The Impact of Mental Health Court: A Sacramento Case Study

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Abstract

Mental health courts (MHCs) are a collaboration between criminal justice agencies such as the District Attorney's office, the Probation Department, the court, the Public Defender's Office, and mental/behavioral healthcare systems. The aim of this report is to investigate the impact of the Sacramento MHC. Although the Sacramento MHC has been operating for several years, an empirical study is necessary to address its effectiveness. We used both quantitative and qualitative data to understand how the MHC influenced individual participants' recidivism rates and quality of life, and how MHC stakeholders view this collaborative court. Results from the quantitative data analysis indicate that defendants had a lower rate of recidivism after the MHC program than before it. Moreover, graduates were less likely to get rearrested than non-graduates. These findings provide insight into the effectiveness of the Sacramento MHC.

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Introduction

In the American criminal justice system, the prevalence of offenders with mental illness has gained the attention of researchers and policy makers over the past two decades. In 2005, 56% of state prisoners, 45% of federal prisoners, and 64% of local jail inmates met the criteria for a psychiatric disorder and/or reported a mental health problem (James & Glaze, 2006). Moreover, Steadman et al. (2009) studied the prevalence of serious mental illness among jail inmates in Maryland and New York, and they found that 15% of male inmates and 31% of female inmates had serious mental illnesses. Research indicates that defendants with mental illness have historically been prone to recidivism and have low rates of adherence to mental health treatment requirements (Goldkamp & Irons-Guynn, 2000). To address mentally ill defendants' involvement in the criminal justice system, mental health courts (MHCs) have been operating in the United States over the past 10 years. MHCs are therapeutically oriented judicial approaches to solving jail overcrowding, tackling the increase of homelessness, and bridging gaps between the criminal justice system and community mental health treatment agencies.

To be more specific, MHCs are problem-solving courts that address these issues by sentencing convicted defendants to a program of probation-like monitoring and mental health treatment in the community, as an alternative to incarceration. MHC programs are growing in popularity across the United States in general, with 34 of 50 states in 2005 having at least one MHC (Redlich, Steadman, Monahan, Robbins, & Petrila, 2006). According to the federal Substance Abuse and Mental Health Services Administration (2016), there are more than 300 MHCs in the United States. In California specifically, 30 of 58 counties have established an MHC for adults and seven counties have established an MHC for juveniles according to the final report of the Mental Health Issues Implementation Task Force (2015). However, research on the impact of MHCs on defendants' criminal behaviors has not progressed at the same speed as their application in the criminal justice system.

The Sacramento MHC began in 2007. It is a collaboration between the District Attorney's office, the Probation Department, the court, the Public Defender's Office, and the Sacramento County Division of Behavioral Health Services. The MHC focuses on reducing the recidivism of offenders with mental illness by addressing their mental health issues, including taking medication and/or attending therapy. At the same time, the MHC mandates offenders to address other issues such as substance abuse. Offenders with mental illness must sign a contract to participate in the MHC program, and the probation department supervises offenders' treatment progress. In contrast with the preadjudication model, the Sacramento MHC adopted the postadjudication model, in which offenders are convicted, but the court may not impose sentences (Griffin, Steadman, & Petrila, 2002). The court will not withdraw a participant's plea until he or she successfully completes the program requirements. If participants do successfully comply with treatment recommendations (made by behavioral health and agreed to by the court before the participant enters MHC), then they avoid incarceration. To date, more than 100 offenders with mental illness have participated in the MHC. Yet, the impacts of the Sacramento MHC remain unevaluated. This project studied recidivism rates among Sacramento MHC participants who exited the program in 2014 (both graduates and nongraduates). Additionally, we aimed to identify facilitators of, and barriers to, the Sacramento MHC's success, as discussed by key professional stakeholders and MHC participants.

The research design of this project involves statistical analyses of agency data and qualitative interviews with MHC participants and stakeholders. We believe that these methods could provide preliminary evidence on whether the MHC has significantly impacted participants'

outcomes and suggest avenues for future development of MHCs in Sacramento and other California counties. The findings of this report will enable stakeholders and policy makers to review the current MHC structures and their effectiveness systematically, and to make the improvements necessary to help mentally ill offenders to reenter society. The next section focuses on reviewing previous research on MHCs. We demonstrate the development, empirical evaluations, and challenges of MHCs in the United States. Then we describe the research design, data and methods, analytical strategy, and results. Finally, we discuss the implications of our findings, limitations, and recommendations for future research.

Literature Review

MHC Development

The development of MHCs in the United States follows the penal philosophy of therapeutic jurisprudence (Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe, 2003; Rottman & Casey, 1999; Wexler, 2001). In particular, Rottman and Casey (1999) pointed out that "the fundamental principle underlying therapeutic jurisprudence is the selection of a therapeutic option—an option that promotes health and does not conflict with other normative values of the legal system" (p. 14). They suggested that knowledge, theories, and mental health and related disciplines can be shape the law and the criminal justice system. More importantly, the criminal justice system should take account of defendants' social, psychological, behavioral, and other related factors in solving critical issues including overcrowded jails and prisons and high recidivism rates. In the State of California, there are examples of therapeutic jurisprudence and problem-solving partnerships in collaborative courts such as drug court and MHC. Specifically, to reduce recidivism rates among drug-related offenders, drug courts brought offenders, caseworkers, treatment teams, and judges together (Steadman, Davidson, & Brown, 2001).

