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Rearrests During Mental Health Court Supervision: Predicting Rearrest and its Association With Final Court Disposition and Post-court Rearrests

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Abstract

Mental health courts are one means to address the involvement of persons with mental illness in the criminal justice system. Using a sample of 811 participants of a municipal mental health court, this study found that 23.2% of participants were rearrested during court supervision. This study also identified factors associated with these rearrests, as well as the effects of rearrests during supervision on program completion and rearrests in the one-year period following program completion. This study concludes with implications for mental health court supervision.

Rearrests during mental health court supervision:

Predicting rearrest and its association with final court disposition and post-court rearrests

Mental health courts have emerged over the last two decades as one means to address the involvement of persons with mental illness in the criminal justice system (Sarteschi & Vaughn, 2013). It is a type of problem-solving or specialty court that seeks to address underlying factors that may have contributed to the criminal activity that led to referral to the court (Berman & Feinblatt, 2001; Casey & Rottman, 2003; Wiener & Brank, 2013). Berman and Feinblatt (2001) outlined five characteristics of problem-solving courts. Four are particularly relevant to mental health courts. First is a focus on improved outcomes for offenders, as well as crime victims and society in general. Second is the continual involvement of judges in supervising cases post-adjudication. Third is collaboration between prosecutors, defense attorneys, service providers, judges, and probation and parole officers, as well as offenders and victims, for the purpose of achieving therapeutic, rehabilitation, and public safety outcomes. A final characteristic is nontraditional roles for key parties, such as judges playing an active role in brokering service plans and monitoring compliance with those plans. Prosecutors and defense attorneys also work together to identify sanctions and rewards to promote better outcomes for offenders.

Over 300 mental health courts are in operation in the United States (Council of State Governments, 2014). Although mental health courts share the characteristics of problem-solving courts, variations still exists among mental health courts. Redlich, Steadman, Monahan, Robbins, and Petrila (2006) found courts differed in size, varying in the number of new cases that went before the courts annually, as well as the number of offenders the courts monitored. Courts also differed in the percentage of misdemeanor versus felony cases that came before the courts, with 40% of mental health courts working only with defendants with misdemeanor charges, 10% with

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felony charges only, and the other half accepting offenders with both charge types. The party or

parties that supervised mental health court participants in the community varied too, and

included treatment staff, probation officers, mental health court staff, and law enforcement. Next,

variation existed in the frequency of appearances before the mental health court judge, with most

courts having required weekly or monthly attendance. Finally, they found courts varied in their

use of jail as a sanction, with courts that worked with felony cases using jail as a sanction more

frequently. Across these variations, mental health courts generally have positive outcomes. A

recent meta-analysis of 18 published and unpublished evaluations of mental health courts

concluded that, overall, mental health courts were moderately effective in reducing criminal

recidivism, and to a lesser extent, improving clinical outcomes (Sarteschi, Vaughn, & Kim,

2011).

The Council of State Governments Justice Center led an effort to identify the essential

elements of mental health courts to assist communities with designing and implementing

effective courts, while still allowing for some differences between them (Thompson, Osher, &

Tomasini-Joshi, 2007). One of the 10 essential elements is establishing conditions for

participation unique to the needs of the individual, monitoring adherence to these court

requirements, and using incentives and sanctions to shape behavior during supervision.

Recognizing that relapse can be part of recovery, this essential element included that graduated

sanctions should be employed to address violations of court-ordered conditions. This is

consistent with the application of graduated sanctions used by specialized probation units that

work with probationers with mental illness (Louden, Skeem, Camp, & Christensen, 2008).

