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PROSPECTIVE EVALUATION OF THE NOVA SCOTIA MENTAL HEALTH COURT: AN EXAMINATION OF SHORT TERM OUTCOMES

Outcome Evaluation Report | April 16, 2015

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EXECUTIVE SUMMARY

This report describes the findings of a comprehensive, multidimensional short-term outcome evaluation of the Nova Scotia Mental Health Court (MHC) located in Dartmouth, Nova Scotia, Canada. MHCs have existed in the United States for almost two decades and in Canada since the late 1990s. MHCs were developed out of a desire to reduce the criminalization of behaviour associated with mental illness and to put an end to this population's repeated cycling in and out of the criminal justice system. They aim to do this by better meeting the mental health and social needs of admitted cases in a judicial environment sensitive to their mental health issues and which can facilitate access to appropriate treatment and community services to reduce future criminal behaviour. MHCs typically are voluntary programs, but their clients usually must accept responsibility for the crime of which they have been accused and for which they are viewed as being criminally responsible. In many cases, charges are withdrawn if the individual has successfully completed the expectations of the MHC. In other cases, MHCs also can apply sanctions for non-compliance, impose sentences, and/or return the individual to traditional court. Services are typically provided in the community, rather than in institutional settings. A team of mental health, correctional, and legal personnel staff work with the presiding Judge to manage the case and ensure the client's access to approach services. This description is consistent with the operations of the Nova Scotia MHC.

Despite identified positive changes in criminal justice and mental health recovery outcomes in the American-based MHCs, little is known about how well these outcomes generalize to Canadian MHCs as little research of this nature has been done in Canada. Generalizing American-based findings to Canadian MHCs is challenging given the differences that exist between these countries' approaches to crime and rehabilitation, variation in each MHC's approach to the supervision and case management of their clients, and the unique community context and resources in which these courts operate. Thus, each MHC should undergo its own evaluation to examine its strengths and weaknesses.

Our evaluation of the Nova Scotia MHC was done using a prospective, pre-post matched comparison group research design. This evaluation gathered descriptive operational data, and examined the degree of change that occurs in mental health recovery and criminal risk/recidivism as a function of MHC involvement. These changes were compared to a group of individuals referred, but not admitted to MHC and who were then managed by the traditional correctional system. A total of 80 individuals referred to the Nova Scotia MHC between 2012-2014 agreed to participate in the evaluation, 26 of whom had been admitted to MHC and 54 of whom were not admitted and case managed by the traditional correctional system. Data was gathered at the time of referral about the individual's functioning during the 12 months prior to referral and in the 12 months after referral to gather information about each participant's mental health recovery, recidivism risk, and criminal behaviour. To minimize potential bias in outcome data stemming from pre-existing differences between MHC and the comparison group of non-admitted cases, 22 of the participants who were admitted to MHC were successfully matched to 22 non-admitted cases on key demographic, mental health, and recidivism risk-needs, as well as the propensity to be admitted to MHC. This matched sub-sample of 44 cases was used to examine and contrast changes that occurred in mental health recovery and criminogenic variables from the 12 month period prior to MHC referral to the 12 month period after MHC referral. The rate of re-offending was also examined for the full sample and for the matched sub-sample and compared between the two settings.

Results indicated that the majority of cases (92.5%) referred to the Nova Scotia MHC had a history of mental health involvement prior to referral. Cases admitted to MHC tended to have a more serious clinical presentation than those who were not admitted based on a comprehensive review of their mental health assessment and case records. Given the chronic and persistent nature of many of the mental health disorders represented in MHC referrals (e.g., substance abuse, anxiety, depression, and personality disorders), it was not surprising to find little change in variables capturing mental health functioning and recovery over the 12 month period following MHC referral for either MHC admitted cases or the matched comparison group supervised by the traditional correctional system. An alternative explanation for this finding may be that 12 months is an insufficient amount of time to observe meaningful changes in mental health recovery for this population, and longer follow-up is required to gauge long-term recovery outcomes.

Just under one-third of MHC participants (30.8%) were charged with a new crime in the 12 month post-MHC referral period (excluding index offences associated with the referral), but this rate was not statistically different from the re-offending rate found in the comparison group (31.5%). There was a trend for MHC participants who successfully completed the program to demonstrate the longest passage of time before re-offending relative to individuals who did not complete the program or who were in the comparison group, but this difference was not statistically significant due to small sample sizes of these MHC groups. Notably, however, the group of individuals who responded least well to the MHC program were high recidivism risk clients; these cases had the highest rate of re-offending, more significant criminogenic needs, and were at greater risk of being prematurely discharged from the program.

Further analyses indicated that case plans developed by the MHC team were better at meeting the responsivity needs of clients than case plans developed within the traditional correctional system. Responsivity needs refer to the tailoring or adjusting of a criminogenic-focused intervention to the unique strengths and challenges of a client, such as mental illness, motivation, and learning disabilities, and the use of evidence-based methods of criminal behaviour risk reduction. Both the MHC and traditional correctional system were equivalent in their ability to match the level of supervision and intervention intensity to their client's recidivism risk level. They were also similar with regard to their tendency to address criminogenic needs (i.e., risk factors for recidivism) directly associated with the risk of subsequent criminal behaviour overall, but the MHC was better at meeting the substance abuse needs of its participants than documented in the case plans of the comparison group. Both the traditional correctional system and the MHC would benefit from greater attention to meeting the criminogenic needs of *higher* recidivism risk cases. The MHC performed fairly well in terms of meeting the family/marital, procriminal attitudes, antisocial personality orientation and criminal history criminogenic needs of its participants, but were less attentive to the criminogenic needs of education/employment problems, limited prosocial leisure/recreational time, and limited prosocial companions/association with procriminal peers that also contribute to criminal behaviour when these needs are present. This could have been for various reasons, including limited resources, difficulty accessing available resources, and/or client disinterest in addressing such needs.

Recommendations based on this short-term outcome evaluation:

1) To continue investing in the Nova Scotia MHC as an alternative means of responding to the needs of offenders with significant mental health concerns in a sensitive and compassionate manner. The program is clearly meeting this aim. Specifically, the Nova Scotia MHC was able to provide interventions and case management plans that were more responsive and attentive to the unique strengths and mental health needs of its clients than occurred with clients case managed in the traditional correctional system. At this point, however, the short-term mental health recovery and criminogenic outcomes of participating and completing MHC appear similar to that achieved in the traditional system. Both systems would benefit from improvement in targeting the criminogenic needs of their clients to maximize risk reduction gains.

2) To formally integrate the Risk-Need-Responsivity Model of effective correctional case management with case plans already designed to meet mental health recovery goals. There is some overlap in the foci of mental health recovery and criminogenic-focused case management in terms of matching the needs to clients to appropriate services, and focusing on recovery, but these plans needs to target relevant criminogenic needs to maximize the likelihood of recidivism reduction.

3) To adopt a criminal risk screening assessment process to parallel the existing mental health screening process as a means of better informing decision-making with regard to admission, supervision intensity, and intervention targets that aim to reduce criminal behaviour.

4) To develop or enhance intervention resources that address the education, employment, procriminal peer associations/absence of prosocial peers, and leisure/recreation criminogenic needs of MHC participants when such needs are present in higher risk cases. These criminogenic needs are significant risk factors for recidivism in both offenders with and without mental health issues.

5) To develop a protocol that will allow the Nova Scotia MHC to more effectively supervise and meet the needs of high risk offenders, or consider high recidivism risk status as grounds for exclusion from MHC eligibility at the time of admission decision-making.

6) To continue in-house data tracking for the purposes of future evaluations.

GENERAL LITERATURE ON MENTAL HEALTH COURT EVALUATIONS

Mental Health Courts (MHC) were developed to provide a more sensitive response to individuals with significant mental health issues who come into conflict with the law relative to what typically occurs in the traditional court system (Schneider, Bloom, & Heerma, 2007). Although there is some variation in the operational procedures of MHC across jurisdictions, research and program descriptions (e.g., Redlich, Steadman, Monahan, Petrilla, & Griffin, 2005) indicate that they typically include a dedicated presiding Judge, Crown Prosecutor, Duty Counsel, probation officer, and representatives from mental health agencies and/or other community services. Collectively, these professionals form the MHC team that works with and supervises the MHC participant while involved in the program and either provides direct services or refers the client to appropriate community, social and mental health services. MHCs are typically voluntary, and clients usually must accept responsibility for their criminal behaviour and been deemed criminally responsible for this behaviour. In many cases, charges are withdrawn at the end of the MHC process if the individual successfully completes the expectations of the MHC. In other cases, the MHC can apply sanctions for non-compliance, impose sentences, and/or return the individual to traditional court. Services are typically provided in the community, rather than in institutional settings.

Almost all research on the effectiveness and impact of MHCs has been conducted in the United States. This research has found that participation in MHC increases access to mental health services (Boothroyd, Poythress, McGaha, & Petrila, 2003; Herinckx, Swart, Ama, Dolezal, & King, 2005), enhances the capacity for independent functioning, reduces substance use, improves mental health functioning, and reduces crises service utilization (Campbell, 2011; Cosden, Ellens, Schnell, Yamini-Diouf, Wolfe, 2003). Individuals who participate in MHC tend to describe their experience in positive terms, view many advantages to being involved with the program, and perceive meaningful differences from traditional court environments (Lane & Campbell, 2008; Redlich, Hoover, Summers, & Steadman, 2010; Wales, Hiday, & Ray, 2010). From a reduction in criminalization perspective, MHC participation in the United States has been associated with fewer days in jail , longer time to re-offence , fewer arrests, and fewer self-reported acts of violence relative to periods prior to MHC involvement or as compared to comparison groups (Anestis & Carbonell, 2014; Burns, Hiday, & Ray, 2013; Christy, Poythress, Boothroyd, Petrila, & Mehra, 2005; Herinckx et al., 2005; Hiday & Ray, 2010; Hiday, Ray, & Wales, 2014; Hiday, Wales, & Ray, 2013; McNeil & Binder, 2007; Moore & Hiday, 2006; Steadman, Redlich, Callahan, Robbins, & Vesselinov, 2011).

A meta-analysis of 18 MHC outcome studies conducted between 2003 and 2009 by Sarteschi, Vaughn, and Kim (2011) found that the average effect size (Hedge's adjusted g) for recidivism reduction was -.54. This effect was similar when only quasi-experimental studies were examined (-.55), and was only slightly reduced for evaluation designs based on pre-post MHC data (-.42). In general, these values correspond to a medium effect on recidivism reduction. However, results across studies were less consistent for clinical outcomes given the diversity of means used to assess these outcomes. The only consistent evidence of positive impact was obtained for reductions in the General Assessment of Functioning score (-.69) and number of days hospitalized (-2.03). Given the variety of disorders typically reflected in MHC populations, it is likely that global measures of mental health recovery will be more effective at demonstrating change than trying to assess symptom-specific changes tied to any one type of disorder. Furthermore, the chronic nature of many mental health disorders that are often accepted into MHCs (e.g., schizophrenia, intellectual disability, bipolar disorder) may make it unrealistic to expect full remission from these disorders. Thus, measures of global functioning, quality of life, and recovery of

function may be more useful measures of MHC outcomes. However, these broad recovery outcomes are rarely examined in MHC evaluations.

Although research on the cost-effectiveness on MHC programs is limited, the fact that such programs have been associated with reductions in costly hospitalization and incarceration points to their potential for significant cost savings relative to the repeated cycling in and out of both types of institutional settings (Boothroyd et al., 2003; Kaplan, 2007).

THE CANADIAN CONTEXT OF MHC EVALUATIONS

Within the Canadian context, MHC outcome studies are lacking despite their existence in Canada since the late 1990s. The only evaluation of outcomes examined in Canada was of the Saint John MHC in New Brunswick (Campbell, Canales, Wei, Totten, Macaulay & Wershler, 2015), though others are currently in the works. Involvement with the Saint John MHC was associated with significant, but modest reductions across mental health, psychosocial, and criminogenic needs relative to their functioning in the 12 months prior to MHC involvement. MHC completers showed the lowest rate of re-offending during the 12 months following MHC discharge (29%), but this rate did not significantly differ from that of cases that only partially completed the program (47%) and cases that were referred but not admitted to MHC (34%). Although the partial completion group had the highest risk for recidivism as measured by the Level of Service/Risk-Need-Responsivity (LS/RNR; Andrews, Bonta, & Wormith, 2008) risk assessment instrument, it should be noted that most of the cases admitted into the Saint John MHC were medium to high recidivism risk. A factor that may have limited the ability of the Saint John MHC to reduce recidivism risk was the fact that most criminogenic needs (i.e., empirically-identified risk factors for recidivism) were not specifically targeted for intervention in the MHC case plans. High risk cases tended to receive the most intensive interventions, but these interventions tended to focus on stabilization of mental health and accommodation concerns. The only criminogenic needs that were frequently and consistently targeted were substance use and employment concerns.

As applied to a MHC context, the Risk, Need, Responsivity (RNR) model of effective offender case management and intervention would advocate for case management plans that match intervention intensity to an individual's risk of re-offending. They would also emphasize the importance of treating criminogenic needs directly tied to criminal behaviour (i.e., antisocial values/attitudes, substance abuse, lack of prosocial peers, poor use of leisure/recreation, antisocial personality orientation, lack of employment/education, and family/marital problems) in conjunction with mental health specific intervention using evidence-based methods of intervention, and tailoring intervention to the client's individual capacities (e.g., motivation to change, medication, learning disabilities, cognitive impairment, presence of supports). Research has clearly demonstrated that the risk factors for recidivism are the same for mentally ill offenders and as they are non-mentally ill offenders (Bonta, Blais & Wilson, 2014; Bonta, Law & Hanson, 1998) and that mental illness is directly tied to criminal behaviour in only a minority of mentally ill offender cases (e.g., in response to threat-control override delusions; Hiday & Burns, 2010). Thus, failure to address criminogenic risk factors in conjunction with an individual's mental health recovery needs will likely limit the ability of any program to reduce the risk of future criminal behaviour in mentally ill offenders (Skeem, Manchak, & Peterson, 2011), with the exception of low risk cases that require little to no criminogenic intervention.

THE NOVA SCOTIA MHC

The Nova Scotia MHC program came into operation on November 5, 2009, and is part of the Nova Scotia Provincial Court. The general aim of the program is to provide a fair and compassionate judicial context within which individuals with mental illness who are charged with a criminal offence can receive appropriate treatment that will enhance the quality of their lives, promote mental health recovery, minimize future contact with the judicial system, and enhance public safety (see http://novascotia.ca/just/global_docs/MHC_mission.pdf). These goals are achieved by means of facilitating access to community, social service, mental health, and addiction services that meet the individual's needs, and by providing necessary supervision, monitoring, and sanctions as needed to balance public safety concerns. A multidisciplinary team of professionals develop and oversee treatment and supervision case management plans, and make recommendations to the Judge regarding management of the case for the tenure of the individual's involvement in the program. The team has dedicated professionals assigned to it, and includes two mental health professionals (social worker and nurse), a probation officer, a Crown Attorney, a Duty Counsel from Nova Scotia Legal Aid, and the Judge. The team can consult as needed with other professionals (e.g., psychologist, psychiatrist), and Private Defence Counsel may represent the client.

Participation in the Nova Scotia MHC is voluntary. Potential candidates may be identified through various sources, such as law enforcement, the Crown Attorney, the Defence Counsel, the Judge, or from the client his/herself. The formal referral comes to the presiding Judge of the Nova Scotia MHC through the Crown Attorney, the Defence Counsel, or the Judge initially hearing the matter. The referral initiates the *appearance phase* of the Nova Scotia MHC, in which the candidate is presented to the team. Unless the case is excluded at the appearance phase, he/she proceeds to the *screening phase* during which information is gathered with the client's or the guardian's consent to ascertain the client's eligibility for admission. Eligibility criteria include that the individual must be 18 years old or older, must accept responsibility for the crime(s) of which they have been accused, and must have a diagnosis of a mental health disorder (or is suspected of having a mental health disorder) that played a contributing role in the criminal act(s) (i.e., a nexus). At the end of the screening phase, a decision is made by the MHC team as to whether to admit the individual to the program or to refer the matter back to the traditional court system. If the Crown Attorney is of the opinion that the case is not suitable for MHC, then the case is referred back to traditional court.

If admitted into the MHC, the individual is formally invited to participate in the MHC program and asked to sign a participation agreement through a voluntary and informed consent process. They next enter the assessment phase to inform the development of an individualized support plan to identify the client's mental health recovery and supervision needs. If the client agrees, then he/she enters the *program phase* where the required intervention and community services as provided to meet these needs. The client will appear before the MHC at a frequency determined by the presiding Judge after consulting with the MHC team. Sanctions for non-compliance can range from an increase in court appearances, changes in the support plan, closer supervision and/or additional conditions (e.g., curfew, requirement to report to probation), to termination from the MHC program. Disposition of cases in the Nova Scotia MHC program could lead to the withdrawal of the charge(s), absolute or conditional discharges, probation, community service, fines, peace bonds, a conditional sentence, or a period of detention depending on the circumstances of the case. For more information on the operational

aspects of the Nova Scotia MHC, see http://novascotia.ca/just/mental_health_court.asp and the 2014 Annual report (http://www.courts.ns.ca/News_of_Courts/news_docs/NS_MHC_Report_2014.pdf).

Based on the 2014 Annual report, a total of 637 cases (18 to 86 years of age) have been referred to the Nova Scotia MHC since it became operational in 2009. Almost 1/3rd of these individuals have been admitted to the program, 85% of whom have successful completed the program.

Goals of the Current Evaluation:

1) Identify the typical profile of cases referred, and those admitted, to the Nova Scotia MHC in terms of demographic characteristics, mental illness and recovery needs, and criminogenic needs/risk of recidivism.

2) Determine how mental health and criminogenic needs change as a function of involvement in the Nova Scotia MHC relative to what occurs in the traditional criminal justice system.

3) Determine whether involvement in the Nova Scotia MHC reduces hospital and emergency service utilization relative to cases managed by the traditional criminal justice system.

4) Assess the impact of Nova Scotia MHC involvement on recidivism rates and time to recidivism relative to what occurs in the traditional criminal justice system.

5) Examine the degree to which the Nova Scotia MHC adheres to the RNR principles of effective offender case management and rehabilitation relative to that achieved within the traditional correctional system. These principles are important to the goals of recidivism risk reduction.

METHODOLOGY OF THE EVALUATION

This independent evaluation of the Nova Scotia MHC used a pre-post research design that compared MHC participants to a comparison group of individuals who were case managed by the traditional criminal justice system. We gathered information about mental health recovery and criminal behaviour in the 12 months prior to referral to the Nova Scotia MHC and in the 12 months after referral to MHC. This information was extracted from case records maintained by the Capital District Health Authority and the Nova Scotia Department of Justice and Correctional Services. Self-report information was also used to ascertain mental health symptom severity at the time of MHC referral. At the end of the study, participants were categorized into one of five levels of MHC status: 1) cases who were admitted and completed the MHC program (i.e., "Completers"), 2) those who were still active in the program at the time of study conclusion (i.e., "Still Active"), 3) cases who were admitted but prematurely discharged from MHC (due to non-compliance, transfer to traditional court; "Partial Completers - Expelled"), 4) cases who were admitted and then voluntarily withdrew from the program (i.e., "Partial Completers- Withdrew") and 5) cases who were referred but not admitted to MHC ("Treatment-as-usual in the correctional system, or TAU). Identifying cases as such allowed us to draw the TAU comparison group from the non-admitted pool of referrals, and also allowed us to examine the benefits of completing the full dose of the MHC program versus only partially-completing it.

