

The Effectiveness of One Mental Health Court: Overcoming Criminal History

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Abstract The Mental Health Court (MHC) allows for defendants with mental illness to receive community-based treatment while helping to avoid further involvement in the criminal justice system. Studies have demonstrated varying degrees of success for participants' rearrest rate and severity while in the community. The role of prior criminal behavior on success in MHC, and for up to 3 years after release from MHC, was examined. Data was gathered on 118 participants in MHC, 80 of which graduated, and 38 who were dismissed without graduating. Arrests were coded prior to entering MHC and at 3 months, 6 months, 1 year, and 3 years after release. Recidivism included arrest severity, offense type, and quantity of offenses. Significantly fewer defendants who completed MHC were rearrested at all windows of time after release. Completing MHC also predicted living more days free without rearrest. Criminal history was not consistently predictive of recidivism when failing MHC was included in the model. The severity of the charges when rearrested was predicted only by completing MHC, not by criminal history. The greater the amount of days spent in MHC was associated with rearrests for lesser crime types (such as property offenses) at 3 years for individuals who did not complete MHC. These results suggest that participation in MHC was able to reduce recidivism regardless of varying severity of criminal history. The impact of MHC was so great that length of participation reduced severity of offense type after 3 years

even for those who ultimately did not complete the requirements.

Keywords Mental health court · Recidivism · Mentally ill offenders · Therapeutic court

The incarceration of those with a mental illness can become a cyclical process in which the “revolving door” phenomenon of increased recidivism among offenders with mental illness exhausts the institutional ability to provide suitable treatment, protection from assaults, and prevention of further re-entry into the justice system. Researchers argue that an overwhelming majority of arrests for offenders with mental illness are for crimes in which the wrongdoings are likely symptomatic of the illness (White, Chafetz, Collins-Bride, & Nickens, 2006). Offenders with mental illness are three times more likely to have charges for disorderly conduct, five times more likely to have been charged with trespassing, and ten times more likely to be charged with harassment (Valdiserri, Carroll, & Hartl, 1986). The Bureau of Justice Statistics found that 55% of male inmates and 73% of female inmates were mentally ill, with 25% of those mentally ill having been incarcerated three or more times (Glaze & James, 2006).

The “revolving door” has been exhaustive of institutional resources, resulting in such a poor system of treatment that many argue that the system under treats offenders with mental health challenges to the extent that recidivism is inevitable (American Association of Community Psychiatrists, 1999; McVey, 2001). Others argue that the very experience of being confined exacerbates mental health problems, noting increased perception of risk, fear, and anxiety among offenders (Binswanger, Nowels, Corsi, Long, Booth, Kutner, & Steiner, 2011). This perception of fear and risk may not be solely based on delusions and distortions, as individuals with mental illness

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are more likely to be victimized while incarcerated and hospitalized (Blitz, Wolff, & Shi, 2008; White et al., 2006).

For offenders with mental health challenges, inpatient hospitalization, as an alternative to incarceration, has its own inherent difficulties. The loss of independence impacts the individual's self-image and is experienced as shame and stigma for some (Gilmartin, 1997). Reduction in self-esteem and self-efficacy has been found following hospitalization (Townsend & Rakfeldt, 1985). Problematic treatment of those who are hospitalized as an alternative to incarceration is starting to gain national attention. The 2016 Pulitzer Prize for investigative journalism was awarded to the series investigating “escalating violence and neglect in Florida state mental hospitals,” demonstrating a need to examine these issues (The Pulitzer Prizes, 2016).

The recognition of these issues in correctional facilities and forensic hospitals has led to alternative mental illness management methods to help those struggling to conform their behaviors to the law. Mental Health Courts (MHCs) were devised as a way to meet this need. MHCs are designed to bridge the gap between the criminal justice system and mental health services. MHCs divert individuals who are believed to exhibit a link between their criminal activity and a lack of treatment for mental health issues to this specialized court. The belief is that treatment of the mental illness will reduce recidivism.

Individuals selected for MHCs are generally those exhibiting symptoms of serious mental illness and those with comorbid mental illness and substance abuse issues (Almquist & Dodd, 2009). MHCs have grown immensely, with the first MHC beginning in 1997 and the number increasing to over 300 MHCs by 2016 (Council of State Governments Justice Center, 2016). The rapid growth of MHCs can be partially attributed to the enactment of the America's Law Enforcement and Mental Health Project in 2002, allowing for federal funds to aid in the creation and implementation of these specialized courts (Erickson, Campbell, & Lamberti, 2006). In addition to a funding source, research is demonstrating that this is a cost-effective alternative to incarceration. When examining costs for MHC participants who succeeded and did not require incarceration, the MHC costs were vastly less expensive than those associated with traditional court and incarceration (Ridgely, Engberg, Greenburg, Turner, DeMartini, & Dembosky, 2007).