Examples of sanctions used in mental health courts include lectures from the judge; added

supervision time with more court hearings; community service; increased frequency of contacts

with criminal justice, social service, or mental health personnel; loss of privileges granted by the courts; and shock incarceration, that is, a short jail term designed to provide additional motivation for compliance with court-ordered conditions (Callahan, Steadman, Tillman, & Vesselinov, 2013). If violations of conditions continue despite sanctions, mental health court participants can be negatively terminated from the court, which results in a conviction on the charges for which they entered the court, as well as a fine, or incarceration in jail or prison. In contrast, mental health court participants who successfully complete supervision have their criminal charges dropped or avoid jail time if a conviction is required (Sarteschi & Vaughn, 2013).

One of the most severe violations of mental health court-ordered conditions is arrest for a new criminal offense during mental health court supervision. This is an understudied aspect of mental health courts, with no studies focused solely on this topic. Only three published studies were identified that reported rates of rearrests during mental health court supervision. Ray (2014) reported a rate of 27.8%; Hiday, Ray, and Wales (2014) reported rates of 12.2% for participants who graduated from the mental health court program and 33.5% for who were noncompleters, and Dirks-Linhorst, Kondrat, Linhorst, and Morani (2013) reported a rate of 20.2%.

Each of the three studies also included rearrests during supervision as a variable in multivariate analyses of mental health court recidivism or graduation. Ray (2014) found that rearrests during supervision increased the odds of rearrests following discharge from a mental health court while controlling for other factors. Other factors that increased the odds of rearrest following discharge included being younger, increased number of prior arrests, and having a negative termination from the mental health court. Dirks-Linhorst et al. (2013) and Hiday et al. (2014) found that that rearrests during supervision increased the odds of negative termination

from the mental health court when controlling for other factors. Other factors in the Dirks-Linhorst et al. (2013) study that increased the odds of negative termination included being male, being a racial minority, having multiple diagnoses, being referred for the crime of stealing, and being referred for multiple crimes, whereas having a history of substance abuse, having more scheduled court appearances, and being prescribed psychiatric medication decreased the odds of negative termination. Other factors in the Hiday et al. (2014) study that increased the odds of negative termination were being a racial minority, having drug use as a key arrest, failing to appear at a court session, and having a positive drug test ratio.

Some additional studies of mental health courts reported rates of rearrests but included rearrests from the date of entry into the court without differentiating between rearrests during mental health court supervision and those following discharge from the court (Anestis & Carbonell, 2014; Christy, Poythress, Boothroyd, Petrila, & Mehra, 2005; Moore & Hiday, 2006). Other studies used the mean number of days mental health court participants were jailed during supervision (Burns, Hiday, & Ray, 2013; Palermo, 2010) without including the rate of rearrests. The use of jail days also undercounts rearrests since not all arrestees are jailed.

The current study is the first to focus on rearrests during mental health court supervision. The site of the study is a municipal mental health court (MMHC) located in a large Midwestern suburban county in the United States. Four judges from the three county municipal courts each hold monthly special dockets in a central location for MMHC participants. Participants are approved for the special docket by the judges through transfers from the regular docket or by county counselors, who function as prosecuting attorneys in municipal cases. All participants must participate in mental health and support services appropriate to their psychiatric condition, as well as participate in employment activities, secure housing, or other activities that may

stabilize their living situation. The MMHC does not provide any services. Rather, participants

must secure services available in their respective communities. The MMHC has recruited a small

number of psychiatrists who treat participants without charge for those who cannot obtain

services elsewhere. Two MMHC case managers complete intake assessments on offenders

referred to the MMHC, serve as liaisons with mental health professionals who work with

MMHC participants, provide supervision, and participate in case conferences held prior to court

sessions and in the court sessions themselves. Supervision consists of participants calling one of

the case managers at least weekly and providing written verification of participation in court-

ordered activities, and any feedback to case managers received from participants' family

members or friends. This information is reviewed in case conferences held prior to the MMHC

docket. By the end of its first 11 years, the program had processed 1,438 referrals and discharged

1,328 cases. Among the 1,328 cases closed during the program's first 11 years, 67.7% ($N = 811$)

had completed MMHC supervision in the community and were discharged from the MMHC. Of

those who completed supervision, 27.6% ($N = 167$) had a negative termination, that is, they did

not meet MMHC conditions and were convicted and sentenced by the MMHC judge, while the

remaining 72.4% ($N = 644$) successfully completed supervision, with most having their criminal

charges dropped at discharge and others receiving a suspended imposition of sentence and

supervision by county probation. Most of the discharged cases that were not supervised by the

MMHC either did not meet eligibility criteria, chose not to participate, did not show up for their

first court case and were transferred back to the regular docket, or resolved their criminal charges

at or before the first court session. Additional information about this MMHC is presented

elsewhere (Linhorst et al., 2010).