Support for this research was obtained from the Nova Scotia Department of Justice and the Nova Scotia MHC team. The methods used in the evaluation were approved by the Capital District Health Authority Human Research Ethics Board and the University of New Brunswick-Saint John Human Research Ethics Board.

The evaluation was funded by the Centre for Criminal Justice Studies, through funds awarded to this organization by the Vice President of the University of New Brunswick-Saint John to support this endeavor.

Recruitment of Participants

All new or very recent referrals (still in screening phase) to the Nova Scotia MHC were eligible for participation in the evaluation. The most efficient recruitment strategy was to integrate recruitment and consent for participation in the evaluation into the normal informed consent procedures for participation in the screening phase of MHC. In this way, recruited cases included both admitted and non-admitted MHC cases. Even if a case was later not admitted to MHC, we would still have the client's permission to follow them via their case records as a comparison group of cases managed by the traditional criminal justice system and correctional services.

Potential participants were generally informed about the study during their MHC appearance or when speaking with the duty counsel, and were asked whether they would be interested in meeting with one of the research assistants when they came to the MHC administrative offices to sign their consent form to engage in the MHC screening phase. It was made clear to clients that their participation in the evaluation would in no way influence admission decisions or their involvement in MHC to minimize undue pressure to participate. If the client agreed to speak with the research assistant, then this was communicated to the research assistant who (if accessible at that time based on pre-arrangement notification of the meeting) met with the client privately at that time to describe what was involved in the evaluation, to review the informed consent form for the evaluation and to access to case records, and to administer a measure of mental health functioning. When an immediate meeting could not be arranged, then the research assistant scheduled an alternative time to meet with the client (i.e., before/after their next MHC appearance or meeting with a MHC team member). The informed consent form can be reviewed in Appendix A.

In total, 80 individuals consented to participate in the evaluation and provided their permission for the researchers to review their mental health, justice, correctional, and Nova Scotia MHC records as part of the evaluation between August 2012 and May 2014.

Measures of Change Examined in the Evaluation

Measurement of Mental Health Recovery:

Each participant completed the Symptom Checklist-90-Revised (SCL-90-R; Derogatis, 1994) at the time of their recruitment into the study (i.e., during the MHC screening phase prior to admission decision-making). The SCL-90-R is a self-report measure that provides a general index of the psychological distress (Global Severity Index) and intensity of mental health issues (Positive Symptom Distress Index), as well as severity of mental health issues across nine symptom domains (Somatization; Obsessive-Compulsive; Interpersonal Sensitivity; Depression; Anxiety; Hostility; Phobic Anxiety; Paranoid Ideation; Psychoticism). This measure contains 90 items rated on a 5 point scale ranging from *not at all* (0) to *extremely* (4). It takes 12-15 minutes to complete and requires a 6th Grade reading level. These items were read to participants with literacy issues. The psychiatric outpatient normative data were used for scoring purposes as it most closely matches the MHC context.

Mental health needs also were assessed at the time of MHC referral by the mental health staff on the MHC team during the screening phase of the referral process. This assessment, along with mental health history records

and correctional records, were reviewed by research assistants to code variables pertaining to the severity of mental health status and proxies of mental health recovery in terms of employment status, quality of intimate relationships, quality of family relationships, stability of living arrangements, adequacy of financial resources, and educational status. These variables were coded for the 12 month period prior to MHC referral and for the 12 month period following MHC referral for both admitted and non-admitted cases, or at the time of study conclusion for cases still active in MHC.

We intended to make use of the Camberwell Assessment of Need-Short Form (CAN) completed by MHC mental health staff with clients as part of the screening assessment phase to identify recovery needs, but this form was not consistently included in the screening assessment documentation nor was it often present in the Capital District Health Authority case records from an evaluation conducted close in time to the MHC referral. Thus, the low number of available CAN forms on record for recruited cases prevented us from including it in the evaluation as measure of mental health recovery needs.

Measurement of Criminogenic Needs, Re-offending Risk and Recidivism

To provide a formal assessment of criminogenic needs and recidivism risk, the Level of Service/Risk-Need-Responsivity instrument (LS/RNR; Andrews et al., 2008) was used. The Level of Service-based instruments have been well validated as predictors of recidivism risk (Andrews, Bonta, & Wormith, 2004), are sensitive to changes in criminogenic needs over time (Campbell, 2011; Schlager & Pacheco, 2011; Vose, Lowenkamp, Smith, & Cullen, 2009), and have been used with offenders who have mental health issues (Girard & Wormith, 2004) and those involved in a mental health court (Canales, Campbell, Wei & Totten, 2014).

This instrument was completed by a trained research assistant after a review of all records for the same periods of time used to capture mental health recovery variables: 12 months prior to MHC referral and 12 months following MHC referral. The LS/RNR assesses eight criminogenic factors within the *General Risk Section*, which include Criminal history, Antisocial beliefs and attitudes, Companions (antisocial peers/lack of prosocial peers), Family/marital problems, Education/employment problems, Substance use, Antisocial orientation-personality, and Poor use of leisure/recreation. The LS/RNR produces a total risk-need score that can be categorized into very low-risk, low-risk, medium-risk, high-risk, and very high-risk level classifications for general recidivism risk. These categories were truncated for the current research into low (very low and low), medium, and high (high and very high) risk for ease of analyses given the low number of cases falling in the extreme risk categories. The community supervised normative data was used for interpretative purposes as it is most akin to the MHC context. The LS/RNR provides summary scores for each of the eight criminogenic needs, each of which is categorized as instructed in the test manual into the five different classifications of need, ranging from very low to very high need.

Additional sections of the LS/RNR include the *Specific Risk Section* to capture additional factors with criminogenic potential and historical risk factors associated with criminality (particularly violent behaviour), the *Other Client Issues Section* to capture mental health and psychosocial issues impacting on the individual's overall functioning but which are not directly predictive of criminal behaviour, and the *Responsivity Factors Section* which captures other factors that may influence the individual's response to intervention efforts and which need to be taken into consideration when designing case management plans (e.g., mental health issues, medication

effects, motivation, gender-sensitive needs, cultural/ethnicity issues). Each additional section does not contribute to the calculation of the total risk score, but are used as additional information to inform case planning. For the purposes of the current evaluation, the number of identified items present in each of these sections was summed to generate a total score for each of the Special Risk Factors, Other Client Issues, and Responsivity Factors sections. This scoring strategy has been previously used with offenders who have mental health issues (e.g., Canales et al., 2014; Girard & Wormith, 2004).

To gauge re-offending behaviour, all participants of the evaluation were followed from the date of referral to MHC to the end of the evaluation period (October 31, 2014). After adjusting for days hospitalized and time in custody, this time frame provided an average community-based recidivism follow-up period of 504.60 days (SD = 178.79; range = 214 days to 891 days), or approximately 1.4 years, since the time of referral. The Nova Scotia Department of Justice's Policy, Planning, and Research unit provided information on each participant's criminal history, as well as the accrual of new charges during the follow-up period for all participants in the evaluation. New charges were coded as non-violent, violent, or technical violations. Examples of non-violent offences included property, prostitution, and drug-related crimes. Violent offences included physical contact aggression, robbery, uttering threats, and sexual offences. Technical violations captured breaches of court orders, such as failure to comply with supervision orders, breach of recognizance, and failure to appear in court. These same categories were used to capture criminal history information from the participant's adult record. No youth court records were accessed for the purposes of the evaluation. The type and number of each of these offences was recorded, as well as the passage of time in days between the referral to MHC and the first new charge received by the participant. The consideration of recidivism excluded charges associated with the referral to MHC to avoid artificially inflating recidivism counts with offences that had occurred prior to referral.

Measurement of Additional Variables Coded From Records

In addition to data obtained via the SCL-90-R, coded mental health recovery variables, and the LS/RNR, a coding guide was used to extract information from the Nova Scotia Department of Justice/Corrections and Capital District Health Authority records. The coding guide consisted of client demographics (age, gender, ethnicity) and case history variables (criminal history, mental health history), MHC context variables (i.e., MHC status as completed, still active, expelled, voluntarily withdrawn, or not admitted; dates of referral, admission decision, and discharge, number of MHC appearances, court-ordered community supervision conditions) and case management plan information (i.e., intensity of service/frequency of case manager contact, type of interventions delivered, number of interventions delivered, engagement in case plan, and degree to which interventions match identified needs on the CAN and LS/RNR at time of referral). See Appendix B for copy of the complete file variable coding guide.

The inter-rater reliability of the coding guide variables and the LS/RNR was analyzed using a random selection of 24 cases rated by two independent coders trained in both of these protocols. This was to ensure that the information extracted from case records was consistent across raters and enhances the accuracy of the data recording. The Kappa statistic was used to assess categorical variables, whereas the intraclass correlation coefficient (ICC) was used to assess continuous variables. All variables in the coding guide, including the RNR adherence ratings, demonstrated acceptable levels of inter-rater reliability. The single two-way model ICCs

ranged from .85 to 1.00 and the average ICCs ranged from .74 to 1.00 for continuous variables. Kappas ranged from .65 to 1.00 for categorical variables. These ranges met or exceed an acceptable level of inter-rater reliability for coded variables.

DATA SECURITY

All research data was securely stored to ensure the protection and confidentiality of participant information. A master list of names was constructed to facilitate tracking of cases over time. However, this master list only contained the name and ID number randomly assigned to each participant. The file name of this electronic list was generic and did not contain information that would identify the purpose or function of the list. Only the identification number was recorded on variable coding sheets and self-report questionnaires. This master list was stored separately from the actual data in a locked filing cabinet, and on an encrypted USB and password protected file at the Nova Scotia MHC site offices. De-identified data was kept at the Nova Scotia MHC offices until the conclusion of the study, at which point it was securely transported by the principle investigator to the Centre for Criminal Justice Studies at the University of New Brunswick. The de-identified data was locked in a cabinet when not in use. Furthermore, participant consent forms were stored separately from the master list and from the de-identified data, and kept in a locked cabinet at the MHC offices.

EVALUATION RESULTS

DESCRIPTIVE PROFILE OF CASES REFERRED TO THE NOVA SCOTIA MHC

Demographic and Background Characteristics: As shown in Table 1, at the time of referral to the Nova Scotia MHC, individuals ranged in age from 18 to 63 years, with an average age in their mid-30s. They were primarily male, Caucasian, and not the primary caregiver of children. Most were unemployed (62.5%) in the 12 months prior to MHC referral and had a high school education or less (79.6%).

As shown in Table 1, the sample was fairly evenly distributed across individuals who had never been in a significant intimate marital-like relationship, those who were divorced / separated, and those who were currently in a committed relationship that involved cohabitation. The quality of these relationships was also examined. In the 12 month period prior to MHC referral, most of the sample was either not in any form of intimate partner relationship (52.5%) or were in one described as unstable/chaotic in nature (38.8%). Only 8.8% of cases were involved in an intimate relationship that was coded as generally stable and functional. Although most cases had family (non-marital) contact in the 12 month period prior to MHC referral (96.2%), most of these family relationships were coded as unstable/chaotic in nature (57.5%). Only 38.8% had experienced generally stable and functional family relationships in the 12 months prior to MHC referral. Thus, cases referred to the Nova Scotia MHC tended to have at least a recent history of dysfunctional family relationships and either absent or dysfunctional intimate relationships.

The majority of referred cases (52.5%) were living with family members in the 12 month prior to MHC referral or in a staff supervised residential community setting (25%). A total of 18.8% of referred cases were homeless in the 12 months prior to their referral to MHC. Of this homeless group, the majority (86.7%) were living on the street and 13.3%

TABLE 1: SAMPLE CHARACTERISTICS AT THE TIME OF REFERRAL TO THE NOVA SCOTIA MHC	
VARIABLE	**DESCRIPTIVE STATISTIC**
Age	M = 35.51 years (SD = 11.75) Range: 18 to 63 years
Gender	63.8% - Male 36.3% - Female
Ethnicity	83.5% - Caucasian 8.9% - African Canadian/American 5.1% - Arabian 2.5% - Aboriginal
Education (highest achieved)	6.8% - Elementary school 21.9% - Partial junior high school 30.1% - Partial high school or equivalent 21.9% - Completion of high school or equivalent 19.2% - Partial college/university 0.0% - Completed university degree/college diploma
Employment	62.5% - Unemployed 7.5% - Casual/inconsistent employment 7.5% - Regular part-time employment 17.5% - Full-time employment 5.0% - Pension or disability
Marital Status	36.4% - Never married or common-law 35.1% - Divorced/separated 28.6% - Married/common-law (6 months+)
Parenting Status	13.9% - Primary caregiver for child under 18 years old
Total # of Charges Prior to Referral	M = 9.39 (SD = 18.18) Range: 0 to 122 charges
General Recidivism Risk (LS/RNR)	38.0% - Very Low/Low Risk 32.9% - Medium Risk 29.1% - High/Very High Risk

of them were staying in shelters or inconsistently staying with people they knew (i.e., "couch surfing"). Another 3.8% of referred cases were living in a hospital or custodial setting at the time of their referral. The financial needs of the sample were adequately meet through independent income for only 31.3% of referred cases. The remainder of the sample (67.5%) had insufficient financial resources to support their daily living needs. Thus, housing and financial support were important needs for a significant number of referred cases and would need to be integrated into individualized case plans to meet these needs and facilitate stabilization so that these individuals can more fully participate in mental health and criminogenic-focused interventions.

Mental Health Indicators: The majority of referred cases (92.5%) had a history of involvement with mental health services, and 70.9% had been involved with a mental health service at some point during the 12 months prior to MHC referral. In the 12 months before the referral to MHC, 33.4% of the sample had attended the emergency room for mental health reasons, and 16.5% of the sample had been hospitalized as a result of mental health concerns. Over their lifespan, the total number of days hospitalized for mental health reasons was quite variable and ranged from 0 to 446 days. Collectively, this background information indicates that the majority of the sample had some form of mental health service contact prior to being referred to the Nova Scotia MHC, with a third being seen by emergency services. However, only a minority of referred cases had been previously hospitalized for psychiatric reasons.

Intervention engagement amongst the individuals who had received mental health treatment and/or other forms of intervention services (e.g., social services) in 12 month period prior to MHC referral (n = 71) was coded as 0 = no engagement (frequently missed appointments, non-compliant, no engagement with interveners, unmotivated), 1 = moderate/partial engagement (inconsistent attendance, partial motivation, some engagement with interveners, inconsistent compliance), or 2 = good engagement (regular attendance, motivated, engaged with interveners, generally compliant). Data could not be coded for three cases due to insufficient information about the nature of their received services. For the remaining 68 cases who had a recent history of mental health involvement, 29.4% were coded as not being engaged at all in the services offered to them prior to the MHC referral, 41.2% as being partially engaged, and 29.4% as having displayed good engagement. Thus, referrals to MHC represented a mixed profile in terms of their recent history of engagement in intervention efforts. The nature of previous interventions received by referred cases prior to MHC referral (listed in non-mutually exclusive categories), included psychiatric follow-up (65%), individual counseling (48.8%), substance abuse treatment (26.3%), group counseling (16.3%), anger management (10%), domestic violence programming (5%), family/marital therapy (3.8%), daily living supportive services (3.8%), intensive intervention (e.g., day treatment; 3.8%), employment services (2.5%), and educational upgrading (1.3%), or some other form of intervention (23.8%), such as adult protection services, residential services, and hospitalization.

The Nova Scotia MHC screening assessment and review of recent mental health records were both used to ascertain DSM-IV-TR diagnoses at the time of referral to the MHC. Referred cases were most commonly diagnosed with a substance use disorder (50%), followed by an anxiety disorder (41.3%), depression (35.0%), a personality disorder (30.0%), and/or Attention Deficit-Hyperactivity Disorder/Impulse Control Disorders (26%). Less common mental health diagnoses were psychotic-related disorders (13.8%), Intellectual Disability/Cognitive Impairment/Brain Damage (9%), and Bipolar Disorder (6.3%). Other occasionally occurring disorders included autism spectrum disorder, fetal alcohol syndrome, learning disability and a sleep disorder. Any of these

disorders could have been co-morbid with another condition as these categories were not coded in a mutually exclusive manner. Review of available file information allowed us to code the general severity of mental health impairment in the 12 months preceding the referral to MHC, which were coded as 0 = no identified issue, 1 = minor mental health issues, 2 = moderate mental health issues, and 3 = serious mental health issues (see Appendix B for specific descriptors of each level). The majority of referrals fell in the moderate (42.5%) or serious (33.8%) level of severity of impairment at the time of their referral to MHC, which reflected the presence of acute or persistent mental health symptoms that created interference in occupational, academic or daily life functioning. Only 12.6% of referrals had no identified mental health issue in the 12 month period prior to referral. The SCL-90-R was used to capture the client's own ratings of the severity of their mental health distress and symptoms at the time of their referral to MHC. These ratings indicated that the sample fell in the normative range of symptom severity that is typically found amongst outpatient mental health populations across all assessed domains, including the level of depression, anxiety, avoidance, paranoid thinking, psychoticism, hostility, obsessive-compulsive symptoms, interpersonal sensitivity, and somatization.

Index Offence Information: Figure 1 displays the breakdown of index charges associated with the Nova Scotia MHC referral. Charge categories were not mutually exclusive, so a single individual could be represented across more than one category of offence if he/she had multiple index charges. Overall, these results indicate that the most common index charges tied to the MHC referral pertained to assaults (31.6%), breaches of court orders or supervision conditions (34.2%), and thefts (30.4%). There was no murder or prostitution-related index charges.
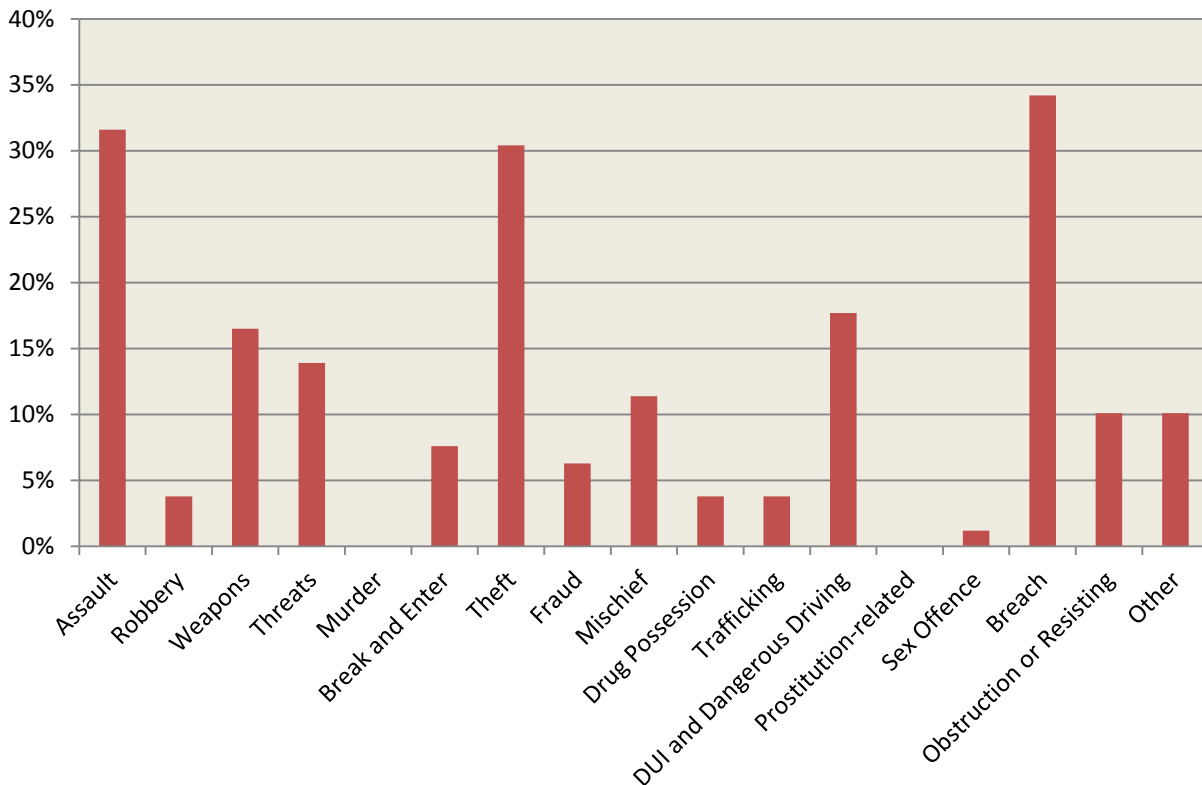
Figure 1: Representation of index charges for the sample at the time of referral to the Nova Scotia MHC.

