model is a logistic model estimating the likelihood that counties are true zeroes in terms of treatment courts. The second model is a standard negative binomial regression estimating the number of treatment courts. I provide incidence rate ratios for the negative binomial model, and odds ratios for the logistic model.

Missing data stem primarily from a handful of counties in the state of Alaska and from Washington, D.C., who did both did not report enough information for the incarceration rate to be determined. I exclude these counties from the model. I examined the data for potential outliers that would influence results using Cook's D values. There were no observations above a value of 3, so I kept all observations in the model. I first report descriptive statistics for the counties (Table 1), and then report findings from my analysis (Table 2).

RESULTS

While treatment courts in some form exist across all 50 states, counties vary widely in their use of treatment courts. On average, counties reported 1.2 treatment courts. Fifty-one percent of counties reported no treatment courts. Of the counties who had treatment courts the vast majority reported only one or two courts, but some counties reported as many as twenty-nine.

Most counties reported a predominantly Non-Hispanic White population, but racial and ethnic demographics varied widely. On average, counties reported 75% of their residents were White, but this could range from 1% to 100%. Counties also reported a range from 0% to 95% Non-Hispanic Black, but on average counties reported about 9% Non-Hispanic Black residents. On average counties had about 10% Hispanic residents, but this also varied from 0% to as high as 88%. On average, counties reported 6% of their residents identified as another race (which includes among them Asian, Pacific Islander, indigenous groups, and multi-racial individuals). While this was the smallest group on average, this value could range as high as 96%. While there are more women than men currently residing in the United States, there are more counties where men are the majority of residents. On average counties reported 101 men for every 100 women.

Eleven percent of families reported income below the national poverty line, on average across counties. The average unemployment rate was 5%, and the average proportion of adults aged 25 or older with a college degree was 23%. Characteristic of the wide range in socioeconomic status across the United States, counties could report as low as <1% of families in poverty and <1% unemployment rate, or as high as 49% of families in poverty and a 30% unemployment rate.

Forty-five percent of counties in the data were from the south-eastern region of the United States, and 63% were from a state that had voted for Trump in the 2020 presidential election. Fifty-nine percent of counties were located in a state that utilized a three-strikes policy. Twenty-eight percent of counties were located in a state that had abolished the death penalty as of 2020, 5% had a temporary governor-imposed moratorium on executions, and 66% were in a state with an active death penalty.

	Mean/			
Variables	Prop.	Std	Min	Max
Dependent Variable				
Treatment Courts	1.23	2.20	0.00	29.00
Predictor Variables				
Percent Non-Hispanic White	75.84	20.15	1.00	100.00
Percent Hispanic	9.60	13.93	.00	98.90
Percent Non-Hispanic Black	8.89	14.38	.00	87.80
Percent Other Race	5.67	8.61	.00	88.60
Sex Ratio (men per 100 women)	100.95	11.92	72.40	244.10
Percent Families Below Poverty Line	10.45	5.41	.00	49.40
Unemployment Rate	5.11	2.53	.00	30.40
Percent College Graduates	22.62	9.71	.00	79.14
Red State (1=yes)	.63	_	_	_
Southern State (1=yes)	.45	_	_	_
Death Penalty				
Abolished	.28	_	_	_
Temporary Moratorium	.05	—	—	—
Active	.66	—	—	—
Three Strikes State (1=yes)	.59	_	_	_
Control Variables				
Population Size (logged)	10.28	1.49	4.76	16.12
Rural Scale	4.63	1.51	1.00	6.00
State Violent Crime Rate (per 10K)	40.37	12.92	10.86	83.78
Incarceration Rate (per 100K)	9.33	23.97	.00	370.66
Percent Poor Mental Health	15.74	2.04	8.30	23.30
Percent Alcoholism	5.74	.83	4.17	8.77
Percent Illicit Drug Use	3.28	.48	2.33	4.87
Percent Veterans	6.57	2.05	.00	17.56
State Homelessness Rate (per 10K)	11.91	8.11	3.71	46.77
Median Age (years)	41.58	5.46	22.20	68.00

Table 1. Descriptive Statistics for all Study Variables. Compiled Treatment Court Dataset (2020) (N=3,132 counties)

Counties on average had a population of 103 thousand, but this ranged widely from as small as a few hundred to as many as 10 million. Because of the wide range in possible values, I report a logged transformation of population size in the descriptive table. There are more rural counties than urban counties; on average, rurality was 4.6 on a scale from 1 (most urban) to 6 (most rural). Counties could be relatively young (median age of 22 years) or relatively old (median age of 68 years) but on average reported a median age of 42 years.