Using data from this suburban MMHC, this study had four research aims. First was to

identify the rate of rearrest among MMHC participants during court supervision and the types of crimes for which they were rearrested. Second was to identify the factors that predict rearrests during MMHC supervision. Third was to identify the graduation rate of participants who were rearrested during MMHC supervision and the rate of rearrests during the one-year period after leaving the mental health court and how these rates compared to mental health court participants who were not rearrested during supervision. A final aim was to determine the effect of rearrests during MMHC supervision on type of termination from the MMHC and on rearrests post-MMHC, while controlling for other factors.

Methods

Dataset

MMHC case managers maintain an electronic database of all persons referred to the court. A university professor reviews the database annually, assists with data clean-up, and writes an annual report from that data. This study used a subset of participants from the MMHC dataset. It included all cases in which participants completed MMHC supervision and were discharged by the end of the eleventh year of the program, with two exceptions. First, 97 cases were excluded for which valid information did not exist for rearrests during supervision. Second, 20 participants who were of races other than African American and Caucasian were excluded because of their small numbers and to have a more specific comparison between Caucasian and African American participants rather than combining African American with other races into a racial minority variable. This resulted in the 811 cases used in this study.

Variables

Dependent variables. The study incorporated three dichotomous dependent variables. The first was rearrests during MMHC supervision. As part of the process of monitoring MMHC

participants during supervision, a MMHC case manager enters the participants' names into a national crime database, and, if arrested, the community corrections office of the county department of justice services is notified. This arrest data then is reviewed in MMHC case conferences held prior to court and entered into the MMHC database. If participants were rearrested for more than one crime, the most serious charge was recorded. Rearrest was categorized in two ways. One was whether or not participants were rearrested for any crime, regardless of severity. Starting in its ninth year, the MMHC also began to enter into its electronic database the severity of rearrests, coded into the ordinal categories of municipal violations, state misdemeanors, and state felonies. The variable rearrests under supervision (yes/no) was also included as an independent variable in the analyses of termination status and rearrests one-year post-discharge from the MMHC. The second dependent variable was the type of termination from MMHC supervision. A positive termination is defined as meeting conditions of MMHC supervision and being discharged from the program, usually with criminal charges dropped. A negative termination is defined as not meeting MMHC conditions and consequently being convicted and sentenced by the MMHC judge. This variable was also included as an independent variable in the analysis of rearrests one-year post-discharge from the MMHC. A third dependent variable was rearrests during the one-year period following discharge from the MMHC. Rearrest data post-MMHC were collected by an MMHC case manager from a national crime database for arrests made during the one-year period from the official date of discharge from the MMHC.

Independent variables. The study incorporated four sets of independent variables. Demographic variables included age in years at time of referral to the MMHC, gender, race (Caucasian or African American), marital status (never married – yes/no), employment status, living arrangement, and county of residence. Employment status was measured at the time of

discharge from the MMHC and included three categories: employed full-time or part-time; not seeking employment because the participant was receiving disability benefits, was retired, or was a high school or college student; and unemployed. Living arrangement was coded as independent living, that is, living alone, with a roommate, or spouse; living with parents; living with other family members; or living in a congregate setting, which included group homes, homeless shelters, and residential treatment. County of residence included the suburban county in which the MMHC is located, a large urban county that borders the suburban county, and other counties.