Criminal History: In terms of criminal history (see Table 1), the sample of referred cases varied in the number of previous charges accrued on their official criminal record. They had an average of just over 9 previous charges (excluding the index offences associated with the MHC referral). Only 20% of the sample had been previously sentenced to custody (i.e., excluded remands) prior to referral, during which they had spent an average of 34.5 days (*SD* = 49.18) sentenced to custody (excluding one outlier with a total of 4015 days, or 11 years) across an average of 4.75 separate custodial sentences (*SD* = 4.06). Likewise, only 27.5% of the referred sample had been previously remanded, during which these cases had spent an average of 30.09 days (*SD* = 70.35) on remand prior to the commission of the index offences associated with MHC referral. Thus, the majority of individuals referred to the Nova Scotia MHC did not have much of a history with being remanded or sentenced to custody prior to MHC referral. Those who had this experience had accumulated approximately one month of time on remand and/or one month of time sentenced to custody before engaging in the offences that led to the MHC referral. Of the 22 cases with a history of remand, 54.5% also had a history of being sentenced to custody. Of the 16 cases with a history of being sentenced to custody, 75% also had spent time remanded to custody prior to referral.

Criminogenic Needs and Intake Recidivism Risk: The average LS/RNR total risk score was 14.55, which represents a medium general recidivism risk level for the sample. Table 1 presents the representation of cases across the very low to very high risk levels for this total risk score. As shown in the table, a little under one third of the sample fell in the high or very high risk of general recidivism at the time of their referral to MHC. Thus, the Nova Scotia MHC received diverse referrals in terms of their recidivism risk, including some higher risk cases.

The eight criminogenic needs associated with the risk of general recidivism were identified using the LS/RNR. The needs were categorized in accordance with the test manual instructions as falling into a very low, low, medium, high, and very high need level for intervention to reduce the risk of general recidivism. Table 2 displays the percentage of referred cases classified at least at the medium need level for each of the eight criminogenic needs. The most common needs pertained to limited prosocial use of leisure/recreation time, substance abuse problems, limited education and/or employment, and family and/or marital issues. However, all criminogenic needs were present to some degree in the sample of MHC referred individuals. To effectively impact on recidivism risk, these needs should be integrated into individualized case intervention planning alongside relevant mental health recovery needs.

TABLE 2: PERCENTAGE OF MHC REFERRED CASES CATEGORIZED AS MEDIUM TO VERY HIGH NEED ON THE LS/RNR EIGHT CRIMINOGENIC NEEDS ASSOCIATED WITH GENERAL RECIDIVISM RISK.	
LS/RNR Criminogenic Need	**% of Cases Falling in Medium to Very High Need Levels**
Poor use of leisure/recreation time	71.2%
Alcohol and/or drug problem	62.5%
Education and/or employment problem	45.0%
Family and/or marital problem	42.5%
Criminal history	33.7%
Companions	31.2%
Procriminal attitudes	27.5%
Antisocial pattern/personality orientation	23.7%

VARIATIONS BETWEEN ADMITTED AND NON-ADMITTED (TAU) COMPARISON CASES AT THE TIME OF MHC REFERRAL

Individuals admitted to the Nova Scotia MHC were compared across demographic, mental health recovery, and criminogenic-related variables at the time of referral to 1) determine what makes a case more likely to be admitted to MHC and 2) to identify potential pre-admission factors that need to be taken into consideration when comparing MHC participant outcomes to the outcomes of non-admitted cases returned to the traditional criminal justice system for processing to serve as the TAU comparison group.

As shown in Appendix C, admitted and non-admitted cases were similar in age, gender, ethnicity representation, and whether they were a primary caregiver and in their number of children. However, admitted cases were more likely to be married or common-law at the time of MHC referral (44%) than non-admitted cases (20.8%).

Appendix C also indicates that admitted cases were similar to non-admitted cases across a variety of mental health recovery variables, including SCL-R-90 self-reported severity of mental health symptoms, a life time history of involvement with mental health services prior to MHC referral, as well as the number of days spent in psychiatric hospitalization and the number of mental health-related emergency department visits in the past 12 months. However, two variables coded from case file records gave the impression of a more severe mental health severity/impairment in functioning for admitted cases than non-admitted cases. The psychosocial areas of functioning that can be impacted by mental health recovery processes also showed few differences between admitted and non-admitted cases, including in terms of the overall quality of intimate partner and family relationship quality, employment status, stability of living arrangements, and the adequacy of financial resources to support their needs. The only psychosocial variable on which these cases significantly differed was with regard to their education status. Specifically, the highest educational level achieved for most of the admitted cases was only partial completion of high school (56.5%), whereas the non-admitted group was more variable in its highest education achievement with 30% being the completion of high school and 26% being only the completion of junior high. Both groups were similar in the proportion of cases that had engaged in some degree of college or university post-secondary education. Nevertheless, education was general limited in both groups to high school or less as their highest level of education.

Some similarities were also identified on criminogenic-related variables, including the most serious offence ranking across their adult criminal history and during the 12 months prior to referral, the number of index charges across most offence categories associated with the referral, and the total number of charges received in the 12 months prior to MHC referral. Admitted cases were also similar to non-admitted cases with regard to the LS/RNR criminogenic need severity for education/employment problems, limited prosocial peers/presence of procriminal companions, substance use, procriminal attitudes, and the severity of antisocial pattern/orientation. After the MHC admission decision was made by the team, most admitted cases (96.1%) were placed on some form of community supervision (e.g., probation, house arrest). Most non-admitted cases were also sentenced to some form of community supervision as well (72.1%) when they returned to regular court. Although most of the sample was being supervised in the community by either the Nova Scotia MHC or the traditional correctional system, this type of supervision was significantly more common in the MHC context, $\chi^2(2) = 6.23$, $p = .04$.

Despite the general similarities between the MHC admitted and non-admitted cases, there were several variations between them pertaining to their criminal profiles as shown in Appendix C. Relative to non-admitted cases, Appendix C indicates that individuals not admitted to the Nova Scotia MHC were significantly more likely to have mischief/property damage, break and enter, theft-related, uttering threats, and breach-related charges on their official criminal record. Thus, non-admitted cases appeared to have more extensive and diverse criminal histories than those admitted to MHC. Furthermore, the LS/RNR total risk score generated at the time of referral was significantly higher for non-admitted individuals than those admitted to MHC; although both groups fell in the medium risk range. Despite their lower overall general recidivism risk score, admitted and non-admitted cases were similar with regard to the number of additional risk and client-relevant factors endorsed as "present" under the Specific Risk, Other Client Issues, and Responsivity Factor Sections of the LS/RNR. These sections do not contribute to the total LS/RNR risk score, but qualitatively contribute to case management planning decision-making.

DESCRIPTION OF THE NOVA SCOTIA MHC OPERATIONAL AND INTERVENTION CHARACTERISTICS

Referral Processing: Individuals referred to the Nova Scotia MHC waited an average of 50.58 days prior to an admission decision by the MHC team, during which time cases underwent a screening process to determine their eligibility for the program. There was no significant difference in the wait period between individuals who were eventually admitted to MHC (M = 48.68 days, SD = 24.05) and those who were not admitted (M = 50.91 days, SD = 30.73), F(1, 77) = .10, p = .75, *partial* η^2 =.001. A total of 31.2% of participants had been referred to the Nova Scotia MHC on more than one occasion. The number of multiple admissions was higher in the MHC group (M = .96, SD = .34) than in the non-admitted group (M = .04, SD = .27), F(1, 78) = 169.87, p < .001, *partial* η^2 = .68. However, the rate of repeat referrals was fairly low in both groups. In cases of repeat referrals, we only used the information gathered from the first referral to MHC as our index event information and referral start date.

Admission Decision-Making: The majority of recruited cases (67.5%, n = 54) were not admitted to the Nova Scotia MHC (i.e., TAU comparison cases), whereas 32.5% (n = 26) were admitted (i.e., MHC cases). The most common reason for non-admission was the absence of a qualifying mental health disorder (55.5%) followed by no connection between an identified mental health disorder and the criminal behaviour (27.8%), both of which are required according to the Nova Scotia MHC's admission criteria. Crown veto (i.e., prosecutor objection to admission) was rarely used to decline admission (3.7%). Approximately 3.7% of non-admitted cases were deemed not criminally responsible for the offence(s) and referred to the Nova Scotia Review Board. Another 3.7% of non-admitted cases were deemed "ineligible" for admission without the provision of a clear explanation for this decision in their records. Only three referred cases were declined admission because of the client's failure to accept responsibility for the crime, which is another admission criterion for this program.

Logistic regression analysis (Forward Selection – Wald) was used to predict whether a participant would be admitted to the Nova Scotia MHC. This estimate was based on key variables of interest measured at the time of referral, including participant age, gender, marital status, LS/RNR total recidivism risk score, severity ranking of the most severe offence in the past 12 months, SCL-90-R GSI total score, and file-coded mental health severity

TABLE 3 : FREQUENCY OF INTERVENTION TYPES RECEIVED BY MHC AND TAU PARTICIPANTS DURING THE 12 MONTHS AFTER MHC REFERRAL			
INTERVENTION TYPE	MHC	TAU	P-VALUE
Individual Counseling	68.4%	45.2%	.093
Psychiatric Intervention (medication, psychiatric follow-up)	42.1%	23.8%	.147
Group Counseling	26.3%	14.3%	.258
Substance Abuse Counseling	**36.8%**	**7.1%**	**.004****
Family Therapy	5.3%	0.0%	.134
Anger Management	5.3%	7.1%	.784
Educational Upgrading	5.3%	2.4%	.558
Employment Services	5.3%	2.4%	.558
Daily Living Skills	5.3%	2.4%	.558
Intensive Therapy Services (e.g., day treatment, Dialectical Behaviour Therapy)	0.0%	0.0%	--
Offender Relapse Prevention Intervention Programs	0.0%	0.0%	--
Domestic Violence Intervention	0.0%	0.0%	--
Sexual Offending Behaviour Intervention	0.0%	0.0%	--
"Other" (e.g., Avalon Centre, Cultural Integration, Employment Assistance Program, APTS)	15.8%	23.8%	.479
No Specific Intervention Provided	10.5%	30.2%	.095

Note. p-value = criterion for determining statistical significance of the comparison in which *p ≤ .05. ** *p* ≤ .01. *** *p* ≤ .001 indicates the degree of statistical significance. For example, a p-value of .05 means that there is a 95% probability that this statistical comparison represents a true group difference and a 5% probability of error. The absence of an "*" symbol reflects the fact that there was no statistical difference between groups on that particular comparison variable.

and functional impairment variables. The logistic regression was statistically significant, *-2 Log Likelihood* = 27.52, $\chi^2(2)$ = 13.53, *p* = .001, and correctly classified 83.8% of cases into admitted and non-admitted categories. However, the only statistically significant unique predictors of admission status were the severity of mental health impairment in the 12 months prior to referral, *Exp(B)* = 6.89, *Wald*(1) = 5.36, *p* = .021, and the ranking of the most severe offence committed in the 12 months prior to referral, *Exp(B)* = .83, *Wald*(1) = 4.65, *p* = .031. In other words, the odds of being admitted to the Nova Scotia MHC increased with more serious mental health impairment and these odds decreased when the recent offence severity was more serious.

Post-Admission Case Management: Admitted MHC participants spent an average of 279.87 days (*SD* = 206.76) in the program from the time of referral screening to being discharged. The range of program participation days was as low as 7 days to as high as 730 days. An average, the MHC referral was associated with 3.12 index charges (*SD* = 3.12), with a range of 1 to 8 index charges. After admission, most cases were placed on some form of community supervision through a recognizance court order (65.4%) or by being sentenced to a period of probation (26.9%) as part of their program involvement. The remainder of MHC admissions (7.7%) received a combination of incarceration followed by probation as part of the involvement in MHC. For cases not admitted to MHC, most were sentenced in the traditional court system to a period of probation (71.4%) or house arrest (2.4%). Non-admitted cases also received a fine (4.8%), were remanded to custody pending court proceedings (9.5%), and/or were sentenced to a period of custody (11.9%) once they returned to the traditional criminal justice system. Thus, the TAU group was similar to the MHC cases in the sense that most were being followed in the community rather than custodial settings, providing a comparable supervision context in that regard for the purposes of outcome comparisons between the MHC and traditional correctional system settings.

Admitted cases appeared before the MHC an average of 10.16 times, ranging from 2-38 separate court MHC appearances. The nature of the court-ordered supervision conditions for the referred sample was only known for 64 cases (n = 25 in the MHC admitted group and n = 39 in the TAU group). Based on this sub-group, participants admitted to MHC received a higher number of supervision conditions (M =3.56, SD = 1.73) than TAU cases (M = 2.03, SD = 2.21), F(1, 62) = 8.65, p = .005, $partial\ \eta^2$ = .12. A variety of supervision conditions were used, including curfew restrictions, geographic prohibitions, non-association restrictions with specific persons, weapons prohibition, and residency requirements. The frequency of most of these individual conditions was similar to the TAU group, ps > .05. However, MHC participants were more likely to have a condition to abstain from substance use (72.0%) relative to the TAU group (25.0%), χ^2(1) = 13.21, p < .001; to attend/participate in counseling (88.5%) relative to the TAU group (47.2%), χ^2(1) = 11.21, p < .001; and to keep the peace and be of good behaviour (64.5%) relative to the TAU group (31.7%), χ^2(1) = 7.30, p = .007. This latter condition is typically a standard condition for community supervision in MHC and the TAU context. The fact that it was not coded as being 100% present for either group suggests that professionals may not have always recorded this condition in the case management file because it was such a standard condition. Thus, unless the actual order was available in the file records, our file coders may not have known of the presence of this condition. Thus, differences between MHC and TAU groups on their community supervision conditions may be an artefact of the case records reviewed rather than true group differences in case management practices.

The specific type of intervention services received was known for 61 participants in the referred sample, and is reported in Table 3 separately for MHC and TAU cases. Within this sub-sample, the trend was for the Nova Scotia MHC to provide a significantly greater variety of intervention services to its participants (M = 2.16 services, SD = 1.34) than found amongst TAU cases (M = 1.28, SD = 1.29) in the 12 months following the referral to MHC, F(1, 59) = 5.81, p = .02, $partial\ \eta^2$ = .09. The most common modes of interventions used by the MHC were individual counseling (68.4%) and psychiatric consultation and/or psychiatric medication (40%). When examined by specific types of interventions, the only type that MHC participants were more likely to receive than TAU cases was substance abuse treatment (36.8% versus 7.1%, respectively), χ^2(1) = 8.42, p = .004. Given the high rate of substance abuse in the sample, this rate of service appears rather low for both contexts. However, it is possible that addiction issues were the focus individual and group counseling sessions, but this was often difficult to determine from file records. In general, it appears that criminogenic-specific interventions (e.g., employment counseling, educational upgrading, family therapy, criminal behaviour relapse prevention) were uncommon in both the MHC and TAU contexts.

At the end of the evaluation study period, 30.8% of MHC participants had completed the full dosage of the program, 30.8% were still active in the program, 19.2% had voluntarily withdrawn from the program, 15.4% had been expelled from the program (pre-mature discharge), and 7.7% were classified as having an "other" status (e.g., decision by the MHC team to send back an admitted case to traditional court as further involvement with the case indicated that he/she did not meet admission criteria; death of the participant).

CHANGES IN MENTAL HEALTH RECOVERY INDICATORS AND CRIMINOGENIC RISK-NEEDS

Propensity Score Matching Procedure:

In order to meaningfully compare MHC and TAU cases on the degree of change in mental health recovery and criminogenic variables that potentially occurred since the time of their referral to MHC, we used a matched comparison research design. This procedure uses logistic regression analysis to predict the likelihood that a referred case would be admitted to the Nova Scotia MHC. This likelihood is referred to as a propensity score. The propensity score was generated from the analysis previously described predicting whether a case was admitted to MHC based on known participant demographic, mental health, and criminogenic characteristics at the time of referral. As expected, MHC participants had a higher probability of being admitted to the MHC than TAU participants, $F(1, 78) = p \leq .001$, *partial η^2* = .28. Given the unequal probability of admission between these two groups, and the pre-existing differences described in Appendix C between MHC and TAU cases, we needed to match MHC participants to similar TAU participants to make these groups as comparable as possible. By doing so, we minimize bias in the statistical comparisons that may have more to do with pre-group differences than to involvement in the MHC. Thus, we matched participants in these two groups on their gender, ethnicity, as well as their nearest match for the propensity score and age. This procedure yielded successful matches for 22 MHC participants with 22 TAU participants, resulting in a sub-sample of 44 cases to use for the MHC vs TAU change comparisons.

To test whether the matching procedure was effective, we ran a series of analyses comparing MHC and TAU cases from this sub-sample of matched cases on key variables. These results indicated that the propensity scores were now equivalent between the MHC (*M* = .42, *SD* = .22) and TAU (*M* = .39, *SD* = .18) matched groups, $F(1, 42)$ = .29, *p* = .592, *partial η^2* = .007, meaning that both groups in this sub-sample now had an equal likelihood of being admitted to the Nova Scotia MHC and provides a more comparable control group for admitted cases. Furthermore, as a result of the matching procedure, MHC participants were similar to matched TAU participants in terms of age, $F(1, 42)$ = .07, *p* = .789, *partial η^2* = .002; gender, $\chi2(1)$ = .00, *p* = 1.00; ethnicity, $\chi2(1)$ = 1.21, *p* = .752; and marital status, $\chi2(2)$ = 4.67, *p* = .097. Likewise, matched TAU and MHC participants were similar with regard to the severity of their mental health impairment at the time of referral based on a review of case records, $F(1, 42)$ = 1.93, *p* = .172, *partial η^2* = .04; their ratings of mental health symptom severity on the SCL-90-R GSI scale, $F(1, 39)$ = .02, *p* = .890, *partial η^2* = .00; file-based assessment of the degree of intervention engagement prior to MHC referral, $F(1, 37)$ = .02, *p* = .890, *partial η^2* = .001; and formal LS/RNR total risk score at the time of referral, $F(1, 42)$ = .37, *p* = .548, *partial η^2* = .01. Both groups were also followed in the study since referral for a similar duration (days), $F(1, 42)$ = .92, *p* = .342, *partial η^2* = .02. Based on these results, the matching procedure appears to have been successful. Thus, we used the matched subgroup of MHC and TAU cases to compare changes in mental health recovery and criminogenic outcome variables. These findings are described next.