On average 15.7% of counties' residents reported poor mental health (having >=14 poor mental health days), and poor mental health ranged from as little as 8% of residents to as many as 23% of residents. On average, counties were located in states where 6% of residents reported alcoholism and 3% of residents reported illicit drug use (excluding marijuana). Counties also reported a state violent crime rate of 40 incidents per 10,000 people on average. Nine residents for every 100,000 were incarcerated, on average, but some counties reported having no incarcerated population and others reported 370 incarcerated individuals for every 100,000 residents. Seven percent of county residents were veterans, on average, and counties were in states that had an average of 12 individuals experiencing homelessness for every 10,000 residents.

Table 2 shows a zero-inflated negative binomial regression of various county characteristics on the number of treatment courts. The first half of the table provides results for the logistic model, which predicts the odds that a county does *not* have treatment courts. The second half of the table provides results for the negative binomial model, which predicts the rate of treatment courts among counties that do have treatment courts. I provide odds ratios for the first model, and incidence rate ratios for the second model, for ease of interpretation.

(2020) (N=3,132 counties)	0.7	0.50/ 07
	Variables	OR	95% CI
Logit	Predictor Variables		
	Percent Non-Hispanic Black ^a	.95***	(0.93 - 0.98)
	Percent Hispanic	1.01	(0.98 - 1.03)
	Percent Other Race	1.01	(0.96 - 1.07)
	Sex Ratio (men per 100 women)	1.04*	(1.01 - 1.07)
	Percent Families Below Poverty Line	1.03	(0.93 - 1.14)
	Unemployment Rate	1.00	(0.86 - 1.16)
	Percent College Graduates	1.00	(0.95 - 1.05)
	Red State (1=yes)	.48	(0.19 - 1.00)
	Southern State (1=yes)	5.09e ² ***	$(90.97 - 2.84e^3)$
	Death Penalty ^b	5.070	()0.)7 2.040)
	Temporary Moratorium	7.33e ⁴ ***	$(3.39e^2 - 1.58e^6)$
	Active	1.06e ⁴ ***	$(3.59c^2 - 1.58c^3)$ $(2.65e^2 - 4.24e^5)$
	Three Strikes State (1=yes)	6.73e ¹⁰	$(2.03e^{-4.24e})$ (0.00 - ER)
	· •	0.756	(0.00 - EK)
	Control Variables	0.2(***	(0.17 0.20)
	Population Size (logged)	0.26***	(0.17 - 0.39)
	Rural Scale	0.74*	(0.58 - 0.94)
	State Violent Crime Rate (per 10K)	0.85***	(0.79 - 0.90)
	Incarceration Rate (per 100K)	0.99	(0.97 - 1.01)
	Percent Poor Mental Health	1.28	(0.82 - 2.00)
	Percent Alcohol Use Disorder	1.72	(0.87 - 3.37)
	Percent Illicit Drug Use	5.01e ^{2***}	$(74.68 - 3.36e^3)$
	Percent Veterans	1.18*	(1.03 - 1.35)
	State Homelessness Rate (per 10K)	0.71***	(0.62 - 0.81)
	Median Age (years)	0.98	(0.92 - 1.05)
	Variables	IRR	95% CI
Count	Predictor Variables		
	Percent Non-Hispanic Black	.99	(0.99 - 1.00)
	Percent Hispanic	1.00	(0.99 - 1.01)
	Percent Other Race	.99	(0.99 - 1.00)
	Sex Ratio (men per 100 women)	1.01	(0.99 - 1.01)
	Percent Families Below Poverty Line	1.00	(0.98 - 1.02)
	Unemployment Rate	.99	(0.96 - 1.01)
	Percent College Graduates	1.01*	(1.00 - 1.01)
	Red State (1=yes)	.67***	(0.58 - 0.77)
	Southern State (1=yes)	.85**	(0.75 - 0.96)
	Death Penalty		· · · · · · · · · · · · · · · · · · ·
	Temporary Moratorium	.94	(0.82 - 1.08)
	Active	1.64***	(1.42 - 1.90)
	Three Strikes State (1=yes)	.83***	(0.75 - 0.91)
	Control Variables		(0)
	Population Size (logged)	1.95***	(1.85 - 2.07)
	Rural Scale	1.06*	(1.03 - 2.07) (1.01 - 1.10)
		1.00	(1.01 - 1.10) (1.00 - 1.01)
	State Violent Crime Rate (per 10K)	1 10 1 2 2 2	(1.00 - 1.01)
	State Violent Crime Rate (per 10K)		(0.00 ± 1.00)
	Incarceration Rate (per 100K)	1.00	(0.99 - 1.00)
	Incarceration Rate (per 100K) Percent Poor Mental Health	1.00 1.16***	(1.11 – 1.20)
	Incarceration Rate (per 100K) Percent Poor Mental Health Percent Alcoholism	1.00 1.16*** 1.06	(1.11 - 1.20) (0.97 - 1.17)
	Incarceration Rate (per 100K) Percent Poor Mental Health Percent Alcoholism Percent Illicit Drug Use	1.00 1.16*** 1.06 .86	(1.11 - 1.20) (0.97 - 1.17) (0.72 - 1.02)
	Incarceration Rate (per 100K) Percent Poor Mental Health Percent Alcoholism Percent Illicit Drug Use Percent Veterans	1.00 1.16*** 1.06 .86 1.05***	(1.11 - 1.20) (0.97 - 1.17) (0.72 - 1.02) (1.03 - 1.07)
	Incarceration Rate (per 100K) Percent Poor Mental Health Percent Alcoholism Percent Illicit Drug Use	1.00 1.16*** 1.06 .86	(1.11 - 1.20) (0.97 - 1.17) (0.72 - 1.02)