Second were clinical variables. Primary clinical diagnosis was coded as bipolar disorder, depression, schizophrenia, and other disorders. The first three diagnoses were the most frequent primary diagnoses, constituting of 88% of primary diagnoses. This coding of diagnostic categories and the distribution of percentages across the three major categories is consistent with other studies of mental health courts (e.g., Burns et al., 2013). Diagnoses in the other category included 11 disorders, the most frequent of which were anxiety disorders, attention deficit disorder, intellectual disabilities, and post-traumatic stress disorder. A variable was also created that included whether or not participants had multiple diagnoses from among the four diagnosis categories. The MMHC requires that participants provide a written statement from a mental health professional indicating the participants' psychiatric diagnosis. Some mental health professionals did not include substance abuse in their diagnoses because it alone does not qualify for admission to the MMHC. Instead, this study used a history of substance abuse variable, which was determined by participant self-report of substance abuse or past substance abuse treatment, or having substance dependence or abuse diagnoses. Two other clinical variables included whether or not participants were prescribed psychiatric medication at the time of MMHC discharge and whether or not they had health insurance.

Next were two crime variables. The first was the type of offense that led to referral to the MMHC. The five offense categories were assault; public order crimes, including drug and alcohol offenses, peace disturbance, property damage, or trespassing; driving offenses, including driving while intoxicated, leaving the scene of an accident, or driving with a revoked or expired driver's license (routine traffic tickets were excluded); stealing; and an other category. Nine crimes comprised the other category, the most frequent of which included harassment; interfering with a police officer; property maintenance violations; and filing false police reports. If participants were charged with more than one crime, the most serious crime was used to code the type of crime. A second crime variable was whether or not participants had multiple criminal charges that led to referral to the court.

The final category was program-related variables. First was the court of jurisdiction, which included the South Court, the North Court, and the West Court. Court of jurisdiction was included as a variable to control for any differences in judges and the geographic areas served by the courts. The courts were presided over by four different judges, with the largest court, the South Court, having two judges. The geographic areas served by each court varied by socioeconomic status and by the percentage of African American participants served by the courts. For example, the percentages of African American served by each court included 7.6% in the South Court, 20.3% in the West Court, and 64.3% in the North Court. Second was the source of referral to the MMHC, which was coded as the court, including judges and county counselors, police officers with special training in mental health and crisis intervention (i.e., CIT officers), and an other category. The other category includes referrals by municipalities within the suburban county in which the MMHC is located that had referral contracts with the county, probation officers, social service agencies, the county municipal property maintenance court,

private attorneys, and the county municipal court confined docket for participants who were

referred while still in jail. Third was whether the case was the first admission to the MMHC or

the second or more admission. Fourth was the length of MMHC supervision, calculated from the

date the MMHC case managers processed the referral to the official date participants were

discharged from the MMHC.

Analytic Plan

     Data analyses. Chi-square was used to determine statistical differences between

categorical variables in the bivariate analyses. Because the three dependent variables (arrests

under supervision, termination status from the MMHC, and rearrests during the one-year period

following discharge from the MMHC) are all dichotomous, the appropriate statistical method for

assessing the relationship of multiple independent variables to a dichotomous dependent variable

is multiple logistic regression (Vittinghoff, Glidden, Shiboski, & McMulloch, 2012). Logistic

regression calculates the odds of an event occurring (e.g., rearrested during supervision) while

controlling for the effects of the other variables. This analysis produces an odds ratio, in which

values above 1.0 indicate the odds of rearrest are increased when the attribute of that independent

variable is present (e.g., the client is male) and values below 1.0 indicate the odds of arrest are

decreased when the attribute of the variable is present. Three separate logistic regression

equations were estimated, one for each of the dependent variables. Full results are reported only

for the model that examined rearrests during MMHC supervision. For the other two models

(negative termination and rearrests post-discharge), the odds ratios are provided only for

rearrests during supervision, as this is the focus of the study.