Similarly, the MHC also adopted the therapeutic approach to address mental stability and recidivism rates among offenders with mental illnesses.

There are several major factors in the development of MHCs, such as adjudication procedures, supervision, and sanctions for defendants. Redlich, Steadman, Monahan, Petrila, and Griffin (2005) reviewed the development of the MHCs in several states including California, New York, North Carolina, Nevada, and Florida. They identified four dimensions to distinguish between the development of first- and second-generation MHCs. For example, they found that first-generation courts (i.e., those that followed the original MHC model) often focus on misdemeanor crimes, while second-generation courts (i.e., those that expanded on the original MHC model) all accept felonies. They pointed out that early MHCs (i.e., most first-generation MHC courts) lacked a well-structured model, and offenders with mental illness were treated under drug court principles (see also Goldkamp & Irons-Guynn, 2000; Steadman et al., 2001). Moreover, first-generation MHCs usually rely on preplea adjudication models, but secondgeneration MHCs depend more on postplea adjudication models. For example, before MHC consideration, participants undergo trial, conviction, and sentencing in second-generation courts. In addition, second-generation MHCs use jail as a sanction more regularly than first-generation MHCs. Finally, second-generation MHCs tend to use MHC personnel and probation for supervision, while first-generation MHCs often rely on community providers.

Taken together, the similarities and differences between first- and second-generation MHCs' procedures, eligibility criteria, supervision, and sanctions reveal the development of this specialized court. More importantly, stakeholders and researchers have started to question the impact of MHCs on mentally ill defendants. We reviewed several empirical studies that examined outcomes of MHCs.

MHC Effectiveness

As we previously stated, MHCs aim to reduce recidivism and to increase the quality of life among participants (Goldkamp & Irons-Guynn, 2000); indeed, existing studies indicate that MHCs can and do achieve these goals. For instance, numerous investigations from both within and beyond California suggest that MHC participation has links with lower recidivism rates than traditional criminal court participation. Compared to individuals with mental illness participating in traditional courts, those in MHCs have demonstrated fewer postcourt arrests, longer average time until rearrest, and decreased severity of the repeat offenses that occur (e.g., Behnken, Arredondo, & Packman, 2009; Cosden et al., 2003; Hiday & Ray, 2010; McNiel & Binder, 2007; McNiel, Sadeh, Delucchi, & Binder, 2015; Moore & Hiday, 2006).

Notably, initial studies show comparable decreases in recidivism when perpetrators of violent crimes participate in MHCs (McNiel et al., 2015), indicating that the MHC model may be viable for a wide array of defendants. Along with reductions in recidivism, these same studies show that MHCs can have beneficial effects, compared to traditional criminal court, on participants' quality of life, as demonstrated by improvements in independent living skills, substance use, psychological distress, and global independent functioning (Behnken et al., 2009; Cosden et al., 2003; Steadman, Redlich, Callahan, Robbins, & Vesselinov, 2011). For example, Moore and Hiday (2006) studied recidivism patterns among individuals from one year before to one year after enrollment in MHC. They not only found that MHC participants have fewer new arrests, but also observed a decline in the severity of the rearrests.

MHC Challenges

Despite published reports indicating the beneficial effects of MHCs, substantial variability in effect size exists across studies, likely as a result of system-specific factors (see the

metaanalysis by Sarteschi, Vaughn, & Kim, 2011). For example, MHCs appear to have enhanced effects when the lead MHC judge has a good relationship with other participating parties (Bess, 2004); in contrast, MHCs may have decreased effectiveness when they meet with low-quality or difficult-to-navigate community mental health systems (Boothroyd, Mercado, Pothyress, & Petrila, 2005). In other words, the social and community context is important in evaluating the effectiveness of an MHC because the structures and cultures of MHCs vary by location. Moreover, we found that few studies have incorporated quantitative and qualitative data into evaluation studies of MHCs.

Scholars have also noted challenges in implementing MHCs (McGaha, Boothroyd, Poythress, Petrila, & Ort, 2002; Sarteschi et al., 2011; Steadman et al., 2001). For example, Steadman et al. (2001) argued that the current MHCs lack new resources including housing, health services, and other assistance. They pointed out that offenders with serious mental illness would benefit little if the MHCs mainly relied on a few passionate stakeholders. Moreover, researchers pointed out that empirical studies lack rigorous research designs to evaluate the effectiveness of MHCs (McNiel et al., 2015; Sarteschi et al., 2011). Specifically, few studies have used causal inference methods to address the selection bias in MHC studies (i.e., the possibility that the subset of individuals accepted into MHC had preexisting factors that would have also made them less likely to recidivate after participating in a traditional court).