Changes in Mental Health Recovery Factors as a Function of Involvement in the Nova Scotia MHC:

Using the matched sample, parametric and non-parametric statistical analyses were used to identify changes in mental health recovery that occurred between the 12 month period prior to MHC referral and 12 month period

after referral that may have occurred as a function of being in MHC versus TAU. Variables included in these analyses were the degree of intervention engagement, number of mental health-related emergency department visits, number of psychiatric hospitalization periods, days hospitalized for mental health reasons, severity of mental health impairment, status of mental health diagnosis, quality of intimate partner relationships, quality of family relationships, educational level, employment status, stability of living arrangements, and adequacy of financial resources to support daily living needs.

Given their ordinal/rank scale of measurement, a series of Wilcoxon matched-pairs tests were used to compare changes within the MHC and TAU groups on mental health and mental health recovery indicators. There was a significant improvement in the file-coded estimate of mental health impairment severity from 12 month pre-MHC to 12 month post-MHC referral for TAU cases, Z = -2.27, p = .023; and a marginally significant trend for a similar level of improvement amongst MHC cases, Z = -1.90, p = .058. Similarly, the TAU group showed improvement in the status of the primary diagnosis in terms of its stabilization, Z = -2.20, p = .028, with a non-significant trend for a similar improvement for MHC cases, Z = -1.82, p = .068. Thus, it was the TAU group that showed more robust improvements in mental health status over time, but the trend was in the right direction for MHC participants as well.

In terms of psychosocial indicators of mental health recovery that were intended to reflect the daily life functioning of participants, Wilcoxon matched pairs tests found no significant change in the quality of intimate partner relationships from pre- to post-MHC referral for either the MHC group, Z = -1.63, p = .102, or the TAU group, Z = -1.00, p = .317. This same pattern was also true of the quality of family relationships, MHC Z = -.38, p = .705; TAU Z = .00, p = 1.00. No improvements in employment status or educational level were found for either group as well, employment MHC Z = -1.49, p = .137 and TAU Z = -.74, p = .461; education MHC Z = -1.34, p = .180 and TAU Z = -1.41, p = .157. Consistent with this lack of change for other recovery variables, both MHC and TAU cases failed to show improvements in the stability of their living arrangements pre- to post-MHC referral, Z = -.58, p = .564; and Z = -.27, p = .785, respectively. Finally, the financial stability of participants remained the same from pre- to post-MHC for both MHC and TAU cases, Z = -.82, p = .414; and Z = -1.34, p = .180. Thus, no observable improvement was identified on any psychosocial indicators of mental health recovery as a function of MHC participation or supervision as usual within the traditional correctional system. This finding is consistent with results found for the Saint John MHC in New Brunswick, Canada (Campbell et al., 2015).

In terms of mental health service utilization, both the MHC and TAU groups had low rates of hospitalization (number of days and separate periods of hospitalization stays) and mental health emergency department visits prior to MHC referral. These rates remained low for both groups in the year following MHC referral, $F(1, 42)$ = 1.42, p = .24; $F(1, 41)$ = .51, p = .480; $F(1, 40)$ = .29, p = .595, respectively. The low rate of these crisis services made it difficult to detect subtle changes in service access, but it was not a common occurrence in either group.

Changes in Criminogenic Risk-Need Factors as a Function of MHC Involvement:

A series of mixed analyses of variance was used to examine whether the LS/RNR total risk score and the eight LS/RNR criminogenic need scores changed from MHC referral to the follow-up period as a function of MHC participation relative to what occurs in the TAU context using the matched sample. Results indicated that there was no significant overall change in LS/RNR total risk scores over time for the matched sample, $F(1, 30)$ = 1.01, p

= .323, *partial* η^2 = .03, and this was true of both the MHC and TAU groups, $F(1, 30)$ = .02, p = .893, *partial* η^2 = .001. Furthermore, seven of the eight LS/RNR identified criminogenic needs that contribute to this total risk score (i.e., criminal history, family/marital problems, leisure/recreation, companions, education/employment problems, alcohol/drug problems, antisocial attitudes) showed no significant change over time for either group, ps > .05. However, changes in the criminogenic need of antisocial pattern approached statistical significance in terms of how it varied as a function of MHC vs. TAU status, $F(1, 30)$ = 3.79, p = .061, *partial* η^2 = .11. Specifically, it was the MHC participants who showed a pattern of improvement on this need over time, whereas the TAU cases showed no real change in this domain after MHC referral.

EFFECT OF NOVA SCOTIA MHC PARTICIPATION ON CRIMINAL JUSTICE OUTCOMES:

Recidivism was examined using the full sample of participants given that the base rate of some forms of re-offending was fairly low, but is also reported for the matched sample in the descriptions below to control for pre-group differences that might influence recidivism rates between groups. Recidivism was recorded in terms of general (any) new charge, non-violent charge, a violent charge, and a technical violation (breaches) charge. Recidivism was examined two ways: 1) the frequency of re-offending based on the occurrence of new charges after MHC referral, which excluded index offences associated with the MHC referral; and 2) the time to first new charge, which was available only for general recidivism outcomes. This latter variable was based on the number of days passed since MHC referral until the first new criminal offence. Using the entire sample, days spent in custody and days spent hospitalized since MHC referral were subtracted from the total number of days available for re-offending in the community to ensure that only time free in the community to re-offend was examined. With this adjustment, participants were available in the community for an average of 504.60 days (SD = 178.79) after being referred to the MHC. This adjusted variable was used in the subsequent analyses examining time to recidivism. There was no significant difference in the number of days (adjusted) followed in the study between MHC cases (M = 517.85, SD = 189.51) and TAU cases (M = 498.22, SD = 174.88), since MHC referral, $F(1, 79)$ = .21, p = .649, *partial* η^2 = .003.

General Recidivism: Using the full sample of participants, survival analyses indicated that general recidivism tended to occur within an average of 226.84 days after MHC referral (range: 23 days to 844 days prior to first new charge). The passage of time to this first new charge in the post-MHC follow-up period was similar for the MHC and TAU groups, *Breslow* $\chi^2(1)$ = .006, p = .958. Thus, the year after MHC referral was the most vulnerable period for recidivism for both MHC participants and TAU cases. When the time to recidivism was examined as a function of MHC participation status (completers, still active, voluntary withdrawals, and expulsions) relative to TAU cases, the pattern of results hinted at longer periods without general recidivism events for MHC completers (738.14 days, S.E = 75.78) and those still active in MHC (673 days, S.E. = 72.96) than those who were expelled from MHC (483.77 days, S.E. = 97.48) and TAU cases (597.49 days, S.E. = 40.76). These group differences, however, were not statistically significant, *Breslow* $\chi^2(3)$ = 2.35, p = .502, which was likely due to a combination of a short follow-up period and small group sizes.

In addition, there was no significant difference in the frequency of individuals who engaged in general recidivism during the post-MHC referral follow-up period for MHC (30.8%) and TAU (31.5%) cases, $\chi^2(1)$ = .004, p = .949. It

should be noted that there also was no significant difference in general recidivism rates for MHC and TAU cases in the matched sample, χ2(1) = 1.68, p = .195.

Using the full sample, there was a significant difference in general recidivism rates across the various statuses of MHC participants (still active, withdrawals, expulsions, completers) and TAU cases, χ^2(4) = 10.55, p = .032. This difference primarily stemmed from the extreme rate of general recidivism found for the MHC expelled group (100%; excluding convictions for MHC referral charges) versus the rate found for the rest of the sample (MHC completers = 25%; MHC voluntary withdrawals = 20%; MHC active cases = 17.5%, and TAU cases = 30.9%). Thus, individuals who were expelled from the program by the MHC team appeared to be at greatest risk of recidivism and would require more intensive case management and supervision to mitigate this risk. Furthermore, there were no significant differences (*ps* > .05) between MHC participants (i.e., still active cases and completers), those who withdrew from MHC, those who were expelled from MHC, and TAU cases in terms of the total number of new charges, number of breaches, or days spent incarcerated in the 12 month period since MHC referral.

Logistic regression analysis was used to identify predictors of general recidivism in the full sample. Potential predictors included in the tested model were participant age, gender, number of days followed in the study, LS/RNR total risk score at the time of MHC referral, MHC admission status (MHC vs TAU), status of mental health diagnosis in the 12 months prior to referral, SCL-90-R General Severity Index score from the time of referral, and the overall RNR adherence score for each participant's case plan. The overall model was able to significantly predict general recidivism 12 months post-MHC referral, *-2 log likelihood* = 56.44, χ^2(8) = 19.97, p = .010. Of the included variables in the model, the only significant predictor of general recidivism was participants' LS/RNR total recidivism risk score from the time of referral to MHC, *Exp(B)* = 1.20, *Wald* (1) = 8.33, p = .004. Specifically, for each 1-point increase in recidivism risk score, the odds of recidivism increased by 20%. Thus, consistent with previous research (Canales et al., 2014), the LS/RNR contains relevant information to the risk management of both MHC cases and TAU cases. Using a statistical analysis that is unaffected by the base rate of the predicted variable, Receiver Operating Characteristic Curve (ROC) analysis indicated that the LS/RNR total score was a robust predictor of general recidivism for both MHC cases, *AUC* = .76 (*95% CI* .52 to .99) and TAU cases, *AUC* = .77 (*95% CI* .63 to .90). This means that 76-77% of the time, a randomly selected recidivist would score higher on the LS/RNR than a randomly selected non-recidivist.

Non-Violent Recidivism: When recidivism was examined for non-violent recidivism (excluding technical violations), the occurrence of non-violent new charges was similar between MHC (15.4%) and TAU (11.1%) cases in the full sample, χ^2(1) = .29, p = .588, and in the matched sample, χ^2(1) = .77, p = .380. Although not statistically significant, it is worth noting that only 25% of MHC participants in the full sample (completers and still active cases) committed a new non-violent offence relative to as many as 50% of the few admitted MHC cases who were later expelled from the program. Notably, none of the still active MHC cases and voluntary MHC withdrawal cases had received new non-violent charges by the end of the follow-up period. None of the predictor variables noted above for general recidivism significantly predicted non-violent recidivism, *-2 log likelihood* = 34.99, χ^2(8) = 8.73 p = .366. This was likely due to the low base rate of non-violent re-offending in the sample. Only 7 cases in the full sample had non-violently re-offended. Using ROC analysis, which is unaffected by base rates, the LS/RNR total risk score at referral emerged as a weak predictor of non-violent

recidivism for TAU cases, *AUC* = .66 (*95% CI* = .42 to .89), and predicted this type of recidivism at chance levels for the MHC group, *AUC* = .53 (95% CI .19 to .87). This is an unusual finding and inconsistent with other studies using this measure with offenders who have mental health issues (Canales et al., 2014; Girard & Wormith, 2004). It may speak to some unique nuances in the needs pertaining to the non-violent offending patterns of individuals who participate in the Nova Scotia MHC.

Violent Recidivism: MHC cases tended to have a lower rate of violent recidivism (3.8%) than TAU cases (18.5%). Although the trend was in the expected direction, this difference was not statistically significant in the full sample, $\chi^2(1)$ = 3.19, *p* = .074, nor in the matched sample, $\chi 2(1)$ = 1.02, *p* = .312. Across the various types of MHC participants in the full sample, none of the MHC completers, active members, or voluntary withdrawals had been charged with a violent offence during the follow-up period, whereas 25% of the MHC expulsions had received a new violent charge during this same period. None of the predictor variables noted above for general recidivism significantly predicted violent recidivism, *-2 log likelihood* = 36.98, $\chi^2(8)$ = 10.70, *p* = .219. This was likely due to the low base rate of violent re-offending in the sample. Only 8 cases included in this analysis had violently re-offended. Using the ROC analysis to assess the LS/RNR's ability to predict violent recidivism, which is independent of how frequently the sample engaged in this type of new charge, we were able to see that the LS/RNR still demonstrated strong predictive validity for violent outcomes in both the MHC, *AUC* = .96 (*95% CI* .88 to 1.00) and TAU, *AUC* = .79 (*95% CI* .67 to .91), contexts.

Technical Violation Recidivism: The rate of technical violations was similar between MHC (23.1%) and TAU (24.1%) cases in the full sample, $\chi^2(1)$ = .92, *p* = .922, and in the matched sample, $\chi 2(1)$ = 1.09, *p* = .296 . The rate of technical violation in the full sample was highest amongst cases expelled from MHC (75%) and lowest amongst those who had completed MHC (11.1%) or were still active in it (14.3%). Those who withdrew from MHC voluntarily fell in between these two groups at a rate 20%, which was similar to that of TAU cases. Although these differences are suggestive of positive effects for active MHC participants and completers, they were not statistical significant differences from the TAU group in terms of technical violation outcomes, $\chi^2(4)$, = 7.21, *p* = .125. Using the same predictors noted above for general recidivism, the logistic regression model was able to significantly predict technical violations in the 12 months since MHC referral, *-2 log likelihood* = 42.44, $\chi^2(8)$ = 23.794, *p* = .002. As with general recidivism, the only significant predictor of technical violations was the LS/RNR risk score at the time of MHC referral, *Exp(B)* = 1.31, *Wald* (1) = 10.77, *p* = .001. Thus, with each 1-point increase in risk score, participants were more likely to engage in behaviour that would lead to a new charge for violating the conditions of their supervision or court orders by 31%. ROC analyses indicated that the LS/RNR was a strong predictor of technical violations for both the TAU, *AUC* = .81 (*95% CI* .66 to .95), and MHC, *AUC* = .93 (*95% CI* .81 to 1.00).

ADHERENCE TO THE RISK-NEED-RESPONSIVITY MODEL OF OFFENDER REHABILITATION PRINCIPLES

The RNR principles of effective offender case management and supervision have been well established within the correctional literature as being useful in recidivism risk reduction (Andrews & Bonta, 2010). Given that one of the goals of the Nova Scotia MHC is to reduce the criminalization of its participants, the current evaluation examined the degree to which this program operated in a manner consistent with the RNR principles. These principles are summarized Figure 2. These analyses were based on the full sample of participants rather than the

matched groups so that we could increase the statistical power of the analyses and meaningfully examine the level of RNR adherence in both settings and the effect of this adherence. The procedure adopted for the coding of RNR adherence has been previously used in other research see Campbell et al. (2015) and McDougall (2014).

In general, the case management plans of participants admitted to the Nova Scotia MHC had a significantly higher overall RNR adherence score (M = 2.05, SD = 1.05) than TAU case plans (M = 1.52, SD = .98), $F(1, 67)$ = 4.05, p = .048, partial η^2 = .06. These values indicated that MHC generated case support plans generally complied with approximately 2 of the three primary RNR principles of risk, need, and responsivity, whereas TAU cases plans were consistent with fewer than two of these principles. Few cases in either context fully adhered to all three RNR principles in the same case plan, but stronger RNR principle adherence scores were significantly associated with a reduced likelihood of new charges for technical violations of the conditions of their supervision, $r(68)$ = -.27, p = .024, and violent recidivism, $r(68)$ = -.24, p = .048. Reductions were noted in general recidivism as well with greater RNR principle adherence, but this correlation was not statistically significant, $r(68)$ = -.17, p = .160. There was a trend for the degree of overall RNR principle adherence to be stronger when the participant displayed a greater severity of mental health functional impairment at the time of MHC referral, $r(68)$ = .22, p = .089, but this association was not statistically significant.

Risk Principle Adherence: The risk principle states that the level of supervision and intervention should match the individual's recidivism risk level, which in our case was established by the LS/RNR total risk level for general recidivism. When case management plans were examined globally for adherence to the risk principle, 76.1% of MHC support plans and 87.0% of TAU case management plans were consistent with the objectives of this principle. However, the difference between risk principle adherence for these two groups was not statistically significant, $\chi^2(1)$ = 1.12, p = .290, suggesting that both MHC and TAU case plans were equally adherent to the risk principle.
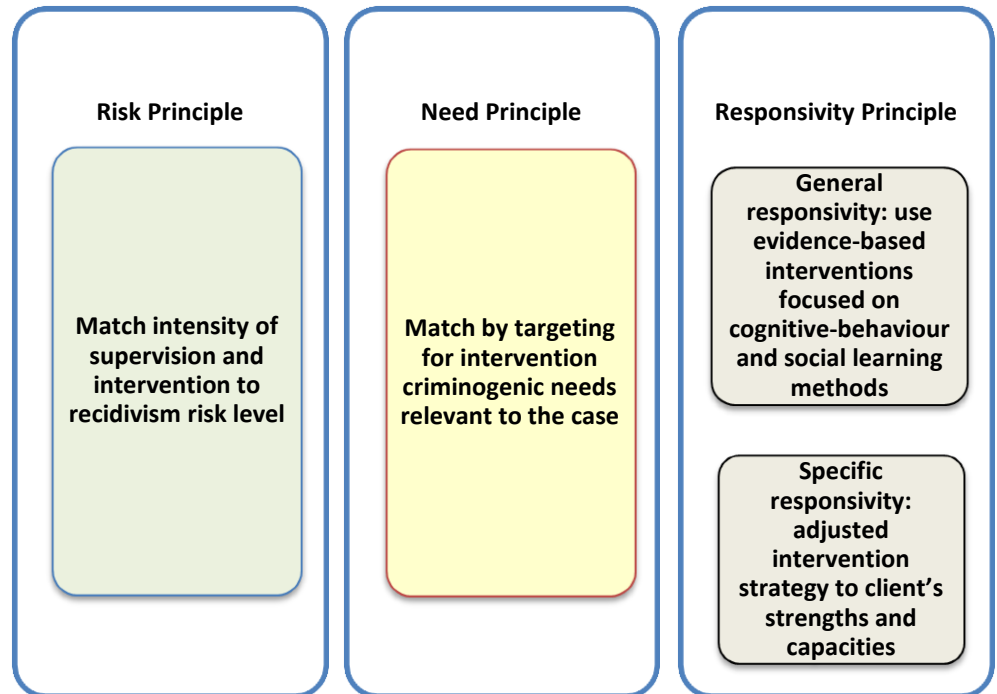
FIGURE 2: SUMMARY OF THE RISK, NEED, RESPONSIVITY PRINCIPLES (SEE ANDREWS & BONTA, 2010)

Despite the high level of risk principle adherence for both MHC and TAU groups, this adherence was not perfect. One area where there appeared to be some inconsistency with the risk principle was in the number of conditions imposed by the court for the purposes of supervision. Notably, the number of

conditions did not significantly depend on the recidivism risk level, $F(2, 57) = .09$, $p = .917$, *partial* $\eta^2 = .003$, and this was true for both the MHC and TAU groups, $F(2, 57) = 1.12$, $p = .33$, *partial* $\eta^2 = .04$. This finding is not surprising given that these conditions are likely reflective of a template of common/standard conditions imposed on offenders by the court (e.g., keep the peace and be of good behaviour, attend appointments as directed by probation officer). However, the MHC group had significantly more conditions imposed on them than the TAU group, $F(1, 57) = 6.56$, $p = .013$, *partial* $\eta^2 = .10$. Thus, all participants received the same level of supervision intensity regardless of recidivism risk level, but the MHC participants were given more conditions to abide by than the TAU participants. It is noteworthy that the number of court appearances made since MHC referral was significantly higher in the MHC group ($M = 10$ times, $SD = 8.46$) than in the TAU group ($M = 3.22$, $SD = 3.06$), $F(2, 72) = 38.56$, $p < .001$, *partial* $\eta^2 = .35$. Moreover, there was a significant interaction between intake risk level and admission status on the number of court appearances subsequent to MHC admission decision-making, $F(2, 72) = 4.08$, $p = .02$, *partial* $\eta^2 = .10$. It was the high risk participants who had the highest number of MHC appearances ($M = 18.67$ times, $SD = 16.77$) compared to medium ($M = 9.43$ times, $SD = 6.75$) and low ($M = 8.43$ times, $SD = 6.50$) risk cases. Although the risk of re-offending was not formally assessed at the time of MHC admission for most participants, this finding suggests that the MHC team perceived high risk individuals as requiring greater intensity of court-contact and supervision than the other cases. These individuals also may have been engaging in a higher level of non-compliant and challenging behaviours that brought them more frequently before the court.