Table 2. Zero-Inflated Negative Binomial of Racial Demographics, Poor Mental Health, and Illicit Drug Use on the Existence and Number of Treatment Courts. Compiled Treatment Court Dataset (2020) (N=3,132 counties)

Log Likelihood	-3378.61	
N	3,132	

Notes:

^a Percent who identifies as White are excluded as the reference.

^b States that abolished the death penalty are excluded as the reference.

*p<.05; **p<.01; ***p<.001 (two-tailed tests).

First, I find that compared to Non-Hispanic Whites (who are omitted as the largest racial category and to prevent collinearity in the model), as the percent of a county's population that identifies as Non-Hispanic Black increases, the odds that a county does **not** have treatment courts decreases. In other words, for every one percent increase in the proportion of the population that is Non-Hispanic Black, the odds that a county does not have treatment courts decreases by 5%. This is true after controlling for the rates of mental illness, substance use, socioeconomic status, and the other variables in the models. Percent Hispanic and percent other race/ethnicity are not significantly different from percent Non-Hispanic White in the odds of the existence of treatment courts. Among those counties with treatment courts, however, the measures of race or ethnicity were not significant in predicting the number of treatment courts.

Similarly, I find that sex-ratio is significant in predicting the odds that a county does not have treatment courts, but not significant in predicting the rate of treatment courts among those counties where they are present. As the number of men per every 100 women increases, the odds that a county does not have treatment courts increases by 4%. More plainly, counties with higher numbers of men relative to women are less likely to have adopted treatment courts at all, but among those counties with treatment courts sex ratio does not matter in increasing or decreasing the number of treatment courts.

My measures of socioeconomic status were nonsignificant, for the most part. However, among those counties where treatment courts are present, college education is associated significantly with higher rates of treatment courts. For every one percent increase in the

population with a bachelor's degree or higher, the rate of treatment courts in that county increases by 1%.

