AN EXAMINATION OF PREDICTIVE VARIABLES OF SUCCESS IN MENTAL HEALTH DIVERSION PROGRAMS

By

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Abstract

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Diversion programs were developed to ease the overrepresentation of individuals with psychiatric disorders in the criminal justice system. These programs divert individuals with mental illnesses out of jails into community treatment. Despite the increased popularity of these programs, little is known about the psychosocial, psychiatric and psychological characteristics of the diverted individuals. In addition, despite the importance of using standardized assessment instruments pre-diversion, no published study has attempted to evaluate the utility of risk assessment instruments or measures of malingering, personality or psychopathology in diverted offenders. This investigation attempted to address this gap in the literature through three different studies that (1) described a sample of 61 defendants released from jail in terms of demographical, clinical, and criminological characteristics; (2) determined the utility of the HCR-20 violence risk assessment scheme and the Psychopathy Checklist: Screening Version (PCL: SV) in the prediction of diversion non-compliance, and recidivism in a sample of 120 defendants, and (3) identified alternative factors that help defendants succeed in diversion through a multiple case-study design. Results revealed that this sample consisted primarily of minority male defendants with extensive histories of prior arrests,

significant histories of physical abuse, homelessness and suicidality, and co-morbid substance abuse and psychiatric disorders. The findings provided preliminary validation of the predictive validity of the HCR-20 and PCL: SV with defendants diverted to community treatment. The HCR-20 was found to be superior to the PCL: SV in predicting both non-compliance and recidivism, and the PCL: SV proved to be more useful in predicting recidivism than non-compliance. Results of multiple case-studies found a pattern of characteristics shared by participants who failed diversion regardless of HCR-20 results. These variables included history of physical abuse, family history of substance abuse or criminal behavior, levels of social support, and level of responsibility taken for the instant offence.

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CHAPTER I

INTRODUCTION

Thesis

Nearly 700,000 people with severe mental illness are admitted to national jails each year (Steadman, Cocozza, & Vesey, 1999). National surveys show that between 6% and 15% of all jail inmates and 10% to 15% of prison inmates have a severe mental illness (Lamb & Weinberg, 1998). Mentally ill individuals are admitted to jails at approximately eight times the rate at which they are admitted to public psychiatric hospitals (Torrey et al., 1993). To alleviate the overrepresentation of individuals with mental illness in jails and prisons, approximately 30 years ago criminal justice diversion programs were created. The main goals of these programs are to identify mentally ill defendants and to divert them to treatment programs in the community, in lieu of incarceration (Steadman et al., 1999). However, because the creation of diversion programs responded to the frustration of the criminal justice system in processing a high volume of persons with serious mental illness, and not to any data demonstrating their efficacy (Steadman, Davidson & Brown, 2001), several important flaws can be identified in the functioning of these programs.

Some of the questions that remains unanswered after 30 years of diverting individuals from jail into community mental health treatment placements include what type of population is being diverted in terms of demographic, clinical and criminological characteristics, and what type of defendants are more likely to benefit from these programs. Despite the widespread support for diversion, the amount of research

describing this population, or evaluating the effectiveness of these programs is very limited. Few diversion programs have examined the effectiveness of criminal justice diversion programs using client outcome data (Steadman et al., 1999a). A review of the literature shows that there is limited research on the outcomes of post-booking diversion programs and mental health courts relative to their proliferation.

In addition to the scarce research in this area, results from the available studies are difficult to compare given the different methodologies employed, different participant inclusion characteristics, different criteria for evaluating program effectiveness, and the use of gross outcome measures. However, it is safe to state that individuals diverted and monitored by a mental health court or a jail diversion program receive better linkages to the community, more treatment services, and show a reduction in re-incarceration rates. These conclusions are based on a review of follow-up outcome studies of individuals diverted through mental health courts or diversion programs, or comparison studies of individuals diverted through a mental health court versus individuals receiving treatment as usual in a regular misdemeanor court (Cosden, Ellens, Schnell, Yamini-Diouf & Wolfe, 2003; Steadman et al., 1999a; Steadman et al., 1999b).

A major limitation of the research to date is that standardized psychological assessment instruments have not been used to screen individuals for eligibility for diversion. The forensic psychology literature has identified several psychological constructs that have been associated with important outcome variables like treatment adherence and compliance or risk for violent behavior and recidivism. Furthermore, in recent years, several instruments have been developed and shown to be reliable in the assessment of these psychological constructs.

Despite the importance of the evaluation of these outcome variables for the successful functioning of criminal justice diversion programs, studies to date have failed to systematically examine the usefulness of these instruments in the context of criminal justice diversion. Specifically, diversion programs and mental health courts have not examined the usefulness of diagnostic screening instruments to appropriately assess the participant's diagnosis including personality disorders and psychopathy. In addition, no research to date has used any instrument to assess for malingering and symptoms exaggeration, or risk for future violence in the context of criminal justice diversion.

Due to the lack of comprehensive examinations, many individuals who are not mentally ill or may not be good candidates for diversion are likely to be placed in different treatment programs. In addition, the lack of thorough assessments would prevent mentally ill individuals to be appropriately matched with treatment providers. Even though diversion programs are growing in number, community based services are very limited. Typically, once a detainee has been accepted for diversion, linkage with the appropriate treatment program can be delayed and placing defendants can take several months. A considerable number of those accepted for diversion wait in jail for long periods of time. Some have argued that due to restrictions in the number of programs available, community providers might cut back on the services offered to those already in treatment in order to admit court mandated clients (Wolff, 2002). A follow-up study of over 1,000 individuals diverted through a mental health court, found that about one-fifth of those diverted were re-diverted through the same program at least once due to a new arrest leading to re-incarceration (Boccaccini, Christy & Poythress, 2005). These facts stress the significance of diverting individuals who have a real need for treatment

services and points to the importance of targeting the appropriate population for diversion.

Particularly troublesome is the fact that very few diversion programs utilize any formal risk assessment evaluation prior to releasing mentally ill defendants to the community. In addition, no published studies are available that have validated any risk assessment instrument in the context of criminal justice diversion. It is easy to imagine that if diverted individuals engage in violent behaviors and recidivism, the existence of these programs may be jeopardized. The goal of diverting the mentally ill from the criminal justice system should not be attained at the expense of public safety. As stated by Cohen and Roberts (2002) the duty of the district attorney is to protect the public. Every prosecutor's nightmare is "reading that headline the next morning that the mentally ill trespasser whose charges the well-intentioned prosecutor had dropped today had become the cop killer of tomorrow" (p. 258). Assessing the likelihood of future violence and recidivism should be an essential goal for clinicians who make decisions regarding individuals' eligibility for diversion.

The present study was intended to address some of the gaps in the literature by providing descriptive information about the population being diverted from the criminal justice system into court mandated treatment. In addition, this study attempted to determine whether the predictive validity of two widely used risk assessment tools extended to the context of criminal justice diversion. Because of the scarce financial and human resources usually available in diversion programs, this study attempted to determine which risk assessment tool proved to be the most useful in this context by comparing the predictive validity of these instruments. Finally, a multiple-case study

design was conducted to develop alternative hypotheses about the factors that impact diversion compliance beyond those included in the most frequently used risk assessment tools.

The following literature review begins with a conceptual definition of diversion and a review of the available research in criminal justice diversion. It next addresses the importance of incorporating psychological instruments that assess psychopathology, personality disorders, psychopathy, and malingering pre-diversion. Finally, this review summarizes the research on risk assessment with a special emphasis on the risk assessment tools used in this study.

Literature Review

Diversion Programs and Mental Health Courts: Conceptual Matters and Review of the Research

Deinstitutionalization in the 1960s and 1970s has been identified as playing an important role in the overrepresentation of mentally ill individuals in the criminal justice system (Barr, 1999; Lamb & Weinberger, 1998). Over 85% of patients from state psychiatric hospitals were discharged during this period and returned to the community without adequate treatment. Due to the lack of proper community supports, many became homeless or were arrested resulting in a "revolving door" of repeated incarcerations (Shaefer & Stefanic, 2003). This overrepresentation of individuals with psychiatric disabilities in the criminal justice system has translated into more mentally ill individuals being treated in jails around the country than in psychiatric hospitals. For instance, on any given day, there are approximately 7, 680 people with mental illness in New York State's

jails and prisons. At least 2,850 of those are in the New York City jail system, making Rikers Island the state's largest psychiatric facility (Barr, 1999).

Mentally ill individuals face additional difficulties when incarcerated. Treatment services in jails and prisons are usually insufficient (Broner, Landsberg, Mayrl, & Rock, 2002). These individuals are less able to protect themselves and may experience bizarre symptoms and behavioral disorganization that make them more susceptible to victimization and segregation as a result of disruptive behavior (Barr, 1999). While incarcerated, mentally ill inmates lose contact with their families and community mental health services. Frequently disability benefits are terminated once arrested. As a result, when mentally ill individuals are released from jail, their problems may have been aggravated (Barr, 1999). Additionally, inmates who suffer from psychiatric disorders are often co-morbid for substance abuse difficulties. Some estimates indicate that eighty percent to ninety percent of inmates with psychiatric disorders have co-occurring substance abuse problems (Broner, Borum, Whitmire, & Gawley, 2002).

To break this continuing cycling of mentally ill offenders through the criminal justice system, criminal justice and mental health professionals and advocates have called for efforts to divert offenders with mental illness from jails and prisons and to link them to community based mental health and social services (Steadman et al., 1999a). An attempt to address this problem has translated into the creation of jail diversion programs and mental health courts. The establishment of such programs was a major recommendation of the National Coalition for Jail Reform as early as the 1970s, and over the past 30 years significant progress has been made in the creation and implementation of these programs.

Steadman et al. (1999b) defined jail diversion as "specific programs that screen detainees in contact with the criminal justice system for the presence of mental disorder. They employ mental health professionals to evaluate the detainees and to negotiate with prosecutors, defense attorneys, community based mental health providers, and the courts to develop community-based mental health dispositions for mentally ill detainees (p. 1620)." Diversion programs can be classified in two categories according to the point of criminal justice contact at which the diversion occurs. Pre-booking diversion occurs before a subject is arrested or formal charges have been filed. Post-booking diversion (court or jail based) occurs after arrest and formal charges have been filed (Broner et al., 2002). In 1992, a national survey estimated that 52 jail diversion programs existed in the country (Steadman, Morris, & Dennis, 1995). Today, there are over 300 of these programs operating nationally (Steadman & Naples, 2005). As part of a larger movement of therapeutic jurisprudence (Wexler, 2001), mental health courts were developed as a type of post-booking diversion program where all defendants are handled in a single court docket (Steadman, Davidson, & Brown, 2001). There has also been a rapid increase in the number of these special jurisdiction courts from one in 1997 to approximately 100 today (National GAINS Center, 2004).

Post-Booking Diversion. Despite the extensive support for diversion, there are few empirical outcome studies of post-booking diversion programs. Indeed, a review of the literature yielded only seven published studies. Each used different methodologies and employed different outcome measures that have addressed program efficacy. Steadman et al (1995) conducted the first systematic study of mental health diversion programs. Descriptive in nature this study examined the number, nature and organization

of jail diversion programs. On the basis of information gathered from a national mail and follow up telephone survey of 115 responding jails, this study selected 18 sites for on-site interviews based on perceived effectiveness and presence of a formal diversion program. In this study it was estimated that only 52 of these programs existed in the country. When the major diversion programs were examined, five key elements were associated with the highest rates of success. All relevant mental health, substance abuse, and criminal justice agencies were involved in program development, regular meetings between key personnel from the various agencies were held, integration of services was encouraged through the efforts of a liaison person, the programs had strong leadership and non-traditional case management approaches were used. In view of these findings, the authors reported that controlled, longitudinal studies of program effectiveness were much needed (Steadman et al., 1995).

Lamb, Weinberger and Reston-Parham (1996) analyzed the outcomes of a post-booking diversion program in Los Angeles. Their study evaluated clinical and forensic records of 96 individuals charged with misdemeanors and referred to a clinical psychologist court consultant. Participants were followed up to one year. Poor outcomes were defined as psychiatric hospitalizations, arrests, significant physical violence against persons, or homelessness during the follow-up year. Although 54% of the sample had a poor outcome, a significantly larger proportion of participants who were diverted to receive judicially monitored treatment had a good outcome compared with subjects who were not mandated to receive monitored treatment. An important methodological concern of this study was the inclusion of psychiatric hospitalization in the poor outcome

category. Hospitalization could have been viewed as evidence that the mental health system was working as intended with a likely reduction in the use of incarceration.

A third study (Hoff, Rosenheck, Baranosky, Buchanan, & Zonana, 1999) evaluated retrospectively a cohort of jail inmates with the purpose of determining the effectiveness of a jail diversion program in a midsized New England city. The outcome measure used in this study was the reduction in the length of incarceration in a sample of 252 defendants with substance abuse, some of who were dually diagnosed. It was concluded that detainees who were enrolled in the diversion program after arrest had significantly reduced jail time when compared to a similar group who would have been eligible for diversion but were not enrolled. However, results suggested that diversion significantly reduced jail time only among those who were arrested for the more serious minor offenses that are associated with longer jail sentences. Effectiveness of the program once the detainee was released to the community was not studied.

The Project Link diversion program in Rochester, New York is the fourth program that was evaluated (Weisman, Lamberti & Price, 2004). Data was collected on the first 44 patients to complete one year of enrollment in the program. Engagement in substance abuse treatment was assessed through administration of the Substance Abuse Treatment Scale (SATS.) This study included detainees with both violent and nonviolent misdemeanors and felony convictions. Data was collected at enrollment and after one year of program participation. Diversion resulted in a significantly lower number of re-arrests, incarcerations and hospitalizations per patient as well as significant improvement in SATS scores after one year.

Steadman et al. (1999a) compared the outcomes for diverted and non-diverted jail detainees with mental illness in a medium-size Midwestern city. This project represents the first study to employ a formal clinical instrument (Symptom Checklist-90; SCL-90) to evaluate psychiatric symptomatology at program entry. Eighty subjects arrested for misdemeanors or non-violent offenses participated in the study. Thirty-five were successfully diverted, while 45 were not diverted and continued with usual criminal justice procedures. Participants were interviewed at baseline and after a period of two months to allow sufficient time for subjects to be engaged in community and/or jail services. Significant differences for baseline psychopathology between diverted and non-diverted existed only in the paranoid ideation subscale of the SCL-90, on which the diverted group exhibited less severe symptoms. Additionally, diverted individuals reported a higher number of hospitalizations. According to the authors this result is not surprising because diverted subjects are more closely monitored in the community and therefore, brief hospitalizations may be an appropriate part of the treatment plan. The short follow-up period was addressed as an important limitation of this study.

The National Gains Center study (2002) in New York City is one of the few programs that diverts felony offenders and does not reject a potential client based on the severity of their charges. This evaluation project measured four key indicators of program success: public safety, retention, treatment, and housing in 53 participants. In its first year the reported number of arrests was reduced after 12 months of program participation, the percent of participants with housing increased after a year, and program retention was 88% at six months and 80% at two years. Unfortunately, this report did not compare outcomes between violent and non-violent offenders.

A quasi-experimental longitudinal study of 248 individuals with co-occurring substance use and serious mental illness who were arrested for misdemeanor offenses by local law enforcement officials was conducted in two urban communities of Arizona (Shafer, Arthur, & Franczak, 2004). This study compared two conditions (jail diversion versus no jail diversion) to which participants were assigned non-randomly based on decisions made by the mental health and criminal justice systems. Psychological assessment was employed at baseline before diversion and at periods three months and twelve months later. Instruments administered to assess for drug addiction and psychiatric symptoms included the Michigan Alcohol Screening Test (MAST), the Drug Abuse Screening Test (DAST), and the Colorado Symptom Inventory (CSI).