Impact on Rearrest

In the most recent MHC research, recidivism rates show significant results when comparing those who complete the requirements of the MHC (graduates) versus those who do not (non-graduates). MHC studies note that for graduates, 6-month recidivism rates range from 7.9 to 32.7% (Callahan, Steadman, Tillman, & Vesselinov, 2013). One-year recidivism rates for MHC graduates range from 14.5 to 47% (Christy,

Poythress, Boothroyd, Petrila, & Mehra, 2005; Dirks-Linhorst & Linhorst, 2010). For non-graduates, the 1-year recidivism rates range from 38 to 73% (Dirks-Linhorst & Linhorst, 2010; Herinckx, Swart, Ama, Dolezal, & King, 2005). Recidivism rates at 18 months for MHC graduates range from 8.9 to 42% (Callahan et al., 2013; McNiel & Binder, 2007). For non-graduates, the 18-month recidivism rates are 37.9% (Callahan et al., 2013). At the 24-month mark, recidivism rates for those MHC graduates range from 24.6 to 28% (Burns, Hiday, & Ray, 2012; Hiday & Ray, 2010). For non-graduates, the 24-month recidivism rates range from 81 to 90.7% (Burns et al., 2012; Hiday & Ray, 2010). No recidivism data was found beyond 2 years after release from MHC, which is a need this study fulfills.

Impact on Time until Arrest

Studies have shown that the number of days free before rearrest is also impacted by MHC. Christy et al. (2005) found that not only did MHC participants reoffend less after completing MHC, but they were re-arrested less quickly after release if they did reoffend. McNiel and Binder (2007) found that MHC participation resulted in more days in the community without rearrest, including those who committed violent crimes, and graduation resulted in reduced recidivism after release from MHC. When comparing traditional criminal court participants' outcomes to participants of MHC, Anestis and Carbonell (2014) found that the participants in MHC had a lower overall rate of recidivism and a longer time before being rearrested for a new charge. In another study, 1 year after completion of MHC, participants were found to have significantly fewer jail days when compared to offenders with a mental illness convicted through traditional courts, but there were no significant differences in the presence of criminal charges or convictions (Lowder, Desmarais, & Baucom, 2016). They also found that longer length of MHC participation was significantly correlated with greater decreases in jail time served. These studies support that MHC is associated with mentally ill defendants remaining free of reoffense longer.

Impact on Severity of Reoffense

In addition to reducing recidivism, research has shown that MHC programs can effectively decrease other offense features like the severity of the crime committed by an MHC participant. Trupin and Richards (2003) found that after treatment, if MHC graduates were rearrested, their time in jail decreased as their crimes were typically not as severe. In focusing on the effectiveness of MHC treatment, Christy et al. (2005) found that the amount of arrests significantly decreased from the pre-

enrollment at 1 year before, to the post-enrollment 1 year after MHC, with the average amount of arrests being lower in the MHC participants. Herinckx et al. (2005) found that the overall crime rate for MHC participants who graduated was four times lower in 1 year after completing MHC (post-enrollment), compared to 1 year before beginning MHC (pre-enrollment). Moore and Hiday (2007) found that when compared to traditional criminal court defendants, MHC graduates had significantly fewer rearrests, and those rearrests were for crimes less severe than their initial offense(s).

Very few studies examined the role of prior criminal behavior on success in MHC and later rearrests. While previous studies have examined recent offenses or the charge that brought individuals to MHC, to fully capture a participant's degree of contact with the criminal justice system, the full criminal history must be examined. Will MHC reduce recidivism even in those who have had extensive contact with the justice system without changing their behavior, and if so, how long will that improved behavior be sustained? This study will evaluate the full lifetime arrest history for participants and how that impacts success in MHC and future reoffending. Arrests after exiting MHC were measured for 3 years—data we were unable to find in other MHC studies—and included arrest severity, type, and quantity of offenses.

Method

This study was conducted through the cooperative efforts of the university, the MHC, a treatment facility, the Office of the Public Defender, and the Office of the State Attorney. The purpose of this study was to determine if participants who succeed in MHC have a long-term reduction in criminal activity when accounting for their full arrest history. Treatment records, arrest records, and their participation in MHC were de-identified and provided by respective agencies to the researchers. This research was approved by the university Institutional Review Board for work with human subjects.