Political and criminal justice context mattered significantly, both for predicting the existence of treatment courts, and for predicting the number of treatment courts. While being in a red state did not predict the existence of treatment courts, counties who did have treatment courts had 33% lower rate of treatment courts if they were located in a red state than those located in blue states. This was true after controlling for population size, rurality, and other relevant covariates. The southeastern United States is particularly unlikely to adopt treatment court programs, even after accounting for rurality and whether it was a red state. Counties located in southern states had significantly higher odds that they did not have treatment courts than counties located in other regions of the United States. Among those counties with treatment courts, counties located in the south also had a 15% lower rate of treatment courts than counties in other regions.

Counties with punitive criminal justice policies also had fewer treatment courts. Compared to states that abolished the death penalty, counties located in states with a temporary moratorium on executions and counties located in states with an active death penalty had dramatically higher odds of not having treatment courts. Among those counties with treatment courts, the presence of an active death penalty decreased the rates of treatment courts by 64%. The presence of a state three-strikes policy was not significant in predicting the existence of treatment courts in the logistic model, but a state three-strikes policy decreased the rate of treatment courts by 17% among those counties where they were implemented.

DISCUSSION

While I do find that race and ethnicity matter in predicting the existence of treatment courts in counties, I do not find support for my hypothesis that predominantly White populations are more likely to have treatment courts. Instead, counties with greater numbers of Black residents are more likely to have adopted treatment courts, after controlling for various other socioeconomic, political, health, and demographic characteristics of counties. In the debate over the ethics of treatment courts, some critics argue that treatment courts represent an overreach of criminal justice into the social control of those with mental illness. While treatment courts are medicalized when compared to traditional forms of sentencing, it is interesting to find that counties with higher numbers of Black individuals are more likely to have adopted these programs. Given that Black individuals are arrested and incarcerated at higher rates relative to other racial and ethnic identities, these findings should draw the attention of policymakers to the potential that mental illness may be overpoliced in predominantly Black counties relative to other regions. Future research is needed to explore the mechanisms contributing to this pattern and to document the effects of these court programs on well-being in predominantly Black communities.

I find support for my hypothesis that the proportion of women in a county is positively associated with treatment courts. Past research has highlighted that female offenders are more likely to be framed in medical terms (Quintero Johnson and Miller 2016; Stolzenberg and D'Alessio 2004). Counties with higher proportions of women are more likely to have medicalized criminal justice programs, consistent with these patterns.

Poverty and unemployment rate were not significantly associated with treatment courts. However, among counties that used treatment courts, college education was positively associated

with the rate of treatment court programs. Education is typically positively associated with medical treatment, and medical mistrust is typically lower among those with high socioeconomic status (Benkert et al. 2019; Nguyen et al. 2020). The finding that education is positively associated with treatment courts is consistent with the demand-side arguments for medicalization, that individuals pursue medical options as they receive more information in favor of this framing (Conrad 2005). However, income and employment status are not significant in my analyses. It may be that the education of individuals matters more than their income in socioeconomic disparities in the medicalization of deviance, at least through policy implementation.

I find strong support for the role of political context in influencing the adoption of treatment courts. In past work, it is hypothesized that capitalist markets and neoliberal political contexts increase the likelihood of medicalization because of monetary incentives for pharmaceutical companies to do so and because of greater rates of individualization of care (Halfmann 2019). However, treatment courts are funded by taxpayers and administered through governmental entities. Conservative states are more likely to have tough-on-crime policies and who generally invest less in governmental healthcare programs (Thomas III and Edelman 1988). In this case, conservative politics limit medicalization. Southern states also reported fewer treatment courts. This situation is consistent with the relatively harsher criminal justice context of the southeastern states, which report higher rates of incarceration and criminal justice inequality (Davis 2021). I also find that states with the death penalty and with three strikes laws also reported fewer treatment courts. These findings are consistent with my expectations that policy legacies that frame crime through a traditional, punitive lens would be less likely to adopt a medical, rehabilitative view of deviant behavior.