Further, stakeholders stated that the current MHCs face several challenges. For example, McNiel and Binder (2010) reported the process and outcomes of a MHC from the perspective of 43 stakeholders of San Francisco MHC using semi-structured interviews (note: the San Francisco court is called a Behavioral Health Court, but we discuss it here as an MHC for consistency). They found that most professional stakeholders preferred MHC to a traditional criminal court. However, stakeholders pointed to several challenging issues in MHCs, including ineffective selection of MHC participants, lack of resources in MHCs and collaborating agencies, participant substance use as a barrier to success, and the chronicity of mental illness. Stakeholders also pointed to the need for scientific evaluations for the short- and long-term impact of MHCs. Given these considerations, it is important to evaluate the effects of MHCs when new counties implement them (a) to determine the effectiveness of the MHC as functioning in the county in question, and (b) to identify barriers and keys to success to guide the refinement of the MHC in the county under study and the development of new MHCs in other counties.

Methods and Data

Research Design

This study involved a mixed-methods evaluation of the Sacramento MHC. The San José State University Institutional Review Board (IRB) approved all procedures. The Sacramento County Behavioral Health Research Review Committee also approved procedures that involved information relating to MHC participants.

The quantitative component of the study was a retrospective evaluation study using court records and police data from Sacramento County. The Sacramento MHC was open to individuals with diagnoses of serious mental illness (e.g., schizoaffective disorder, psychotic disorder, and posttraumatic stress disorder). Thus, we used a pre- and postcomparison research design in which we compared pre- and posttreatment outcomes. We defined the baseline period as the year prior to MHC enrollment. MHC staff provided data on participants' gender, age, race-ethnicity, and psychological diagnoses. The Sheriff's Department provided arrest records of individual defendants 12 months pre- and postenrollment. In summary, the quantitative data mainly contained public records such as gender, race, criminal records, and arrest histories.

In the qualitative portion of the study, we conducted semi-structured interviews with MHC stakeholders, including both professionals working in roles related to the MHC and MHC participants. The second author conducted interviews, which ranged from 31 mins. to 88 mins. in duration. The interview comprised a core set of questions we generated a priori, and follow-up questions as necessary to clarify participants' responses to the core questions.

After the interview, a research assistant with prior experience in qualitative research transcribed interviews from audio-recordings. The research assistant and the second author reviewed transcripts independently and generated a list of what they perceived as emerging themes in the interviews. Then, the two met conjointly to discuss themes, review samples in transcripts, and reconcile differences until they agreed on a working set of themes. As they reviewed new transcripts, the research assistant and the second author met periodically to discuss the adequacy of existing codes, to determine if they needed to add new codes, and to discuss scoring.

Participants

Quantitative analyses. The MHC treatment group consisted of 71 defendants who participated in the MHC from 2012 to 2014. This comprised all defendants who participated in or exited the MHC in 2014. During the study period, the first participant enrolled in the MHC program on January 31, 2012, and the last participant enrolled in the program on September 2, 2014. On average, MHC graduates participated in the MHC for 15 months (SD = 3.73); deleted participants participated for 10 months (SD = 5.80); and dropped participants participated for five months (SD = 6.22). Some 70.42% of participants successfully graduated from the program. The demographic characteristics of the sample are in Table 1.

Table 1

Descriptive Table

Category	N	Percentage
Gender	71	
Male	45	63.38
Female	26	36.62
Graduate Status		
Deleted	18	25.35
Dropped	3	4.23
Graduated	50	70.42
Race		
Asian	2	2.82
Black/African American	20	28.17
Latino	10	14.08
Pacific Islander	1	1.41
White/Caucasian	38	53.52
Age (Exit)		
20-29	21	29.58
30-39	17	23.94
40-49	13	18.31
50-59	15	21.13
60-69	5	7.04
Diagnostic Categories		
Depressive Disorder	6	10.53
Schizophrenia	14	24.56
Psychotic Disorder NOS	5	8.77
Schizoaffective Disorder	13	22.81
Bipolar Disorder	14	24.56
Other	2	3.51
PTSD	3	5.25
Hospitalization (Pre-MHC)		28.17
Hospitalization (Post-MHC)		23.94

The mean participant age at MHC program exit was 39.7 years (SD = 12.5, Range: 20-65 years). The sample was 63% male, and it included significant representation of individuals who identified as Caucasian (53%), African American (20%), and Latino (14%). Moreover, we reported the diagnoses of these defendants in Table 1: Depressive Disorder (10.53%), Schizophrenia (24.56%), Psychotic Disorder not otherwise specified (8.77%), Schizoaffective Disorder (22.81), Bipolar Disorder (24.56), Other (3.51%), and PTSD (5.26%).

Qualitative analyses. We invited 11 professionals to participate in semi-structured interviews, and seven agreed to participate. Interviewees included professionals working in the legal and criminal justice system (n = 5) and in behavioral health services (n = 2). The group of criminal justice professionals included representation from both the District Attorney's office and the Public Defender's office, as well as individuals participating in other roles. We also interviewed four MHC graduates (two men and two women).

Measurement

Recidivism. Following prior operationalization of recidivism (e.g., Herinckx, Swart, Ama, Dolezal, & King, 2005; Moore & Hiday, 2006), we included individual defendants' new arrests occurring during the year after the MHC intervention. We also calculated the number of arrests occurring during the year prior to the MHC enrollment. These figures include only arrests made in Sacramento County. *Graduate status* dates from when a participant dropped, was deleted from, or graduated from the MHC program during the study period. Staff from the Division of Behavioral Health of Department of Health and Human Services documented each participant's graduate status. *Demographic* variables include race, gender, and age. We recoded age into five age groups.