The Nova Scotia MHC provided a significantly greater variety of intervention services to its clients than the TAU context did for their clients during the 12 month period post-MHC referral, $F(1, 61) = 8.77$, $p = .005$, *partial* $\eta^2 = .14$. However, the number of different intervention services used significantly depended on the combination of MHC admission status and LS/RNR recidivism risk level, $F(2, 55) = 3.44$, $p = .039$, *partial* $\eta^2 = .11$. Specifically, there was little variation in the number of interventions types used across risk levels for individuals supervised in the TAU context ($M_{high} = 1.12$, $SD = 1.61$; $M_{medium} = 1.17$, $SD = 1.03$; $M_{low} = 1.61$, $SD = 1.04$). In contrast, in the MHC context, it was the medium risk cases who received the greatest number of interventions types ($M = 3.20$, $SD = 1.30$), which was significantly greater in variety than both that used for the high ($M = 2.50$, $SD = 2.08$) and low ($M = 1.50$, $SD = .53$) risk cases, *Tukey's Post Hoc* = 1.70, $p = .046$. Low and high risk groups did not significantly differ from each other on this variable, *Tukey's Post Hoc* = 1.00, $p = .349$. Thus, the Nova Scotia MHC provided a greater variety of intervention services to its clients than the TAU group, but they tended to provide the greatest variety of interventions to the medium risk cases instead of the high risk cases. This practice is inconsistent with the risk principle with regard to matching high risk cases with the highest intensity of services. It is possible that intensive services were provided within a single type of intervention (e.g., individual therapy), but this would require multiple

TABLE 4: PERCENTAGE OF SUPPORT (CASE) PLANS CODED FROM THE MHC AND TAU CONTEXTS THAT PROVIDED INTERVENTION TO MEET AN IDENTIFIED CRIMINOGENIC NEED THAT FELL AT LEAST AT THE MEDIUM NEED LEVEL FOR INTERVENTION.

LS/RNR Criminogenic Need	MHC Context	TAU Context	p-value
Criminal History	100%	85.0%	.472
Education/employment	33.3%	36.0%	.886
Leisure/Recreation	36.4%	41.0%	.780
Drug/Alcohol Problem	**56.3%**	**25.9%**	**.047***
Family/Marital Problems	85.7%	68.2%	.366
Companions	40.0%	41.2%	.962
Procriminal Attitudes	80.0%	37.5%	.097
Antisocial Orientation	66.7%	53.3%	.371

* Comparison achieved the $p < .05$ criterion for statistically significant difference between MHC and TAU case plans.

targets within a single intervention to meet all the criminogenic and mental health recovery needs of these clients.

Need Principle Adherence: Case management plans were reviewed to determine the degree to which they attended to criminogenic needs identified on the LS/RNR as relevant to the individual's risk of recidivism. A match was indicated when the need was present (i.e., rated at least at a medium level of need) and was targeted in the support/case management plan, or was not identified as a need (i.e., rated as a low or very low need) and was therefore appropriately not included as a treatment target. A mismatch was coded when a need was not identified but was still included as a treatment target, or was identified but had not been included as a treatment target. Table 4 displays the level of match for each of the criminogenic needs when it had been identified as relevant to an individual case based on his/her LS/RNR criminogenic profile. Across all criminogenic needs listed in Table 4, the MHC support plans appropriately met the family/marital, procriminal attitudes, antisocial orientation and criminal history needs to a medium to high degree, but were less attentive to the criminogenic needs of education/employment problems, limited prosocial leisure/recreational time, and limited prosocial companions/association with procriminal peers. The MHC did a significantly better job of targeting substance abuse needs than observed for TAU cases, but 43.7% of admitted MHC cases still had this need unmet. This could have been for various reasons, such as limited resources to meet this need or client disinterest in addressing their addiction issues.

MHC and TAU cases were combined to examine the pattern of relationships between meeting individual criminogenic needs and general, violent, and technical violation recidivism in the 12 months post-MHC referral. As shown in Table 5, the general trend was for participants who had case support plans designed to target specific criminogenic needs to have a lower rate of general, violent, and technical re-offending during the follow-up period relative to participants whose plans did not address these needs. Notably, Table 5 indicates that matching case plans to address the appropriate level of need for criminal history, antisocial orientation and procriminal attitudes led to significant reductions in violent recidivism relative to when these needs were not met in the sample. For example, when the antisocial orientation need was unmatched, the violent recidivism rate was 36.4% relative to only 10.3% when it was matched. Likewise, when case plans did not adequately

TABLE 5: RECIDIVISM (%) AS A FUNCTION OF CRIMINOGENIC NEED TARGETING IN CASE MANAGEMENT SUPPORT PLANS									
LS/RNR Criminogenic Need	**General Recidivism**		p-value	**Violent Recidivism**		p-value	**Technical Violation**		p-value
	Match	No match		Match	No match		Match	No match	
Criminal History	**28.6%**	**66.7%**	*.056*	**11.1%**	**50.0%**	*.010*	22.2%	50.0%	*.131*
Education/Employment	**23.9%**	**47.8%**	*.045*	10.9%	21.7%	*.227*	**13.0%**	**47.8%**	*.002*
Leisure/Recreation	25.6%	40.0%	*.205*	10.3%	20.0%	*.254*	**15.4%**	**36.7%**	*.042*
Drug/Alcohol Problem	33.3%	29.6%	*.747*	14.3%	14.8%	*.951*	21.4%	29.6%	*.440*
Family/Marital Problems	**24.6%**	**66.7%**	*.004*	14.0%	16.7%	*.814*	21.1%	41.7%	*.132*
Companions	**25.5%**	**57.1%**	*.023*	10.9%	28.6%	*.094*	**18.2%**	**50.0%**	*.014*
Procriminal Attitudes	**26.3%**	**58.3%**	*.031*	**7.0%**	**50.0%**	*.001*	**17.5%**	**58.3%**	*.003*
Antisocial Orientation	27.6%	55.4%	*.079*	**10.3%**	**36.4%**	*.025*	**19.0%**	**54.5%**	*.012*

Note. *Bolded values represent statistically significant differences in the frequency of recidivism between cases with and without the specific criminogenic need meet in the case management support plan for all participants, collapsed across TAU and MHC groups.*

address procriminal attitudes, the violent recidivism rate was 50% relative to 7% when this need was met. General recidivism was significantly lower in the sample when case support plans addressed criminal history, education/employment problems, family/marital problems, companion issues, and procriminal attitudes. The effect of matching also had a meaningful impact on technical violation recidivism. In general, technical violations were significantly reduced when needs were met for education/employment problems, companions, leisure/recreation problems, antisocial orientation, and procriminal attitudes. Thus, there is clear merit to ensuring that these criminogenic needs are meet in case management support plans of offenders with mental health issues in order to meet the goal of recidivism risk reduction and reducing contact with the criminal justice system.

Responsivity Principle Adherence: Both TAU and MHC cases had the same frequency of identified responsivity issues at the time of MHC Referral (see Appendix C). Stronger adherence to the responsivity principle was associated, as expected, with more serious mental health functional impairment at the time of MHC referral for the entire sample, $r(59) = .30$, $p = .022$. One of the strengths of the Nova Scotia MHC found in the current evaluation was its ability to tailor case management plans to address these responsivity factors. Specifically, case plans designed by the MHC team were more proficient at describing factors that reflected adherence to the general responsivity principle (82.6%) and the specific responsivity principle (60.9%) than noted in the case plans of TAU managed participants (52.2% and 34.7%, respectively), $\chi^2(1) = 6.05$, $p = .014$ and $\chi^2(1) = 4.25$, $p = .039$, respectively. This is an important finding given that cases, collapsed across TAU and MHC contexts, with general and specific responsivity principles adequately meet had a significantly lower rate of recidivism during the follow-up period than cases where this principle was not adequately met. Specifically, when the general responsivity principle was met, only 7.5% of all participants re-offended during the follow-up period relative to 31.8% of cases where this principle was not met, $\chi^2(1) = 6.20$, $p = .013$, which was a significant difference. Similarly, only 6.9% of participants with case plans that met the specific responsivity principle re-offended relative to 24.2% of participants whose case plan did not meet this principle, and this difference approached statistical significance, $\chi^2(1) = 3.43$, $p = .064$.

RNR Adherence as a Function of Recidivism Risk Level: Additional analyses examined whether the level of match between a criminogenic need and case planning varied as a function of the participant's LS/RNR recidivism risk level. As shown in Table 6, the needs of low risk cases were reasonably well matched for both TAU and MHC cases (60% to 100% match), likely because there would be very few needs to address in low risk cases. When medium and high risk cases were examined, the degree of match becomes more variable for both MHC and TAU case plans. MHC case plans less adequately met the education/employment problem needs for medium and high risk cases (42.9% and 50% respectively), as did the TAU case plans for high risk cases (42.1%). Intervention strategies to meet the drug/alcohol problem needs was also less commonly included in the case plans of MHC cases of medium and high risk cases (57.1% and 25%, respectively), but the TAU case plans were also limited in meeting this domain, though to a lesser degree for high risk cases (47.4%). Finally, although the MHC case plans were fairly strong at matching general responsivity considerations across low (91.7%), medium (71.4%) and high (75%) risk cases, use of evidence-based methods of criminogenic-focused interventions were less commonly reported in the case plans of TAU cases for medium (58.3%) and high (26.3%) risk cases.

Both TAU and MHC case plans inadequately documented adjustments or accommodations made to case plans to address specific responsivity considerations in high risk cases (21.1% and 25%, respectively). The low rate of adherence to the specific responsivity principle may have been a function of record keeping. It is possible that case managers had considered strategies to address client motivation, cognitive limitations, learning difficulties, or other challenges impacting on the individual's capacity to respond to intervention, but may not have always officially recorded these accommodations in the case file.

TABLE 6: DEGREE OF ADHERENCE TO RNR PRINCIPLES OF RISK, NEED, AND RESPONSIVITY AS A FUNCTION OF LS/RNR RECIDIVISM RISK LEVEL AT THE TIME OF MHC REFERRAL						
RNR Principles	Low Risk		Medium Risk		High Risk	
	TAU	**MHC**	**TAU**	**MHC**	**TAU**	**MHC**
Risk Principle	93.3%	91.7%	100%	85.7%	47.4%	75%
Need Principle:						
Education/Employment	86.7%	100%	66.7%	42.9%	42.1%	50%
Companions	100%	91.7%	91.7%	85.7%	47.4%	75%
Leisure/Recreation	66.7%	75%	58.3%	71.4%	31.6%	50%
Drugs/Alcohol	73.3%	91.7%	50%	57.1%	47.4%	25%
Family/Marital	86.7%	91.7%	91.7%	100%	68.4%	50%
Antisocial Attitudes	100%	100%	91.7%	100%	47.4%	75%
Antisocial Orientation	100%	100%	100%	85.7%	52.6%	75%
General Responsivity Principle	80%	91.7%	58.3%	71.4%	26.3%	75%
Specific Responsivity Principle	60%	75%	25%	57.1%	21.1%	25%

STRENGTHS AND LIMITATIONS OF THE EVALUATION

When interpreting the current evaluation findings, it is necessary to consider the strengths and limitations of the methods used to conduct it. One of the main strengths of this evaluation was its use of a prospective research design, which allowed us to follow participants in real time as they proceeded through the MHC or traditional correctional system. We were also able to compare each participant to their own pre-MHC functioning in order to identify potential sources of change that occurred following the referral to MHC, while at the same time were able to access a comparison group of individuals who were serviced through standard criminal justice and correctional case management procedures. Although there were many similarities between cases admitted and non-admitted to MHC, our non-admitted (TAU) group was not identical to MHC admitted cases. To compensate

for the non-random assignment to TAU and MHC groups we used a propensity matching procedure to generate a comparison group that was similar in key characteristics to the MHC group. Although the matching procedure was successful, there are always variables that may have contributed to group variations independent on MHC involvement that were not part of our study (e.g., severity of index offence or extensive criminal histories). Furthermore, the resulting matched sample was small given that the number of MHC participants was already small. The small sample size available for matching cases limits the statistical power of the subsequent comparison analyses to identify small and more subtle group differences in the outcome variables examined.

An additional strength of the current evaluation was its use of three different sets of file records to measure the functioning of our participants. We accessed mental health records, Nova Scotia Department of Justice criminal behaviour and correctional case records, and Nova Scotia MHC records to code our variables. Use of these different sets of records provided a comprehensive source of information about each participant's past and current functioning from both the mental health and correctional perspectives. Reviewing and extracting information from these records was a labour intensive task for our research coordinators, but provided valuable information. Despite the wealth of data contained in these records, missing data can be an issue as some information that we were looking for may simply not have been recorded at all in the record despite being relevant to the case, or may not have been recorded in sufficient detail to allow nuanced coding of the information for all cases.

Although we had intended to compare the case management needs and intensity of intervention recommended by completion of the Camberwell Assessment with MHC participants to that recommended by the LS/RNR criminogenic-focused case management needs and intensity, we were unable to do so. The Camberwell rarely appeared in the official mental health records or in the Nova Scotia MHC records, so we were unable to tap into this information. Being able to compare the case management needs and resources required from both a mental health and criminogenic focused perspective is essential for the success of MHCs, but little research has evaluated the best means of integrating these perspectives in practice.

Finally, it is important to note that the current evaluation is not a process evaluation. A process evaluation would speak more to the implementation aspects of the Nova Scotia MHC and its operational protocols. Although the current findings hint at some areas for further investigation or potential improvement, an evaluation of the decision-making process underlying admission and discharge decision-making, service delivery and case management development is still needed and can provide further context for the interpretation of the current findings. It would also be helpful to learn of the client's first-hand experience of the Nova Scotia MHC and their views of the more and less helpful aspects of the program.

CONCLUSION

The Nova Scotia MHC produced many comparable outcomes to that achieved by the traditional correctional system across mental health recovery and criminogenic-related indicators of change. Thus, it is clear from this research that being involved in the Nova Scotia MHC does *not* lead to a worsening of outcomes for individuals with mental health issues who come in conflict with the law relative to going through the traditional criminal justice system. Overall, improvement in mental health functioning was observed in the traditional correctional

system, and the trend was in this direction for participants supervised in the MHC context. Although little difference was observed in the Nova Scotia MHC's capacity to achieve enhanced mental health recovery of its participants relative to the traditional correctional response to similar cases, this program was more attentive to the responsivity needs of its participants than observed in the traditional system. Across both contexts, greater attendance to responsivity issues was associated with reduced re-offending rates during the follow-up period. Thus, this nuance is a strength of the Nova Scotia MHC and consistent with the Responsivity principle expectations in the RNR model of effective offender case management.

The lack of significant change across most mental health recovery indicators for both MHC and the traditional system could be due to the small sample size of cases recruited in the MHC condition. However, it also could be a function of the chronic and sometimes complex nature of the mental health issues present in the sample. Participants in the sample have multiple mental health recovery needs. Complex and persistent disorders that create challenges in decision-making, emotional regulation, and behavioural control pose ongoing challenges in day-to-day functioning. These clients already may have reached their peak personal functional capacity or were near to it when they were referred to MHC. The fact that there was no deterioration in functioning is a positive indicator in that regard. Both the Nova Scotia MHC and the traditional system allowed participants to maintain their current level of functioning. Enhancement of the nature of intervention targets to promote mental health recovery in the future may elevate MHC participants' capacities even further, such as greater attention to the employment and educational needs and personal/family relationship quality given that these factors can facilitate mental health stabilization, recovery, and enhanced quality of life. Future evaluations of MHCs should include a wider conceptualization of mental health recovery that includes not just service utilization, symptom reduction, and functional recovery, but also the effect on participants' personal goals, belief in recovery, quality of life, empowerment, dignity and self-respect (Newberry & Strong, 2009; Sklar, Groessl, O'Connell, Davidson, & Aarons, 2013).

The Nova Scotia MHC targeted some of the identified criminogenic needs in the support plans of their participants (e.g., substance abuse, procriminal attitudes), but not all of these needs were equally well met in the MHC context. This was also the case in the traditional correctional system as well. Similar to the MHC recovery indicators, no significant change in criminogenic needs or the LS/RNR total recidivism risk score was observed for MHC cases. However, this finding was also true of cases supervised in the traditional correctional system. The limited observed change in criminogenic needs and associated recidivism risk may stem from the lower rate of criminogenic needs being meet for medium and high risk cases in both intervention contexts. Greater adherence to the RNR principles in both the traditional system and the Nova Scotia MHC may produce more robust gains in recidivism reduction in the future. Other research has found less than ideal adherence to the RNR principles in the everyday practice of case management for criminal offender populations (e.g., Bonta, Rugge, Scott, & Bourgon, 2008; Polaschek, 2012; Vieira, Skilling, & Peterson-Badali, 2009), but this same research literature has consistently found reduced recidivism rates in those individuals working with staff who highly adhere to these principles (Andrews & Bonta, 2010; Andrews, Bonta, & Wormith, 2011; Andrews & Dowden, 2006; Dowden, Antonowicz, & Andrews, 2003). The recidivism rate of the MHC and TAU clients was fairly similar, suggesting that both contexts had a comparable effect on recidivism outcomes and time to first offence. Although not statistically significant, the overall trend was for individuals who received the full dose of MHC (completers) to have the lowest absolute rate of non-violent, violent, and technical recidivism than those

who were expelled from the program prematurely. The expelled group represented a higher risk group with more significant criminogenic needs that will need to be addressed in order to effectively manage them within the MHC environment. It may be that these cases are not suitable to the MHC context unless additional community supports and resources can be put in place to meet their higher intervention and supervision needs.