CONCLUSION

By examining the contexts that facilitate treatment court adoption, this study further illuminates the complex social, economic, and political factors that drive the process of medicalization in modern society. Medicalization does not occur evenly across all racial and gender demographics, socioeconomic classes, and political environments. Practitioners and researchers invested in rehabilitative criminal justice reform and supportive medical care for marginalized communities should be aware that these patterns represent possible obstacles for the implementation of policies. Importantly, treatment courts are unevenly applied across racial and ethnic contexts, and it is important to further explore the ways that treatment courts constitute a form of social control for those with mental illness.

This study is limited to a particular form of criminal justice policy that medicalizes criminal behavior, but there are other possible outcomes to examine in studying the role that social and political context plays in medicalizing deviance. Future studies should emphasize how these policies unfold over time, examining whether changes in social context (e.g., increased immigration, political movements) facilitate changes in medicalization. These findings are also limited to the demographic and social characteristics of counties where medicalized policy is adopted, but it does not account for variation in the behavior of stakeholders such as medical institutions, insurance or managed care companies, pharmaceutical companies, or consumers across these counties. Additional examination is needed to determine the role that these stakeholders play in the effect of community characteristics on policy adoption.

CHAPTER V

Conclusion

A goal of this research was to expand the understanding of the role of race and gender in the processes of medicalization and criminalization. The events of 2020 brought the issues of systemic inequality in the criminal justice system and in healthcare to the forefront of the national conversation. The murders of George Floyd, Breonna Taylor, and others sparked nationwide protests across the country that called for a fundamental reimagining of the criminal justice system. Arguments for defunding the police pointed towards the absence of resources in addressing mental health crises, the issues of framing these crises as in need of policing, and the harms and losses to human life resulting from these interactions (Gerberg and Li 2022). Movements such as #SayHerName highlighted the importance of intersectionality and gender in addressing these harms (Kelly and Glenn 2020). Additionally, the COVID-19 pandemic exacerbated mental distress and highlighted the gaps and flaws within the medical system in addressing mental health of all groups (Etienne 2022; WHO 2022). This national conversation highlighted the need for a deeper examination of the social control of mental illness and the role of the criminal justice system in perpetuating racial and gender inequalities. I seek to contribute to these important issues by deepening our understanding of the ways that racial and gender stratification in the United States shapes our perceptions of deviant behavior as either criminal or medical.

Each of the three studies tested hypotheses regarding the importance of race and gender as social constructs in informing the criminalization or medicalization of deviance. In Paper One, I studied variation in the relationship between personality traits and arrest by race-gender status

using data from the 1997 cohort of the National Longitudinal Survey of Youth. The research in Paper Two was dedicated to studying the role of race-gender status in moderating the relationship between mental illness and arrest, and mental illness and mental health treatment using data from the 2020 wave of the National Survey of Drug Use and Health. In Paper Three, I studied the effect of racial, gender, socioeconomic, and political contexts on the use of treatment courts using compiled data from the Substance Abuse and Mental Health Services Administration, the American Community Survey, and other governmental sources. In this concluding chapter, I briefly outline the findings and the importance of these analyses.

THE CRIMINALIZATION OF PERSONALITY

In Paper One, I investigated the role of race-gender status in moderating the relationship between personality traits (such as agreeableness, extraversion, and emotional stability) and arrest history. Personality traits have been theorized as an explanation for deviant behavior and for criminal justice involvement – in essence, that someone who is warm and empathetic, organized and dependable, conventional and emotionally stable is a pro-social individual and is therefore less likely to be involved in criminal behaviors that would result in arrest (Agnew et al. 2002; Van Gelder and De Vries 2012; Gottfredson and Hirschi 1990). However, these theories largely ignore the significant race-gender inequalities in the criminal justice system, including the role of race and gender stereotyping in perceptions of deviance and guilt (Geis 2000; Slakoff 2020; Smiley and Fakunle 2016; Weare 2013). I hypothesized that race-gender status shapes the perception of individuals' agreeableness, extraversion, emotionality, openness, and conventionality as deviant or normative. I drew on the framework of symbolic interactionism to conceptualize how race-gender status would inform arrest rates by personality traits, and drew from the work of critical and feminist criminologists to analyze my findings.