Analytical Strategy

As previously stated, we conducted a mixed-methods evaluation of the Sacramento MHC that includes quantitative evaluations of MHC participants' outcomes, as well as qualitative evaluations of the program's keys to success and pain points. To be more specific, we conducted statistical tests to examine whether participants had lower arrest rates after they participated in the MHC program than before participating. We used Stata 14 (StataCorp, 2015) for the statistical analyses. For qualitative analyses, we transcribed the interviews and subjected the transcripts to thematic analysis to identify emergent themes.

Results

Quantitative Findings

First, we conducted bivariate analyses to test for differences between demographic groups in the number of arrests one year prior to the MHC enrollment. There was no significant difference between males (M = 2.10, SD = 2.17) and females (M = 1.80, SD = 1.36); t = 0.77, p = 0.43. Further, there was no significant relationship between age groups and the number of arrests (F = 1.03, p = 0.39). In addition, we did not find a significant difference between White, Black, and other defendants (F = 0.50, p > 0.05).

Further, we tested whether there was a statistically significant difference between the number of arrests before (M = 2.01, SD = 1.91) and after (M = 1.49, SD = 2.08) the MHC program. The results revealed that the difference is statistically significant (t = 1.97, p < 0.05). Figure 1 illustrates the difference between the number of arrests before and after the MHC program by age group using a two-way quadratic prediction. The figure indicates that participants overall had a lower rearrest rate after the MHC enrollment, and that participants in their 40s were more likely to get arrested than other age groups.



Figure 1. Number of arrests before and after MHC by age group.

We then conducted an independent samples *t* test to compare the number of arrests in the year after MHC enrollment. There was a significant difference in the arrests after MHC for graduates (M = 0.80, SD = 1.43) and nongraduates (M = 3.14; SD = 1.58); t = 4.06, p < 0.01. The Cohen's *d* (effect size from the *d* family) indicated that average arrests differed by approximately 1.30 standard deviations with 95% confidence intervals of 0.74 and 1.85. This indicates a very large effect size according to standard effect size benchmarks in the behavioral sciences (Cohen, 1988). In other words, compared to the arrest rates prior to the MHC enrollment, the rearrest rate difference between graduates and nongraduates one year after the MHC program was evident. As we reported above, we found no significant difference in the number of arrests prior to the MHC enrollment between graduates and nongraduates. Moreover, we found that there was no significant difference in the arrests after MHC according to gender (males: M = 1.26, SD = 2.08; females: M = 1.88, SD = 2.08; t = 1.19, p = 0.23). A one-way

ANOVA found no difference in recidivism rates according to ethnoracial group (F = 0.45, p > 0.05). ANOVA results showed that number of post-MHC arrests had a significant association with age group (F = 4.54, p < 0.05). Tukey's pairwise comparison test results (see Table 2) suggested that age group 40 has a higher arrest rate than other age groups.

Table 2

Age Group	Contrast	Std. Err.	t	<i>p</i> -value	[95% Con	f. Interval]
30 vs. 20	-0.19	0.62	-0.31	1.00	-1.93	1.55
40 vs. 20	1.96	0.67	2.92	0.04	0.08	3.84
50 vs. 20	-0.90	0.64	-1.39	0.63	-2.70	0.91
60 vs. 20	-0.83	0.95	-0.88	0.91	-3.48	1.82
40 vs. 30	2.15	0.70	3.07	0.03	0.19	4.11
50 vs. 30	-0.70	0.67	-1.04	0.83	-2.59	1.19
60 vs. 30	-0.64	0.97	-0.66	0.97	-3.35	2.08
50 vs. 40	-2.85	0.72	-3.96	0.00	-4.87	-0.83
60 vs. 40	-2.78	1.00	-2.79	0.05	-5.59	0.02
60 vs. 50	0.07	0.98	0.07	1.00	-2.68	2.82

Tukey's Pairwise Comparison Test for Arrests by Age Groups



Figure 2. Distribution of the number of arrests after MHC enrollment.

Finally, we used negative binominal regressions to show how factors associated with the rate of rearrests. We used negative binominal regression because the distribution of the number of arrests was not normal (see Figure 2). Negative binomial regression results also validated the bivariate data analysis we reported above. Figure 2 shows that many participants had no arrests during the study period after they enrolled in the MHC.

Table 3 reveals four nested negative binomial regression models, and the results indicated that MHC graduates had a lower rate of rearrest than nongraduates. If a defendant were to participate the MHC program, his or her rate of rearrest should decrease by 25%, while holding all other variables in the model constant. Figure 3 illustrates that graduates had lower rates of rearrest after the MHC program than nongraduates. Individuals in the age range of 40 had higher rearrest rates than other age groups, which is consistent with results in Figure 1. Specifically, the incident rate for age group 40 is 2.2 times the incident rate for the age group of 20, holding the other variables constant.