Although the American-based MHCs have typically reported more robust change in criminogenic and overall general functioning than found in the current study, readers should be careful about making such direct comparisons given that the American correctional system and the Canadian correctional systems are not identical in how they go about managing offenders. The majority of Canadian correctional services have a strong rehabilitation focus to their supervision and case management work, and typically provide services under the RNR framework. Although some American States are starting to adopt philosophies and policies consistent with the RNR model for offender rehabilitation and supervision, this is not a consistent quality across the United States. Thus, the current data should not be used to infer that the MHC model does not work in Canada; rather it should be used to reflect the fact that they offer an alternative response to offenders with mental health issues. This evaluation also represents the first outcome evaluation of the Nova Scotia MHC since it began operations in 2009, and a follow-up evaluation would be helpful to ascertain long-term mental health recovery and criminogenic changes following discharge from MHC. It also may be that the benefits of MHC involvement in the Canadian context are slower to appear than in the time frame used in the current evaluation. There are also some recommended areas of change noted below for the Nova Scotia MHC team and administrative officials involved in this program.

RECOMMENDATIONS

1. To continue investing in the Nova Scotia MHC as an alternative means of responding to the needs of offenders with significant mental health concerns in a sensitive and compassionate manner.

2. Integration of the Risk-Need-Responsivity principles of effective correctional case management with the established goals of mental health recovery to contribute more directly to enhanced public safety through risk reduction along with improved mental health recovery.

3. In line with the integration of the Risk-Need-Responsivity principles into the MHC framework, use of a formal criminal risk screening instrument is recommended to better inform decisions about admission and discharge, supervision and treatment intensity, and intervention targets to reduce criminal behaviour. This process can parallel the existing mental health screening process, which already taps into some of the needed psychosocial history information to score such risk assessment instruments.

4. To either develop a protocol to better manage the needs of offenders identified as high risk by means of a formal criminal risk instrument, or use their formally assessed high risk status at the time of admission screening as grounds for exclusion from MHC eligibility.

5. Development of community partnerships to more consistently respond to the employment and educational needs of MHC participants, as well as to enhance their prosocial use of leisure/recreation

time and to provide opportunities for prosocial peer connections. These are important criminogenic needs that, when addressed, can reduce the risk of future criminal behaviour.

6. Continue the collection of in-house data to capture referral, admission decision-making, client intake characteristics, case management details, and discharge status information for future process and outcome evaluations of the Nova Scotia MHC.

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APPENDIX A: INFORMED CONSENT FORM

Non-Interventional Study

Consent Form

STUDY TITLE:

A PROSPECTIVE EVALUATION OF THE NOVA SCOTIA MENTAL HEALTH COURT PROGRAM

PRINCIPLE OR QUALIFIED

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PART A.

Non-Interventional Studies – General Information

1. Introduction

You have been invited to take part in a research study. Taking part in this study is voluntary. It is up to you to decide whether to be in the study or not. Before you decide, you need to understand what the study is for, what risks you might take and what benefits you might receive. This consent form explains the study.

Please read this carefully. Take as much time as you like. If you like, take it home to think about it for a while. Mark anything you don't understand, or want explained better. After you have read it, please ask questions about anything that is not clear.

The researchers will:

- Discuss the study with you
- Answer your questions
- Keep confidential any information which could identify you personally
- Be available during the study to deal with problems and answer questions

We do not know if taking part in this study will help you. You may feel better. On the other hand it might not help you at all. It might even make you feel worse. We cannot always predict these things. We will always give you the best possible care no matter what happens.

If you decide not to take part or if you leave the study early, your usual health care will not be affected.

PART B.

2. Why Is This Study Being Done?

Researchers at the University of New Brunswick, Dalhousie University, and St. Francis Xavier University are conducting an evaluation of the Nova Scotia Mental Health Court (MHC) program. The purpose of this evaluation is to understand how this program affects the people who complete it relative to those who are referred but not admitted into the program and those who do not fully complete the program after being admitted. Specifically, we are interested in learning to what degree MHC helps its participants work towards mental health recovery, improve their general life quality, and reduce their criminal behaviour. We are also interested in determining for whom the program works best, and for whom additional supports may be required to help these persons be successful with their mental health recovery and crime reduction. In addition, this evaluation will examine the case management plans used by both the MHC and traditional correctional services (i.e., probation services) to determine the types of supervisory practices and strategies that best promote meaningful reductions in criminal behaviour and

improvements in community life functioning (e.g., employment, housing) and mental health recovery. In general, this research will help us learn about the different ways the Nova Scotia Mental Health Court program affects the people who participate in it compared to people with similar mental health concerns whose legal matters are addressed in regular court and are under some form of community correctional supervision. We are interested in learning short-term and long-term effects of the MHC program, so some of the information we are collecting is from now and up to the next 12 months, and others is for up to the next 5 years.

3. Why Am I Being Asked To Join This Study?

You are being asked to join this study because you have been referred to the Nova Scotia Mental Health Court Program or have only been involved in the program for less than 3 months. Anyone referred to the program or is a recent admission is eligible to participate in this study.

4. How Long Will I Be In The Study?

Phase 1 of this research study will take about 1 year, and Phase 2 will take another four years.

5. How Many People Will Take Part In This Study?

Approximately 160 people will be recruited to take part in this study over the next 2 years.

6. How Is The Study Being Done?

Our evaluation of the Nova Scotia MHC will compare how you were doing in terms of you mental health recovery, criminal involvement and behaviour, and quality of life functioning (e.g., education, employment, quality of relationships with others) from the 12 months before you were referred to the MHC program to the 12 months, 24 months, 36 months, 48 months, and 60 months after your referral to this program.

Although the study will last for 5 years in total, most of the information we are seeking for the evaluation will come from your Nova Scotia Departments of Justice and Health and Wellness records with Capital District Health Authority. The only time we would like to meet with you directly to gather information about yourself and how you are doing are now (or sometime very soon when we can meet again) and, for those admitted into MHC, when you finish the MHC program (or a year from now if you are still involved in the program at that time). We would continue to monitor you mental health recovery and criminal justice involvement by your records for the next 5 years past this point. On the two times that we meet you personally, you will be asked to complete a questionnaire about your emotions, behaviour, and thoughts and one about your demographic information, mental health and criminal history. It will take you approximately 15-30 minutes of your time to complete these questionnaires, and the questions can be read to you should you have trouble with reading.

7. What Will Happen If I Take Part In This Study?

STUDY

We will do the following as part of the study:

- Ask you to sign this informed consent form
- Ask you to fill out a questionnaire about your mental health symptoms in the past 7 days.

At any time, you can chose not to answer or skip a particular question on these questionnaires or not finish them at all. You participation is completely voluntarily, and you can withdraw from the study at any time without penalty. You should also be aware that your decision to participate in this study will have no positive or negative impact on the legal matters currently before the court, your admission to MHC, or your access to services in the Department of Health and Wellness, now or in the future.

8. Are There Risks To The Study?

There are risks with this, or any study. To give you the most complete information available, we have listed some *possible* risks. We want to make sure that if you decide to try the study, you have had a chance to think about the risks carefully. Please be aware that there may be risks that we don't yet know about.

QUESTIONNAIRE

Because the questionnaire you receive for this study will ask about your emotions, behaviours, and thoughts, you may find some items on the questionnaire upsetting or distressing. You may not like all of the questions that you will be asked. You do not have to answer those questions you find too distressing, and may discontinue completing the questionnaire at any time without penalty.

DISCLOSURE OF PERSONAL INFORMATION

Because we will be reviewing your criminal justice, health and MHC information, there is a risk of potential leakage of this personal information to parties who do not already know this information outside of your service providers and the research team. However, we have taken steps to maximize your privacy and confidentiality to minimize the risk of this happening. Specifically, no personal identifying information (i.e., no name, addresses, or place of employment) will be recorded on coding sheets used to record information from your file records or on the questionnaires. This information will be entered into a statistical database for analysis, but will be stored without any information that could be used to identify you. The gathered information will be stored separately from the informed consent form you sign today. In order to match your data over time to the right person, we will have a list that only contains your name and a randomly generated identification number that we assign to you to distinguish your case from other participants. This list will only exist electronically and will be in an encrypted and password protected file. The name of the list will be "List 2012" and will not be traceable back to the MHC evaluation as it will be stored in a separate location from the gathered information with

the identification number. When not in use, this list will be stored on a USB memory key in a locked filing cabinet in the MHC offices where other confidential information is stored. Results from this evaluation will only be reported in group format that summarizes everyone in the study, and no one person's results will be singled out or reported. Any publications reporting the study results will be pre-vetted by the principle investigators to ensure the absence of information that could lead to identification of individual participants. Variables for which there are fewer than 10 participants will not be described in terms of sample demographic characteristics in order to minimize risk of identification given the small group. All computer files will be password protected.

9. What Happens at the End of the Study?

The results of the MHC evaluation will be publicly available on the websites for the Centre for Criminal Justice Studies and the MHC, and all interested parties will be free to view this report at either location. A manuscript describing the aggregate (group) data will be prepared for publication in professional journals, as well as professional and academic conferences in the field of mental health and justice. If participants request a copy of the publication on the consent form, or in the future, then they will be sent a copy via email or mail depending on their chosen form of communication.

10. What Are My Responsibilities?

As a study participant you will be expected to:

- Follow the directions of the research assistant
- Fill out a questionnaire about your emotions, thoughts, and behaviour, and to gather information about your demographics (gender, age, mental health history, criminal history)
- Provide consent to the review of your Nova Scotia Department of Justice (Court, Criminal record, and Correctional Service Case records) and Department of Health & Wellness (Capital Health) case records by the research assistants and researchers directly working on this evaluation under the supervision of the research team.

11. Can I Be Taken Out Of The Study Without My Consent?

Yes. You may be taken out of the study at any time, if:

- There is information that shows that being in this study is not in your best interests.
- University of New Brunswick, Dalhousie University, or St. Francis Xavier University, the Capital Health Research Ethics Board or the Principal Investigator decides to stop the study.
- You do not follow the directions of the research assistant.
- You will be told about the reasons why you might need to be taken out of the study.

12. What About New Information?

It is possible (but unlikely) that new information may become available while you are in the study that might affect your health, welfare, or willingness to stay in the study. If this happens, you will be informed in a timely manner and will be asked whether you wish to continue taking part in the study or not.

13. Will It Cost Me Anything?

Costs

There are no costs to participants.

Compensation?

You will not be paid to be in the study. Out-of-pocket expenses will not be reimbursed. We will schedule the two meetings with you for a time when you are coming to MHC or the MHC offices at the Dartmouth Professional Building to make it more convenient for you to participate in the study.

Research Related Injury

If you become ill or injured as a direct result of participating in this study, necessary medical treatment will be available at no additional cost to you. Your signature on this form only indicates that you have understood to your satisfaction the information regarding your participation in the study and agree to participate as a subject. In no way does this waive your legal rights nor release the Principal Investigator, the research staff, the study sponsor or involved institutions from their legal and professional responsibilities.

14. What About My Right To Privacy?

Protecting your privacy is an important part of this study. A copy of this consent will be put in your health record.

When you sign this consent form you give us permission to:

- Collect information from you
- Collect information from your health record
- Share information with the people conducting the study
- Share information with the people responsible for protecting your safety

Access to records

The members of the research team will see health and study records that identify you by name.

Other people may need to look at the health and study records that identify you by name. These might include:

- Research assistants
- the CDHA Research Ethics Board and Research Quality Associate

Use of records.

The research team will collect and use only the information they need to complete the Study. This information will only be used for the purposes of this study.

This information will include your:

- name
- date of birth
- sex/gender
- criminal record (from Nova Scotia Department of Justice records) from before and during the study
- mental health diagnosis, assessments, and any treatment received for mental health or psychological issues (from Capital Health Records) from before and during the study
- case plan information developed after you consented to participate in the study, and over the duration of the study (from Capital Health and Department of Justice records)
- information from self-report questionnaires completed for the study

Your name and contact information will be kept secure by the research team. It will not be shared with others without your permission. Your name will not appear in any report or article published as a result of this study. Information collected for this study will be kept as long as required by law. This could be 7 years or more.

If you decide to withdraw from the study, the information collected up to that time will continue to be used by the research team. It may not be removed.

After your part in this study ends, we may continue to review your records.

We may want to follow your progress and to check that the information we collected is correct.

Information collected and used by the research team will be stored at the MHC office while it is being collected, and will be converted to a de-identified database (i.e. no personal information in it) that will be stored by the Centre for Criminal Justice Studies at the University of New Brunswick. The Director of the Centre for Criminal Justice Studies (the principle investigator) is the person responsible for keeping it secure.

You may also be contacted personally by Research Auditors for quality assurance purposes.

Your access to records

You may ask the researchers to see the information that has been collected about you.

15. What if I Want to Quit the Study?

If you chose to participate and later change your mind, you can say no and stop your participation at any time. If you wish to withdraw your consent, please inform the Principal Investigator or the research assistant speaking with you now. All information collected up to the date you withdraw your consent will remain in the study records, to be included in study related analyses. A decision to stop being in the study will in no way influence your involvement with their respective service now or in the future.

16. Declaration Of Financial Interest

Principal Investigator institution has provided the funds to support to conduct this study. The amount of this payment is sufficient to cover the costs of conducting the study. The Principal Investigator has no financial interests in conducting this research study.

For further information about the study contact **Dr. Mary Ann Campbell.** Dr. Campbell is in charge of this study (she is the "Principal Investigator"). Dr. Campbell's work telephone number is (506) 648-5969. If you can't reach the Principal Investigator, please refer to the attached Research Team Contact Page for a full list of the people you can contact for further information about the study.

The Principal Investigator is **Dr Mary Ann Campbell**.

Telephone: (506) 648-5969

Your Research Coordinator is **Mr. Alex Macaulay**.

Telephone: (506) 333-3553

17. What Are My Rights?

After you have signed this consent form you will be given a copy.

If you have any questions about your rights as a research participant, contact the **Patient Representative** at **(902) 473-2133**.

In the next part you will be asked if you agree (consent) to join this study. If the answer is "yes", you will need to sign the form.

PART C.

18. Consent Form Signature Page

I have reviewed all of the information in this consent form related to the study called:

A Prospective Evaluation of the Nova Scotia Mental Health Court Program

I have been given the opportunity to discuss this study. All of my questions have been answered to my satisfaction.

I agree to allow the people described in this consent form to have access to my mental health records.

This signature on this consent form means that I agree to take part in this study. I understand that I am free to withdraw at any time.

_____ _____ ____ / _____ / ___

Signature of Participant　　　　　　Name (Printed)　　　　　　Year　Month　Day*

_____ _____ ____ / _____ / ___

Witness to Participant's　　　　　　Name (Printed)　　　　　　Year　Month　Day*

Signature

_____ _____ ____ / _____ / ___

Signature of Investigator　　　　　　Name (Printed)　　　　　　Year　Month　Day*

_____ _____ ____ / _____ / ___

Signature of Person Conducting　　　Name (Printed)　　　　　　Year　Month　Day*

Consent Discussion

_____ _____ ____ / _____ / ___

Signature of Participant's　　　　　　Name (Printed)　　　　　　Year　Month　Day*

Authorized Legal Representative

If the consent discussion has been conducted in a language other than English, please indicate:

_____

     Language

_____   _____   ____ / _____ / ___

Signature of Translator   Name (Printed)   Year   Month   Day*

*Note: Please fill in the dates personally

I Will Be Given a Signed Copy Of This Consent Form

Thank you for your time and patience!

APPENDIX B: VARIABLE CODING GUIDE FOR CASE RECORDS

NOVA SCOTIA MHC EVALUATION VARIABLE CODING GUIDE

A).	**General Information at time of referral to MHC:**

1. *Age: _____ (in years)*

2. *Gender:* Male / Female

3. *Ethnicity:*
   ☐ Caucasian
   ☐ African Canadian/American
   ☐ First Nations
   ☐ Latino/a
   ☐ Asian
   ☐ Arabian
   ☐ Other (please indicate): _____
   ☐ unknown

4. *Marital status at time of admission to MHC:*
   ☐ Never married or been in a Common-law relationship of 6 months +
   ☐ Married/Common-law relationship of 6 months +
   ☐ Divorced/Separated from martial/common-law relationship of 6 months +
   ☐ Widowed

B).	**MHC Context:**

1. Date of referral to MHC (or date of first court appearance if referral date unknown): _____ (d/m/y)

   a) Date of formal admission to MHC: _____ (d/m/y)

   b) Number of days between referral and admission decision (including the date of referral and the date of admission in the count): _____

5. Date of discharge from MHC: _____ (d/m/y)

   a) Number of days involved with MHC from date of acceptance to discharge: _____ days

   b) Age at time of discharge from MHC: _____years

   c) Reason for Discharge from MHC?
      ☐ Successfully completed MHC program
      ☐ Voluntarily withdrew to return to traditional court
      ☐ Expelled from the program by MHC team for non-compliance
      ☐ Suspended involvement with MHC until other legal matters are addressed in another court (e.g., new charges resolved in traditional court before can continue in MHC)
      ☐ Other (specify): _____

6. Total number of MHC in-court appearances made by the client from date of referral (or since first appearance) to date of discharge (including those dates in the count): _____

7. Type of index criminal charges associated with referral to MHC – tic all that apply:
   ☐ Assault (Common, Aggravated, or Causing bodily harm)   ☐ Robbery (with or without weapon)
   ☐ Breach of Probation or court   ☐ Weapons offence (possession

order (Fail to Comply/Breach of Recognizance)
☐ Break and Enter (with and
    without intent)
☐ Drug Possession
☐ Drug Trafficking (selling)/Cultivating
☐ Theft (includes shoplifting)
☐ Fraud or Forgery
☐ Mischief, Vandalism or
    Destruction of Property

of weapon, dangerous use of
    a weapon)
    ☐ Murder/Manslaughter
☐ Prostitution/Soliciting
☐ Sexual offence (indecent
    exposure, sexual interference,
    sexual assault, possess or make child porn)
☐ Other (please specify):
    _____

8. Total number of criminal charges being addressed as part of referral to MHC: _____

9. Type of community supervision order placed on client <u>at time of referral to/during screening for</u> MHC:
    a) probation
    b) Form 12
    c) other: _____

10. Number of total times admitted to the MHC program (counting the current referral as 1) ____

11. Type of community supervision order placed on client <u>once admitted to</u> MHC:
    a) probation
    b) Form 12
    c) other: _____

12. Nature of community supervision order conditions after admitted to MHC (tick all that apply):
    ☐ Restrictions on when can be out of residence / curfew
    ☐ Can only be out in their residence if in the presence of a specific person(s)/professional
    ☐ restrictions on being in specific geographic areas or places
    ☐ restrictions on with whom the client can associate or be around
    ☐ substance use restrictions/abstention
    ☐ attendance of mental health counseling or other community/social services
    ☐ keep the peace/be of good behaviour
    ☐ no access to weapons
    ☐ residency conditions (required to live with certain persons and/or at certain address)
    ☐ other(s): _____

C). TIME 1: PRE-MHC ADMISSION CASE CRIMINAL HISTORY AND MENTAL HEALTH INFORMATION

CRIMINAL HISTORY:

13. ***Nature of prior criminal history before referral to MHC – tick all that apply <u>since very first criminal offence was committed (excluding index offences associated with MHC referral)</u>, and record number of each type of charge next to each category :***

____ Assault (Common, Aggravated,   ____ Robbery (with or without
     or Causing bodily harm)   weapon)
____ Breach of Probation or court   ____ Weapons offence (possession
     order (Fail to Comply/Breach of Recognizance)   of weapon, dangerous use of
____ Break and Enter (with and   a weapon)
     without intent)   ____ Murder/Manslaughter
____ Drug Possession   ____ Prostitution/Soliciting
____ Drug Trafficking (selling)/Cultivating ____ Sexual offence (indecent
____ Theft (includes shoplifting)   exposure, sexual interference,
____ Fraud or Forgery   sexual assault, possess or make child porn)
____ Mischief, Vandalism or   ____ Other (please specify):
     Destruction of Property   _____