My findings from Paper One contributed to the literature in three ways. First, by examining personality traits as a contributing factor to race-gender disparities in arrests, my research adds to previous studies on disparities in resources, stressors, and policing in the criminal justice system. Second, this analysis exposes limitations to criminological theories that rely on personality traits as an explanation of criminal justice involvement. Third, by examining how personality traits that are criminalized for each race-gender status, I contribute to the literature that explores the expected behaviors and stereotypes associated with different racegender statuses.

Analyses from the 1997 cohort of the National Longitudinal Survey of Youth showed that the traits of extraversion, emotional stability, conscientiousness, agreeableness, and openness to experience were significantly associated with arrest history. However, the significance and the directionality of these relationships varied across Black, Hispanic, and White men and women. Key findings include that women are more likely to be arrested for emotional instability than Black and Hispanic men. Self-discipline and warmth were significant for men of color, but not for other groups, in reducing likelihood of arrest. Black women were also criminalized for criticality or quarrelsomeness, but these traits were not significant for other race-gender statuses. These findings demonstrate the limitations of using personality traits as an explanation for deviant behavior. While personality traits can inform one's social behaviors, whether those behaviors are seen as deviant is ultimately shaped by race and gender stereotypes.

THE CRIMINALIZATION AND MEDICALIZATION OF MENTAL ILLNESS

In Paper Two I studied how the effect of mental illness on arrests and the effect of mental illness on treatment varied across race-gender statuses. Literature on medicalization and criminalization as competing forms of social control has highlighted disparities by race, gender, and race-gender status (Heitzeg 2015; Ramey 2015). For example, the media more often frames White individuals' substance use in medical terms (e.g. epidemic, substance use disorder). However, Black and Hispanic individuals' substance use is more often framed in criminal terms (Lindsay and Vuolo 2021). I surveyed past literature that explored racial and gender differences in perceptions of criminality, in criminal justice involvement, in perceptions of medical need, and in medical care access. However, less work has examined the relative criminalization and medicalization of mental illness specifically across race-gender statuses.

Using logistic regression analyses of the 2020 wave of the National Survey of Drug Use and Health, I found that race-gender status moderated the relationship between mental illness and treatment utilization, and mental illness and arrest history. This finding supports the hypothesis that race-gender status informs the medicalization and criminalization of mental illness, resulting in disparities in life chances by race-gender status. Specifically, I find that White women experience the highest levels of medicalization compared to other groups, and that mental illness plays a significant role in arrest for women but not for men. I find that Black women and Hispanic men are both at high risk for criminalization but have lowest likelihood of medicalization.

In Paper Two, I contribute to the research literature in three ways. First, this paper broadens our knowledge of inequality in criminal justice involvement by exploring the role of mental illness, which has been understudied as a mechanism despite its well-known prevalence

among incarcerated populations. Second, this research provides insight into which groups are more likely to be affected by the (trans)institutionalization of mental illness, thus contributing to ongoing debates regarding the effects of de-institutionalization on incarceration rates. Finally, this research deepens our understanding of barriers to mental health treatment by considering the role of criminalization.

MEDICALIZATION THROUGH CRIMINAL JUSTICE POLICY

In Paper Three, I turn to examining medicalization at the policy level. I focus on treatment courts, which are programs that identify and redirect individuals charged with a crime due to mental illness or substance use away from traditional sentencing and into mandated treatment. I conceptualize these courts as evidence of a shift towards the medicalization of deviant behavior. While treatment courts are present in all 50 states, not all counties use them, and some counties rely on more treatment courts than others. These treatment courts offer an opportunity to explore the factors that contribute to the medicalization of crime across different contexts.

These findings from Paper Three contribute in three ways. First, this paper contributes to the literature on the mechanisms of medicalization by examining the role of race, gender, and class as predictors of treatment court programs. Second, this work extends our understanding of the role of policy legacies in the process of medicalization. Third, given that treatment courts lessen recidivism and substance use compared to traditional sentencing, this work further illuminates race, gender, and class inequalities in the United States criminal justice system by studying disparities in the use of these programs.