The MHC program is funded by the court administration and employs one case manager. Defendants are invited to participate by agreement of the state attorney and public defender, which requires that they are currently charged with a misdemeanor and have evidence of a mental illness. If the defendant chooses MHC, they are ordered to outpatient treatment. Mental health outpatient treatment is typically required for 1 year in addition to complying with the requirements of the program. In some cases, a defendant's charges are dropped, and they graduate after 6 to 9 months due to stellar progress. For charges to be dropped in this time frame, defendants would have made exceptional progress within their treatment; strictly adhered to the guidelines refraining from drug and alcohol use and criminal behavior; and kept open lines of communication with treatment providers, case

managers, and personnel within the court system. The MHC model attempts to tailor the program to the needs of the client by utilizing consistent supervision and assessment of needs, developing open lines of communication between case managers and clients, and utilizing strict guidelines to steer clients on a pathway towards success. MHC requires abstinence from all drugs and alcohol, attendance at all appointments for mental health treatment, compliance with treatment guidelines determined by the provider, contact with the case manager weekly, appearances in court every 3 to 6 weeks, and avoidance of additional criminal charges. The case manager identifies potential barriers to treatment, aids the client in successfully completing the MHC program, and assesses their functioning through home visits.

In addition to psychiatric services and medication management, other services are offered depending on the individual needs of the client. Other such services include counseling, substance abuse treatment, obtaining identification, applying for benefits, housing, obtaining medications, specialized education training, vocational rehabilitation, a high school equivalency exam, and continuing education services or any other services available in the county that may be of assistance to the client. Successful completion of MHC results in adjudication withheld for the charges. Failure of the MHC program occurs typically due to non-compliance and failure to adhere to the rules and regulations of the program requirements (i.e., abstinence from drugs and alcohol, adhering to treatment, check-ins) and results in the case returning to the traditional court. If a defendant chose to discontinue MHC, they would then be reverted back to the original court, and their case would proceed as though they had never been a participant within the MHC program.

Participants

There were 118 MHC participants enrolled before 2011 that had complete information from all sources used in the analyses. There were approximately 20 additional defendants who may have enrolled in MHC, but their graduation status and arrest information were unavailable; thus, they were excluded. Of the 118 participants, 80 graduated from MHC and 38 were dismissed without graduating. Of the participants, 59% were male and 41% were female. Records identified race as black or white only, so minority groups are likely underrepresented in this broad classification, and conclusions based on this variable should be limited. Records identified 88% of participants as white, 11% as black, and one participant as unknown (see Table 1). The average age of the participants was 38.4 ($SD = 12.52$). Diagnosis was provided by the psychiatrist of the outpatient treatment facility at the conclusion of their participation in MHC. There were no significant differences in the diagnostic groups (psychotic disorder, mood disorder, mixed mood and psychotic disorder, anxiety disorder, mixed

Table 1 Participant demographics

	<i>N</i>	Gender	Race	Age
Graduate	80	56% male, <i>n</i> = 45 44% female, <i>n</i> = 35	87% White, <i>n</i> = 70 13% Black, <i>n</i> = 10	<i>M</i> = 38.86 <i>SD</i> = 12.28
Non-graduate	38	66% male, <i>n</i> = 25 34% female, <i>n</i> = 13	89% White, <i>n</i> = 34 8% Black, <i>n</i> = 3 3% Unknown, <i>n</i> = 1	<i>M</i> = 37.42 <i>SD</i> = 13.12

anxiety and mood disorder, substance abuse) or whether they were diagnosed with a personality disorder between those who did or did not graduate from MHC. The average amount of time spent in MHC for non-graduates was approximately 3 months ($M = 94.90$ days, $SD = 95.40$). For individuals who graduated MHC, the average amount of time spent was approximately 8 months ($M = 235.98$ days, $SD = 107.21$). Dismissal from MHC stemmed primarily from factors relating to drug and alcohol use in violation of the MHC guidelines or homelessness. Homeless participants often incurred additional charges, such as loitering or prowling, which is prohibited in MHC guidelines.

Procedure

Each participant's criminal history was obtained with local charges from the state attorney records and all other arrests from the National Crime Information Center for the time periods before beginning MHC and at 3 months, 6 months, 1 year, and 3 years after release from MHC. Full history of arrests prior to beginning MHC was coded to represent their criminal history. All arrests were coded for crime type, most serious charge (charge severity), and total severity points (see Appendix I). Arrest type categories were coded from six for a violent crime to one for minor offenses (Steadman, Redlich, Griffin, Pettila, & Monahan, 2005). Charge severity was rated from six (capital crime and first degree felony) to one (third degree misdemeanor). Outcomes measured included graduating from MHC, being rearrested or not, number of days from exiting MHC to rearrest, and comparisons of types of offenses following release compared to offenses prior to enrollment in MHC.