Table 3

	Model 1		Model 2		Model 3		Model 4	
	Coef.	Std. Err.						
Intercept	1.15***	0.22	0.83***	0.26	1.64**	0.56	1.34*	0.58
Graduate	-1.37***	0.29	-1.22***	0.30	-1.18***	0.30	-1.25***	0.31
Age Groups								
20 (Reference)								
30			0.44	0.39	0.29	0.41	0.41	0.41
40			0.79*	0.33	0.68*	0.34	0.91*	0.37
50			-0.52	0.48	-0.66	0.48	-0.61	0.49
60			-0.47	0.70	-0.64	0.70	-0.40	0.72
Gender (Female)					-0.46	0.28	-0.40	0.28
Race								
Black							0.54	0.33
Other							-0.21	0.41

Negative Binominal Regressions for the Number of Arrests

Results are based on 71 individuals. *** p < .001; ** p < .01; * p < .05;



Figure 3. Predictions of the numbers of rearrests.

In addition, we examined the impact of MHC participation on rehospitalization. We found that 28% of the participants had at least one hospitalization in the year before their MHC enrollment, while 24% had at least one hospitalization after their MHC enrollment. The results from a test of proportion indicated that difference (4%) is not statistically significant (p = 0.56). We examined hospitalization days in the year pre-MHC enrollment and the year post-MHC enrollment. Distributions of hospitalization days were not normal, with a strong positive skew (preenrollment: Mean = 7.69, Median = 0, Skewness = 3.63; postenrollment: Mean = 10.05, Median = 0, Skewness = 4.12).

We tested the null hypothesis that there is no difference in the number of hospitalization days before and after the MHC enrollment using Wilcoxon matched-pairs ringed-ranks tests (Wilcoxon, 1945). The results (p = 0.68) failed to reject the null hypothesis that there is no difference in the number of hospitalization days pre- and post-MHC enrollment. We also tested that the median of the differences in the number of re-hospitalization between before and after the MHC enrollment is zero, and the results (p = 0.85) failed to reject the null hypothesis. Overall, within the entire sample, we did not find evidence to suggest that psychiatric hospitalization decreased in the year following MHC enrollment, relative to the year preceding MHC enrollment. We also evaluated differences in hospitalization patterns between MHC graduates and nongraduates. We tested whether MHC graduates had a lower probability of hospitalization than nongraduates using a logistic regression model. The results suggested that graduates had lower odds (decreased by 75%) of getting hospitalization than nongraduates.

In the year before MHC enrollment, there were no differences in the number of hospitalizations between future graduates and future nongraduates (i.e., medians were not statistically different at any level smaller than 36%). However, chi-square analyses revealed that MHC graduates were less likely to go into hospital in the year following MHC enrollment than were nongraduates ($\chi^2 = 4.47$, p = 0.03). We also compared the number of hospitalization days for graduates and nongraduates using Wilcoxon rank-sum tests. In the year prior to MHC enrollment, there were no differences in hospitalization days between graduates and nongraduates (p = 0.22). In the year following MHC enrollment, there were differences in hospitalization days between these two groups (p = 0.03), such that graduates had fewer hospitalization days than nongraduates.

Qualitative Findings

Themes from interviews with professionals.

Facilitators of success. All interviewees cited the perceived benefits of the MHC program, as well as ideas for potential improvements. Several common themes emerged regarding facilitators of the MHC's success and barriers to its effectiveness. The professionals unanimously stated in interviews that they believed *effective collaborative relationships among* justice partners were integral to the MHC's success. Additionally, all the professionals cited the effective leadership of the *presiding judges* as a key facilitator of its success. One interviewee pointed out, more broadly, that, aside from this particular judge's high level of effectiveness, it seemed critical to have a single judge dedicated to running the court. Several interviewees also mentioned that offering *incentives* (e.g., gift cards; a switch to a biweekly, rather than weekly, court visit schedule) to motivate participants to comply with MHC recommendations was helpful in facilitating participants' success. They also cited the strategic use of sanctions as an important component of the system. Interviewees also mentioned that the *consequences* (e.g., spending a week in jail, assignment to work detail) of participant nonadherence to recommendations and failure to appear in court were a crucial motiving element for participants. One legal professional described the necessity of incentives and consequences as follows:

when people violate things that they can control, then punishment can be very effective. If it's a distal behavior, it's something you don't really control ... then punishment does nothing really to help change it. You have to have ... four incentives or positive things to every negative sanction you do to produce a positive outcome. What we're trying to do, is we're trying to change people's thought patterns, behaviors, so that they're not coming into the criminal justice system. (SAC001)

Several interviewees also stated that the *ability to provide transportation*, in the form of paratransit services and public transportation vouchers, facilitated many defendants' successful participation in the MHC.

With regard to individual-level facilitators, participants widely agreed that defendants who increased their *engagement in prosocial activities* (e.g., community service, peer mentoring within the mental health system) also tended to have better outcomes. *Positive family relationships* were also facilitators of defendant's success. In particular, facilitative family member characteristics were providing emotional support and allying to help defendants to adhere to MHC recommendations.

Barriers to success.