14. Total number of **previous criminal charges** (excluding breaches of court orders and community supervision orders) prior to *referral* to MHC: _____

    - *In 12 months prior to referral to MHC: _____*

15. Total number of **previous breaches** of court orders and community supervision orders (e.g., Form 12, probation, parole) prior to *referral* to MHC: _____

    - *In 12 months prior to referral to MHC: _____*

16. Has the client **ever been incarcerated** in a provincial jail or federal institution (excluding remand) **Yes/No**

17. Total **number of separate incarceration periods** (excluding remand) prior to MHC *referral:* _____

    - *Total number of days spent in jail/incarcerated in 12 months prior to MHC referral: _____*

18. Has the client **even been remanded** to a provincial correctional centre?   **Yes / No**

    - *Total number of days spent on remand in 12 months prior to MHC _____*

MENTAL HEALTH HISTORY:

19. Documented **history of involvement with mental health services/**professionals at any time prior to *referral* to MHC   **Yes /   No**

    a) *Involvement with mental health services in the 12 months prior to MHC referral?* **Yes /   No**

20. ***Mental health diagnoses at time of referral or admission to MHC (as determined by the most recent mental health assessment related to screening for admission to MHC or recent mental health records) based on DSM-IV-TR labels – tick all that apply:***
    ____ Schizophrenia/schizoaffective disorder/psychosis NOS (exclude personality disorder)
    ____ Bipolar Disorder I or II /Manic Episode/Cyclothymia/Rapid Cycling
    ____ Major Depressive Disorder or Episode/Dysthymia
    ____ Anxiety Disorder (e.g., agoraphobia, generalized anxiety, panic disorder, phobia, PTSD)
    ____ ADHD/Impulse control disorder
    ____ Mental retardation/cognitive dysfunction/brain damage

_____ Histrionic/Borderline Personality Disorder/traits
_____ Narcissistic Personality Disorder/traits
_____ Antisocial Personality Disorder/traits
_____ Avoidant/Dependent Personality Disorder/Traits
_____ Paranoid Personality Disorder/Traits
_____ Schizoid Personality Disorder/Traits
_____ Schizotypal Personality Disorder/Traits
_____ Substance Abuse/Dependence
_____ Substance-induced mental disorder
_____ other (specify): _____

21. *Estimated severity of mental health issues in the 12 months prior to MHC admission:*
    0 – No identified mental health issues
    1 – Minor mental health concerns (first episode, already resolving, no or only minimal
        incapacitation/interference in daily functioning)
    2 – Moderate mental health concerns (some interference with ability to work/attend school or engage in
        normal daily activities/social relationships, but continues to engage in these activities; mental health
        issues yet to be resolved or there is some risk of relapse)
    3 – Serious mental health concerns (persistent mental health concerns or high likelihood of relapse; significant
        interference in ability to work/attend school and affects social functioning)

22. *Status of most serious mental health diagnoses at time of MHC referral:*
    _____ Full remission (mental illness has resolved completely; no active or very minor mental health symptoms are
    present)
    _____ Persistent, but improving (reduction in severity of symptoms are noted, as are improvements in functioning,
    but mental illness persists; partial remission)
    _____ Persistent, but stable (mental illness is ongoing and is as about severe as it was prior to admission to MHC)
    ___ Persistent, but worsening (persistent mental illness is now worse than it was prior to admission to MHC)

23. Total number of separate hospitalization periods for mental health reasons **in the 12 month period prior to
    referral to MHC:** _____
    a) Total # of days in hospital for mental health reasons in 12 months prior to MHC _____ (days)

24. Number of Mental health related-Emergency Department visits **in the 12 months prior to admission to MHC:**
    _____

25. Type of mental health, social service, or correctional interventions client participated in (regardless of the
    successfulness of the intervention) prior to admission to MHC (check all that apply; but **do not count
    recommended programs that the client never attended at all)**

    ☐ No intervention previously received prior to admission to MHC
    ☐ General anger management (not domestic; individually or in group)
    ☐ Substance abuse treatment/detox (individually or in group)
    ☐ Offender relapse prevention programs (individually or in group)
    ☐ Domestic violence/intimate partner violence programs (individually or in group)
    ☐ Sex offender treatment (individually or in group)
    ☐ Family therapy/counseling
    ☐ Individual counseling for mental health issues with a mental health professional/counselor
    ☐ Group counseling for mental health issues with a mental health professional/counselor (includes psycho-
       educational and process groups)
    ☐ Intensive therapeutic interventions that specifically combine group and individual therapy into a single
       comprehensive intervention program (e.g., Dialectical Behaviour Therapy)
    ☐ Psychiatric/physician management of medication
    ☐ Educational upgrading

☐ Employment services or re-training
☐ Daily living services (e.g., budgeting, how to use public transportation, hygiene, cleaning)
☐ Other (include names of the program/service if uncertain of content/intervention format):

_____

_____

26. ***Estimate level of engagement in mental health services and related community/correctional interventions in the*** ***12 months prior to MHC admission.***

n/a – No known prior mental health or related interventions

0 – No engagement (often missed appointments, unmotivated to change, no engagement with treatment providers, frequent non-compliance with medications/ intervention plans)

1 – Moderate/partial engagement (inconsistent attendance at appointments, partially motivated to change, some engagement with treatment providers, inconsistent compliance with medications/intervention plans)

2 – Good engagement (attends most appointments, appears motivated to change, actively works with treatment providers, consistent compliance with medications/intervention plans)

27. **Intimate partner relationship quality** ***in the 12 month period prior to MHC referral.***
_____ no intimate relationships
_____ unstable/chaotic intimate relationships (e.g., frequent partners, conflict, multiple break-ups/make-ups)
_____ generally stable and functional intimate relationships (e.g., minimal conflict, caring and supportive relationship)

28. **Family relationship quality** ***in the 12 month period prior to MHC referral.***
_____ no family relationships
_____ unstable/chaotic family relationships (e.g., conflict, lack of support from most family members)
_____ generally stable and functional intimate relationships (e.g., minimal conflict, primary supportive family relationships)

29. **Employment status** ***in 12 months prior to MHC referral?***
_____ unemployed
_____ casual/inconsistent employment
_____ regular part-time employment
_____ full-time employment

30. **Highest level of education achieved** ***at the time of MHC referral?***
_____Elementary (K to Grade 6)
_____At least some Junior high/Middle school (Grade 7-9)
_____At least some High school/GED (did not graduate or earn equivalent to Grade 12)
_____Completion of High School/GED
_____Partial completion of community college/trade program/university degree
_____Completion of community college/trade program/university degree

31. **Stability of living arrangements** ***in the 12 months prior to MHC referral?***
_____ Living primarily on the street (not staying with anyone and not using shelters)
_____ Inconsistent living arrangements (stayed with various friends/family/shelters for only a few days, weeks or months at a time before moving on to someone else; or because client was in and out of jail)
_____ Primarily stable living arrangements, but this was because client was in custody or hospitalized.
_____ Primarily stable living arrangements, but in a special care home or professionally supervised living arrangement
_____ Primarily stable living arrangements with family – not independent
_____ Primarily stable living arrangements – living independently or with non-family roommates

32. **Adequacy of financial resources *in the 12 months prior to MHC referral*.:**

    _____ No financial resources (no personal income, no financial support from family or government assistance)

    _____ Some financial support from family, but no independent source of income

    _____ Some independent income, but it was insufficient to meet basic financial needs; and/or received income from social services (disability, social assistance) to help meet basic financial needs

    _____ Had independent source(s) of income from employment, pension, or significant investments, that was sufficient to meet basic living expenses

33. **Identified LS/CMI criminogenic needs level and overall risk level info 12 months prior to MHC referral**

- Criminal History (score: ___)   Very Low   Low   Medium   High   Very High
- Education/Employment (score: ___) Very Low   Low   Medium   High   Very High
- Family/Marital (score: ___)   Very Low   Low   Medium   High   Very High
- Leisure/Recreation (score: ___)   Very Low   Low   Medium   High   Very High
- Companions (score: ___)   Very Low   Low   Medium   High   Very High
- Alcohol/Drug Problem (score: ___) Very Low   Low   Medium   High   Very High
- Procriminal Attitude (score: ___)   Very Low   Low   Medium   High   Very High
- Antisocial Pattern (score: ___)   Very Low   Low   Medium   High   Very High

    o **Total Pre-MHC LS/CMI score:** _____

    o **Overall Pre-MHC risk/need level:** *Very Low   Low   Medium   High   Very High*

D). Time 2: AT DISCHARGE FROM MHC OR AT 12 MONTHS POST-REFERRAL FOR NON-ADMITTED CASES

34. ***Final MHC status***
    a) Referred but not admitted to MHC before or after the screening
    b) Formally admitted to MHC, but did not complete the program (i.e., left before case plan was considered complete, left on own accord against recommendation of MHC team, or at the decision of the MHC due to non-compliance or new charges)
    c) Formally admitted to MHC and completed the program

35. ***Nature of any new charges accrued in the 12 months following MHC referral (excluding index offences associated with MHC referral and offences that had dates of commission prior to MHC referral that may not have been addressed until after MHC admission) – only track newly committed offences since MHC referral date – tick all that apply, and record number of offences within each ticked category of offences:***

    ____ Assault (Common, Aggravated, or Causing bodily harm)
    ____ Breach of Probation or court order (Fail to Comply/Breach of Recognizance)
    ____ Break and Enter (with and without intent)
    ____ Drug Possession
    ____ Drug Trafficking (selling)/Cultivating
    ____ Theft (includes shoplifting)
    ____ Fraud or Forgery
    ____ Mischief, Vandalism or Destruction of Property

    ____ Robbery (with or without weapon)
    ____ Weapons offence (possession of weapon, dangerous use of a weapon)
    ____ Murder/Manslaughter
    ____ Prostitution/Soliciting
    ____ Sexual offence (indecent exposure, sexual interference, sexual assault, possess or make child porn)
    ____ Other (please specify): _____

36. Total number of new **charges earned** between MHC referral date and 12 months post-referral period/MHC discharge (excluding breaches of court orders and community supervision orders): _____

37. Total number of **charges accrued for breaches** of court orders and community supervision orders (e.g., Form 12, probation, parole) received **for non-criminal violations** (e.g., violation of curfew, places to avoid, abstain from substances, residency clauses, etc) between MHC referral date and 12 months post-referral period/MHC discharge: _____

38. Total number of charges accrued for breaches of court orders and community supervision orders (e.g., Form 12, probation, parole) received **for criminal violations** (i.e., breached because committed a new criminal offence while under court-ordered supervision) between MHC referral date and 12 months post-referral period/MHC discharge: _____

39. Total number of **days spent in jail/incarcerated** between MHC referral date and 12 months post-referral period/MHC discharge: _____

40. ***For Admitted MHC cases ONLY - Changes in community supervision order restrictions during MHC involvement from admission to the point of discharge:***
    ____ generally no changes
    ____ inconsistent pattern of increased & decreased restrictions throughout entire during of MHC
    ____ primarily moved towards a decrease in restrictions
    ____ primarily moved towards an increase in restrictions

47. *Estimated severity of general mental health issues at the time of discharge from MHC (or at 12 months post-referral for non-admitted cases):*

0 - No identified mental health issues

2- Minor mental health concerns (first episode, already resolving, no or only minimal incapacitation/interference in daily functioning)

2 – Moderate mental health concerns (some interference with ability to work/attend school or engage in normal daily activities/social relationships, but continues to engage in these activities; mental health issues yet to be resolved or there is some risk of relapse)

3 – Serious mental health concerns (persistent mental health concerns or high likelihood of relapse; significant interference in ability to work/attend school and affects social functioning)

48. *Status of most serious mental health diagnoses at time of discharge from MHC (or at 12 months post-referral for non-admitted cases):*

_____ Full remission (mental illness has resolved completely; no active or very minor mental health symptoms are present)

_____ Persistent, but improving (reduction in severity of symptoms are noted, as are improvements in functioning, but mental illness persists; partial remission)

_____ Persistent, but stable (mental illness is ongoing and is as about severe as it was prior to admission to MHC)

_____ Persistent, but worsening (persistent mental illness is now worse than it was prior to admission to MHC)

49. *Number of separate hospitalization periods for mental health reasons in the 12 months since MHC referral*:

_____

      a. *Number of days in hospital for mental health reasons in the 12 months since MHC referral:* _____ days

50. *Number of Mental health related-Emergency Department visits in the 12 months since MHC referral*: _____

51. *Type of mental health, social service, or correctional interventions described in the case plan (regardless of the successfulness of the intervention) during MHC involvement (or the 12 months post-MHC referral for non-admitted cases). Check all that apply.*

☐ No intervention previously received during the 12 months since MHC referral/or while in MHC

☐ General anger management (not domestic; individually or in group)
☐ Substance abuse treatment/detox (individually or in group)
☐ Offender relapse prevention programs (individually or in group)
☐ Domestic violence/intimate partner violence programs (individually or in group)
☐ Sex offender treatment (individually or in group)
☐ Family therapy/counseling
☐ Individual counseling for mental health issues with a mental health professional/counselor
☐ Group counseling for mental health issues with a mental health professional/counselor (includes psychoeducational and process groups)
☐ Intensive therapeutic interventions that specifically combine group and individual therapy into a comprehensive program (i.e., Dialectical Behaviour Therapy)
☐ Psychiatric management of medication
☐ Educational upgrading
☐ Employment services or re-training
☐ Daily living services (e.g., budgeting, how to use public transportation, hygiene, cleaning)
☐ Other (include names of the program/service if uncertain of content/intervention format):

_____

53 *Estimate level of engagement with the case plan and associated interventions post-MHC referral, emphasizing behaviour in the last 6 months of MHC involvement (or the last 6 months of the 12 month follow-up period for non-admitted cases).*

    0 – No engagement (often misses appointments, unmotivated to change, no engagement with treatment providers, frequent non-compliance with medications/ intervention plans, failure to attend court)

    1 – Moderate/partial engagement (inconsistent attendance at appointments, partially motivated to change, some engagement with treatment providers, inconsistent compliance with medications/intervention plans)

    2 – Good engagement (attends most appointments, appears motivated to change, actively works with treatment providers, consistent compliance with medications/intervention plans)

54. Intimate partner relationship quality *in the 12 months since MHC referral?*
    ____ no intimate relationships
    ____ unstable/chaotic intimate relationships (e.g., frequent partners, conflict, multiple break-ups/make-ups)
    ____ generally stable and functional intimate relationships (e.g., minimal conflict, caring and supportive relationship)

55. Family relationship quality *in the 12 months since MHC referral?.*
    ____ no family relationships
    ____ unstable/chaotic family relationships (e.g., conflict, lack of support from most family members)
    ____ generally stable and functional intimate relationships (e.g., minimal conflict, primary supportive family relationships)

56. Employment status *in the 12 months since MHC referral?*
    ____ unemployed
    ____ casual/inconsistent employment
    ____ regular part-time employment
    ____ full-time employment

57. Highest level of education achieved *by the end of the 12 month period post-MHC referral?*
    ____Elementary (K to Grade 6)
    ____At least some Junior high/Middle school (Grade 7-9)
    ____At least some High school/GED (did not graduate or earn equivalent to Grade 12)
    ____Completion of High School/GED
    ____Partial completion of community college/trade program/university degree
    ____Completion of community college/trade program/university degree

58. Stability of living arrangements *in the 12 months since MHC referral?.*
    ____ Living primarily on the street (not staying with anyone and not using shelters)
    ____ Inconsistent living arrangements (stayed with various friends/family/shelters for only a few days, weeks or months at a time before moving on to someone else; or because client was in and out of jail)
    ____ Primarily stable living arrangements, but this was because client was in custody or hospitalized.
    ____ Primarily stable living arrangements, but in a special care home or professionally supervised living arrangement
    ____ Primarily stable living arrangements with family – not independent
    ____ Primarily stable living arrangements – living independently or with non-family roommates

59. Adequacy of financial resources *in the 12 months since MHC referral?.*
    ____ No financial resources (no income, no financial support from family or government assistance)
    ____ Some financial support from family, but no independent source of income
    ____ Some independent income, but insufficient to meet basic financial needs; and/or received income from social services (disability, social assistance) to help meet basic financial needs
    ____ Had independent source(s) of income from employment, pension, or significant investments, that was sufficient to meet basic living expenses

60. **Identified Discharge LS/CMI criminogenic need level and overall risk level (or at 12 months post-referral for non-admitted cases)**

• Criminal History (score: ___)	Very Low	Low	Medium	High	Very High
• Education/Employment (score: ___)	Very Low	Low	Medium	High	Very High
• Family/Marital (score: ___)	Very Low	Low	Medium	High	Very High
• Leisure/Recreation (score: ___)	Very Low	Low	Medium	High	Very High
• Companions (score: ___)	Very Low	Low	Medium	High	Very High
• Alcohol/Drug Problem(score: ___)	Very Low	Low	Medium	High	Very High
• Procriminal Attitude (score: ___)	Very Low	Low	Medium	High	Very High
• Antisocial Pattern (score: ___)	Very Low	Low	Medium	High	Very High

   o **Total Discharge/12 moth post-MHC referral LS/CMI score:** _____

   o **Overall Discharge/12 moth post-MHC referral risk/need level:**

   Very Low   Low   Medium   High   Very High

CASE PLAN RISK-NEED-RESPONSIVITY (LS/RNR) ADHERENCE CODING

CODING INSTRUCTIONS FOR RISK PRINCIPLE ADHERENCE IN THE CASE PLAN   SCORE = **0** OR **1**

0 = There was a mismatch between the type of intervention/ intensity of supervision and the formal LS/CMI recidivism risk level (low, medium, high) identified at intake.
   For example:
   ▪ Offender had an intake risk-need level that was rated as "high-risk", but was NOT referred to a "high intensity" program or service (e.g., longer hours per session; more sessions).
   ▪ Offender had an intake risk-need level that was rated as "low-risk", but was NO referred to a "low intensity" program or service (e.g., fewer hours per session; little to no intervention).

1 = There was a match between the type of intervention/ intensity of supervision and the formal LS/CMI recidivism risk level (low, medium, high) identified at intake.
   For example:
   ▪ Offender had an intake risk-need level that was rated as "high-risk" and was referred to "high intensity" programs (e.g., longer hours per session; more sessions) and supervision (e.g., weekly monitoring).
   ▪ Offender had an intake risk-need level that was rated as "low-risk", and no to minimal intervention or supervision was included in the case plan (e.g., no or very few referrals to other agencies; infrequent monitoring – once a month or less).

CODING INSTRUCTIONS NEED PRINCIPLE ADHERENCE IN THE CASE PLAN – FOR EACH OF THE 8 CRIMINOGENIC NEEDS IN SECTION 1 OF THE LS/RNR

Criminal History		Education /Employment		Companions		Leisure/ Recreation		Substance Use		Antisocial Orientation		Antisocial Attitudes		Family Marital Problems	
0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1

0 = no match - LS/CMI criminogenic need is identified as problematic (medium or high) at intake, but it was NOT addressed in the case plan.
   For example:
   - Education/employment criminogenic need subscale was rated as "medium-risk", but no service was provided to address this concern.
   - Attitudes criminogenic need subscale is rated as "high-risk", but no service is offered to address criminal cognitions.