The diversion alternatives in this study differed from the most common types of diversion programs in terms of the conditions of the individual's release. The three post-booking diversion alternatives included conditional release, summary probation, and deferred prosecution. Conditional release permits the client to be released from jail while awaiting trial or prior to entering a plea. Deferred prosecution involves postponing legal proceedings for a period of time, while summary probation consists of a specific time of supervised or unsupervised probation in lieu of jail time. Of the individuals diverted, 86 individuals received a conditional release, five received summary probation, and 48 received deferred prosecution (Shafer et al., 2004). The first two diversion alternatives differ from the diversion programs aforementioned in that the person does not need to enter a guilty plea, which is frequently a requirement for program participation.

Shafer et al. (2004) suggested that post-booking jail offers a safe and reasonable alternative to prosecution and incarceration. They demonstrated that individuals who

were diverted displayed no greater number of new arrests and criminal behavior that those individuals who were not diverted. The authors concluded that diverting individuals with co-occurring disorders poses no substantial increase in safety risks to the community. A more discouraging finding was the lack of treatment effects with regard to diversion status. Participants generally displayed no significant changes in their rates of accessibility to, or frequency of use of various mental health and substance abuse services. Furthermore, across all measures assessing mental health or substance abuse, study participants displayed improvements over time though there were no differences between the groups with regard to the rate or level of improvement.

Finally, there is one study (Broner et al., unpublished) that constitutes the most exhaustive evaluation project, the third study to employ formal clinical screening, and the first study to administer risk assessment tools to the diverted population. Results from one of their sites, NYC-LINK, reported in an unpublished manuscript, suggested that diverted participants spent less time in state prisons, tended toward less jail time, and used community emergency room services less frequently than did the comparison group of non-diverted participants. The primary factors predicting re-arrest were participation in the diversion program and mental health treatment. Mental health or integrated treatment had a significant positive effect on reduced recidivism at both three and twelve months. Medication compliance was a significant predictor of less time spent in jail. Medication compliance was also inversely associated with risk for violence, and acute psychiatric symptoms over the course of the year. Individuals with more severe symptoms at baseline tended to improve the least over time and mandated treatment predicted greater

improvement in psychiatric symptom scores at three months, but this effect was not maintained at 12 months.

Participants with higher baseline psychopathy and violence risk scores were re-arrested more for felonies and re-incarcerated more frequently in general irrespective of diversion status. Those with higher baseline childhood trauma scores also had higher rates of re-arrest and re-incarceration. However, none of these differences were maintained at twelve months potentially due to selective survival of subjects still in the community. Out of the 152 subjects that completed the three-month assessment, just 92 completed the 12-month follow-up interviews, which according to the authors may have impacted the study's results (Broner et al., unpublished).

In summary, studies that have evaluated diversion programs have primarily focused on describing the defining characteristics of diversion (Steadman et al., 1995) or comparing different outcome variables (that differ among studies) between defendants participating in diversion and those participating in regular misdemeanor courts (Hoff et al., 1999; Lamb et al., 1996; Shafer et al., 2004; Steadman at al., 1999a). A third type of study compared the rate of incarcerations within the same defendants pre and post diversion (National Gains Center, 2002). However, these studies did not provide rich descriptive information about the defendants being selected for diversion, and did not study what types of characteristics make these defendants more likely to comply with diversion. Only one study (Broner et al., unpublished) looked at predictive variables of success and found that scores on the PCL: SV, HCR-20 and history of childhood trauma predicted recidivism and diversion compliance.

Mental Health Courts (MHC). Mental health courts are special jurisdiction courts developed to apply a rehabilitative philosophy to certain types of cases. These courts often rely on the assumption that treatment and other types of problem solving responses are more appropriate than punishment for some individuals (Petrila, 2003). Mental health courts are based on the principles of therapeutic jurisprudence (Winick & Wexler, 2003). This term was first used in 1987 by David Wexler in the context of mental health law referring to "the study of the extend to which substantive rules, legal procedures, and the roles of lawyers and judges produce therapeutic or anti-therapeutic consequences for individuals involved in the legal process" (Hora, 1999, p. 439, as cited in Winick & Wexler, 2003). Another movement consistent with the emergence of therapeutic jurisprudence was also originating at around the same time. In 1989, the first drug treatment court introduced drug treatment principles for addicted criminal defendants (Watson, Luchins, & Hanrahan, 2000). Drug treatment courts have been the most popular special jurisdiction courts. The first treatment-oriented drug court was established in 1989, and as of January 2000 drug courts had been established in more than 440 United States jurisdictions. Mental health courts have become the latest special jurisdiction courts to gain popularity (Petrila, 2003).

The first official MHC in the United States was developed in 1997 in Broward County. Since the establishment of this court, 34 states have since developed at least one MHC (Redlich, Steadman, Monahan, Robbins, & Petrila, 2006). In the year 2000, President Clinton signed Senate Bill 865 into law (Public Law 106-515, America's Law Enforcement and Mental Health Project) to provide states with grants to establish up to 100 demonstration MHCs (Watson, Hanrahan, Luchins, & Lurigio, 2001). Each MHC

attempts to divert defendants into treatment programs as soon as possible after the arrest. Most of them accept for diversion only individuals charged with non-violent offenses. These courts differ in a number of ways such as whether a guilty plea is necessary prior to entry to the program and whether punishment should be used for noncompliance with treatment (Petrila, 2003).

Steadman, Davidson, and Brown (2001) proposed four characteristics shared by all MHCs: All mentally ill defendants are handled on a single court docket, there is a collaborative team which includes a clinical specialist who recommends and make linkages to treatment, availability of appropriate clinical placement is assured prior to the judge making a ruling regarding diversion, and the court places specialized monitoring on participants with possible sanctions for noncompliance. In addition, Redlich (2005) added that MHCs vary in the required inclusion criteria. Some MHCs require that participants meet the criteria for serious and persistent mental illness whereas others are less strict and require only "demonstrable mental health problems" (p. 607) and not necessarily an Axis I psychiatric diagnosis. Second, all MHCs mandate some type of community mental health treatment. Moreover, most MHCs report that participants are not forced to take medication. However, defendants are often excluded from participation if they refuse to take the prescribed medication. Medication non-compliance is often considered a violation of the conditions of their release resulting in subsequent sanctions such as reprimands from the judge, increased supervision time, and remand to jail. Jail as a sanction is usually considered as a last resort when all other penalties have failed Redlich (2005).

Additional requirements usually include regular court review hearings, meetings with case managers or counselors, and repeated toxicology exams. In addition to avoiding jail or prison, participants receive additional incentives for successfully complying with the negotiated treatment plan. Frequently charges are either dropped or reduced, or the initial conviction is vacated. Finally, participation in all MHCs is voluntary, "potential participants must choose to enroll in the court on their own accord (Redlich, 2005)."

Despite the common features shared by all MHCs, they also present with important variations. In fact, after comparing eight long existing courts with seven courts that had not been previously described in the psycholegal literature, Redlich, Steadman, Monahan, Petrila, and Griffin (2005) distinguished between first and second generation MHCs. They used four dimensions to describe the second generation of MHCs. First, newer courts are more open to accept felony charges. Of the eight first-generation courts, only two accepted felonies whereas all of the second generation accepted felonies. In addition, courts in the second generation were more open to accept violent offenses, applying a "totality of the circumstances approach" (p. 534). For instance, Redlich et al. (2005) described a MHC that accepted a female accused of killing their children.

Second, newer MHCs are more likely to use post-plea adjudication models. Six of the second-generation of MHCs only enrolled participants after they had entered a plea. As a result, MHCs' participants are being referred later on the criminal justice process. First generation courts tend to refer defendants within the first 48 hours after their arrest, while the time from referral to enrollment ranged from 0 to 129 days in the second-generation courts. Third, second generation courts are more likely to use jail as a sanction. Possibly as a consequence of accepting more felonies, second generation courts

were more willing to remand participants to jail as a result of noncompliance. However, many of the courts studied by Redlich et al. (2005) reported that although jail was effective to regain compliance in some participants, it had a detrimental effect on others. Finally, as opposed to first-generation courts that use a combination of mental health court workers, community mental health providers, and probation officers to supervise participants, second-generation courts are more likely to utilize staff linked to the MHC. First generation courts are more likely to only use community mental health providers for supervision, while six of the second-generation courts used both treatment providers and personnel linked to the MHC to monitor participants' progress.

As is the case with post-booking diversion research, a limited number (i.e., six studies) of attempts have been made to evaluate or empirically study existing MHCs. The MacArthur foundation supported an outcome evaluation of the Broward MHC that constitutes one of the most extensive available evaluations. This project did not assess success of the diversion but compared the volume of clinical services utilized by diverted versus non-diverted defendants. Results indicated that the MHC significantly impacted the volume of services a defendant received (Boothroyd, Poythress, McGaha, & Petrila, 2003). The same authors also evaluated the perceived coercion in the Broward MHC's clients and found that the majority of defendants did not perceive involvement with the court as being coercive (Poythress, Petrila, McGaha, and Boothroyd, 2002).

Trupin and Richards (2003) evaluated the effectiveness of two MHCs in Seattle. The King County District Mental Health Court (KCMHC) was formally instituted in 1999. In the same year the Seattle Municipal Court began operating as a MHC (SMMHC). Data was collected for a total of 404 misdemeanants. For KCMH the follow-

up period was 13 months; for SMMHC the follow-up period was five months. Results showed that in most cases, there was a reduction in the rate of re-arrests and severity of criminal justice sanctions and an increase in received treatment. The authors identified the lack of standardized clinical assessment as a limitation of their study and recommended the use of psychological assessment instruments in addition to the diagnoses assigned by MHC clinicians, probation counselors and mental health providers, as measures to include in evaluation of program effectiveness.

Cosden, Ellens, Schnell, Yamini-Diouf, & Wolfe (2003), who conducted the first randomized MHC evaluation, compared outcomes of a sample of individuals enrolled in a MHC with those of individuals who received Treatment as Usual (TAU), which consisted of adversarial criminal processing and less intensive mental health treatment. Though Cosden et al. (2003) found few differences between groups with regard to quality of life and psychological distress; MHC participants were reported to have demonstrated greater gains in the areas of drug use and development of independent living skills. This study administered four assessment instruments to clients at each time interval (six and twelve months). Two were self-administered: the BASIS-32, and the Lehman Quality of Life Scale-Short Form (QOL-SF). Significant attrition in both groups seriously confounded the results of this study.

Even though the aforementioned studies show some positive results in terms of efficacy of MHCs, they do not specifically assess whether linkage to treatment resulted in a decrease of psychiatric symptoms. To address this limitation, a recent study examined changes in symptoms in a sample of 97 defendants in Broward County MHC and compared them with a sample of 77 defendants from a regular misdemeanor court in a

different county. To measure clinical symptoms, the Brief Psychiatric Rating Scale-Anchored Version (BPRS) was administered. This measure yields a global index of the severity of current psychopathology. The BPRS was administered at one, four and eight follow-up interviews. The authors used an analytical approach that allowed determining whether significant changes occurred in the defendant's clinical status during the eight months after the initial court appearance (Boothroyd, Mercado, & Poythress, 2005).

Results of this study were somewhat discouraging as all defendants showed greater severity of symptoms over time. Furthermore, defendants in the mental health court experienced a slightly larger increase in total BPRS scores when compared to the defendants who did not receive any services. The authors of this study point to the fact that these results were more likely to be related to the quality of treatment programs in these counties than to the effectiveness of the MHC, raising the question of whether MHCs should have greater control over the services to which defendants are referred. Mental health courts around the country provide an important linkage to community treatment programs but these courts have little influence over the type and quality of services that the defendants receive (Boothroyd et al., 2005).

Results of a study conducted in a MHC located in the Southeastern United States supported the statement that participating in these courts results in a decrease in the number and severity of new arrests (Moore & Hiday, 2006). This study compared 82 participants of the MHC with a control group of 183 defendants who participated in traditional criminal court (TCC) a year before the MHC was created in the same county. Although the participants were not randomly assigned to the two groups for ethical reasons, researchers carefully selected the control group to make it as equivalent to the

experimental group as possible. Results suggested that participating in the MHC decreased the participants' number and severity of re-arrests when compared to TCC participants. An important finding of this study was that participants who fully completed the MHC's treatment requirements experienced the least number and severity of re-arrests compared to participants that did not comply with all the stipulated requirements. This suggests that MHCs are effective in reducing recidivism only when participants entirely complete the treatment and supervision requirements (Moore and Hiday, 2006).

Finally, Redlich et al., (2006) conducted a national survey of the 90 MHCs, servicing some 7,560 clients, in the United States. Ninety two percent of the MHCs used jail as a sanction. An interesting finding of this survey was that the more closely supervised a client was the more the likelihood of using jail time as a sanction. In other words, an increase in supervision was correlated to an increase in jail time. The authors hypothesized that the more intense the supervision defendants receive, the more like they are to be "caught" (p. 358) if they violate any of the conditions of their release.

As it is the case with post-booking diversion research, most of the studies on MHCs have focused on comparing outcome data (that varies among studies) between participants of MHCs and those being processed through regular criminal courts (Boothroyd et al., 2003; Cosden et al., 2003; Moore & Hiday, 2006) or comparing rates of recidivism among the same defendants pre and post-diversion (Trupin & Richards, 2003). Only one study assessed symptom change and found that defendants showed an increase in the severity of symptoms over time regardless of diversion status (Boothroyd et al., 2003). Therefore, there is currently no evidence to state that defendants'

symptomatology improves as a result of court-mandated treatment. None of these studies assessed what types of defendants are more likely to benefit from diversion.

Diagnostic Screening

Four studies (Boothroyd et al., 2005; Cosden et al., 2003; Shafer et al., 2004; Steadman et al., 1999b) have investigated diversion programs that used any form of standardized instruments pre-diversion to assess the type and severity of psychiatric symptoms. Generally, decisions regarding eligibility for diversion are based on self-reports of psychiatric hospitalizations, administrative reports of history of mental illness or defense attorney's reports of psychiatric symptoms that they have observed in their clients. Despite the high prevalence of co-occurring disorders in the incarcerated population, their existence is not always evident from the defendant's arrest charge or mental status. Therefore, unless clinical screening is implemented, the target population may not be correctly identified (Broner et al., 2002). It is therefore necessary for criminal justice diversion programs to include psychological assessment instruments that could provide with an overall evaluation of the defendant's psychopathology beyond the psychiatric diagnosis provided by the jail psychiatrist. This would help case managers and treatment providers to make an appropriate selection of the type of services that the defendant needs.

Personality Disorders

The inclusion of psychological assessment instruments in criminal justice diversion programs could also assist in the assessment and diagnosis of personality disorders. There has been an increased interest in the prevalence of personality disorders in the incarcerated and forensic population and an increased concern about the efficacy of

treatment for these types of patients (Evershed et al., 2003). Hart (2002, p. 510) considered "ironic" that for the last half of the 20th century, both research and practice in forensic mental health have concentrated more on Axis I diagnoses than personality disorders when historically, the first clinical descriptions provided in forensic settings constitute what we call today personality disorders.

The assessment of personality disorders in the diverted population is of special importance due to the reported increased risk for future violence and the poor response to psychological treatment observed in personality disordered offenders (Hart, 2002). However, as stated by Hart (2002), research on the prevalence of personality disorders in forensic settings is limited. Available studies suggest that the lifetime prevalence of any personality disorder in the forensic populations may be over 80 percent (Hart, 2002). Teplin (1994) found a prevalence of antisocial personality disorder of 48.40 percent in a sample of 728 male detainees, and borderline personality disorder (BPD) has been found to have a high prevalence among the female prison population (Kathleen, 1996). The affective dysregulation characteristic of patients with BPD makes their treatment particularly difficult due to their tendency of being treatment-resistance (Soloff, 2003). In addition, the difficulties treating patients with BPD, especially if they are co-morbid with other personality disorders such as antisocial personality disorder, has been extensively documented (Stone, 2003).