Systemic barriers. Professionals suggested a number systemic factors that functioned as barriers to the MHC achieving optimal impact. Common themes emerged with regard to several of these. Four interviewees cited *unavailability of secure, appropriate housing* for MHC participants as a barrier to success. Interviewees noted that participants with histories of illicit substance use often resided in areas with high levels of drug trafficking (due to restricted housing options), which they perceived increased the risk of relapsing into drug use.

Interviewees unanimously cited limited capacity for oversight by Probation Officers (due to staffing and funding limitations) as a systemic factor limiting the size and capacity of the MHC. Several interviewees who raised this point cited this factor as restricting the District Attorney's referral of certain types of defendants to MHC (e.g., those with violent charges who were receiving less intensive levels of behavioral health services), thereby limiting the scope of the MHC overall. Some legal professionals suggested that, aside from Probation Officers, behavioral health professionals could potentially provide such oversight, if more intensive

behavioral health services were more widely available to defendants. However, several other interviewees asserted that this was outside of the scope of behavioral health care practice, such that probation officers would perform this function best.

Additionally, three interviewees reported they believed that *procedural heterogeneity* in how courts handled MHC cases was sometimes a barrier to the courts achieving optimal impact. Interviewees perceived case-by-case inconsistencies in several areas, including (a) which defendants the District Attorney accepted into the MHC, (b) determination of graduation requirements, and (c) communication of graduation requirements to participants. No interviewee suggested that these differences seemed unethical or malfeasant, but rather the result of professionals best fulfilling the requirements of their roles in the MHC system. As we noted above, some saw the ability to link defendants with transportation services as a facilitator of success; thus, the *lack of ready access to transportation* may be a potential pitfall or barrier, at the level of both systems (e.g., areas with poor public transportation) and individuals (e.g., an individual who does not have access to private transportation or lives far from a bus stop).

Individual-level barriers. Professionals also noted individual-level factors they viewed as barriers to individuals' success in the MHC. Ongoing *substance use* was the individual-level factor they most commonly discussed as a barrier to participants' success. Interviewees also stated that defendants with very *low adaptive skills* (e.g., to engage in self-care or navigate public transportation) and/or who were experiencing particularly severe mental health symptoms that led to grossly disorganized patterns of behavior seemed to have difficulties in regularly attending MHC and adhering to treatment recommendations. Although interviewees cited the involvement of supportive family members as a facilitator to defendant success, *certain types of family*

patterns acted as barriers, such as relatives who "enabled" patterns of maladaptive behaviors and/or held attitudes that the defendant could "do no wrong."

Suggested improvements. Professionals unanimously suggested that the MHC would benefit from more organized and efficient *evaluation of program outcomes* (e.g., recidivism). They noted that this would be helpful both for the knowledge generated per se, and for the ability to use these data to bolster support for external funding (e.g., via grants). Two interviewees noted the necessity of a contemporary data-management platform for tracking these services. One interviewee who was highly involved in data management for the Sacramento criminal justice system indicated that it was currently transitioning to a new system, and the interviewee was optimistic about this improving the integration of data management and tracking across departments. A behavioral health professional noted that it could be particularly helpful to integrate existing hard-copy behavioral health records with court records into a single database.

Professionals also unanimously suggested that the MHC would benefit from *increased access to Probation Officers* to provide oversight of participants (see also *Systemic Barriers* above). They also suggested that this addition would enable the MHC to take on a larger number and wider array of defendants, as well as easing pressure on behavioral health professionals to perform these functions. Finally, several interviewees said that the MHC might benefit from development of *protocols to specify the MHC's operation* along various parameters. These might include guidelines for selecting participants, determining graduation requirements, communicating graduation requirements, and other procedural aspects of the MHC.

Themes from interviews with participants. Common themes regarding positive aspects of the MHC and facilitators of success emerged from interviews with participants. All participants discussed the idea of the MHC as a "caring court" (quotations here denote authors'

phrases, not interviewee quotes). Interviewees stated they felt that legal professionals in the MHC, including not just their attorneys but also the judge and other players, cared about them as people and wanted to see their lives improve. According to two interviewees, this experience, particularly the communication of caring from the judge, motivated them to attend MHC weekly and adhere to MHC treatment recommendations and legal conditions.

All interviewees noted that participating in the MHC increased their engagement with behavioral health services. Some, but not all, described taking psychotropic medications previously, before beginning MHC. They generally indicated that their adherence to psychotropic medications had increased with participation in the MHC. Participants also described benefitting from individual psychotherapy, group psychotherapy, experiential therapies (e.g., art and music), and substance use treatment services. Two participants specifically mentioned that they felt they particularly benefitted from a frequent drop-in activities center at one mental health agency. Two participants recommended that caseworkers have fewer clients, so that MHC participants would have more time to meet with their designated caseworkers.

Participants described significant personal benefits from MHC participation. These included improved relationships with family members (including children), increased community involvement, and engagement in educational/vocational programs. Participants reported that MHC participation yielded improved global mental health and decreased substance use (including both complete abstinence and highly increased moderation). Participants also described positive personal changes, such as an increased sense of personal responsibility, higher self-esteem, and hopefulness about the future.