*<u>**OR**</u>*

Criminogenic need is identified as not problematic (low) but it WAS a target for treatment. For example:
   - Drug/alcohol criminogenic need is rated as "low-risk" because client's use of marijuana is controlled and not problematic. However, drug treatment was part of the case plan.
   - Companions criminogenic need is rated as "very low-risk", because client has no criminal influences and some prosocial acquaintances, but several treatment sessions focus on establishing peer relationships.

1 = match - LS/CMI criminogenic need is identified as problematic (medium or high) at intake and case records indicate that it WAS addressed in the case plan.
   For example:
   - Leisure/recreation criminogenic need is rated as "high-risk", and client is encouraged to engage in recreational activities and some may even be explicitly stated as accessed.
   - Attitudes criminogenic need is rated as "medium-risk", and case plan addresses issues regarding the client's lack of motivation, noncompliance, or rationalizations towards offense.

*<u>**OR**</u>*

Criminogenic need is identified as not problematic (low) and file indicates that the area was NOT targeted for treatment.
   For example:
   - Family/marital criminogenic need is rated as "low-risk" because client has good relationships with family or intimate partner. This area is not targeted for treatment and is not part of the case plan.
   - Antisocial personality criminogenic need is rated as "low-risk" because client does not exhibit an antisocial personality pattern. There is no evidence of services addressing aggressiveness, problem-solving or impulsivity deficits.

CODING INSTRUCTIONS RESPONSIVITY PRINCIPLE ADHERENCE IN THE CASE PLAN   SCORE = 0 OR 1

A score of 1 for general responsivity and 1 for specific responsivity is required to code the case plan adherence to this principle as a 1 (Match). Otherwise it would be coded as a 0 (no match)

General Responsivity   SCORE = 0 OR 1
0 = Non-adherence – interventions and strategies used in the case plan were INCONSISTENT with evidence-based methods of effective intervention for reduction of criminal behaviour.
   For example,

- Used psychodynamic methods of intervention

1 = Adherence - interventions and strategies used in the case plan were CONSISTENT with evidence-based methods of effective intervention for reduction of criminal behaviour
> For example:
- The use of cognitive-behavioural intervention techniques are understood to adhere to the Responsivity Principle.
- For interventions that are not cognitive-behavioural in orientation, a program that is moderated by a prosocial therapist, who is trained in developing respectful relationships (i.e., "firm but fair" relationships) would be considered to adhere to the Responsivity Principle

Note: Program manuals or brochures, research articles, accreditation credentials, and, if necessary, site visits, may be used by the rater to understand the nature and content of the referral programs or services if this information is not articulated sufficiently in the case file.

Specific Responsivity   SCORE = **0** OR **1**
0 = Non-adherence - Case files indicate that the referred intervention WAS NOT tailored to the offender's specific strengths and/or limitations when evidence-based interventions were used. For example:
- An offender is identified as having cognitive difficulties and there is no description of program alterations made to ensure the offender understood the presented material in the case plan (e.g., use concrete psycho-educational material or learning models to explain complex concepts).

1 = Adherence - Case files indicate that the service or treatment provided WAS tailored to the offender's identified strengths and/or limitations.
> For example:
- Adjusted intervention to be responsive to identified strengths and weakness in the LS/RNR profile, such as providing interventions in the client's preferred language, responding to motivational barriers to change, adjusting for learning disabilities or cognitive limitations, addressing mental health issues that interfere with response to criminogenic intervention and supervision, building on prosocial aspects of offender's characteristics.

Total Responsivity Score : 0 = no match (score of 0-1)   1 = match (score of 2)

OVERALL RNR ADHERENCE SCORE:

No Adherence	Slight Adherence	Some Adherence	Full Adherence
0	1	2	3

_____

Coding Notes:
A rating **A, B or C** means that insufficient information was available to rate the principle as either 0 or 1. In this case, coding the principle adherence rating as "missing", and note the reason by specifying which of the following reasons apply:
- **A.** Evidence that client received treatment services of some kind, but there is no information as to the content of the sessions. Exact issue addressed is unknown.
- **B.** Client was referred to an external service (Ridgewood, education upgrading, job training but there is no information that indicates whether client actually went and participated in these services. Generally reflects poor inter-service communication.
- **C.** Notes are very generic, vague, or irrelevant, or there is simply no information.

CASE PLAN CAMBERWELL ASSESSMENT FORM ADHERENCE CODING

CAN identified Need (self or staff rating)	Match Rating		Unable to Code		
Accommodation	0	1	A	B	C
Food	0	1	A	B	C
Looking after Home	0	1	A	B	C
Self-Care	0	1	A	B	C
Daytime activities	0	1	A	B	C
Physical Health	0	1	A	B	C
Psychotic symptoms	0	1	A	B	C
Information given about illness and treatment	0	1	A	B	C
Psychological distress	0	1	A	B	C
Safety to others	0	1	A	B	C
Safety concerns to self	0	1	A	B	C
Alcohol	0	1	A	B	C
Drugs	0	1	A	B	C
Company (social)	0	1	A	B	C
Intimate relationships	0	1	A	B	C
Sexual expression	0	1	A	B	C
Child care	0	1	A	B	C
Basic education	0	1	A	B	C
Use of telephone	0	1	A	B	C
Use of transportation	0	1	A	B	C
Use of money	0	1	A	B	C
Benefits	0	1	A	B	C
Agreement with treatment plan and anticipated compliance	0	1	A	B	C
Spirituality	0	1	A	B	C

CAN MATCH CODING INSTRUCTIONS:

0 = There was <u>a mismatch</u> between the CAN need identified (rated as unmet) and intervention.
> For example:
> - Offender had an intake alcohol problem rated as an unmet need, but there is no alcohol abuse related intervention in the case plan.
> - No concerns were identified child care or this need was already met at intake, but the case plan includes interventions in this area (beyond just continuation of the means already being used to meet this need).

1 = There was <u>a match</u> between the CAN need identified (rated as unmet) and intervention
> For example:
> - Offender had an intake companion problem rated as an unmet need and interventions associated with social skills or access to prosocial peers was included in the case plan.
> - Sexual expression was not rated as a need or it was an already met need, and no intervention in this domain was included in the case plan.

<u>Coding Notes:</u>
A rating **A, B or C** means that insufficient information was available to rate the principle as either 0 or 1. In this case, coding the principle adherence rating as "missing", and note the reason by specifying which of the following reasons apply:
- **A.** Evidence that client received treatment services of some kind, but there is no information as to the content of the sessions. Exact issue addressed is unknown.

B. Client was referred to an external service (addictions, education upgrading, job training but there is no information that indicates whether client actually went and participated in these services. Generally reflects poor inter-service communication.

C. Notes are very generic, vague, or irrelevant, or there is simply no information.

APPENDIX C: PRE-GROUP COMPARISONS BETWEEN MHC AND TAU CASES AT THE TIME OF MHC REFERRAL

CASE VARIABLE	Admitted MHC Group M (SD)	Non-Admitted TAU Group M (SD)	Admitted MHC Group %	Non-Admitted TAU Group %	P-VALUE
APPENDIX C: GROUP COMPARISONS BETWEEN NOVA SCOTIA MHC ADMITTED AND NON-ADMITTED CASES AT THE TIME OF MHC REFERRAL					
Demographic Characteristics					
Age in years	38.12 (13.15)	34.26 (10.93)	--	--	.171
Gender:					
Male	--	--	65.4%	63.0%	.833
Female	--	--	34.6%	37.0%	
Ethnicity:					
Caucasian	--	--	88.0%	81.5%	
African Canadian	--	--	8.0%	9.3%	.771
Aboriginal	--	--	0.0%	3.7%	
Arabian	--	--	4.0%	0.0%	
Marital Status:					
Never married/ common-law	--	--	44.0%	34.0%	
Married/common-law	--	--	44.0%	20.8%	**.010**
Divorced/separated	--	--	12.0%	45.3%	
Widowed	--	--	0.0%	0.0%	
Primary Caregiver (Yes)	--	--	23.1%	9.4%	.100
Number of Children	.31 (.62)	.13 (.40)	--	--	.138
History of Mental Health Service Involvement - Ever	--	--	88.5%	94.4%	.341
Mental Health Recovery Variables *(in 12 month period before MHC referral)*					
Diagnosis (Yes):					
Psychosis-related	--	--	23.1%	9.3%	.093
Anxiety-related	--	--	42.3%	40.7%	.894
Depression-related	--	--	**50.0%**	**27.8%**	**.051**
Bipolar Disorder	--	--	4.0%	7.4%	.563
ADHD/Impulse Control	--	--	15.4%	31.5%	.125
Personality Disorder	--	--	30.8%	29.6%	.917
Substance Abuse / Dependence	--	--	57.7%	46.3%	.340
Intellectual Disability / Brain Injury	--	--	**19.2%**	**3.7%**	**.021**
Other	--	--	23.1%	29.6%	.539
SCL-90-R Global Indices:					
General Severity Index Score (GSI)	57.46 (11.68)	59.37 (11.48)	--	--	.509
Positive Symptom Distress Index	57.0 (13.15)	56.55 (12.46)	--	--	.887
Positive Symptom Total	56.96 (10.64)	59.79 (9.52)	--	--	.254
SCL-90-R Domain Scores:					
Somatization	58.21 (2.02)	61.08 (1.42)			.249
Obsessive-Compulsions	56.54 (2.11)	57.98 (1.48)			.580
Impersonal Sensitivity	54.00 (2.13)	55.51 (1.49)			.564
Depression	56.33 (2.43)	56.41 (1.70)			.980

CASE VARIABLE	Admitted MHC Group	Non-Admitted TAU Group	Admitted MHC Group	Non-Admitted TAU Group	P-VALUE
	M (*SD*)	*M* (*SD*)	%	%	
Anxiety	56.92 (2.07)	56.57 (1.45)			.892
Phobic Anxiety	56.25 (2.43)	57.73 (1.70)			.618
Hostility	52.62 (2.22)	56.41 (1.56)			.168
Paranoid Ideation	54.79 (2.03)	57.69 (1.42)			.246
Psychoticism	55.46 (2.50)	56.06 (1.75)			.844
Mental Health Severity / Impairment Rating	**2.21 (.63)**	**1.43 (1.04)**	--	--	.004 (means)
0 = None	--	--	0.0%	18.5%	
1 = Minor	--	--	0.0%	16.7%	.001 (χ^2)
2 = Moderate	--	--	42.3%	42.6%	
3 = Serious	--	--	57.7%	22.2%	
Mental Health Diagnosis Status Rating :	1.58 (.69)	1.21 (1.01)	--	--	.154 (means)
0 = Full Remission	--	--	3.8%	18.9%	
1 = Persistent, but improving	--	--	7.7%	24.5%	
2 = Persistent, but stable	--	--	80.8%	49.1%	.039 (χ^2)
3 = Persistent, but worsening	--	--	7.7%	7.5%	
Number of Days for Psychiatric Hospitalizations	19.95 (83.62)	3.32 (22.75)	--	--	.404†
Number of Mental Health Emergency Department Visits	.21 (.53)	.23 (.60)	--	--	.882
Previous Engagement in Intervention Rating:	1.23 (.68)	.89 (.79)	--	--	.094 (means)
0 = None	--	--	13.6%	37.0%	
1 = Partial	--	--	50.0%	37.0%	.142 (χ^2)
2 = Good	--	--	36.4%	26.1%	
Intimate Partner Relationship Quality Rating :	.73 (.72)	.48 (.61)	--	--	.110 (means)
0 = No relationship	--	--	42.3%	57.4%	
1 = Unstable or chaotic	--	--	42.3%	37.0%	.243 (χ^2)
2 = Stable, functional	--	--	15.4%	5.6%	
Family Relationships Quality Rating :	1.35 (.56)	1.35 (.55)	--	--	.966 (means)
0 = No relationship	--	--	3.8%	3.7%	
1 = Unstable or chaotic	--	--	57.7%	57.4%	.999 (χ^2)
2 = Stable, functional	--	--	38.5%	38.9%	

CASE VARIABLE	Admitted MHC Group M (SD)	Non-Admitted TAU Group M (SD)	Admitted MHC Group %	Non-Admitted TAU Group %	P-VALUE
Employment Status Rating :	1.31 (1.57)	.78 (1.24)	--	--	.105 (means)
0 = Unemployed	--	--	53.8%	66.7%	
1= Casual or inconsistent	--	--	3.8%	9.3%	.254 (χ^2)
2 = Regular, part-time	--	--	11.5%	5.6%	
3 = Regular, full-time	--	--	19.2%	16.7%	
Educational Status:					
1 = Elementary	**--**	**--**	**4.3%**	**8.0%**	
2= Junior High	**--**	**--**	**13.0%**	**26.0%**	
3 = Partial High School	**--**	**--**	**56.5%**	**18.0%**	
4 = Complete High School	**--**	**--**	**4.3%**	**30.0%**	**.007 (χ2)**
5 = Partial college or university	**--**	**--**	**21.7%**	**18.0%**	
6 = Complete college or university	**--**	**--**	**0.0%**	**0.0%**	
Stability of Living Arrangements Rating:	4.04 (1.40)	3.91 (1.51)	--	--	.711 (means)
0 = Street	--	--	11.5%	18.5%	
1 = Unstable	--	--	3.8%	1.9%	
2 = Custody or Hospital	--	--	11.5%	0.0%	
3 = Supervised community home	--	--	15.4%	29.6%	.070 (χ^2)
4 = Family, stable	--	--	57.7%	50.0%	
5 = Independent, stable	--	--	0/0%	0.0%	
Adequacy of Financial Resources Rating:	2.38 (.80)	2.02 (79)	--	--	.057 (means)
0 = No resources	--	--	3.8%	5.6%	
1 = Resources from family	--	--	3.8%	13.0%	
2 = Some personal resources, but insufficient	--	--	46.2%	55.6%	.254 (χ^2)
3 = Personal resources, sufficient	--	--	46.2%	25.9%	
LS/RNR Risk-Need Sections (at Referral to MHC)					
LS/RNR Total General Risk Section Score:	**11.40 (7.47)**	**16.11 (8.08)**	**--**	**--**	**.016**
Criminal History	**1.32 (1.49)**	**2.83 (2.43)**	**--**	**--**	**.005**
Education/employment	2.64 (2.43)	3.68 (2.61)	--	--	.095
Family/Marital Problems	**1.04 (0.98)**	**1.59 (1.12)**			**.038**
Leisure/Recreation	**.76 (0.83)**	**1.22 (0.74)**	**--**	**--**	**.016**
Companions	.72 (1.21)	1.15 (0.83)	--	--	.174
Drug/Alcohol Problem	3.76 (2.76)	3.44 (2.70)	--	--	.633
Procriminal Attitudes	.64 (0.91)	1.11 (1.24)	--	--	.093
Procriminal Orientation	.56 (0.87)	1.00 (1.03)	--	--	.068

CASE VARIABLE	Admitted MHC Group M (SD)	Non-Admitted TAU Group M (SD)	Admitted MHC Group %	Non-Admitted TAU Group %	P-VALUE
LS/RNR Specific Risk Section Score	4.95 (2.58)	5.16 (2.69)	--	--	.761
LS/RNR Other Client Issues Section Score	4.20 (2.93)	3.81 (2.59)	--	--	.555
LS/RNR Responsivity Section Score	1.80 (1.00)	1.75 (1.33)	--	--	.868
Criminal Variables					
Most Serious Index Offence Ranking	16.38 (5.07)	15.78 (4.80)	--	--	.606
Most Serious Prior Offence Ranking 12 months before MHC referral	**11.30 (5.96)**	**16.53 (5.14)**	**--**	**--**	**.010**
Total Number of Prior Charges as an Adult:	**2.15 (3.63)**	**12.87 (21.17)**	**--**	**--**	**.001†**
Assault	--	--	23.1%	44.4%	.064
Weapons-related	--	--	15.4%	16.7%	.884
Robbery	--	--	0.0%	3.7%	.320
Uttering Threats	**--**	**--**	**3.8%**	**22.2%**	**.037**
Dangerous Driving/DUI	--	--	23.1%	27.8%	.654
Break and Enter	**--**	**--**	**0.0%**	**20.4%**	**.013**
Theft-related	**--**	**--**	**19.2%**	**46.3%**	**.019**
Fraud/Forgery	--	--	0.0%	1.9%	.082
Mischief / Property Damage	**--**	**--**	**0.0%**	**33.3%**	**.001**
Drug Possession	--	--	3.8%	11.1%	.281
Drug Trafficking / Cultivating	--	--	0.0%	3.7%	.320
Prostitution/Soliciting	--	--	0.0%	0.0%	--
Sexual Crime	--	--	0.0%	3.7%	.320
Breach of court order	**--**	**--**	**19.2%**	**50.0%**	**.009**
Resisting Arrest / Obstruction	--	--	15.4%	9.3%	.417
"Other" offence	--	--	15.4%	24.1%	.374
Total Number of Prior Charges in 12 Months Before MHC Referral	.85 (2.96)	2.37 (5.33)	--	--	.179
Number of *Index* Charges Referred to MHC:	3.08 (1.79)	4.46 (4.74)	--	--	.063†
Assault	--	--	3.8%	0.0%	.054
Weapons-related	--	--	23.1%	14.8%	.362
Robbery	--	--	3.8%	3.7%	.975
Uttering Threats	--	--	8.0%	16.7%	.301
Dangerous Driving/DUI	--	--	24.0%	14.8%	.320
Break and Enter	--	--	7.7%	7.4%	.964
Theft-related	--	--	23.1%	31.5%	.437
Fraud/Forgery	--	--	3.8%	7.4%	.538

CASE VARIABLE	Admitted MHC Group M (SD)	Non-Admitted TAU Group M (SD)	Admitted MHC Group %	Non-Admitted TAU Group %	P-VALUE
Mischief / Property Damage	--	--	**0.0%**	**16.7%**	**.027**
Drug Possession	--	--	0.0%	5.6%	.221
Drug Trafficking / Cultivating	--	--	3.8%	3.7%	.975
Prostitution/Soliciting	--	--	0.0%	0.0%	--
Sexual Crime	--	--	0.0%	1.9%	.485
Breach of court order	--	--	**15.4%**	**42.6%**	**.016**
Resisting Arrest / Obstruction	--	--	19.2%	7.4%	.117
"Other" charge	--	--	0.0%	7.4%	.154
History of Incarceration (Yes)	--	--	**0%**	**29.6%**	**.002**
Number of Separate Periods of Custody	**0 - none**	**1.41 (3.07)**	**--**	**--**	**.025‡**
Number of Days in Custody (past 12 months)	0 - none	10.22 (30.62)			.094‡
History of Remand (Yes)	--	--	19.2%	31.5%	.250
Number of Days in Remand (past 12 months)	2.38 (7.14)	11.54 (46.74)	--	--	.165†

Note. M = average; SD = standard deviation of the average; χ^2 = chi-square; *p-value* = criterion for determining statistical significance of the comparison in which a p-value of ≤ .05 was used as the criterion for statistical significance. When the p-value falls at or below .05 it means that the identified difference between groups has a 95% probability of representing a true population group difference with a 5% probability of error. For ease of visual identification, statistically significant group differences are shaded in beige.
†adjusted for unequal variances
‡zero variance in MHC prevented adjustment for unequal variances