Results

Measures of criminal history were evaluated for impact on success in MHC: being rearrested or not, length of time until rearrest, and types and severity of offenses.

Impact on Success in MHC

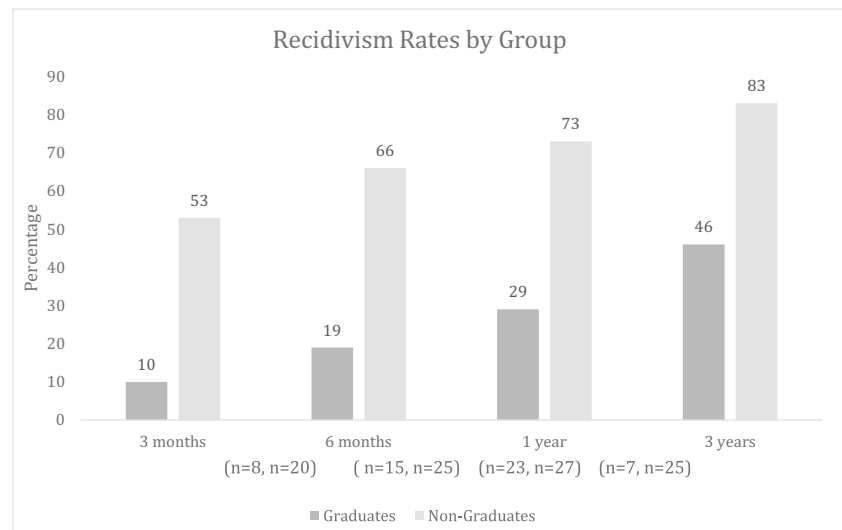
Participants' full history of arrests was measured in multiple ways (see Appendix I) and assessed for a relationship to

graduating MHC through logistic regression. It was found that based on the most severe charge they received before entering MHC (charge severity; e.g., 1st, 2nd, 3rd degree misdemeanors), it is possible to predict whether or not a person will graduate from the program. The more severe the offenses committed prior to entering MHC (e.g., degree of felony of most serious charge), the less likely a participant will graduate MHC $X^2(1, N = 118) = 4.61, p = .03$, with a significant amount of variance explained, $R^2 = .04; \beta = -0.39, p = .04$. The total of all charges committed (total severity, sum of degrees of felony) prior to entry did not predict graduating, $X^2(1, N = 118) = 1.36, p = .24$. There was a relationship between a participant's most serious arrest types (e.g., property offense or violent offenses) in predicting their outcome in MHC, but it was not a strong relationship $X^2(1, N = 118) = 5.89, p = .02$, with a significant effect size, $R^2 = .05; \beta = -0.38, p = .03$. Therefore, we cannot say that the type of crime a person committed is a strong predictive factor on their outcome in MHC, but it may have some relationship.

Impact on Rearrest

Overall, recidivism was less frequent in those who graduated MHC at all windows of time after release (3 months, 6 months, 1 year, and 3 years), as demonstrated through Pearson's chi-square analyses. The number of participants who were rearrested at 3 months was higher in MHC non-graduates $X^2(1, N = 118) = 25.87, p < .01$. Three months after release, 90% of those who graduated MHC were not rearrested ($N = 72$). The number of participants who were rearrested at 6 months was higher in non-graduates MHC $X^2(1, N = 118) = 25.41, p < .01$. Six months after release, 81% of those who graduated MHC were not rearrested ($N = 65$). The number of participants who were rearrested at 1 year was higher in MHC non-graduates $X^2(1, N = 117) = 20.22, p < .01$. One year after release, 71% of those who graduated MHC were not rearrested ($N = 57$). The number of participants who were rearrested at 3 years was higher in non-graduates $X^2(1, N = 89) = 11.56, p < .01$. Three years after release, 54% of those who graduated MHC were not rearrested ($N = 32$). At each time window tested, there was a strong enough relationship between completing MHC and recidivism rates that we can assume that this relationship is not by chance (see Fig. 1).