     Missing data. The dataset had a small amount of missing data, particularly among those

who failed to attend their first appointment and could not complete the assessment process.

Missing data is problematic because it can result in measurement error and lead to incorrect conclusions regarding the relationship between variables (Roth, Switzer, & Switzer, 1999). The amount of missingness per variable ranged from 0 to 3.3%; and, out of a possible 24,330 data points in the dataset, only 96 (.4%) had missing data. Depending on the source, acceptable levels of missingness range from 10% to 40% (Fox-Wasylyhyn & El-Masri, 2005). Results from Little's Missing Completely at Random test suggest that missing data were not missing completely at random, χ^2 (436, $N = 811$) $= 623.5$, $p < .01$. Missingness was unrelated to any of the three dependent variables, leading to the provisional conclusion that the missing data were missing at random (Allison, 2001). Multiple imputation was used to replace missing values. Five datasets were imputed. All independent and dependent variables were used to predict missing values, with dichotomous values being rounded (Allison, 2001). SPSS version 22 multiple imputation algorithm was used to impute the five datasets. The algorithm for missing data uses variability in and between each of the imputed datasets to arrive at final pooled statistic, including standard errors, effective degrees of freedom, and p-values. SPSS does not pool together the chi-square statistic for model fit, nor does it provide a single Nagelkerke R^2. In both cases, the mean value for each of the five imputed datasets is reported.

Results

Description of Participants

Among the study group of 811 participants, the mean age at time of admission to the court was 35.1 years ($SD = 14.0$) and ranged from 16.6 to 88.6 years. Most participants were male (62.0%); Caucasian (74.7%); and never married (73.1%; missing data = 3). Only 29.3% of participants were employed full or part time. Others were not seeking employment because they were students, were retired, or had disability income (52.9%), while the remainder were

unemployed (17.8%) (missing data = 6). Participants tended to live independently, that is alone,

with a roommate or spouse (40.9%), or with parents (38.2%) (missing data = 13) and resided in

the suburban county in which the MMHC was located (79.4%). Primary psychiatric diagnoses

included bipolar disorder (41.6%), major depression (24.1%), schizophrenia (22.3%), and other

diagnoses (12.4%), with 21.5% having multiple diagnoses (missing data = 26). An additional

58.2% of participants had a history of substance abuse (missing data = 8). Most participants

(90.5%) were prescribed psychiatric medication at the time of case closure. Most participants

also had either public or private health insurance (83.3%; missing data = 8). Primary crimes for

which participants were referred to the MMHC were assault (44.6%), public order crimes

(25.4%), stealing (10.7%), driving offenses (10.7%), and other offenses (8.5%), with 31.4%

having multiple crimes. The majority of participants' cases went before the South Court (55.1%),

which has two judges assigned to it because of its larger caseloads, followed by the North Court

(27.3%) and the West Court (17.6%). Most referrals to the MMHC came from judges or county

counselors (49.8%), followed by CIT police officers (30.7%), and other sources (19.5%). A

small percentage of cases (12.8%) was participants' second or more admission to the MMHC.

The mean length of MMHC supervision was 11.6 months ($SD = 6.5$; range 1.1 to 42.8 months).

Rate of and Factors Associated with Rearrests during Supervision

Almost one-fourth of MMHC participants (23.2%) were rearrested during MMHC

supervision. Most of the crimes for which participants were rearrested were non-felonies.

Severity of crimes included 64.7% municipal crimes, 8.2% state misdemeanors, and 27.1% state

felonies. Several factors affected the odds of being rearrested during MMHC supervision.