Psychopathy

Psychopathy is considered a personality constellation characterized by emotional deficits as well as a disregard for the rights of others and for societal rules in general (Porter and Woodworth, 2006). Research has consistently shown that recidivism,

particularly violent recidivism is more likely in those with psychopathic traits (Salekin, Rogers & Sewell, 1996; Walters, 2003a). For instance, in a study conducted with a large sample of federal offenders, Porter, Birt, and Boer (2001) found that psychopaths were significantly more frequently convicted for violent crimes than non-psychopathic offenders. The Hare Psychopathy Checklist-Revised (PCL-R; Hare, 1991) is the most widely used and validated instrument for the assessment of psychopathy. This instrument divides psychopathy into two components: an affective/interpersonal component (Factor 1) and a socially deviant/impulsive lifestyle component (Factor 2). Some studies have found that Factor 2 is more predictive of general and violent recidivism than Factor 1 (Hemphill, Hare, & Wong, 1998; Walters, 2003b).

In the context of criminal justice diversion, no published study was found that attempted to assess psychopathy before diversion. Broner at al. (unpublished) found that participants with higher baseline psychopathy tended to be re-arrested more for felonies, reincarcerated more frequently and trended towards re-arrest overall at three months demonstrating the need to screen for psychopathy and possibly exclude these high risk cases (Broner et al., 2002). Due to reported relationship between psychopathy and recidivism, failure to use standardized instruments to screen for personality characteristics such as psychopathy jeopardizes programs success and continuation and represents and important shortcoming of the available research in criminal justice diversion.

In addition, although the research evaluating the effectiveness of treatment for individuals who present with psychopathic traits has yielded conflicting results, there is some evidence that therapeutic communities are ineffective for these individuals. Rice,

Harris, and Cormier (1992) evaluated the treatment outcome of an intensive therapeutic community and compared a sample of offenders who presented with psychopathy with nonpsychopath offenders, and found that treatment was associated with higher rates of recidivism only for the psychopath offenders. Furthermore, psychopaths showed less motivation and were discharged earlier. In a different therapeutic community treatment program, Ogloff, Wong, and Greenwood (2003) found similar results in terms of psychopathy and treatment compliance. The efficacy of other types of therapeutic interventions for psychopathy is arguable as the research in this area is in its first stages of development. However, it seems essential to identify individuals who present with psychopathic traits prior to diversion as this could potentially have an effect on the likelihood of future recidivism and treatment compliance, and it could help providers in the selection of the most appropriate treatment option.

Symptom Exaggeration and Malingering

The Diagnostic and Statistical Manual of Mental Disorders, fourth edition-Text Revision (DSM-IV-TR) states that the essential feature of malingering is the intentional exaggeration of psychological symptoms motivated by external incentives (American Psychiatric Association, 2000). In addition to the increased number of defendants who present with high rates of psychopathology, Rice, Harris, and Quisey (1996) have warned of the increase rates of malingering in correctional settings (as cited in Guy and Miller, 2004). Rogers, Ustad, and Salekin (1998) reported that as many as 19.5 percent of incarcerated defendants referred for mental health treatment attempt to malinger psychiatric symptoms as assessed by the Structure Interview of Reported Symptoms (SIRS; Rogers, Bagby & Dickens, 1992).

Given the incentives afforded by participation in mental health diversion programs, specifically the avoidance of incarceration and/or the dropping of criminal charges, it is likely that a significant proportion of jail detainees might attempt to feign or exaggerate the severity of psychiatric disorders in order to gain access to the diversion program. To this writer's knowledge, there is no published study that has assessed the prevalence of malingering in diversion programs and its impact on treatment compliance or recidivism. The failure to use standardized instruments to assess the malingering of psychiatric disorder prior to diversion constitutes a major limitation of the research on criminal justice diversion to date.

The DSM-IV-TR (American Psychiatric Association, 2000) further states that one of the factors indicating that an individual may be malingering is a lack of treatment compliance (section V65.2). Conversely, Rogers (1990) has stated that there is no empirical evidence to conclude that individuals who malinger are less likely to comply with treatment. However, no further published studies have specifically examined this relationship. In the context of criminal justice diversion, individuals who successfully feign psychiatric symptoms will be found eligible for diversion and therefore, will be placed into mental health treatment programs. It could be expected that since these individuals are not in need of psychiatric treatment, they will be less likely to adhere to the treatment attempts and therefore more likely to fail to comply with the rules and regulations of the diversion program. However, the lack of research in this area makes this prediction speculative.

Risk Assessment

Despite the importance of answering the question of future dangerous behavior, very few diversion programs utilize any form of risk assessment to determine eligibility for diversion and no published study was found assessing the utility of risk assessment instruments in the diverted population. Additionally, diversion programs are typically reserved for persons with non-violent misdemeanors and occasionally for those with violent misdemeanors or felony charges (Redlich, Steadman, Mohanan, Robbins, & Petrila, 2006). Diversion programs are more likely to accept non-violent misdemeanants because accepting riskier cases can jeopardize the continuation of mental health courts (Wolff, 2002). However, the only study comparing violent and non-violent diverted subjects showed no difference in treatment compliance or rate of recidivism. These results did not support the exclusion of individuals solely based on their intake offense (Naples and Steadman, 2003). Perhaps, a more comprehensive risk assessment examination would be more informative when determining individuals' eligibility for diversion, as opposed to eliminating individuals based solely on the severity of the current charge.

Decision makers are continuously called to assess whether mentally ill incarcerated individuals are "safe enough" to be released from jails and prisons or whether they pose a danger to the community (Douglas, Yeomans, & Boer, 2005. p. 479). It is now widely accepted that clinical judgment of future risk of violence is greatly improved by the addition of structured risk assessment tools (Grey et al., 2004; Litwack, 2001).

Both the Psychopathy Checklist Screening Version (PCL: SV; Hart, Cox, & Hare, 1995) and the HCR-20 violence risk assessment scheme (Webster, Douglas, Eaves, &

Hart, 1997), have been widely used and validated, and proven to be reliable measures to predict future violence and recidivism in a population of adult mentally ill individuals. The HCR-20 (Webster et al., 1997) is a Structured Professional Judgment (SPJ) tool in which the instrument is used to guide the clinician's evaluation to include risk factors that the research has shown to have predictive value for future dangerousness. The HCR-20 was developed using an analytically or logical guide intended to structure decisions made by professionals about future violence by encouraging the consideration of 20 (see Table 1) key violence risk factors (Douglas, 2004). This scale includes Historical (H), Clinical (C), and Risk management (R) factors and avoids using cut-offs for classification of risk to leave some space to professional judgment (Gray et al., 2004). The HCR-20 was developed for the assessment of risk for general violence. Several published studies have found a relationship between HCR-20 scores and violence with magnitudes of effects for total or subscales ranging from moderate to large in size (see Douglas, Guy, & Weir, 2005 for a review of studies on the HCR-20).

Table 1

Scales and Items in the HCR-20 Violence Risk Assessment Scheme

Subscales	Items
Historical	
H1	Previous Violence
H2	Young Age at First Violent Incident
H3	Relationship Instability
H4	Employment Problems
H5	Substance Use Problems
H6	Major Mental Illness
H7	Psychopathy
H8	Early Maladjustment
H9	Personality Disorder
H10	Prior Supervision Failure
Clinical	
C1	Lack of Insight
C2	Negative Attitudes
C3	Active Symptoms of Major Mental Illness
C4	Impulsivity
C5	Unresponsive to Treatment
Risk Management	
R1	Plans Lack Feasibility
R2	Exposure to Destabilizers
R3	Lack of Personal Support
R4	Noncompliance with Remediation Attempts
R5	Stress

An area of debate within the risk assessment literature is whether specific assessment of defendants' personality traits that are believed to correlate with recidivism should be used over general risk assessment tools that were specifically designed for the

identification of high-risk offenders, such as the HCR-20 (Wormith, Stevenson, Olver, & Girard, 2004). The PCL and its variants (e.g., Hare Psychopathy Checklist-Revised [PCL-R]; Hare, 1991; PCL: SV; Hart et al., 1995) have dominated the area of personality evaluation within the field of risk assessment (Gray et al., 2004). The PCL: SV is a shorter version of the PCL-R and consists of 12 items (see Table 2). When first developed, the PCL was not thought of as a risk assessment tool, but as a psychometric measure of psychopathy (Porter & Woodworth, 2006). Although not intended as a risk assessment measure per se, research has consistently shown that Hare's measures of psychopathy predict violence and recidivism, particularly violent recidivism, among correctional offenders (Porter, Birt, & Boer, 2001; Salekin, Rogers & Sewell, 1996;Walters, 2003a), and civilly committed patients (Douglas, Ogloff, Nicholls, & Grant, 2003). Some of the research on the PCL has even suggested that the single construct of psychopathy may predict recidivism as well as or even better than actuarial or SPJ risk assessment instruments (Cooke, Michie, & Ryan, 2001; Edens, Skeem, & Douglas, 2006; Kroner and Mills, 2001). Most studies have found that PCL's Factor 2 is more predictive of general and violent recidivism than PCL's Factor 1 (Douglas et al., 2005; Hemphill, Hare, & Wong, 1998; Walters, 2003b). These results provide support for the theory that the behavioral features of psychopathy tend to be better predictors of violence and recidivism than the core personality features of psychopathy (Douglas et al., 2005; Skeem & Mulvey, 2001).

Table 2

Items of the PCL: SV

Item number	Item name
Part 1	
1	Superficial
2	Grandiose
3	Deceitful
4	Lacks Remorse
5	Lacks Empathy
6	Doesn't Accept Responsibility
Part 2	
7	Impulsive
8	Poor Behavioral Controls
9	Lacks Goals
10	Irresponsible
11	Adolescent Antisocial Behavior
12	Adult Antisocial Behavior

PCL and HCR-20 comparisons

Hare (2003) implies that we should not compare the HCR-20 with the PCL, because the latter measures a single construct, while the former measures a set of constructs, including the one measured by the PCL (Wormith et al., 2004). The PCL was designed as a standardized system of identifying psychopaths in forensic populations

(Wormith et al., 2004), whereas the HCR-20 was developed as a risk assessment tool combining clinical and historical factors. Furthermore, the two instruments differ in the psychometric etiology. The development of the HCR-20 was based on extensive literature examining relationships between historical and clinical human characteristics that correlate with violence and recidivism, while the PCL was largely developed following descriptive work by Cleckley (1976) about the psychopathic personality (Wormith et al., 2004).

Nevertheless, both instruments incorporate an antisocial life-style, specifically Factor 2 of the PCL and Historical items of the HCR-20. In addition, one of the Historical items on the HCR-20 is scored based on the total score on the PCL-R/PCL:SV. However, a special contribution of the HCR-20 over both the PCL and other actuarial risk assessment tools is the inclusion of the Risk Management scale. This scale includes items such as “plans lack feasibility,” “exposure to destabilizers,” or “lack of personal support,” providing the clinician with the opportunity of taking into consideration the discharge or follow-up plan of the individual whose risk level is being evaluated. Regardless of an individual’s past antisocial history, his risk level will vary depending on whether the defendant is released back to his dysfunctional household, as opposed to a residential treatment program with a high level of supervision. Partly because of the special contribution of the Risk management scale, initial research on the HCR-20 has focused on its ability to predict violence beyond that of the psychopathy construct contained within it (Douglas, Ogloff, Nicholls, & Grant, 1999).

Studies have found a high correlation between the PCL and the HCR-20’s total scores of at least .64 (Belfrage, 1998). The H scale tends to be the most strongly related

to PCL-R total score (.76), and to factor 2 of the PCL-R, while the C and R scales tend to be more strongly correlated with factor 1 (Douglas, Klassen, Ross, Hart, Webster, & Eaves, 1998).

Few published studies have compared the utility of the HCR-20 and the PCL in predicting violence and recidivism in samples of mentally ill offenders. Kroner and Mills (2001) found no significant differences in the predictive validity of the PCL-R and the HCR-20 in a sample of 97 male inmates over a post release period of 790 days. In a sample of 120 patients discharged from a Dutch forensic psychiatric hospital, De Vogel, De Ruiter, Hildebrand, Bos, & van de Ven (2004) found that the HCR-20 was significantly more accurate that the PCL-R in predicting violent recidivism, with Area Under the Curve (AUC)s of .82 and .75 respectively, except when the psychopathy item of the HCR-20 (H7) was removed from the HRC-20 total score. In a sample of 40 discharged male forensic psychiatric patients, Strand, Belfrage, Fransson, and Levander (1999) found that overall, the recidivistic group scored eight points higher than the non-recidivistic group, which represented a large effect size of Cohen's *d*=1.19. The AUC value for the HCR-20 was .80 compared to .70 for the PCL: SV. This study surprisingly found the C and R scales of the HCR-20 to be better predictors of violence than the H scale. The authors pointed out that this finding might have resulted from the fact that patients in this sample were very homogeneous on historical factors, given the type of offenses and disposition to a forensic hospital. Doyle, Dolan, and McGovern (2002) compared the H scale of the HCR-20 to the PCL: SV in a sample of 87 mentally ill offenders. AUC values were slightly superior for the PCL: SV (.68-.76) compared to the values for the H scale (.66-.70). However, in a postdictive study, Douglas and Webster

(1999) found that the H and C scales from the HCR-20 were more strongly related to previous violence than the PCL-R in a sample of 75 offenders receiving treatment. Grey et al. (2004) compared the predictive accuracy of the HCR-20 and the PCL: SV in a sample of 315 forensic psychiatric patients discharged from a forensic facility. Results of the ROC analyses found that both measures were associated significantly with reoffending, although the PCL: SV showed a slightly larger AUC value (.66) than the HCR-20 (.61). AUC values for the subscales showed that only the PCL: SV Part 2 (.72), H scale (.62), and R scale (.62) reached significance. Neither the PCL: SV Part 1 (.57), nor the C scale (.48) reached significance. These results suggest that static factors related to an antisocial lifestyle showed to be better predictors than more dynamic personality factors in this study.

Other non-published studies have also found mixed results regarding the comparative predictive utility of the HCR-20 and PCL-SV. Pham (2001, August) compared the predictive validity of the HCR-20 and the PCL-R for general and violent recidivism in a sample of 58 post-released forensic patients. AUC values found no significant differences between the PCL-R and HCR-20 when predicting general recidivism (.78 and .79, respectively). However, when predicting violent recidivism, the PCL-R was found to be superior to the HCR-20, with AUC values of .85 and .78 respectively. Ross, Hart, Eaves, and Webster (2001, April) compared the utility of the HCR-20 and PCL-SV in a sample of 103 released forensic patients and found the HCR-20 to be slightly superior with an AUC value between any aggression and total HCR-20 score of .76 compared to .64 of the PCL: SV total score. Part 2 of the PCL: SV was found to be a better predictor of aggression than Part 1. In summary, at this point the literature

does not allow for a conclusion regarding the superiority of the PCL over the HCR-20 or vice versa in the prediction of recidivism and violence (four studies provide support for the use of the HCR-20 while three provide support for the use of the PCL: SV, and one study found no significant differences).

Purpose and Rationale

Despite the growing number of defendants being diverted from jail into community mental health treatment, little is known about the psychosocial characteristics of these individuals. Because the research to date has failed to use psychological assessments pre-diversion, this population has only been described in terms of its demographic characteristics. However, no rich descriptive data are available. In addition despite the importance of predicting diversion compliance, recidivism and violence in individuals diverted from the criminal justice system into court mandated treatment, there are no available published studies that have examined the utility of risk assessment instruments in this context. Both the PCL: SV and the HCR-20 have been validated in forensic, civil and correctional samples. However the predictive utility of these instruments in the context of court mandated treatment has not been investigated. Questions remain, such as the extent to which the HCR-20 demonstrates any incremental validity in relation to the PCL: SV alone. Due to the limited financial resources usually available in diversion programs and mental health courts, the use of multiple risk assessment instruments is usually not feasible. Therefore, the selection of the most appropriate risk assessment instrument in the context of diversion is a desirable goal. In particular, since the scoring of the HCR-20 adds more time and effort to the scoring of the PCL: SV alone, whether the HCR-20 adds any incremental validity to the

psychopathy factor in isolation is an important research question that needs to be explored in the diverted population. Finally, the available literature has not attempted to explain presumed casual links between defendants' background or contextual information (information that may not be captured by formal psychological testing) and successful compliance.