I hypothesized that racial, gender, socioeconomic, and political characteristics of counties influence the medicalization of crime, and therefore the number of treatment courts that a county utilizes. Using a dataset that I compiled from several government organizations, such as the Substance Abuse and Mental Health Services Administration, the US Census Bureau, and the Center for Disease Control, I examine the effect of racial demographics, sex ratio, income, poverty, education, political leanings, region, and criminal justice policy on the number of treatment courts at the county level. I find that treatment courts occur most often in counties with a high percent Black population, a high proportion female population, and a high proportion college educated population. I also find that treatment court programs are fewest in number in counties that are in red states, in southeastern states, and in states with the death penalty.

The medicalization of crime through criminal justice policy is not inconsequential. Traditional forms of sentencing, such as incarceration, negatively affect the health and mental health of individuals. Individuals who go through treatment courts have lower recidivism rates and substance use rates than individuals who go through traditional courts (Sarteschi et al. 2011; Wittouck et al. 2013). Despite these benefits, these court programs aren't without criticism. There are valid concerns that these programs relegate greater responsibility to the criminal justice system for the management of medical conditions such as mental illness (Cooper 2017). That race, gender, education, and political contexts influence the adoption of these courts for the management of deviant behavior is important for clarifying this discussion.

IMPLICATIONS

Much of the focus of this dissertation is on studying the processes of medicalization and criminalization as forms of social control. Studying these processes of social control are not just

intellectual exercises. The ways that our society frames behavior – whether stemming from personality traits, mental illness, or substance use – as criminal or as medical shape the life experiences of individuals in tiny ways and in earth-shattering ways. The criminal justice institution and the medical institution constitute major mechanisms through which society regulates and shapes the behavior and experiences of the individuals within society. Criminal justice involvement significantly harms the health, wealth, and political voice of individuals (Patterson 2010; Wildeman and Wang 2017). Critical criminologists have pointed out ways that the criminal justice institution generates and reinforces racial and gender stratification in the United States. Feminist scholars have studied ways that the medical system similarly reinforces gender hierarchies (Kempner 2017; Offman and Kleinplatz 2004; Parens 2013; Tasca et al. 2012) More research is needed in studying the role that race and gender play in the medicalization and criminalization of deviance, as the outcomes associated with this process are significantly stratified by race and gender.

In Paper One I tackle this issue by critically assessing personality theories of crime. Rather than taking for granted that personality traits are universally deviant or normative, the findings from Paper One should encourage criminologists to better account for the role of racegender status in the framing of individuals as deviant. The criminal justice system has brought significant harm to communities of color (and to men of color in particular). Neglecting the role of racial and gender stratification in explaining criminal justice involvement does little to address that harm. Efforts to address race and gender bias in the criminal justice system should consider disparities in the interpretation of behaviors or traits as criminal, such as in the case of personality traits demonstrated in Paper One.

In Paper Two, I further investigate the importance of race-gender status in the social control of individuals by examining the differential criminalization and medicalization of mental illness for Black, Hispanic, and White men and women. Findings indicate that Black women and Hispanic men are at particular risk of criminalization rather than medicalization. While Black men are undeniably at greatest risk of incarceration and criminalization overall (Edwards, Lee, and Esposito 2019; Smiley and Fakunle 2016), Black women and Hispanic men are more often overlooked in conversations surrounding criminal justice reform (Tillet 2015; Urban Institute 2023). Reforms addressing the criminalization of mental illness should not neglect these two groups.

Finally, I use Paper Three to further expands our knowledge of the factors that contribute to the medicalization of deviance by assessing which contexts are most likely to utilize medicalized approaches to criminal behavior. The findings further show that the medicalization of deviance does not happen universally or evenly across contexts. Race and gender shape our approaches to crime and social control, and this plays out at the county level as well. The events of 2020 generated momentum for criminal justice reforms, such as treatment court programs. But the disparities brought to light in those same events can be re-imposed into our new systems if the ways that we frame deviant behavior remain gendered and racialized. These findings are particularly important for policy makers and activists, as well as researchers of medicalization.

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