Fig. 1 Recidivism rates for graduates and non-graduates of MHC



A logistic regression was used to test whether the crime variables were significant factors when controlling for MHC. We found that when taking into account if the offender graduated MHC, the total sum of crimes committed before entering the program (total severity) did not consistently predict recidivism after leaving the program (see Table 2). Additionally, having a high total charge severity before entering the program did not predict being arrested 3 months after the program. Rearrest at 3 months was significantly predicted by not graduating MHC, $X^2(1, N = 118) = 25.94, p < .01$ with an $R^2 = .20$; $\beta = 2.32, p < .01$. At 6 months, not graduating MHC predicted rearrest, $X^2(1, N = 118) = 26.13, p < .01$ with an $R^2 = .20$; $\beta = 2.17, p < .01$. At 1 year, not graduating MHC predicted rearrest, $X^2(1, N = 118) = 21.68, p < .01$ with an $R^2 = .17$; $\beta = 1.99, p < .01$. At 3 years, not graduating MHC predicted rearrest, $X^2(1, N = 87) = 18.75, p < .01$ with an $R^2 = .19$; $\beta = 1.54, p < .01$.

A person's arrest(s) prior to beginning MHC was evaluated for a relationship to the types of arrests after exiting MHC through multiple regressions (see Table 2). Prior arrest types (e.g., property crimes) were not significant predictors when graduating MHC was included in the model for all four time periods. Graduating MHC significantly predicted crime types for rearrest at 3 months, $\beta = -1.14, t(115) = 3.18, p < .01$. Graduating MHC also explained a significant proportion of variance in rearrest at 3 months, $R^2 = .09, F(1, 115) = 5.39, p < .01$. Graduating MHC significantly predicted crime types for rearrest at 6 months, $\beta = -1.39, t(116) = -3.36, p < .01$. Graduating MHC also explained a significant proportion of variance in rearrest at 6 months, $R^2 = .10, F(1, 116) = 6.49, p < .01$. MHC graduation significantly predicted crime types for rearrest at 1 year, $\beta = -1.29, t(115) = -2.68, p < .01$. Graduating MHC also explained a significant proportion of variance in rearrest at 1 year, $R^2 = .08, F(1, 115) = 4.99, p < .01$. Graduating MHC significantly predicted crime types for rearrest at 3 years, $\beta = -1.26, t(87) = -2.09, p = .04$. MHC graduation also explained a significant proportion of variance in rearrest at 3 years,

$R^2 = .08, F(1, 87) = 3.53, p = .03$. This analysis demonstrated that a participant's success in MHC had an impact on predicting what type of crime they committed after exiting MHC, with those who graduated committing less serious crimes.

Impact on Time until Arrest

The impact of criminal history and MHC on days free without rearrest was also considered. Multiple regressions demonstrated that graduating MHC was more important to the number of days free after release without rearrest than the most severe prior arrest type (crimes against persons, property crimes, drug crimes, etc.). Graduating MHC predicted more days free without rearrest. Graduating MHC significantly predicted number of days free from rearrest by 1 year, $\beta = 134.79, t(114) = 5.33, p < .01$. Graduating also explained a significant proportion of variance in days free before rearrest, $R^2 = .23, F(2, 113) = 16.95, p < .01$. With graduating MHC in the model, most severe prior arrest type was not a significant predictor of days free without rearrest. The impact of MHC was also evident on number of days free without arrest by 3 years. Graduating MHC significantly predicted days free without arrest by 3 years, $\beta = 406.96, t(87) = 4.36, p < .01$, but prior crime type did not. Graduating explained a significant proportion of variance in days free before rearrest by 3 years, $R^2 = .21, F(2, 87) = 12.23, p < .01$.

Impact on Severity of Reoffense

The change in type and severity of crimes after release from MHC was also evaluated. Based on the most severe charge of the crimes committed before entering MHC (e.g., 1st to 3rd degree misdemeanors), it is not possible to predict post-release charge severity in any time interval. Multiple regressions demonstrated that only failure to graduate MHC in any time window predicts post-release charge severity (see Table 2). Post-