Among demographic variables, being under 21 years of age compared to over 45 years of age

increased the odds of rearrest ($OR = 2.12$), while residing in the urban county bordering the

MMHC decreased the odd of rearrest compared to residing in the suburban county in which the MMHC is located (*OR* = .53). Gender, race, marital status, employment status, and living arrangement were not associated with rearrest. Three clinical variables were associated with rearrests during supervision. Being diagnosed with bipolar disorder decreased the odds of rearrest compared to being diagnosed with schizophrenia (*OR* = .81), having a history of substance abuse increased the odds of rearrest (*OR* = 1.82), and being on psychiatric medication at case closure decreased the odds of rearrest (*OR* = .34). The diagnoses of depression and other diagnoses category compared to schizophrenia, multiple diagnoses, and insurance status were not associated with rearrest. Among crime variables leading to referral to the MMHC, public order crimes compared to assault increased the odds of rearrest (*OR* = 1.66). Having multiple charges also increased the odds of rearrest (*OR* = 1.72). Referral charges of stealing, driving offenses, and other crimes, compared to assault, were not associated with rearrest. Three program-related variables were associated with rearrests during supervision. Being referred to the MMHC by persons in the other category compared to court referrals (judges/county counselors) increased the odds of rearrest (*OR* = 2.22). Also, participants admitted to the MMHC for the second time or more increased the odds of rearrest (*OR* = 2.60). Next, each month in the MMHC increased the odds of rearrest by 9% (*OR* = 1.09). Referral to the program by CIT police officers compared to court referrals and court location were not associated with rearrest. Table 1 includes more information on factors associated with rearrests during mental health court supervision.

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Place Table 1 about here

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Rearrests during Supervision and Program Outcomes

Participants who were rearrested during MMHC supervision were at a greater risk for negative termination than those who had a positive termination, 48.9% and 12.0%, respectively, χ^2 (1, N = 811) = 120.2, p = .000. Among participants who were rearrested, those charged with more serious crimes were more likely to be negatively terminated from the court. The negative termination rates from the MMHC were 43.6% for municipal crimes, 57.1% for state misdemeanors, and 73.9% for state felonies, χ^2 (2, N = 85) = 6.0, p = .049. The relationship between rearrests during supervision and program termination was supported in the multivariate analysis, χ^2 (32, N = 811) = 252.4, p = .000; Nagelkerke R^2 = .419. Being rearrested during supervision increased the odds of negative termination when controlling for demographic, clinical, crime, and program-related variables, β = 2.20, OR = 9.02, p = 000.

Participants who were rearrested during supervision also had higher rates of rearrests during the one-year period after discharge from the MMHC compared to those who were not rearrested during supervision, 47.3% and 22.6%, respectively, χ^2 (1, N = 811) = 43.4, p = .000. However, the relationship between rearrests during supervision and rearrests post-discharges was not replicated in the multivariate analysis. In a model controlling for the demographic, clinical, crime, and program-related variables, χ^2 (33, N = 811) = 199.9, p = .000; Nagelkerke R^2 = .312, rearrests during supervision was not associated with rearrests post-discharge, β = .26, OR = 1.29, p = .259, while being negatively terminated increased the odds of post-discharge rearrest, β = 1.43, OR = 4.16, p = 000.

Discussion

Almost one-fourth of MMHC participants (23.2%) were rearrested during supervision. This is consistent with the rate of rearrest under supervision of 27.8% reported by Ray (2014) in

a study of recidivism in a mental health court that accepted misdemeanor and felony cases and required that participants remain compliant for six consecutive months to have a positive termination. The mean length of time in that mental health court was 8.8 months. Hiday et al. (2014) reported rates of rearrest under supervision separately for participants who graduated from the mental health court program (12.2%) and those who were noncompleters (33.5%) in a study of mental health court graduation. The mental health court that was the focus of their study accepted misdemeanors only, and the length of court supervision was 4 to 6 months, which is considerably less than the mean length of supervision of 11.8 months for MMHC participants. Finally, a study of mental health court nonparticipation and negative termination from the same mental health court as the current study, but with a slightly different population, identified a rate of rearrest under supervision of 20.2% (Dirks-Linhorst et al., 2013).