This research included three studies with the purpose of (1) describing a sample of defendants released from Rikers Island to diversion programs in terms of demographical, clinical (including history of abuse or homelessness, mental health history, substance abuse history, history of suicide attempts, psychopathology, psychopathy, and malingering or exaggeration of psychiatric symptoms), and criminological characteristics (type and severity of the offense, and history of arrests); (2) determining the utility of two widely used risk assessment tools in the prediction of diversion non-compliance, violence and recidivism, and (3) exploring alternative variables (that may be too complex for quantitative strategies) to explain how and why defendants succeed or fail diversion through a multiple-case study design.

The use of multiple-case studies, descriptive information and correlational information was used to attain a better understanding of the population being diverted from the criminal justice system, which will potentially assist in finding the type of treatment that would better suit the diverted individuals. In addition, identifying mentally ill clients who are most likely to succeed in diversion and screening out those at high risk of failure would result in a better use of the limited services for this population. Finally, the use of multiple-case studies might serve to generate hypotheses for future research.

Conceptual Hypotheses

Study 1

The aim of this study was to attain a better understanding of the type of population that is currently being diverted from the criminal justice system into community treatment through diversion programs and mental health courts by describing the sample in terms of demographic (age, gender, ethnicity, education, history of homelessness), clinical (number of prior psychiatric hospitalizations, history of substance abuse, history of suicide attempts, history of sexual or physical abuse, Psychopathology, and malingering), criminological (number of prior arrests and offense severity), and risk (HCR-20 and PCL: SV scores) characteristics.

Study 2

The aim of this study was to compare the predictive validity of the HCR-20 and PCL: SV in a sample of mentally ill defendants released from jail to participate in mental health diversion programs. In the context of diversion, besides recidivism, it is also important to be able to predict diversion non-compliance and violence behavior even if it does not lead to a formal charge. Therefore, criterion measures include recidivism, violence, and diversion compliance.

Studies have shown that the HCR-20 and PCL:SV are comparable in terms of risk prediction, and no instrument has proven to be consistently superior to the other. Therefore, it seemed difficult to make a prediction in either direction. However, as stated by Hare (2003), the PCL measures one single construct, while the HCR-20 measures a set of constructs. In addition, research has consistently shown that the socially deviant/impulsive lifestyle component of the PCL (Factor 2) is a better predictor of

recidivism and violence when compared with the affective/interpersonal (Factor 1) component of the PCL (Douglas et al., 2005; Hemphill et al., 1998; Walters, 2003b). The HCR-20 also incorporates the antisocial lifestyle in the Historical scale, which is probably why the Historical scale tends to be the most strongly related to PCL-R total score and Factor 2 (Douglas et al., 1998). However, the HCR-20 offers the unique contribution of clinical factors that appear to be important not only for the prediction of violence and recidivism but also for the prediction of diversion non-compliance. Clinical items include lack of insight, negative attitudes, active symptoms of major mental illness, impulsivity, and unresponsive to treatment. Because of the important contribution of the clinical items of the HCR-20, it was predicted that in the context of criminal justice diversion, the HCR-20 will add incremental validity to the PCL: SV in predicting recidivism, violence and diversion non-compliance.

Another special contribution of the HCR-20 over both the PCL and other actuarial risk assessment tools is the inclusion of the Risk Management scale. Most of the studies previously reviewed include defendants who are released to the community, but whose levels of personal support, exposure to destabilizers, or feasibility of treatment plan post-release (all items included in the R scale) are not known to researchers or clinicians scoring the HCR-20. Conversely, in the context of diversion, defendants are released to the community with specific treatment plans and levels of supervision and social support, which are well known to clinicians and researchers prior to diversion. Although this information facilitates the scoring to the R scale, in the context of diversion, defendants have very similar discharge treatment plans. Therefore, this sample will likely be very homogenous in terms of Risk Management scale scores. Consequently, it was predicted

that the R scale will not add incremental validity to the HCR:20 clinical and historical scales.

The following hypotheses were based on previously-reviewed research, as well as knowledge of the general functioning of diversion programs and mental health courts.

Hypothesis 1: Consistent with prior research, strong relationships were expected to be found between the HCR-20 and PCL: SV total and subscale scores. The H scale of the HCR-20 was hypothesized to correlate stronger with Part 2 of the PCL: SV, whereas the C and R scales were hypothesized to correlate stronger with Part 1 of the PCL: SV.

Hypothesis 2: Consistent with prior research, it was hypothesized that individuals who earn higher scores on the HCR-20 will be significantly more likely to engage in any recidivism, violence, and diversion non-compliance relative to individuals who earn lower scores on the HCR-20.

Hypothesis 3: Consistent with prior research, it was hypothesized that individuals who earn higher scores on the PCL: SV will be significantly more likely to engage in any recidivism, violence and diversion non-compliance relative to individuals who earn lower scores on the PCL: SV.

Hypothesis 4: It was hypothesized that the HCR-20 minus the PCL: SV item will add incremental validity to the PCL: SV alone, justifying the use of the HCR-20 over the PCL:SV in diversion programs and mental health courts.

Hypothesis 5: It was hypothesized that the R scale of the HCR-20 will not add incremental validity to the HCR-20 H and C scales in the prediction of diversion compliance.

Study 3

The aim of this study was to explore alternative variables that could explain why defendants succeed or fail diversion using an exploratory multiple-case embedded design. The design of this study includes the presentation of separate, single cases, followed by a cross-case analyses. This type of design was chosen because it allows for the exploration of the phenomena under study through the use of a replication strategy (Yin, 2008).

The study's premise was that diversion compliance may be impacted by variables not captured by the instruments used in the quantitative analyses (i.e., HCR-20 and PCL: SV), such as background, contextual, and personality factors. These alternative factors may explain why some individuals who are predicted to fail diversion (i.e., score high on the HCR-20) end up complying with diversion or vice versa.

CHAPTER 2

STUDY 1

Methods

Participants

The sample for this study consisted of 61 criminal detainees arrested for criminal misdemeanor or felony charges, who chose a mental health diversion option as opposed to incarceration. Participants were recruited from three mental health courts and three diversion programs: the Brooklyn Forensic Linkage-Transition program in New York City (Education and Assistance Corporation-LINK; EAC-LINK), Brooklyn's Mental Health Court, Bronx-TASC and Mental Health Court, and Queens TASC and Mental Health Court. These programs are private not-for profit agencies that provide alternative to incarceration for mentally ill offenders. These sites serve defendants coming out of the Brooklyn, Staten Island, Queens and Bronx's court systems. These programs provide court advocacy, linkage from incarceration to the community, design of an individualized treatment plan by professional mental health program staff and intensive transitional case management for a period of two years. Every individual incarcerated in Rikers Island who receives mental health services and has an open court case is considered for referral to these programs.

In order for the defendants to be eligible for diversion they must have a DSM-IV Axis-I diagnosis which meets the New York State criteria for Severely and Persistently Mentally Ill (SPMI) and who would have difficulty functioning in the community without assistance. Eligible clients have to agree to a guilty plea and are then released on their own recognizance to enter a treatment program under the program's supervision. The

courts are updated on their progress at regular intervals until they have completed their treatment, at which time they are

sentenced on a reduced charge. The Felony charges are generally dropped to a Misdemeanor with Probation. Misdemeanor charges are dropped to a minor level misdemeanor or are dismissed. However, if a client fails to complete treatment or in some other manner violates the terms of their plea, they are sentenced to a prison time sometimes greater than what they would have faced had they never taken a plea. These programs accept defendants charged with misdemeanor and felony charges. Although most of the defendants have been charged with non-violent crimes, those charged with violent crimes are not excluded if treatment is offered.

As part of the assessment process, demographic information was collected for each participant. Participants in this sample had a mean age of 39 years (*SD* = 8.8, range 19 to 59). Gender composition consisted of 42 (68.9%) males and 19 (31.1%) females. Ethnic composition consisted of 31 (50.8%) African-Americans, 16 (26.2%) Hispanic, 4 (6.6%) Caucasian, and 10 (16.4%) other. These results are consistent with the overrepresentation of minorities found in the criminal justice system (Beck, Karberg, & Harrison, 2002). The mean years of education in this sample was 10.7 (*SD* = 2.9, range 0 to 18). Fifty-five participants (90.2%) had a criminal history prior to the index offense, 59 (96.7%) reported a history of mental health treatment, and 57 (93.4%) reported a history of substance abuse.

Measures

Assessment instruments were selected based on their validity and reliability and on the relatively short administration time. Interrater reliability was established for all

clinicians on instruments requiring clinical judgment prior to initiation of the study. All measures were administered by Masters and Doctoral level research assistants who were trained in the administration of the different instruments.

The Personality Assessment Inventory (PAI; Morey, 1991). The PAI is a 344-item objective self-report measure designed to reliably assess various dimensions of personality and psychopathology. PAI items are rated on a four-point scale: *very true, mainly true, slightly true,* and *false,* and it takes about 45 minutes to complete for most individuals. This instrument can be administered to individuals with a minimum of a fourth grade reading level (Morey, 2001). This reading level is lower than the reading level required for most of the other comparable self-report instruments (Morey & Quigley, 2002) which was a decisive factor when selecting this instrument for the proposed study as individuals in forensic settings generally have lower educational levels when compared to the general population. The PAI items are made up of 22 non-overlapping scales: eleven clinical scales (somatic complaints, anxiety, anxiety-related disorders, depression, mania, paranoia, schizophrenia, borderline features, antisocial features, and difficulties with alcohol and drugs), four validity scales (inconsistency, infrequency, negative impression, and positive impression), five treatment scales (aggression, suicide ideation, stress, non-support, and treatment rejection), and two interpersonal scales (warmth, and dominance). In addition the PAI contains ten supplemental PAI indexes (defensiveness index, Cashel discriminant function, malingering index, Rogers discriminant function, suicide potential index, violence potential index, treatment process index, ALC estimated score, DRG estimated score, and mean clinical elevation). The negative impression management (NIM) scale of the PAI

was used in conjunction with the M-FAST to assess malingering. A cut-off score of T=84 has been recommended for the detection of malingering in forensic populations (Kucharski, Toomey, & Fila, 2007). This score was used to classified malingerers in this study. The PAI also includes five treatment consideration scales and two interpersonal scales (Morey, 1991). The raw scores obtained in the PAI subscales are transformed to T scores to provide interpretation

relative to a standardization sample of 1,000 community-dwelling adults. T scores have a mean of 50 and a standard deviation of 10. T scores above 70 represent a pronounced deviation from the average score of adults living in the community (Morey, 1991). The PAI's internal consistency, test-retest reliability, and overall validity have been well established. Median alphas for full scales range from .81, .86, and .82 in the census-matched normative sample, college student sample, and clinical sample (Morey, 1991). The Minnesota Multiphasic Personality Inventory-2 (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 2001), and the NEO Personality Inventory (NEO; Costa & McCrae, 1985) have been used to test the convergent validity of the PAI. In addition, the PAI has proved to be a valid measure in forensic setting (Edens, Cruise, & Buffington-Vollum, 2001; Morey & Quigley, 2002).

HCR-20 violence risk assessment scheme (Webster, Douglas, Eaves, & Hart, 1997). The HCR-20 is a Structured Professional Judgment (SPJ) instrument designed to assess the risk of future violence in adult offenders with a violent history and /or a major mental disorder or personality disorder. The HCR-20 consists on coding 20 historical, clinical, and risk management variables that the authors determined had support in the research literature as indicators of violence risk. The HCR-20 has been validated in

clinical and forensic settings in different countries. The Pearson correlation between two raters in a sample of 72 federal inmates was found to be +.80. In addition, the Historical scale of the HCR-20 has been found to have a correlation of +.52 with number of previous violent charges (Douglas, Webster, & Wintrup, 1996). The validity of the HCR-20 has been assessed by correlating it with scores from the Psychopathy Checklist-Revised (PCL-R; Hare, 1991), and the Violence Risk Appraisal Guide (VRAG; Rice & Harris, 1995). The correlation between the total HCR-20 score and the PCL-R was found to be +.64, and +.54 with the VRAG. The correlation between the historical scale and

the PCL-R was found to be +.61 and with the VRAG +.54. Results of other studies indicate that the HCR-20 has good interrater reliability and predictive validity (De Vogel & De Ruiter, 2006; see Douglas, Guy, & Weir, 2005 for a review of studies on the HCR-20).

Miller Forensic Assessment of Symptoms Test (M-FAST; Miller, 2001). The M-Fast is a brief, structured interview created to screen for malingering by an assessment of an individual's general response style. The items on the M-Fast assess malingering strategies that have been found to differentiate malingerers from honest responders (Miller, 2001). It includes seven rationally derived scales: reported versus observed, extreme symptomatology, rare combinations, unusual hallucinations, unusual symptom course, negative image, and suggestibility (Guy, Kwartner, & Miller, 2006). The M-Fast has been validated in both simulation and known groups comparison designs (Miller, 2001), psychiatric impatiens (Veazey, Wagner, Hays, & Miller, 2005), and correctional settings (Guy & Miller, 2004). Validation studies have reported a cutoff score of 6 (out of the total 25) as resulting in the best correct classification rates of malingering in both

forensic and clinical samples (Guy et al., 2006). Area Under the Curve values have been reported to range from 0.92 to 0.95 (Guy et al., 2006; Guy and Miller, 2004; Miller, 2004). Validation studies have also reported very high internal consistency values, with total score alpha values equal or close to 0.90 (Guy, Kwartner, & Miller, 2006).

Hare Psychopathy Checklist Screening Version (PCL:SV; Hart, Cox, & Hare, 1995). The PCL:SV is a 12-item scale based on a subset of PCL-R items that can be completed in civic and forensic settings in under one and a half hours (Hart et al., 1995). The PCL:SV was developed as a "relatively quick an inexpensive way of assessing psychopathic traits in offender and forensic patients" (Hart et al., 1995, p.1). The PCL: SV approaches the construct of psychopathy equivalently to its first developed counterpart, the PCL-R (Guy & Douglas, 2006). Both instruments divide psychopathy into two components: an affective/interpersonal component and a socially deviant/impulsive lifestyle component. These two components are termed Part 1 and Part 2 in the PCL-SV. Validation studies reveal that there is a high correspondence between the two instruments with *rs* of .80, .68, and .81 between Total, Part/Factor 1, and Part/Factor 2 scores, respectively, across five samples (Hart et al., 1995 as cited in Guy & Douglas, 2006). Interrater reliabilities of the 12 items of the PCL-SV were calculated on seven different samples, and the weighted mean reliabilities ranged from .50 to .79. Cronbach Alpha's were calculated across 11 samples averaging about .84 (Hart et al., 1995). Other studies have also shown the PCL: SV to have adequate validity and reliability (Cooke, Michie, Hart, and Hare, 1999; Hart, Hate & Forth, 1994; Salekin, Rogers, & Sewell, 1996).

Operational Definition of Criterion Variables.

Criterion measures were coded from charts where all recidivism data as well as any incidents of violence or diversion non-compliance are documented by participants' case managers. Compliance with diversion was dichotomized into one category: diversion compliance versus diversion non-compliance. Any of the following was classified as diversion non-compliance: absconding from residential treatment program, failure to attend more than two days of outpatient program, and/or weekly meetings with case manager, and more than two incidents of drug relapse. Although the choice of three as the number of missing meetings or relapse incidents is somewhat random, anecdotal observations of the ways in which diversion programs operate, suggest that it is usually after three episodes when case managers tend to bring these incidents to the attention of the judge, which may result in a violation of the conditions of release.

Recidivism was classified as any criminal activity after diversion leading to a new charge, or any violation of the conditions of the plea agreement that leads to a bench warrant being ordered or a remand to jail.