Table 2 The impact of criminal history variables on recidivism

Predicting rearrest													
	3 months			6 months			1 year			3 years			
	β	SE β	Exp(β)	β	SE β	Exp(β)	β	SE β	Exp(β)	β	SE β	Exp(β)	
Graduate MHC	2.32***	0.50	10.19	2.17 ***	0.46	8.77	1.99***	0.46	7.28	1.54**	0.58	4.65	
Prior total severity	0.002	0.003	1.00	.001	0.003	1.00	0.00	0.003	1.00	0.02	0.01	1.02	
Constant	-2.27	0.39	0.10	-1.48***	0.303	0.23	-.90***	0.26	0.41	-.74	0.38	0.48	
χ^2	25.94***			26.13***			21.68**			18.75***			
R ^{2a}	.20			.20			.17			.19			
Predicting days free													
	β	1 year			3 years			β	SE β	t	β	SE β	t
		SE β	t	β	SE β	t							
Graduate MHC	134.79***	25.31	5.33	406.96***	93.43	4.36							
Prior arrest type	-9.31	7.94	-1.17	-46.32	29.96	-1.55							
Constant	211.60***	47.91	4.42	505.98**	179.48	2.82							
F	16.95***			12.23***									
R ²	.23			.21									
Predicting arrest type													
	3 months			6 months			1 year			3 years			
	β	SE β	t	β	SE β	t	β	SE β	t	β	SE β	t	
Graduate MHC	-1.14**	0.36	-3.18	-1.39**	0.41	-3.36	-1.29**	0.48	-2.68	-1.26*	0.61	-2.09	
Prior arrest type	0.01	0.11	0.11	0.07	0.13	0.56	0.16	0.15	1.09	0.23	0.19	1.25	
Constant	1.61*	0.68	2.39	1.91*	0.78	2.44	1.89*	0.91	2.08	2.44*	1.12	2.18	
F	5.39**			6.49**			4.99**			3.53*			
R ²	.09			.10			.08			.08			
Predicting severity of reoffense													
	3 months			6 months			1 year			3 years			
	β	SE β	t	β	SE β	t	β	SE β	t	β	SE β	t	
Graduate MHC	-1.43***	0.27	-5.34	-1.66***	0.31	-5.35	-1.54***	0.34	-4.51	-1.44**	0.43	-3.31	
Prior charge severity	-.03	0.11	-.29	0.07	0.13	0.52	0.11	0.14	.76	0.03	0.18	0.17	
Constant	1.90***	0.52	3.62	2.06***	0.61	3.38	2.15**	0.67	3.21	3.01**	0.87	3.47	
F	14.58***			15.62***			11.42***			5.73**			
R ²	.21			.22			.17			.12			
	3 months			6 months			1 year			3 years			
	β	SE β	t	β	SE β	t	β	SE β	t	β	SE β	t	
Graduate MHC	-4.01***	0.81	-4.97	-6.14***	1.39	-4.41	-7.89***	1.67	-4.71	-13.09**	4.69	-2.79	
Prior total severity	0.01	0.01	1.18	0.01	0.01	1.36	0.02	0.01	1.45	0.03	0.03	1.31	
Constant	4.52***	0.72	6.40	7.55***	1.22	6.19	10.06***	1.46	6.88	19.49***	4.04	4.83	
F	13.88***			11.47***			12.82***			5.05**			
R ²	.20			.17			.19			.11			

* $p < .05$; ** $p < .01$; *** $p < .001$

^a Cox and Snell R Square

charge severity at 3 months was predicted by failing MHC, $\beta = -1.43$, $t(116) = -5.34$, $p < .01$. This model explained a significant portion of variance in recidivism severity, $R^2 = .21$, $F(2, 114) = 14.58$, $p < .01$. Post-charge severity at 6 months was predicted by failing MHC, $\beta = -1.66$, $t(116) = -5.35$,

$p < .01$. This model explained a significant portion of variance in recidivism severity, $R^2 = .22$, $F(2, 114) = 15.62$, $p < .01$. Post-charge severity at 1 year was predicted by failing MHC, $\beta = -1.54$, $t(116) = -4.51$, $p < .01$. This model explained a significant portion of variance in recidivism severity, $R^2 = .17$,

$F(2,114) = 11.42, p < .01$. Post-charge severity at 3 years was predicted by failing MHC, $\beta = -1.44, t(87) = -3.31, p < .01$. This model explained a significant portion of variance in recidivism severity, $R^2 = .12, F(2,86) = 5.73, p < .01$.

Multiple regressions demonstrated that the total severity of all prior charges (sum of total score for felony, misdemeanor, etc.) did not explain severity of new charges when graduating from MHC was in the model (see Table 2). Total severity of reoffenses by 3 months was predicted by failing MHC, $\beta = -4.01, t(116) = -4.97, p < .01$. This model explained a significant portion of variance in total recidivism severity, $R^2 = .20, F(2, 114) = 13.88, p < .01$. Total severity of reoffenses by 6 months was predicted by failing MHC, $\beta = -6.14, t(116) = -4.41, p < .01$. This model explained a significant portion of variance in total recidivism severity, $R^2 = .17, F(2, 114) = 11.47, p < .01$. Total severity of reoffenses by 1 year was predicted by failing MHC, $\beta = -7.89, t(116) = -4.71, p < .01$. This model explained a significant portion of variance in total recidivism severity, $R^2 = .19, F(2, 114) = 12.82, p < .01$. Total severity of reoffenses by 3 years was predicted by failing MHC, $\beta = -13.09, t(87) = -2.79, p < .01$. This model explained a significant portion of variance in total recidivism severity, $R^2 = .11, F(2,86) = 5.05, p < .01$.