Selected quotations highlighting the aforementioned themes are as follows:

Seventy percent of my life now is because of my experience in the mental health court. I now know how to handle my anger, how to handle my anxiety when I have a panic attack, when I have too much stress.... For all the experience I have in the mental health court, I am continuing to work with my psychiatrist on my therapy here in T-core. I have changed a lot and built a lot. (SAC301)

It's like I was getting help on both sides of the coin, where I had never gotten before. It made me want to do better for the court. I didn't want to disappoint the court. I didn't want to disappoint Judge [name] by using or relapsing. You know, there was a sense of ownership in it for me. (SAC303)

Instead of constantly causing trouble and taking, I want to give back to society in a good way and help those that have the same problems that I had before, to change and open up, and see what's going on with them so they have others. (SAC302)

Discussion and Conclusion

The purpose of MHCs is to help mentally ill defendants to reenter society, reduce criminal activities, and improve their quality of life. Our findings were consistent with previous studies showing beneficial effects of MHCs (e.g., Cosden et al., 2003; McNiel & Binder, 2007; Moore & Hiday, 2006). Specifically, we found that that defendants who participated in the MHC program had lower rates of reoffending rate after the MHC program than they did prior to the MHC enrollment. Herinckx et al. (2005) reported that the average number of arrests for participants dropped from 1.99 to 0.48 (t = 17.73, p < 0.01). Likewise, we found that the average number of arrests dropped from 2.01 to 1.49 (t = 1.97, p < 0.05).

We also found that MHC graduates had a lower rate of rearrest than nongraduates, though we saw no difference in arrest rate before MHC participation. This finding is consistent

with prior research. For example, Hiday and Ray (2010) reported that participants who completed the MHC program had a lower arrest rate (M = 1.02, SD = 2.28) than those who were ejected from the program (M = 2.55, SD = 2.84). Taken together, these findings suggest that MHC participation itself has an association with reduced recidivism. We hope that these findings provide guidance for MHC stakeholders in providing support for and helping defendants with serious mental illness.

Our findings show that most demographic variables did not have statistically significantly associations with the number of arrests both pre- and post-MHC enrollment. Age group had a statistically significant association with recidivism rates, with individuals in their 40s being more likely to recidivate than those in other age groups. Future research is necessary to evaluate the robustness of this finding. If replicated, this may suggest that decision makers might consider age group as a predictor of recidivism in MHC participants. In all, the present findings support the effectiveness of the MHC across a demographically diverse array of defendants.

The qualitative portion of this study revealed generally positive stakeholder and participant attitudes toward the MHC, with noteworthy themes around suggestions for improvement. Overall, both stakeholders and participants described the MHC as benefitting the public good while improving the lives of defendants. Participants noted positive working relationships among professionals, as well as effective judicial leadership, as particularly salient keys to the MHC's successes. Both stakeholders and participants suggested that the drivers of MHCs' beneficial effects for participants were increased adherence to mental health treatment (including pharmacotherapy and psychosocial interventions), increased engagement in prosocial activities, and participants' positive relationships with MHC professionals, especially the judge. The most commonly cited area for improvement involved increased capacity of Probation

Officers to provide monitoring and oversight of MHC participants. Stakeholders also unanimously stated that the court would benefit from more systematic data tracking, data sharing, and evaluation of program outcomes.

Limitations and Recommendations

Although we were able to provide preliminary findings for the Sacramento Superior Court, there are several limitations in the current study, and we hope MHC stakeholders and researchers can address these limitations in the future. First, we were unable to create a control group or randomly to assign participants into treatment and control groups due to the retrospective nature of this study and stakeholder concerns about confidentiality and data sharing. In addition, the sample size is relatively small, which limited advanced statistical analyses. For example, we were not able to produce stable results using survival analyses to examine factors that influence the time to rearrest.

We make the following conclusions and recommendations based on present findings:

- Participation in the Sacramento MHC appears to have an association with decreased recidivism, particularly for those who successfully complete and graduate from the program. Thus, the Sacramento MHC appears to be achieving its primary aim.
- Post-MHC decreases in recidivism occurred across participants of different genders, ethnoracial backgrounds, and ages. Thus, the Sacramento MHC appears to be appropriate for a demographically diverse array of individuals.
- Qualitative interviews with stakeholders suggested several avenues for improving the Sacramento MHC, namely:

- a. Increased allotment of Probation Officer time to the MHC would expand the capacity to monitor participants effectively. This may expand the MHC's capacity to accept a greater number and wider array of participants.
- b. Improved methods and infrastructure for evaluating Sacramento MHC outcomes. Systematic evaluation of Sacramento MHC outcomes did not occur for the first 10 years of the court's existence, and the present evaluation had limits due to its limited data collection and data sharing capacities. We recommend the formation of an ongoing evaluability and evaluation plan by MHC stakeholders, with involvement of internal or external program evaluation specialists, to include plans for the following:
 - i. Evaluating a meaningful control/comparison group of individuals participating in traditional criminal court.
 - Assessing quality-of-life-related outcomes beyond criminal recidivism, such as employment, housing status, family relationships, and psychosocial functioning.
 - iii. Streamlining data management and data sharing between legal and behavioral health professionals (consistent with the Health Insurance Portability and Accountability Act).

In sum, the present findings recommend continuance of the Sacramento MHC, with an eye to expanding capacity along the dimensions we suggest herein.