Violence was defined consistently with the operational definitions used by McBinder and Binder (1987, 1994), and the description of violence provided by the HCR-20's manual (Webster et al., 1997). Threatening behavior was defined as "clear and unambiguous threats of harm (Webster et al., 1997, p.24)," and behavior likely to cause intimidation or fear, such as stalking. Physical violence was defined as bodily acts of aggression against others such as pushing or punching (Nicholls et al., 2004), and "behavior which obviously is likely to cause harm to another person (Webster et al.,

1997, p. 24). This variable was dichotomized into one category: any violence versus no violence.

Interrater Reliability

Interrater reliability of the HCR-20 and PCL: SV was examined on a subsample of approximately 40% of participants (n = 48). These cases were chosen randomly from the larger data set. A measure of chance-corrected agreement intraclass correlation coefficient (ICC) was used as the index of reliability because it corrects for additive and multiplicative biases, whereas measures of association such as Pearson's *r* do not (Douglas et al., 2005). A two-way random effect variance model using the absolute agreement definition type (McGraw & Wong, 1996) was used. The reliability of a single rater or the single measure, ICC1, was considered the primary index of reliability, although the reliability of ratings averaged across two independent raters, ICC2, is presented as well because it provides an estimate of the measures' consensus reliabilities if two raters were to complete them. For the HCR-20, values above .75 are considered excellent, values between .74 and .60 are considered good, values between .59 and .40 are considered moderate, and values below .40 are considered low (De Vogel & Ruiter, 2005). For the PCL: SV, ICC for total scores ranging from .84 to .92 are considered adequate (Hart, Cox & Hare, 2003). Results of the ICCs for HCR-20 and PCL: SV total and subscale scores are presented in Table 3.

Item-level interrater reliability was calculated for each measure. For the HCR-20, the averaged item-level chance-corrected interrater reliability (ICC1) was .72, which is considered good (Douglas et al., 2005). Item 6 (major mental illness) had the lowest reliability (.62), and Items 2 (young age at first violent incident) and 18 (lack of personal

support) had the highest reliability, both reaching a value of .89. Mean item reliabilities for the Historical, Clinical and Case Management scales were .77, .70 and .65, respectively. The mean PCL:SV item interrater reliability was .71, which is considered good (de Vogel & Ruiter, 2005). Item 3 (deceitful) had the lowest reliability (.59), and item 2 (grandiose) had the highest reliability (.84). Mean item reliabilities for PCL: SV Part 1 and 2 were .70 and .71, respectively.

Table 3

Intraclass Correlations (ICC) for HCR-20 Clinical, Historical, and Risk Management Scores, and PCL:SV Total, Part 1 and Part 2 Scores.

Measure (number of items; total score)	ICC1	ICC2
HCR-20		
Total (10; 40)	.90	.95
Historical (5; 20)	.93	.96
Clinical (5; 10)	.80	.89
Risk Management (5; 10)	.61	.76
PCL:SV		
Total (12; 24)	.93	.96
Part 1 (6; 12)	.84	.91
Part 2 (6; 12)	.88	.93

Procedure

Defendants who were identified as eligible for any of the aforementioned programs, and who agreed to participate in the diversion alternative, were referred for participation in this study. Data was collected from October 2006 to February 2009. Participants were informed of the nature of the study, as well as the risks and benefits associated with participation. All participants provided written consent for participation

and were informed that they would be compensated with a five dollars gift card from Dunkin Donuts.

All participants were screened via an interview conducted in the diversion programs and mental health courts offices, or in the residential treatment programs where individuals are receiving treatment services. Participants were interviewed within three weeks of their release from jail or the date of the guilty plea. The three-week window was chosen based on the time that it usually takes for defendants to start receiving full services. The first two weeks after release is usually spent meeting with case managers, and attending several appointments (e.g., medical and social security appointments).

Approximately 85 defendants were referred for participation in this research. Fifteen were not included because no research assistants were available to conduct interviews within the three weeks of placement. Out of the 70 defendants that were approached for participation, ten participants (14%) did not complete the interviews. Four defendants were unable to complete the interviews because they had to attend medical or other appointments on the date scheduled for the interviews. Six defendants (8.5%) refused to participate. According to his case manager, one participant was experiencing paranoid ideation and refused to provide any information to case managers or research assistants. Five participants refused to participate when they were told that their participation was voluntary without providing any reason.

Interviews took from one to two hours and included the administration of the PAI, M-Fast, and a semi-structured interview including questions to guide the scoring of the HCR-20 and PCL: SV. In addition, researchers also had access to file-based information containing initial intake interviews conducted by the diversion program, and background

psychiatric and mental health reports, psychosocial summaries, and full criminal records. Demographic file coding data forms were also filled out at the time of the interview. Prior to beginning the interview and administration of the measures, participants were provided with the following introduction:

> "EAC-LINK/BRONX-TASC/QUEENS-TASC/BROOKLYN MHC, the program that has diverted you from jail and placed you into a treatment program, in cooperation with John Jay College is conducting a research project to learn more about these types of programs and the things that contribute to success in mandated treatment. If you sign this consent form, we will ask you to sit through an interview to talk about different things such as your mental health history or your substance abuse history. You must now, that even by signing this form, you can still refuse to participate at any time. Also by signing this form, you are allowing us to access your chart where all of your information (mental health records, criminal records etc…) is kept. However, we will not take any information that can identify you from the chart, such as your name. We will assign you a number, and in all of our records, your information will be attached to that number and not a name.
>
> It is important for you to know that this research is totally independent from your court case. The information resulting from this interview will be confidential and will not be shared with your case manager or the courts. Therefore, the results of this interview will have no impact on your court case or treatment plan.
>
> By participating you will help EAC-LINK/BRONX-TASC/QUEES-TASC/BROOKLYN MHC to better assist other clients. In addition, you will be provided with a $5 coupon to spend in Dunkin Donuts".

All interviews were conducted by John Jay College's doctoral and master students who were trained in the administration of all the instruments. Master students observed interviews conducted by a doctoral student before they conducted interviews alone. Two master students conducted 20 interviews together and scored the instruments independently, other students conducted at least ten interviews with another student and scored the instruments independently. Regular meetings were held to discuss cases and scoring.

Outcome data was obtained after three months from the interview though a review of the files that contained case manager's progress notes, treatment update letters from treatment providers, weekly toxicology exam results, monthly progress letters for the courts, and legal documents including violation or bench warrant order forms. Although it is acknowledged that three months is a short follow-up period, anecdotal observation suggests that most incidents of treatment non-compliance and/or aggression tend to take place within the first months of placement, which is a period of adjustment for defendants. Therefore, being able to determine which instrument better predicts compliance, recidivism or violence within the first three months will be of value.

Institutional Review Board approval was obtained by the review committee of John Jay College of Criminal Justice. In addition, in order to recruit participants from the Brooklyn Mental Health Curt, Institutional Review Board approvals was obtained by the review committee of the Center for Court Innovation that oversees research in the Brooklyn Mental Health Court.

Statistical Analyses

Descriptive statistics (mean and standard deviations) and frequency distributions were used to describe the sample. Sample characteristics were be conceptualized in terms of four blocks: demographic characteristics (age, gender, ethnicity, and years of education), clinical characteristics (psychiatric diagnosis, number of prior hospitalizations, history of substance abuse, history of physical abuse, history of sexual abuse, history of suicide attempts), criminological variables (index offense, severity of the index offense, number of prior arrests), psychological assessment characteristics (PAI clinical scales scores, M-Fast total score), and risk assessment instrument scores (HCR-

20 total score, HCR-20 Historical, Clinical and Risk management subscale scores, PCL:SV total score, PCL:SV Part 1 and Part 2 scores). Logistic regression analyses were conducted to identify significant differences between the groups.

Results

Classification Criteria

Using the abovementioned criteria for non-compliance, violence, and recidivism, 20 (32.8%) participants were classified as diversion non-compliance, and 41 (67.2%) participants were classified as diversion compliance. Twelve (19.7%) participants engaged in behavior that led to recidivism, whereas 49 (80.3%) were in the non-recidivism group. The incidence of violence was low; only three participants were violent (4.9%) whereas 58 (95.1%) did not engage in any violence. The relatively short follow-up period may have contributed to this finding. Because of the low base rate for violence, this variable was excluded as a criterion measure. However, diversion non-compliance incorporates violence (all three participants who engaged in violence were discharged from the treatment programs and remanded to jail.) The non-compliance and violence groups were therefore collapsed.

Data checks

To eliminate invalid PAI protocols based on inconsistent, non-responding, or malingering, the following exclusionary criteria was employed: Omitted items > 20, INC or INF >79, and NIM > 85. This procedure excluded 30 participants. Therefore, descriptive statistics for the PAI are discussed in a difference section.

Even though the main purpose of this study was to describe the sample using descriptive statistics, a series of logistic regression analyses were conducted to compare

the groups on the predictor variables. Only total scores for the HCR-20 and PCL: SV were included in these analyses because of the relatively small sample size. The predictive validity of instruments' subscales was examined in study 2.

A standard Logistic Regression Analysis (LRA) was conducted comparing compliance and non-compliance groups on demographic (age, gender, ethnicity, education, history of homelessness), clinical (number of psychiatric hospitalizations, history of substance abuse, history of suicide attempts, history of sexual abuse, history of physical abuse), criminological (number of prior arrests, and offense severity), risk assessment (HCR-20 total, PCL: SV Total) and malingering or exaggeration (M-Fast total score) as predictor variables. The overall model was significantly different from a constant only model (χ^2 (17, 61) = 30.82, $p < 0.5$).

A LRA was then conducted to compare diversion compliance and diversion non-compliance groups on demographic, clinical and criminological variables as predictors. The overall model was not significantly different from a constant only model (χ^2 (14, 61) = 19.19, $p > .05$), indicating that the two groups did not differ significantly on any of the demographic variables. A LRA was also conducted to compare diversion compliance and diversion non-compliance groups on tests scores alone as predictors. The overall model was significantly different from a constant only model (χ^2 (3, 61) = 13.23, $p <$ 0.01). However, inspection of the predictor variables revealed that groups differed significantly only on the HCR-20 scale (B = 0.185, SE = 0.081, Wald χ^2= 5.27, $p <$ .05; odds ratio = 4.9, 95% CI = 1.02-1.41).

The same results were found when recidivism was used as the criterion. When groups were compared on all the predictor variables, the overall model was significantly

different from a constant only model (χ^2 (17, 61) = 38.89, $p < 0.01$). However groups did not significantly differ on demographic, clinical and criminological variables (χ^2 (14, 61) = 22.79, $p < 0.05$). When test scores were entered as predictors (χ^2 (3, 61) = 21.3, $p <$ 0.01), the HCR-20 scale was the only variable that differed significantly between the groups (B = 0.270, SE = 0.115, Wald χ^2= 5.50, $p <$ .05; odds ratio = 1.30, 95% CI = 1.04-1.64). Therefore, only the HCR-20 was significantly predictive of diversion non-compliance and recidivism, with participants in the non-compliance and recidivism groups scoring higher on the HCR-20. However, it is important to note, that due to the relatively small sample size and the large number of predictors, these analyses were likely underpowered.

Descriptive Statistics

Tables 4 and 5 present descriptive statistics (means and standard deviations) and frequency distributions (percentages) for demographic, clinical, and criminological variables in the overall sample, and by compliance and recidivism status. As can be seen that most of the participants (93.4%) had a history of substance abuse (with opioids being the drug of choice). All participants had an axis I diagnosis, meeting the requirements to be considered primarily a MICA (mentally ill and chemically abusers) sample. In addition, most of the participants have long histories of prior involvement with the criminal justice system, with a mean number of arrests of 13.06, and a mean number of incarcerations of 7.59. Only 11 participants did not have any prior contact with the criminal justice system. More than half of the participants (65%) had a history of homelessness.

This sample was characterized by a significant incidence of sexual/physical abuse, and suicide attempts. Almost half of the participants attempted suicide at least once. As aforementioned, there were no statistically significant differences between the groups on these variables. However, individuals who failed to comply with diversion reported a greater history of sexual and physical abuse, and suicide attempts.

Table 4

Descriptive Statistics for Demographic, Clinical, and Criminological Variables on Diversion Compliance Status

Compliance	Total Sample (N = 61)	Compliance (N = 41; 67.2%)	Non-Compliance (N = 20; 32.8%)
Continuous variables	M (SD)	M (SD)	M (SD)
Age	39.01 (8.87)	38.97 (7.98)	39.10 (10.68)
Years of education	10.78 (2.90)	11.02 (2.85)	10.30 (3.01)
Prior hospitalizations	3.11 (3.92)	2.63 (3.51)	4.1 (4.61)
Prior arrests	13.06 (18.20)	13.65 (20.44)	11.85 (12.83)
Categorical variables	% (N)	% (N)	% (N)
Gender (Male)	68.9 (42)	68.3 (28)	70.0 (14)
Ethnicity			
African-American	50.8 (31)	48.8 (20)	35.5 (11)
Hispanic	26.2 (16)	71.4 (9)	28.6 (5)
Caucasian	6.6 (4)	75.0 (2.6)	25.0 (1.4)
Other	16.4 (10)	55.6 (5.8)	44.4 (3.2)
History of substance abuse	93.4 (57)	92.7 (38)	95.0 (19)
Opioids	26.2 (16)	24.4 (10)	30.0 (6)
Crack-cocaine	23.0 (14)	26.8 (11)	15.0 (3)
Alcohol	18.0 (11)	22.0 (9)	10.0 (2)
Marijuana	13.1 (8)	7.3 (3)	25.0 (5)
Cocaine	9.8 (6)	9.8 (4)	10.0 (2)
Other	3.2 (2)	2.4 (1)	5.0 (1)
History of homelessness	65.6 (40)	65.9 (28)	55.0 (12)
History of sexual abuse	27.9 (17)	24.4 (12)	25.0 (5)
History of physical abuse	37.7 (23)	31.7 (15)	40.0 (8)
History of suicide attempts	45.9 (28)	31.7 (14)	70 (14)
Charge severity (Felony)	75.4 (46)	80.5 (33)	65.0 (13)

Table 5

Descriptive Statistics for Demographic, Clinical, and Criminological Variables on Diversion Recidivism Status

Recidivism	Total Sample (N = 61)	NonRecidivism (N = 49; 80.3%)	Recidivism (N = 12; 19.7%)
Continuous variables	M (SD)	M (SD)	M (SD)
Age	39.01 (8.87)	40.04 (8.27)	34.83 (10.33)
Years of education	10.78 (2.90)	10.65 (3.12)	11.33 (1.72)
Prior hospitalizations	3.11 (3.92)	2.85 (3.86)	4.1 (4.17)
Prior arrests	13.06 (18.20)	12.97 (18.95)	13.41(15.50)
Categorical variables	% (N)	% (N)	% (N)
Gender (Male)	68.9 (42)	67.3 (33)	75.0 (9)
Ethnicity			
African-American	50.8 (31)	49.0 (24)	58.3 (7)
Hispanic	26.2 (16)	26.5 (13)	25.0 (3)
Caucasian	6.6 (4)	8.2 (4)	0 (0)
Other	16.4 (10)	55.6 (8)	44.4 (2)
History of substance abuse	93.4 (57)	92.7 (45)	95.0 (12)
Opioids	26.2 (16)	26.5 (13)	25.0 (3)
Crack-cocaine	23.0 (14)	24.5 (12)	16.7 (2)
Alcohol	18.0 (11)	20.4 (10)	8.3 (1)
Marijuana	13.1 (8)	6.1 (3)	41.7 (5)
Cocaine	9.8 (6)	10.2 (5)	8.3 (1)
Other	3.2 (2)	4 (2)	0 (0)
History of homelessness	65.6 (40)	69.4 (34)	50.0 (6)
History of sexual abuse	27.9 (17)	30.6 (15)	16.7 (2)
History of physical abuse	37.7 (23)	36.7 (18)	41.7 (5)
History of suicide attempts	45.9 (28)	42.9 (21)	58.3 (7)
Charge severity (Felony)	75.4 (46)	77.6 (38)	66.7 (8)

Descriptive statistics for psychiatric diagnoses are presented in Table 6. It is important to note that these diagnoses were not provided by the same source. Most of the diagnoses were obtained from evaluations conducted at Rikers Island, some of them from psychiatric reports conducted by outside consultants, and others from psychiatric evaluations conducted at different hospitals or clinics. The most prevalent diagnosis was Major Depressive Disorder (MDD), followed closely by Bipolar Disorder. Schizophrenia was the next most frequent diagnosis, followed by Post Traumatic Stress Disorder (PTSD), Schizoaffective Disorder and Anxiety-Related Disorders. However, MDD was the most frequent diagnosis for the non-compliance group, but not for the compliance group, whereas, Bipolar disorder and Schizophrenia were the most prevalent diagnoses in the compliance group. It could be hypothesized that participants with more serious diagnoses benefited more from treatment and were thus more likely to comply when compared with individuals with less serious diagnoses.