With regard to the types of crimes committed, the amount of days spent in MHC predicted arrest type changes (e.g., moving from more severe type such as interpersonal violence to less severe type at rearrest such as property offense) at 3 years for individuals who did not graduate MHC. Multiple regression demonstrated that for those non-graduates, number of days in MHC significantly predicted change in crime type at the 3-year mark, $\beta = 0.01, t(26) = 3.00, p < .01$ (see Fig. 2). This model

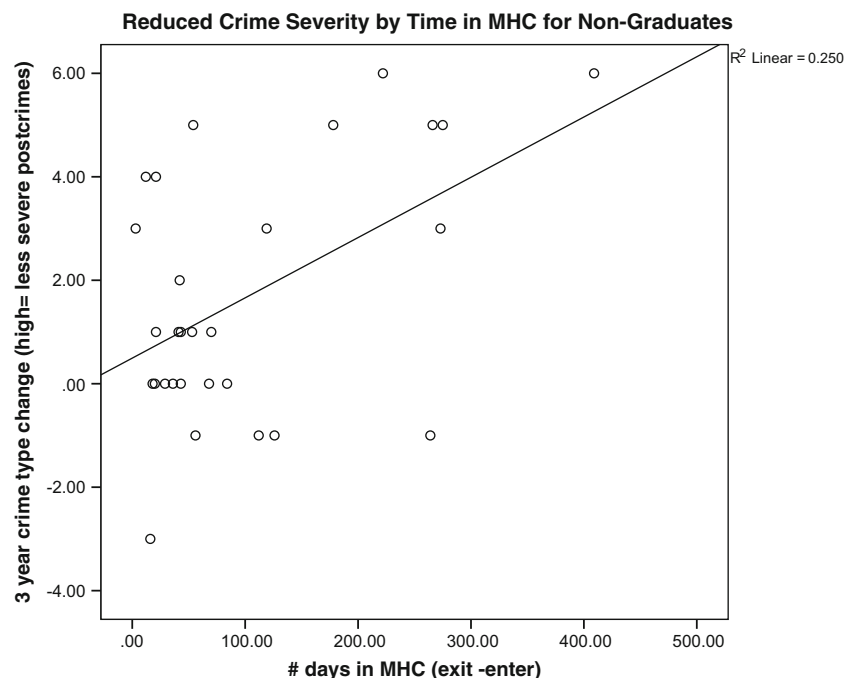
explained a significant portion of variance in crime type at 3 years, $R^2 = .25, F(1, 27) = 9.00, p < .01$. This was not significant for those who graduated from MHC.

Discussion

Overall, this study demonstrated that participation in MHC reduced recidivism for 3 years after completion, regardless of criminal history. This is one piece of evidence that investment in treatment may have long-term cost savings through sustained changes in criminal behavior. While incarceration has been shown to be ineffective at reducing recidivism and exacerbates mental health issues (Binswanger et al., 2011; Blitz et al., 2008; White et al., 2006), MHCs improve mental health issues, reduce recidivism, and are cost effective. A reduction in recidivism is a notable long-term benefit, as costs to utilize police, jails, and courts will be reduced. Outpatient care, utilized in this MHC, is far less costly than incarceration, averaging \$4000 per person per year, versus \$20,000 (Lavine, Lozowski, Powell, Sivillo, & Traeger, 2001). Furthermore, MHC treatment options may also have cost benefits by avoiding the high price of inpatient care (Almquist & Dodd, 2009).

This study examined the long-term effects of this MHC, adding to the evidence that it reduces recidivism. Our main hypothesis, that participation in MHC would reduce rearrests, was supported. Significantly fewer participants who graduated MHC were rearrested at each time interval. In addition, at 1 year after graduating from MHC, 71% of participants avoided rearrest. This is a very favorable rate compared with estimates ranging from 53 to 85% of graduates avoiding

Fig. 2 For non-graduates, number of days in MHC significantly predicted a less severe crime type 3-years after leaving MHC



rearrest by 1 year from other MHC's (Christy et al., 2005; Dirks-Linhorst & Linhorst, 2010). In addition, no other studies have examined the impact of MHC on rearrest 3 years after exiting the program. In this sample, 54% of those who graduated MHC were still offense-free 3 years after release, as compared with 17% of those who did not graduate. This study adds to the mounting evidence of the ability of MHC to reduce recidivism in offenders with mental health challenges.