References

- Behnken, M. P., Arredondo, D. E., & Packman, W. L. (2009). Reduction in recidivism in a juvenile mental health court: A pre-and post-treatment outcome study. *Juvenile and Family Court Journal*, 60(3), 23-44.
- Bess, G. (2004). Mentally Ill Offender Crime Reduction (MIOCR) grant program: Butte County Forensic Resource Team final program report. Retrieved from http://www.garybess.com/samples/Applied_Research_Mentally_Ill.pdf
- Boothroyd, R. A., Mercado, C. C., Pothyress, N. G., & Petrila, J. (2005). Clinical outcomes of defendants in mental health court. *Psychiatric Services*, *56*, 829-834.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2 ed.). Hillsdale, NJ.: Erlbaum.
- Cosden, M., Ellens, J. K., Schnell, J. L., Yamini-Diouf, Y., & Wolfe, M. M. (2003). Evaluation of a mental health treatment court with assertive community treatment. *Behavioral Sciences & the Law, 21*, 415-427.
- Goldkamp, J. S., & Irons-Guynn, C. (2000). Emerging judicial strategies for the mentally ill in the criminal caseload: Mental health courts in Fort Lauderdale, Seattle, San Bernardino, and Anchorage. Washington, DC: Department of Justice, Office of Justice Programs.
- Griffin, P. A., Steadman, H. J., & Petrila, J. (2002). The use of criminal charges and sanctions in mental health courts. *Psychiatric Services*, *53*, 1285-1289.
- Herinckx, H. A., Swart, S. C., Ama, S. M., Dolezal, C. D., & King, S. (2005). Rearrest and linkage to mental health services among clients of the Clark County mental health court program. *Psychiatric Services*, 56, 853-857.

- Hiday, V. A., & Ray, B. (2010). Arrests two years after exiting a well-established mental health court. *Psychiatric Services*, 61, 463-468.
- James, D. J., & Glaze, L. E. (2006). *Mental health problems of prison and jail inmates*.Washington, DC: Department of Justice, Bureau of Justice Statistics.
- McGaha, A., Boothroyd, R. A., Poythress, N. G., Petrila, J., & Ort, R. G. (2002). Lessons from the Broward County mental health court evaluation. *Evaluation and Program Planning*, 25(2), 125-135.
- McNiel, D. E., & Binder, R. L. (2007). Effectiveness of a mental health court in reducing criminal recidivism and violence. *American Journal of Psychiatry*, *164*, 1395-1403.
- McNiel, D. E., & Binder, R. L. (2010). Stakeholder views of a mental health court. *International Journal of Law and Psychiatry*, *33*(4), 227-235.
- McNiel, D. E., Sadeh, N., Delucchi, K. L., & Binder, R. L. (2015). Prospective study of violence risk reduction by a mental health court. *Psychiatric Services*, *66*, 598-603.
- Moore, M. E., & Hiday, V. A. (2006). Mental health court outcomes: A comparison of re-arrest and re-arrest severity between mental health court and traditional court participants. *Law and Human Behavior, 30*, 659-674.
- Redlich, A. D., Steadman, H. J., Monahan, J., Petrila, J., & Griffin, P. A. (2005). The second generation of mental health courts. *Psychology, Public Policy, and Law, 11*, 527-538.
- Redlich, A. D., Steadman, H. J., Monahan, J., Robbins, P. C., & Petrila, J. (2006). Patterns of practice in mental health courts: A national survey. *Law and Human Behavior*, 30, 347-362.
- Rottman, D., & Casey, P. (1999). Therapeutic jurisprudence and the emergence of problemsolving courts. *National Institute of Justice Journal, 13*, 12-19.

Sarteschi, C. M., Vaughn, M. G., & Kim, K. (2011). Assessing the effectiveness of mental health courts: A quantitative review. *Journal of Criminal Justice*, *39*(1), 12-20.

StataCorp. (2015). Stata statistical software: Release 14. College Station, TX: Author.

- Steadman, H. J., Davidson, S., & Brown, C. (2001). Mental health courts: Their promise and unanswered questions. *Psychiatric Services*, 52, 457-458.
- Steadman, H. J., Redlich, A., Callahan, L., Robbins, P. C., & Vesselinov, R. (2011). Effect of mental health courts on arrests and jail days: A multisite study. *Archives of General Psychiatry*, 2011(68), 167-172.
- Steadman, H. J., Osher, F. C., Robbins, P. C., B. A., C., B., & Samuels, S. (2009). Prevalence of serious mental illness among jail inmates. *Psychiatric services*, 60(6), 761-765.

Substance Abuse and Mental Health Services Administration. (2016). *Behavioral health services information series: National directory of mental health treatment facilities*. Washington, DC: Government Printing Office. Retrieved from http://www.samhsa.gov/data/mentalhealth-facilities-data-nmhss/reports

Wexler, D. B. (2001). The development of therapeutic jurisprudence: From theory to practice. InL. E. Frost & R. J. Bonnie (Eds.), *The evolution of mental health law* (pp. 279-289).Washington, DC: American Psychological Association Press.

Wilcoxon, F. (1945). Individual comparisons by ranking methods. *Biometrics bulletin*, 1, 80-83.