Table 6

Descriptive Statistics for Primary Psychiatric Diagnoses on Diversion Compliance Status

	Total Sample (N = 61)	Compliance (n = 41)	NonCompliance (n = 20)
Diagnosis	M (SD)	M (SD)	M (SD)
Major Depressive Disorder	24.6 (15)	19.5 (8)	35.0 (7)
Bipolar disorder	23.0 (14)	24.4 (10)	20.0 (4)
Schizophrenia	19.7 (12)	24.4 (10)	10.0 (2)
PTSD	9.8 (6)	9.8 (4)	10.0 (2)
Schizoaffective disorder	6.6 (4)	7.3 (3)	5.0 (1)
Anxiety-related disorders	3.3 (2)	4.9 (2)	3.3 (2)
Other	13.1 (8)	9.8 (4)	20.0 (4)

Because the Brooklyn MHC as well as Queens-TASC and EAC-LINK accept mainly defendants charged with felonies, it was not surprising that most of the participants were charged with Felony level crimes (75.4%). Furthermore, this study provided support for the fact that diversion programs are still more likely to divert defendants charged with non-violent crimes (80.3%). As it can be seen in Table 7, the most common charge included drug-related offenses (40.9%), followed by different degrees of Assault (13.1%) and Robbery (13.1%).

Table 7

Frequency Distribution for Index Offenses

Index Offense	Offense Level	% (n)
Criminal sale of a controlled substance	Non-violent F	29.4 (18)
Criminal possession of a controlled substance	Non-violent F	11.5 (7)
Robbery, 2nd degree	Violent F	9.8 (6)
Robbery, 3rd degree	Non-violent F	3.3 (2)
Criminal Contempt, 2nd degree	M	6.6 (4)
Assault, 3rd degree	M	4.9 (3)
Assault, 2nd degree	Violent F	4.9 (3)
Assault, 1st degree	Violent F	3.3 (2)
Conspiracy, 5th degree	M	3.3 (2)
Burglary, 3rd degree	Non-violent F	3.3 (2)
Petit Larceny	M	3.3 (2)
Grand Larceny, 3rd degree	Non-violent F	3.3 (2)
Disseminating Indecent Material to Minors	Non-violent F	1.6 (1)
Criminal possession of stolen property	Non-violent F	3.2 (2)
Criminal possession of stolen property	M	1.6 (1)
Unlawful grand jury disclosure	Non-violent F	1.6 (1)
Grand larceny 4th degree	Non-violent F	1.6 (1)
Criminal mischief 2nd degree	Non-violent F	1.6 (1)
Criminal trespass, 3rd degree	M	1.6 (1)

Note. M = Misdemeanor; F = Felony

Descriptive statistics (mean and standard deviations) are presented in Table 8 for HCR-20, PCL: SV, and M-Fast total scores in the overall sample, and results of t-tests examining differences between compliance and non-compliance groups, and recidivism and non-recidivism groups. Means for the HCR-20 total score (18.5) and the PCL: SV (9.22) were generally consistent with those found in samples of mentally ill offenders (Gray et al., 2004). The mean for the HCR-20 Total score (18.5) was found to be below

the mean above 20 usually found in general population of criminal offenders (Douglas at al., 2005). The mean for the PCL: SV Total score (9.22) was also below the mean of at least 12 usually found in non-mentally ill criminal offenders (Douglas et al., 2005; Hart et al., 1995). However, the non-compliance and recidivism groups obtained means of 21.45 and 23.65, respectively, which is more consistent with the scores found in non-mentally ill criminal populations. The same results were found for the PCL: SV, with the non-compliance and recidivism groups scoring11.35 and 13.50, respectively. The recidivism group earned higher scores than the non-compliance group in both the HCR-20 and the PCL: SV.

Table 8

Mean, Standard Deviations, and t-tests for HCR-20, PCL: SV and M-Fast scores on Diversion Compliance and Recidivism Status.

Compliance	Total N (N = 61)	DC (n = 41)	DNC (n = 20)					
Measure	M (SD)	M (SD)	M (SD)	*t*	*p*	*d*	95% CI	
HCR-20	18.15 (5.43)	16.54 (4.94)	21.45 (4.97)	-3.63	.001	-0.99	-7.61	-2.21
PCL:SV	9.22 (4.44)	8.19 (4.06)	11.35 (4.54)	-2.73	.008	-0.73	-5.46	-0.84
M-Fast	7.03 (5.52)	6.95 (5.62)	7.20 (5.46)	-.16	.87	-0.04	-3.28	2.79
Recidivism	Total N (N= 61)	NR (N= 49)	R (N= 12)					
Measure	M (SD)	M (SD)	M (SD)	*t*	*p*	*d*	95% CI	
HCR-20	18.15 (5.43)	16.80 (4.81)	23.67 (4.29)	-4.51	.000	-1.50	-9.91	-3.82
PCL:SV	9.22 (4.44)	8.18 (3.86)	13.50 (4.25)	-4.13	.000	-1.31	-7.85	-2.77
M-Fast	7.03 (5.52)	7.40 (5.79)	5.50 (4.10)	1.07	.287	0.37	-1.64	5.46

Note. DN= Diversion Compliance; DNC= Diversion Non-compliance; NR= Non-recidivism; R= Recidivism; H = Historical; C = Clinical; R = Risk Management; *d*= Cohen's *d*; CI= Confidence Interval

Malingering

Exaggeration of psychiatric symptoms or malingering was assessed using the M-Fast total score and the NIM score of the PAI. A cutoff of 6 has been recommended as the most effective for detecting exaggeration or feigning of mental illness (Guy et al., 2006; Guy and Miller, 2004; Miller, 2004). An unexpected finding in this study was a mean M-Fast sample score of 7, which is above the recommended cutoff for malingering. Of course, it is important to consider that the M-Fast is an screening measure of malingering, and as any screening measure, a determination of malingering can only be made after a score above the cutoff is further corroborated by another measure of

malingering or the collection of behavioral observations. Nevertheless, 54% of this sample scored above the cutoff, which indicates that further assessment of malingering should be conducted in more than half of the sample. An explanation for this finding could be that while this population may suffer from genuine mental illness, individuals may be exaggerating their symptoms in an attempt to ensure that they will get treatment in lieu of incarceration. When malingering was defined as elevations above the cutoffs in both the M-Fast and the NIM (< 85), 19.60% of participants were classified as malingerers. This rate is more consistent with estimates of the base rate of malingering in forensic populations (Arbisi & Ben-Porath, 1995; Berry et al., 2001; Boccacini, Murrie & Duncan, 2006; Guy and Miller, 2004).

Descriptive Statistics for the PAI variables

After invalid PAI protocols were eliminated (omitted items > 20, INF > 79, and INC > 79) a total sample of 43 participants with valid PAIs resulted. To determine whether the participants in the recidivism and non-compliance group differed from those in the compliance and non-recidivism groups on any of the PAI scales, a Multivariate Analysis of Variance (MANOVA) was conducted with the PAI scales as dependent variables, and recidivism and non-compliance as independent variables. The model for compliance was not significant, F (24, 43) = 1.29, $p > .05$ indicating that individuals in the compliance group did not significantly differ from those in the non-compliance group on PAI results. The model for recidivism was also not significant (F (24, 43) = 2.10, $p > .05$).

Descriptive statistics for the PAI scales are presented in Table 9. Cases with NIM scores above the recommended cutoff for malingering (NIM > 85) were eliminated for

these analyses. The PAI T-scores have a mean of 50 and a standard deviation of 10. Therefore, any score of 65 or above represents more than one standard deviation above the mean and it is considered to be clinically significant. T-scores above 70 represent significant deviations from the norm (Morey, 1996). Out of all the clinical scales, the alcohol (ALC) and drug (DRG) scales obtained means above 70. Both the Violence Potential Index (VPI) and the Treatment Process Index (TPI) were also significantly elevated (with means above 70). The VIP was developed to predict violent behavior using a configural algorithm that incorporates risk factors identified by research as predictors of violence, such as impulsivity, lack of empathy, or history of antisocial behavior (Morey, 1996). The mean elevation found on this index suggests that participants in this sample have a significant number of risk factors associated with violent behavior. This finding is consistent with other studies that have found scores on the VIP to be higher in individuals convicted of violent crimes relative to general psychiatric patients (Morey, 1996).

The TPI was developed to assess treatment amenability, and a clinically significant mean elevation on this scale suggests that because of the complexity of this sample in terms of psychosocial characteristics, individuals diverted from the criminal justice system may encounter considerable challenges to treatment success. According to Morey (1996), even if a person can recognize his need for change and may be motivated for treatment, they can have problems such as dysfunctional social environments, chaotic interpersonal relations, or poor impulse control, that suggest a poor prognosis in terms of treatment success. As evidenced by the description of the psychosocial characteristics of

this sample, it is therefore not surprising that these individuals would tend to elevate the TPI.

Other scales that were significantly elevated included the antisocial (ANT) and borderline scales (BOR). The elevation on the ANT scale is consistent with the high rates of antisocial personality disorder (APD) found in correctional samples (Teplin, 1994). In terms of the BOR scale, a cutoff of 65 has been found to have the best overall utility to identify patients who meet criteria for BPD (Jacobo, Blais, Baity, & Harley, 2007). In this sample, the mean for the BOR scale was 67.8 suggesting that a high percentage of participants might meet criteria for BPD. This finding is particularly significant because the tendency of patients with BPD to be resistance to treatment (Soloff, 2003), and to require specific types of treatment that are tailored to treat the symptoms of BPD. The suicide potential index (SPI) was also elevated, which is consistent with the high rate of suicide attempts found in this sample. Finally the stress (STR) and anxiety related disorders (ARD) scales were also above the cut-off of 65. These results seem to be inconsistent with the diagnoses assigned to the participants. For instance, even though most participants received diagnoses of MDD, the mean for the depression scale was not significantly elevated. An important caveat is that a large number of participants were excluded from this sample due to invalid protocols. It is possible that it is precisely the more severely mentally ill who were not paying attention to item content, could not sustain attention long enough to complete the PAI, omitted too many items, or were exaggerating symptoms.

Table 9

Descriptive statistics for the PAI scales and indices on a sample of 31 valid protocols.

Scale/Index	Mean	SD
SOM	62.38	9.31
ANX	61.83	10.08
ARD	65.19	10.31
DEP	62.61	8.50
MAN	61.58	13.66
PAR	64.61	9.99
SCZ	64.06	11.04
BOR	67.38	11.45
ANT	67.96	13.29
ALC	71.00	18.86
DRG	84.19	15.29
AGG	62.35	11.85
SUI	58.29	10.08
STR	65.25	12.45
NON	61.67	10.34
RXR	41.35	9.47
DOM	54.90	9.85
WRM	45.87	9.22
Suicide Potential Index	69.03	18.41
Violence Potential Index	75.35	23.79
Treatment Process Index	74.70	20.82

CHAPTER III

STUDY 2

Methods

Participants

The sample for this study consisted of 121 participants, including the 61 participants recruited from Study 1 and 60 participants who were not interviewed, but for whom HCR-20 and PCL:SV instruments were scored via file review. These participants were selected randomly from EAC-LINK, Queens-TASC and Bronx-Tasc and MHC.

The same demographic, clinical and criminological variables collected for participants in study 1 were collected for participants in study 2. Participants in this sample had a mean age of 37.4 years (*SD* = 10.48, range 18 to 59). Gender composition consisted of 83 (68.6%) males and 38 (31.4%) females. Ethnic composition consisted of 57 (47.1%) African-Americans, 37 (30.6%) Hispanic, 17 (14%) Caucasian, and 10 (8.3%) other. The mean years of education in this sample was 10.6 (*SD* = 2.9, range 0 to 18). Fifty-seven (47.1%) participants had a history of homelessness.

In terms of clinical variables, 112 (92.6%) reported a history of mental health treatment and 113 (93.4%) reported a history of substance abuse. Thirty-seven (30%) of participants received a diagnosis of major depressive disorder, 30 (24.8%) with Bipolar disorder, 23 (19%) with Schizophrenia, 8 (6.6%) with post traumatic stress disorder, 7 (5.8%), with Schizoaffecive disorder, 3 (2.5%) with anxiety-related disorders, and 13 (10.7%) with other diagnoses. Forty-four (36%) participants had a history of physical abuse, 30 (24.8%) had a history of sexual abuse, and 59 (48.8%) had a history of at least one suicide attempt.

One hundred and one participants (83.48%) had a criminal history prior to the index offense. Eighty-nine (73%) of participants were charged with a felony, and 32 (26.4%) with a misdemeanor. As in Study 1, most of the participants were charged with drug related offenses, 30 (26.2%) were charged with Criminal Sale of a Controlled substance, 20 (16.5%) with Criminal Possession of a Controlled Substance, 16 (13.2 %) with Robbery, 15 (12.4%) with Assault, 7 (5.8%) with Petit Larceny, 6 (5%) with Criminal Contempt, 5 (4.1%) with Burglary, 2 (1.6%) with Criminal Possession of Stolen Property), and 20 (16.5%) of participants with other type of offenses.

Measures

The HCR-20 and the PCL: SV were used for this study (measures are described in Study 1). Criterion measures were operationalized as described in Study 1.

Procedure

Randomly selected files were selected and reviewed by doctoral and master students who had conducted the interviews for Study 1 and were trained in the scoring of the instruments. Information available in the files included participants' psychosocial histories, intake evaluation, psychiatric evaluations, as well as information from other institutions (e.g., Rikers Island's records, hospital records). Prior studies have demonstrated that file data is a reliable means of collecting HCR-20 (Douglas et al., 1999), and PCL (Grann, Langstrom, Tengstrom, and Stalenheim, 1998) ratings for research purposes.

As in Study 1, progress notes within three months of the placement date were reviewed to collect outcome data. For the completion of this study, a HIPPA waiver

request was approved by the Institutional Review Board of John Jay College of Criminal Justice for the completion of file reviews for this study.

Statistical Analyses

Standard Logistic Regression Analyses (LRA) was conducted to compare participants who were interviewed from those who were not interviewed on all demographic, clinical, criminological and instrument scales variables. Standard Logistic Regression Analyses (LRA) were also conducted to compare participants in the diversion non-compliance and recidivism groups with those in the diversion compliance and recidivism groups on all study variables. Descriptive statistics for each measure and subscales were calculated for each of the criterion measures.

Hypothesis 1. Consistent with prior research, strong relationships were expected to be found between the HCR-20 and PLC: SV total and subscale scores. Intercorrelations at the bivariate level were calculated among HCR-20 and PCL: SV total and subscale scores.

Hypotheses 2 and 3: To determine the predictive validity of the HCR-20 and PCL: SV, LRA were conducted with diversion non-compliance and recidivism as criterion variables, and the HCR-20 and PCL-SV subscales as predictors. In addition, Receiver Operating Characteristic (ROC) analyses were also used as an index of predictive accuracy at the bivariate level. Areas Under the Curve (AUC) were calculated for each measure. ROC analyses are useful in the context of risk assessment because they are less sensitive to changes in base rates (Mossman, 1994). The effect size that it yields, the Area Under the Curve (AUC) ranges from 0 (perfect negative prediction), to .50 (change prediction), to 1.0 (perfect positive prediction). Although there is no general agreement in

the risk assessment literature on what values of the AUC represent small, moderate or large effect sizes, Dunlap (1999) reported that a value of .71 corresponds to a standardize difference score (*d*) of .80 (as cited in Douglas et al., 2008). A *d* value of .80 has been suggested to represent an effect of a large magnitude (Cohen, 1992, 1998).