The factors associated with rearrests during supervision have similarities and differences with predictors of general recidivism identified by Bonta, Law, and Hanson (1998) in a meta-analysis of studies of recidivism among offenders with mental disorders. Several comparable variables were included in the current study and the meta-analysis. Both identified that younger persons were more likely to recidivate. The meta-analysis also identified that males, persons never married, and persons with employment problems were more likely to recidivate, while the current study did not. Among clinical variables, both studies found that persons with a history of substance abuse were more likely to recidivate. This emphasizes that mental health court participants with histories of substance abuse need to participate in treatment, particularly the evidence-based intervention, integrated treatment of co-occurring psychiatric and substance disorders (Mueser, Noordsy, Drake, & Fox, 2003; Substance Abuse and Mental Health Services Administration, 2005). Finally, the meta-analysis identified that the number of prior offenses

predicted recidivism. While this variable is not included in the MMHC database, two variables approximate it, those being charged with multiple crimes and those having multiple admissions to the MMHC, both of which were found to increase the odds of rearrests during supervision, consistent with the meta-analysis.

The current study identified that participants who were prescribed psychiatric medication at case closure were less likely to recidivate, a factor not included in the meta-analysis. Anecdotally, MMHC case managers report that when participants with serious mental illness are not prescribed medication it is often because participants did not want to take medication for a variety of reasons (e.g., cost, side effects), and secondarily, a limited number of participants were unable to access the services of a psychiatrist. As such, helping mental health court participants access mental health services, including psychiatric medication and sound alternative approaches to taking medication, should be an essential function of mental health courts.

Considering crime variables, participants referred for public order crimes were more likely to be rearrested during supervision compared to the more serious crime of assault, and those referred with multiple offenses were also more likely to be rearrested. One possible explanation for the former finding is that assaults may be situational and limited in frequency, while at least some of the crimes that comprise public order crimes, such as drug and alcohol offenses, trespassing, and driving offenses may reflect ongoing patterns of behavior. While providing closer supervision of mental health court participants who commit assault seems logical because of the serious nature of the offense, these results suggest that the lesser offenses constituting public order crimes deserve attention as well. In addition, variation in rearrest rates did not exist across the three court sites, indicating a consistency in court processes across the various jurisdictions despite different judges and different racial and socioeconomic groups

served by the three jurisdictions. It is uncertain why participants referred from other sources compared to court referrals increased the odds of rearrest. One can speculate that these sources only refer cases to the MMHC that are particularly difficult, which, anecdotally, happens with referrals from municipalities, probation officers, and the confined docket and may happen with others in that category as well. Finally, increased length of time in the MMHC was associated with rearrests during supervision. Participants who were rearrested during supervision and not immediately terminated from the MMHC may have been given additional supervision time to receive monitored treatment and demonstrate their ability to not incur additional rearrests.

This study also found that rearrests during supervision increased the odds of negative termination in both the bivariate and multivariate analyses. Hiday et al. (2014), in a multivariate analysis, reached the same finding, defining rearrests during supervision in the same way as the current study. In another multivariate analysis, Burns et al. (2013) measured rearrests during supervision in a different way, as the number of days jailed during court supervision, and reported that rearrests during supervision was not associated with the mental health court completion. In addition, this study found that rearrests during supervision did not affect the odds of rearrest post-MMHC in the multivariate analysis, although differences existed in the bivariate analysis. Once again measuring rearrests during supervision as the number of days jailed during court supervision, Burns et al. (2013) also found that rearrest during supervision was not associated with rearrests post-court. In contrast, defining rearrests during supervision in the same way as the current study, Ray (2014) found it increased the odds of rearrest post-court. It is unclear why the differences exist across the studies. One explanation is that each study did not use the same independent variables, thus potentially omitting control variables that could affect the relationships. Also, the mental health courts may differ in significant ways. For example, the

mental health court in the current study accepted only municipal cases, the court in the Hiday et al. (2014) study accepted only misdemeanor cases, while the mental health courts in the other two studies accepted misdemeanors, nonviolent felonies, and violent felonies (Burns et al., 2013; Ray, 2014).