A participant's success in MHC also had an impact on predicting what type of crime they committed after exiting MHC, if any. At each time they were evaluated, the MHC non-graduates had arrests for more serious types of crimes (e.g., crimes against person) than MHC graduates who reoffended. This result suggests that MHC not only impacts the potential for participants to be rearrested but also the severity of crime they were arrested for. Perhaps by addressing treatment needs within the MHC program, participants' behavioral difficulties were modified as well. This is consistent with previous research and supports the impact of MHC extending to the 3-year mark.

The impact of MHC overcame the old adage that the best predictor of future behavior is past behavior. The arrest history prior to entering MHC was irrelevant for predicting rearrest with graduating MHC included in the model. The most severe prior arrest (e.g., 1st degree felony) and the total severity of prior arrests (sum of score for felony, misdemeanor, etc.) did not predict rearrest when not-graduating MHC was included in the model. Similarly, MHC impacted how long each participant remained in the community without arrest. With MHC graduation included in the model, most severe prior crime type was not a significant predictor of days free without rearrest. This inclusion of the full criminal history is not commonly considered in MHC studies and illustrates the impact of the program in changing engrained behavior. The rates of recidivism of MHC graduates increase the longer they are away from the court, which may indicate a need for continued support after graduation.

The amount of days spent in MHC predicted a reduction in crime type (e.g., moving from more severe type such as interpersonal violence to less severe type at rearrest such as property offense) at 3 years for MHC non-graduates. This suggests that participation in MHC has a positive impact, even if, ultimately, participants do not successfully complete the program. These findings, particularly for participants who ultimately do not graduate from MHC, support the treatment of offenders with mental health issues without incarceration. The harmful effects of incarceration, and sometimes involuntary treatment, may be avoided through this method of voluntary treatment.

Limitations include the inability to include some members who had inadequate arrest records or who received private treatment outside of the clinic providing data to the court. In addition, MHC is only offered to those currently charged with a misdemeanor, so it is not possible to know what impact the

program would have on those currently facing more serious charges. Although the outcome timeline of 3 years was utilized in this study to view long-term effects of the MHC program, data was only available for 89 participants out of the original 118 at the 3-year mark. Therefore, this decrease of participants limits the extent to which the sample can be representative of the entire MHC population. However, significant results at the 3-year mark are likely representative of positive MHC outcomes as typically smaller sample sizes increase the difficulty in achieving significant results.

Another limitation is that outcome is measured by rearrest, which does not demonstrate psychiatric stability. Since MHCs serve both the community and the treatment needs of the individual, those gains are equally important. An additional limitation is the lack of mental health history available to identify factors that may predict inability to successfully complete the MHC program. Furthermore, time spent incarcerated or hospitalized prior to MHC was not measured. Incarceration and involuntary treatment time may have aided in predicting completion of MHC. Many individuals in the criminal justice system also experience unemployment and homelessness, which could influence their ability to succeed in MHC. Lastly, some of our participants may have died or been hospitalized, which would not have been evident in arrest records. Participants who were hospitalized would be presented as a lack of recidivism, when they may have been unable to reoffend. Graduation from MHC was dependent upon factors associated with psychiatric stability, so this may have initially impacted the non-graduate recidivism rate more and could be a confounding factor for both groups in the later follow-up time periods.

Despite these limitations, this research demonstrates the effectiveness of MHC programs to positively impact graduates and recidivism. This benefits the individuals as well as the community. Factors influencing recidivism in offenders with mental illness that are treated in the community are underresearched. Efforts to reduce criminal activity through treatment courts could limit an offending career or prevent an offender from escalating to offenses that result in long-term imprisonment. Future research examining best practices that include contact with treatment following graduation from the program appears warranted.

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Compliance with Ethical Standards

Conflict of Interest The authors declare that they have no conflict of interest.

Appendix I

Table 3 Arrest coding

Arrest type	6 points Violent offenses (e.g. homicide, battery)	5 points Offenses against persons (e.g. extortion, larceny)	4 points Property offenses (e.g., theft, property damage)	3 points Drug offenses (e.g., DUI, possession)	2 points Minor offenses (e.g., loitering, trespassing)	1 point Other offenses (e.g., fraud, perjury, fugitive)
Charge severity	6 points Capital, life/1st degree felony	5 points 2nd degree felony	4 points 3rd degree felony	3 points 1st degree misdemeanor	2 points 2nd degree misdemeanor	1 point 3rd degree misdemeanor
Total severity	Total severity for all arrests prior to MHC, and 3 months, 1 year, and 3 years after exiting MHC (all crime charge severities summed).					

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