An AUC of .64 would correspond to a moderate size effect of *d*=.50 (Douglas et al., 2008). Most of the studies have found AUC values for the PCL: SV and HCR-20 that would correspond to large size effects (De Vogel et al., 2004; Douglas et al., 1998; Doyle et al., 2002; Strand et al., 1999). ROC analyses were conducted with the HCR-20 and PCL: SV as the predictors for each of the criterion variables.

Hypothesis 4. Incremental validity of the HCR-20 minus the PCL: SV item above and beyond the PCL: SV was assessed through sequential binary logistic regression analyses.

Hypothesis 5. To assess whether the Risk Management scale of the HCR-20 adds incremental validity to the Historical and Clinical scales in the prediction of diversion compliance, sequential binary logistic regressions were conducted.

Results

Classification Criteria

Using the aforesaid criteria for non-compliance, violence, and recidivism, 44 (36.4%) participants were classified as diversion non-compliance, and 77(63.6%) participants were classified as diversion compliance. Twenty-two (18.2%) of participants engaged in recidivism, whereas 99 (81.8%) were in the non-recidivism group. Because the base rate for violence was relatively low, with six participants classified in the violence group (5%), and 115 in the non-violence group (95.0%), as in Study 1, analyses

were only conducted using diversion non-compliance (including violence) and recidivism as criterion measures.

Data Checks

A series of LRAs were conducted to cast for possible differences between the group of participants that were interviewed (n= 61) and the group of participants that were not interviewed (n= 60) using the criterion (recidivism, violence and compliance) and predictor variables. The two groups did not differ significantly on compliance, violence or recidivism (χ^2 (3, 121) = 2.32, $p > 0.05$). When a LRA was conducted comparing the two groups on demographic, clinical, criminological variables, and tests scores (HCR-20 H, C, and R scores, and PCL: SV Part 1 and Part 2 scores), the overall model was significantly different from a constant only model (χ^2 (24, 121) = 66.43, $p < 0.05$). Inspection of the predictor variables revealed that groups differed significantly on history of homelessness (B = 1.44, SE = 0.64, Wald χ^2= 5.91, p <.05; odds ratio = 4.235, 95% CI = 1.20-14.85), with the interviewed group reporting a greater history of homelessness. History of homelessness was recorded from all participants' files and therefore, this difference was considered not to be a confounding influence.

Inspection of the test predictor variables also revealed a significant difference between groups on the C scale of the HCR-20 (B = -0.658, SE = 0.212, Wald χ^2= 4.82, p <.05; odds ratio = 0.518, 95% CI = 0.34-0.78). Participants who were not interviewed earned slightly higher sores on the C scale. The mean C score for the non-interviewed group was 3.90 (SD = 2.37), versus a mean of 3.67 (SD = 1.75) for the interviewed group. However, t-test revealed that this mean difference was not significant (t (119) = 0.60, p =

0.55; effect size $r = 0.055$, Cohen's $d = 0.11$). Therefore, the two groups were considered to be homogeneous on the predictor variables .

Logistic Regression Analyses were then conducted to compare the groups of diversion compliance versus diversion non-compliance and recidivism versus non-recidivism on demographic (age, gender, ethnicity, years of education, and history of homelessness), clinical (psychiatric diagnosis, history of sexual abuse, physical abuse and suicide attempts, and number of psychiatric hospitalizations), and criminological (number of prior arrests and severity of index offense) variables. For diversion compliance as the criterion, the overall model was not significantly different from a constant only model (χ^2 (17, 121) = 20.47, $p > 0.05$). For recidivism as the criterion, the overall model was also not significantly different from a constant only model (χ^2 (17, 121) = 19.44, $p > 0.05$). These results indicate that the groups were similar in terms of demographic, clinical and criminological variables.

Descriptive Statistics

Descriptive statistics for each measure and subscales were calculated for each of the criterion measures. For this sample the mean score for the HCR-20 was 17.69 (*SD* = 6.11), and the mean for the PCL: SV was 8.23 (*SD* =4.60). The mean for the HCR-20 was generally consistent with that found in other samples of mentally ill offenders (Grey, Taylor, and Snowden, 2008; Grey et al., 2004). However, the mean score for the PCL: SV was below values generally found in forensic psychiatric populations where scores tend to range between 12.97 and 16.56 (Hart et al., 1995). Specifically, the mean score for Part 1 which encompasses the affective/interpersonal features (*M* = 2.28, *SD* =2.34) was particularly low when compared to other forensic psychiatric samples (Hart et al.,

1995), whereas Part 2 which encompasses the behavioral features (M = 5.98, SD = 3.03) was closer to values found in other studies.

Bonferroni-adjusted comparisons between groups (see Table 10) revealed that relative to the diversion compliance and recidivism groups, participants who did not comply with diversion and participants who engaged in recidivism earned significantly higher scores on all measures and subscales except for the H scale, which did not significantly differed between the groups.

Table 10

Mean, Standard Deviations, and t-tests for HCR-20,and PCL:SV scores on Diversion Compliance and Recidivism Status.

Com-pliance	Total N=121	DC n= 77	DNC n= 44				
Measure	M (SD)	M (SD)	M (SD)	*t*	*p*	*d*	95% CI
HCR-20T	17.69(6.11)	15.36 (5.40)	21.7(5.10)	-6.39	.000	-1.22	-8.39 -4.42
H	10.47(5.41)	9.72 (6.21)	11.7(3.27)	-2.05	.043	-0.41	-4.06- 0.07
C	3.78(2.08)	3.05 (1.73)	5.06(2.03)	-5.77	.000	-1.06	-2.70 -1.32
R	3.77(1.87)	3.20 (1.66)	4.77(1.81)	-4.80	.000	-0.90	-2.20 -0.92
PCL:SVT	8.23(4.60)	7.12 (4.27)	10.1(4.56)	-3.65	.000	-0.68	-4.66 -1.38
Part 1	2.28(2.34)	1.88 (1.99)	3.00(2.72)	-2.58	.011	-0.46	-1.97 -0.26
Part 2	5.98(3.03)	5.29 (3.07)	7.18(2.57)	-3.42	.001	-0.66	-2.97 -0.79
Re-cidivism	Total; N=121	NR N= 99	R N= 22				
Measure	Mean (SD)	Mean (SD)	Mean (SD)	*t*	*p*	*d*	95% CI
HCR-20T	17.69(6.11)	16.51 (5.88)	23.0(3.97)	-4.96	.000	-1.30	-9.15 -3.93
H	10.47(5.41)	9.93 (5.68)	12.9(2.97)	-2.03	.019	-0.65	-5.44 -3.93
C	3.78(2.08)	3.94 (2.04)	5.09(1.74)	-3.39	.001	-0.60	-2.52 -0.66
R	3.77(1.87)	3.49 (1.80)	5.04(1.64)	-3.69	.000	-0.90	-2.38 -0.71
PCL:SVT	8.23(4.60)	7.45 (4.23)	11.7(4.66)	-4.02	.000	-0.95	-6.28 -2.26
Part 1	2.28(2.34)	1.97 (1.99)	3.68(3.19)	-3.19	.002	-0.64	-2.75 -0.64
Part 2	5.98(3.03)	5.51 (2.99)	8.09(2.26)	-3.79	.000	-0.97	-3.91 -1.23

Note: All t-tests had 119 degrees of freedom; T= Total score; H = Historical; C = Clinical; R = Risk Management; *d*= Cohen's *d*; CI= Confidence interval.

Inferential Statistics

Hypothesis 1. It was hypothesized that strong positive relationships would be found between the HCR-20 and PCL:SV total and subscale scores. Table 11 presents the

interrelationships between measures. Most of the intercorrelations were high, which is not surprising because the instruments contain similar risk factors. However, none of the correlations were above .80, and inspections of the Variance Inflation Factor (VIF) and tolerance index indicated that there were no problems with multicolinearity among the HCR-20 and PCL: SV (VIF= 2.21, Tolerance = .45).

As expected, the H scale of the HCR-20 correlated stronger with Part 2 of the PCL: SV than with Part 1. It was also hypothesized that the C and R scales would correlate stronger with Part 1. However, the C and R scales also correlated stronger with Part 2 than with Part 1. This sample's relative homogeneity in Part 1 may explain these results.

Table 11

Correlations Among the Scores on the HCR-20 and PCL: SV

Measure	1	2	3	4	5	6	7
1. HCR-20	--	.45**	.77**	.72**	.74**	.47**	.75**
2. H		--	.23*	.25**	.38**	.19*	.43**
3. C			--	.50**	.65**	.51**	.58**
4. R				--	.36**	.23**	.36**
5. PCL:SV					--	.80**	.89**
6. Part 1						--	.46**
7. Part 2							--

Note. * $p < .05$, ** $p < .01$. H= Historical, C= Clinical, R= Risk Management.

Predictive Validity

Hypotheses 2 and 3. It was hypothesized that individuals who earned higher scores on the HCR-20 and the PCL: SV would be significantly more likely to engage in diversion non-compliance and recidivism relative to individuals who earn lower scores

on the HCR-20 and PCL: SV. To determine if the diversion non-compliance group could be classified by the HCR-20 and PCL: SV, a LRA was conducted with diversion compliance as the criterion and the scales of the HCR-20 and PCL: SV (H, C, and R, Part 1 and Part 2) as predictors. The model was significant (χ^2 (5, 121) = 34.72, p = .000), indicating that both the HCR-20 and the PCL: SV subscales as a group distinguished individuals who complied with diversion from those who did not comply. Overall classification rate was 75.2%, with 88.3% of the compliance group and 52.3% of the non-compliance group correctly classified. Therefore, when both instruments were entered together, specificity (proportion of compliers who were correctly classified) was shown to be superior to sensitivity (proportion of non-compliers who were correctly classified). Table 12 shows regression coefficients, Wald statistics, odds ratios and confidence intervals for all the scales together.

Table 12

Summary Statistics for Standard Logistic Regression Analyses for diversion non-compliance as criterion: HCR-20 Historical, Clinical, and Risk Management Scales, and PCL:SV Part1 and Part 2 scales entered as a block

					CI	
Scale	β(SE)	Wald χ^2	Odds Ratio	*p*	Lower	Upper
Block						
H	.031 (.042)	.535	1.03	.464	.950	1.12
C	.44 (.153)	8.30	1.55	.004	1.15	2.10
R	.28 (.138)	4.30	1.33	.038	1.01	1.74
Part 1	-.30 (.109)	.078	.979	.078	.78	1.20
Part 2	.02 (.096)	.069	1.02	.793	.85	1.23

Note. H= HCR-20 Historical; C= HCR-20 Clinical, R= HCR-20 Risk Management; Part 1= PCL:SV Part 1; Part 2= PCL:SV Part 2.

According to Wald Criterion, only the C (χ^2 (1, N=121) = 8.30, $p < .05$), and R scales (χ^2 (1, N=121) = 4.30, $p < .05$) of the HCR-20 significantly predicted the outcome when contributions of the remaining indices were controlled for. The model with the C and R scales omitted was reliably different from he model with C and R included (χ^2 change (2, N=121) = 21.65) and classification rates were poorer (Overall 66.9%; diversion compliance 85.7%; diversion non-compliance 34.1%). Still, the model with C and R omitted was significantly different from the constant-only model (χ^2 (3, N= 121) = 13.07, $p < .01$), and only Part 2 of the PCL:SV predicted the outcome when contributions of the other indices were controlled for ($B = 0.166$, $SE = 0.081$, Wald $\chi^2 = 4.15$, $p < .05$; odds ratio = 1.180, 95% CI = 1.006-1.384). A LRA was also conducted entering the HCR-20 and PCL: SV total scores as predictors, and diversion compliance as the criterion. The overall model was significant (χ^2 (2, 121) = 36.22, $p = .000$), but inspection of individual predictors revealed that only the HCR-20 significantly predicted the outcome when the other indices were controlled for ($B = 0.266$, $SE = 0.063$, Wald χ^2 (1, N=121) = 17.90, $p = .000$; odds ratio = 1.305, 95% CI = 1.153-1.476).

To determine if the recidivism group could be classified by the HCR-20 and PCL: SV, a LRA was conducted with recidivism as the criterion and the scales of the HCR-20 and PCL:SV (H, C, R, Part 1 and Part 2) as predictors. The model was significant (χ^2 (5, 121) = 22.35, $p = .000$), indicating that both the HCR-20 and the PCL: SV subscales as a group distinguished individuals who recidivated from those who did not. Overall classification rate was 79.3%, with 93.9% of the no-recidivism group and 13.6 % of the recidivism group correctly classified. Therefore, when recidivism was used as a criterion, specificity was markedly superior to sensitivity. In Table 13 shows regression

coefficients, Wald statistics, odds ratios and confidence intervals for all the scales together. Examination of individual predictors revealed that no individual scale significantly predicted the outcome when contributions of the remaining indices were controlled for.

Table 13

Summary Statistics for Standard Logistic Regression Analyses for recidivism as the criterion: HCR-20 Historical, Clinical, and Risk Management Scales, and PCL:SV Part1 and Part 2 scales entered as a block.

					CI	
Scale	β(SE)	Wald χ^2	Odds Ratio	*p*	Lower	Upper
Block						
H	.04 (.048)	.830	1.04	.362	.951	1.14
C	.06 (.177)	.117	1.06	.732	.751	1.50
R	.31 (.166)	3.47	1.36	.062	.984	1.88
Part 1	.11 (.118)	.897	1.11	.344	.887	1.41
Part 2	.18 (.115)	2.62	1.20	.105	.962	1.50

Note. H= HCR-20 Historical; C= HCR-20 Clinical, R= HCR-20 Risk Management; Part 1= PCL:SV Part 1; Part 2= PCL:SV Part 2.

When a LRA was conducted entering the HCR-20 and PCL: SV total scores as predictors, and recidivism as the criterion, the overall model was significant (χ^2 (2, 121) = 23.72, p = .000), and inspection of individual predictors revealed again that only the HCR-20 significantly predicted the outcome when the other indices were controlled for (B = 0.182, SE = 0.066, Wald χ^2 (1, N=121) = 7.52, p = .006; odds ratio = 1.200, 95% CI = 1.053- 1.366).

Results of regression analyses indicate that both the HCR-20 and PCL: SV subscale as a group are useful in predicting non-compliance and recidivism. The C and R scales of the HCR-20 performed better than the H scale only when predicting diversion non-compliance. However, when predicting recidivism, none of the subscales of the HCR-20 performed better than the others and they were only useful as a group. The HCR-20 Total was most useful in predicting diversion non-compliance and recidivism

than the PCL: SV, and out of the PCL: SV scales, Part 2 appears to be the more useful than Part 1.

Receiving Operating Characteristic (ROC) Analyses

Receiver Operating Characteristics (ROC) curves for the predictors were generated. As noted above, the Area Under the Curve (AUC) refers to the probability that a randomly selected individual from the non-compliance or recidivism group will have scored higher on the predictor variables, than a randomly selected individual from the compliance or non-recidivism groups. The AUC ranges from .0, perfect negative prediction, to 1.0, perfect positive prediction (McNiel, 2003). Table 14 shows that total and subscale scores differed significantly from the line of no information. For diversion compliance as the criterion, and consistent with the previous analyses, the HCR-20 total score had the greatest AUC (0.799) followed by C (0.772), R (0.733), and H (.697) scales. The PCL: SV and subscales values were lower with the PCL:SV Total having the highest AUC (0.681), followed by Part 2 (0.678) and with Part 1 having the lowest AUC (0.621). According to Dunlap (1999), the AUCs of the HCR-20 total, C and R scales represent a large effect size (corresponding to a Cohen's *d* of .80), while the AUCs of the H, PCL: SV, Part 1 and Part 2 scales would represent moderate effect sizes.