This study had at least two limitations. First, the amount of variance in rearrests during supervision identified in the multivariate logistic regression analysis was relatively low (.263). Several key variables included in other studies of recidivism of offenders with mental disorders were not included in the current study because the court did not systematically collect those data. Some studies of rearrest include more specific criminal history variables (e.g., number of prior arrests, violence index, use of weapons), and variables for family problems, poor living conditions, antisocial personality disorder, psychiatric hospitalization history, intelligence, psychosis, and others (Bonta et al., 1998). A second limitation is that external validity may be limited, as the majority of mental health courts now work with felony cases while this court works only with municipal offenses. The dynamics of addressing rearrests during supervision may be different for participants charged with felonies as their committing crimes than for lower level crimes.

In conclusion, committing a new crime during mental health court supervision understandably decreases the chances of successfully completing the program, as it is the most serious violation of conditions for supervision. Findings from this study suggest that providing integrated treatment for participants with co-occurring psychiatric and substance disorders, ensuring that participants with serious mental illness receive mental health treatment including medication, and focusing on participants with less severe crimes in addition to the current focus on violent offenders will help to lessen rearrests during supervision and thus promote positive

program completion. It is important to note, however, that the majority of participants in this study who were rearrested during supervision (51.1%) were still able to successfully complete the MMHC program. McNiel and Binder (2010) offered an explanation for this, stating the courts can address the arrest as part of the treatment process, although they noted that this typically does not apply to new violent felony arrests. In addition, Hiday et al. (2014) indicated that mental health courts are more apt to continue to work with participants if the rearrest occurs earlier in the supervision process, as the court assumes it may take some participants time to develop positive, lawful behaviors. This study also suggests that the risk involved in offering some mental health court participants a second chance to complete the program after being rearrested during supervision is warranted as rearrests during supervision was not associated with post-court rearrests. Supervision during mental health court participation is continuing to evolve. This study's implications should assist practitioners with continuing to refine supervision and the treatment required as part of supervision in order to promote positive program completion and decrease recidivism.

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Table 1

Factors Associated with Rearrests during MMHC Supervision

	β	*Odds Ratio*
Demographic variables		
Age (comparison to above 45 years)		
Under 21 years	.75	2.12*
21 to 30 years	.26	1.30
31 to 45 years	.40	1.49
Male	.06	1.06
African American	.26	1.30
Never married	.08	1.08
Employment (comparison to employed)		
Unemployed	.13	1.13
Not seeking employment	.39	1.47
Living arrangement (comparison to independent)		
Living with parents	.18	1.20
Living with other family members	.31	1.36
Living in congregate setting	.26	1.29
County of residence (comparison to county of MMHC)		
Urban county bordering the county of MMHC	-.63	.53
Other counties	-.29	.75
Clinical variables		
Psychiatric diagnosis (comparison to schizophrenia)		
Bipolar disorder	-.21	.81
Depression	-.13	.88
Other diagnoses	.16	1.17
Had multiple diagnoses	.20	1.22
History of substance abuse	.60	1.82**
On psychiatric medication at case closure	-1.07	.34***

Rearrests during mental health court supervision

Had health insurance	-.51	.60
Crime variables		
Committing crime (comparison to assault)		
Public order crime	.50	1.66*
Stealing	-.15	.86
Driving offenses	.05	1.05
Other crimes	-.14	.87
Charged with multiple crimes	.54	1.72**
Program-related variables		
Court site (comparison to South Court)		
North Court	-.07	.94
West Court	-.36	.70
Referral source (comparison to court referral)		
CIT police officer	.04	1.04
Other referral	.80	2.22**
MMHC admission was second or more	.96	2.60***
Months in the MMHC	.09	1.09***

Model: $\chi2$ (31, $N = 811$) = 155.3, $p = .000$; Nagelkerke $R^2 = .263$
*$p < .05$, **$p < .01$, ***$p < 001$