When recidivism was entered as the criterion, the HCR-20 total score obtained the highest AUC (0.823), and the AUC was higher for the H scale (.766) than for the C scale (7.31). The AUCs for the PCL: SV total (.746) and Part 2 (.747) represent large effect sizes, whereas the AUC for part 1 (.655) represent a moderate effect size.

Table 14

Areas Under the Curves (AUCs) of Receiver Operating Characteristic Analyses for Diversion Non-compliance and Recidivism

	Non-Compliance			Recidivism			
Measure	AUC	SE	95% CI	AUC	SE	95% CI	*p*
HCR-20 T	.799	.041	.71 - .87	.823	.045	.73 - .91	.000
H	.697	.048	.60 - .79	.766	.054	.66 - .87	.000
C	.772	.046	.68 - .86	.731	.053	.62 - .83	.000
R	.733	.047	.64 - .82	.747	.055	.63 -. 85	.000
PCL:SV T	.681	.049	.58 - .77	.746	.055	.63 - .85	.001
Part 1	.621	.054	.51 - .72	.655	.068	.52 - .78	.027
Part 2	.678	.049	.58 - .77	.747	.050	.64 - .84	.001

Incremental Validity

Hypothesis 4: It was expected that the HCR-20 total score minus the psychopathy item (item 7), will add incremental validity to the PCL: SV. A sequential LRA with diversion compliance as the criterion variable was conducted with the PCL: SV total score entered first, followed by the HCR-20 total score minus item 7 (HCR-20-7). The PCL: SV significantly differentiated the groups (Wald χ^2 (1, N=121) = 12.49, p = .000). Comparison of log likelihood ratios of models with and without the addition of HCR-20-

7 showed significant improvement when HCR-20-7 was added to the equation ($\Delta\chi^2$ (1, N=121) =22.03, p = .000), with HCR-20-7 being the only variable that contributed significantly to the prediction (HCR-20-7 Wald χ^2 (1, N=121) = 16.87, p = .000; odds ratio = 1.287, 95% CI = 1.14 - 1.45; PCL: SV Wald χ^2 (1, N=121) = 16.87, p > .05; odds ratio = .965, 95% CI = .84 - 1.10). When the order was reversed, the PCL: SV failed to contribute significantly to the predictive power of the HCR-20 alone. The same results were found when recidivism was used as the criterion variable. Therefore, if a single instrument were to be selected as a guide to help make predictions of compliance and/or recidivism in the context of diversion, the HCR-20 appears to be more appropriate.

Hypothesis 5: It was expected that the R scale of the HCR-20 would not add incremental validity to the HCR-20 H and C scales in the prediction of diversion compliance. A sequential LRA was conducted in which the R scale was added, after the H and C scales were entered as a block. The H and C scales entered as a block significantly differentiated the groups (Wald χ^2 (2, N=121) = 29.94, p = .000). When the R scale was entered into the equation the log likelihood ratio was significantly improved ($\Delta\chi^2$ (3, N=121) = 4.66, p = .000). Both the C (Wald χ^2 (1, N=121) = 11.03, p = .001; odds ratio = 1.551, 95% CI = 1.19 – 2.01) and R (Wald χ^2 (1, N =121) = 4.42, p = .035; odds ratio = 1.336, 95% CI = 1.02 – 1.75) scales contributed to the prediction, whereas the H scale did not contribute significantly to the prediction (Wald χ^2 (1, N=121) = .69, p > .05; odds ratio = 1.033, 95% CI = .95 – 1.11). However, when the order was reversed and the H and C scales were entered in the second block, they also contributed significantly to the predictive power of R ($\Delta\chi^2$ (1, N=121) =6.12, p = .000).

Finally, since the H scale was not found to be contributing significantly to the predictive power, to examine whether the R scale adds incremental validity to the C scale alone, a sequential LRA with diversion compliance as the criterion variable was conducted with the C scale entered first, followed by the R scale. The C scale significantly differentiated the groups (Wald χ^2 (1, N=121) = 28.75, p = .000). Comparison of log likelihood ratios of models with and without the addition of the R scale showed significant improvement when R was added to the equation ($\Delta\chi^2$ (1, N=121) =5.24, p = .000), with both the C (Wald χ^2 (1, N=121) = 11.29, p = .001; odds ratio = 1.560, 95% CI = 1.20 – 2.02) and R (Wald χ^2 (1, N=121) = 4.95, p = .026; odds ratio = 1.35, 96% CI = 1.03 – 1.77) scales contributing significantly to the prediction. When the order was reversed, the C scale also added significantly to the predictive power of R alone ($\Delta\chi^2$ (1, N=121) =13.27, p< .000). Therefore, both scales offered unique contributions to the predictive power of the HCR-20.

CHAPTER III

STUDY 3

Methods

Participants

This study used a two tail-design in which cases from both extremes of diversion compliance and diversion non-compliance were deliberately chosen (Yin, 2008). Yin (2008) has suggested that a minimum of six to ten cases should be included in multiple-case studies. Participants were selected from the sample of 60 participants in study 1. This sample was divided in two groups based on the criterion variable of diversion compliance. Out of these two groups, five participants with the highest HCR-20 scores in the diversion non-compliance group, and five participants with the lowest HCR-20 scores in the diversion compliance group were selected. Out of these ten participants, eight participants for whom more descriptive, historical or background information was available (four from each group) were used as units of analyses. Subsequently, to test rival hypotheses, four participants with the lowest HCR-20 scores in the diversion non-compliance group and four participants with the highest HCR-20 scores in the diversion compliance group were initially selected. Out of these eight participants, four (two from each group) were selected as units of analysis for this study based on availability of descriptive, historical and background information.

Based on this selection procedure, 12 participants were selected. As a group, this sample had a mean age of 35.3 years (*SD* = 11.18), and a mean of 11.5 (*SD* =2.06) years of education. Nine (75%) participants were male and three (25%) were female. Ethnic

composition consisted of 6 (50%) African-Americans, 3 (25%) Hispanic, 1 (8.3%) Caucasian, and 2 (16.7%) other.

Participants were divided into four groups according to results of the HCR-20 and compliance status:

Group 1 included participants with the lowest HCR-20 scores who complied with diversion as predicted: Participant 1 (HCR-20 = 11), Participant 2 (HCR-20 = 3), Participant 3 (HCR-20 = 10), Participant 4 (HCR-20 = 10).

Group 2 included participants with the highest HCR-20 scores who failed diversion as predicted: Participant 5 (HCR-20 = 29), Participant 6 (HCR-20 = 26), Participant 7 (HCR-20 = 26), Participant 8 (HCR-20 = 26).

Group 3 included participants with the lowest HCR-20 scores who failed diversion: Participant 9 (HCR-20 = 13), and Participant 10 (HCR-20 = 14).

Group 4 included participants with the highest HCR-20 scores who complied with diversion: Participant 11 (HCR-20 = 28), Participant 12 (HCR-20 = 25)

Procedure

Data for this study was gathered from file reviews that included psychosocial summaries, psychiatric evaluations, progress notes, and treatment updates. Data was also collected from interviews conducted with participants as part of study 1, and testing results. Some of the participants' case managers were interviewed over the phone to obtain additional information. All identifying information, such as name and place of birth was altered to ensure confidentiality. All participants included in this study signed a consent form as part of Study 1.

Individual case-study reports followed the following general format:

1. Identifying, demographic information, and case disposition/treatment plan.
2. Psychosocial history.
3. Psychiatric and substance abuse history.
4. Criminal history.
5. Participant's descriptions of the instant offense.
6. Testing results.
7. Diversion outcome

Data Analyses

Analyses of the data followed two stages, a literal replication stage in which cases were selected to obtain similar results, and a theoretical replication stage in which cases were selected to explore or disprove the patterns identified in the initial cases (Yin, 2008). As a first step, to support the hypothesis that variables contained in the HCR-20 are good predictors of diversion compliance, the highest and lowest predicted scores for each group were selected and literal replication within each subgroup was conducted. Subsequently, rival hypotheses were generated to explain diversion compliance using other variables not included in the HCR-20. With the purpose of exploring other rival explanations for diversion compliance, theoretical replications (e.g., predicting contrasting results; Yin, 2008) were conducted by selecting participants for whom the HCR-20 did not accurately predict diversion.

The following variables were explored to generate possible rival hypotheses: history of physical or sexual abuse, severity of psychopathology, malingering, level of responsibility taken for the instant offense, appropriate matching with treatment program.

However, other variables not included in this list emerged after the first stage of literal replication was conducted (e.g., emotional support).

Finally, a cross-case synthesis of the individual case-studies was conducted by aggregating the findings across the individual studies (Yin, 2008). This model allowed for the identification of alternative explanations for diversion compliance not explored in studies 1 and 2, which facilitated the generation of alternative hypotheses for future research.

Results

See Appendixes A and B for Literal Replications: Groups 1 and 2 (Cases 1 through 8)

Cross-case Synthesis for Groups 1 and 2: Literal Replications

The four participants included in group 1 obtained low scores in the HCR-20 and complied with the conditions of their release as expected. Consistent with the low total HCR-20 score, these participants had no histories of impulsive or aggressive behavior during childhood, were never suspended or expelled from school for behavioral problems, denied histories of violence as adults, did not have long histories of arrests or incarcerations, and did not exhibit personality traits consistent with psychopathy.

However, this group also shared some characteristics that are not measured by the items within the HCR-20. None of the participants reported any history of sexual abuse, physical abuse, or homelessness. They all described being able to establish significant emotional connections with others and had at least one person who supported them throughout their diversion process. In addition, all participants suffered from severe mental illness and had significant histories of prior psychiatric hospitalizations. Two participants reported long histories of substance abuse, but the other two reported no

history of substance abuse. Of significance, none of the participants in this group reported any family histories of substance abuse or arrests and only Mr. M reported a family history of mental illness.

Furthermore, all participants in this group were charged with non-violent felonies and took full responsibility for their offenses. Finally, participants appeared to have been matched appropriately with treatment programs: Mr. M was transferred to a program where his mental health issues were addressed (after having suffered a psychiatric decompensation in a substance abuse program), Mr. L was placed in an outpatient treatment program for patients with co-morbid TBI and mental illness, and both Ms. R and Ms. S were placed in a program designed to treat MICA patients.

Regarding test results, PAI profiles varied within participants, and with regards to scores on the M-Fast, Mr. M, Mr. L, and Ms. S obtained scores below the cutoff recommended for malingering, while Ms. R obtained a score of 11, suggesting that she may have exaggerated his psychiatric symptoms.

Within Group 2, all participants obtained high scores in the HCR-20 and did not comply with the conditions of their release also as expected. Consistent with the high total HCR-20 score, these participants had histories of impulsive or aggressive behavior during childhood, were suspended or expelled from school for behavioral problems, reported histories of violence as adults, and most of them (three out of four) had long and varied criminal histories. They also scored consistently higher on the PCL: SV when compared with Group 1 (Mr. T scored above the cutoff for psychopathy, and Mr. W and Mr. X exhibited traits of psychopathy).

However, this group also shared some characteristics that were not measured by the variables within the HCR-20 and that were found to be in contrast with those for Group 1. All of the participants shared severe physical abuse histories. They all appeared to be socially isolated and were unable to name anyone who provided support for them throughout the diversion process. All participants had diagnoses of MDD and only one reported prior history of mental health treatment or psychiatric hospitalizations (all participants in Group 1 had significant histories of prior psychiatric treatment). All participants reported histories of substance abuse. Further, in contrast with Group 1, all participants in Group 2 reported family histories of substance abuse and criminality.

Concerning the index offenses, two participants were charged with violent felonies whereas the other two where charged with non-violent felonies. Finally, two of the participants in this group were placed in treatment programs designed to primarily treat drug addiction rather than mental health problems. Thus, these participants may not have been matched with the appropriate treatment program to adequately address their needs.

Personality Assessment Inventory profiles varied within participants. Regarding M-Fast scores, two participants provided scores above the cutoff while the other two provided scores below the cutoffs suggesting that they may have exaggerated their psychiatric symptoms.

Generation of Rival Hypotheses Based on Literal Replication

Based on the cross-sectional summary of Groups 1 and 2, the following rival hypotheses were generated to explain diversion compliance (these hypotheses are based

on variables not included in the HCR-20 but on patterns identified through the case-studies):

Hypothesis 1: Regardless of HCR-20 scores, participants who report histories of physical/sexual or traumatic upbringing are more likely to fail diversion.

Hypothesis 2: Regardless of HCR-20 scores, participants with family histories of substance abuse and/or criminality are more likely to fail diversion.

Hypothesis 3: Regardless of HCR-20 scores, participants who report more severe psychiatric disorders and extended histories of mental health treatment and psychiatric hospitalizations are more likely to benefit from treatment and therefore to comply with diversion.

Hypothesis 4: Regardless of HCR-20 scores, participants who are socially isolated and lack a support system throughout the process of diversion are more likely to fail treatment.

Hypothesis 5: Regardless of HCR-20 scores, participants charged with violent offenses are more likely to fail diversion than participants charged with non-violent offenses.

Hypothesis 6: Regardless of HCR-20 scores, participants who are appropriately matched to treatment programs (e.g., both substance abuse and psychiatric disorders are addressed) are more likely to comply with diversion.

Hypothesis 7: Regardless of HCR-20 scores, participants who do not take responsibility for their offenses are more likely to fail diversion.

See Appendixes C and D for Theoretical Replications: Groups 3 and 4 (Cases 9 through 12)

Cross-case Synthesis for Groups 3 and 4: Theoretical Replications

Both of the cases studied in Group 3 included participants who scored very low in the HCR-20, but unexpectedly failed to comply with diversion. Consistent with the low scores on the risk assessment instruments, they did not have significant histories of violence, criminality, or behavioral problems in school. In addition, they did not exhibit personality features of psychopathy. Despite not meeting the risk factors included in the risk assessment instruments, they violated the conditions of their release and were remanded to jail. A close examination of these cases shows that both participants reported severe physical abuse histories and traumatic experiences. Mr. J lost her parents at an early age and Ms. G was abused by different foster care parents. In addition, they both reported family histories of substance abuse. While Mr. J did not report any history of mental health treatment or psychiatric hospitalizations, Ms. G carries a diagnosis of Bipolar disorder and has a history of multiple psychiatric hospitalizations. The violence of the charges also differed: Mr. J was charged with a non-violent offense whereas Ms. G was charged with a violent offense. Regarding their descriptions of the instant offense, Mr. J provided an excuse for the commission of his crime, and Ms. G refused to talk about it. Both participants were socially isolated. Even though Mr. J had been able to establishing strong emotional connections with others throughout his life (e.g., wife and children), his wife had recently died and he did not have any emotional support while dealing with his legal case. Finally, both participants were placed in programs that primarily addressed substance abuse issues.

Cases included in Group 4 complied with the conditions of their release despite earning significantly high scores in the HCR-20. Consistent with the high total HCR-20 score, these participants had histories of impulsive or aggressive behavior during

childhood, were suspended or expelled from school for behavioral problems, reported histories of violence as adults, and most of them had long and varied criminal histories. They also exhibited personality characteristics of psychopathy. However, a closer examination of these cases show that they both shared some experiences that could have functioned as protective factors for non-compliance or recidivism. Both participants described their family environments as loving and functional, denied any history of physical or sexual abuse, as well as any family history of substance abuse or criminality. Mr. Y had the support of his mother and sister while going through his diversion process, while Mr. B had the support of his fiancée. Even though Mr. Y did not show remorse for his crimes, he did take responsibility for his index offense, and so did Mr. B. However they differed in terms of the severity of their diagnoses and histories of mental health treatment, they also differed in the violent nature of the index offense. Both participants were placed in treatment programs offering primarily substance abuse services.

Cross-sectional Analyses of All Cases

When conducting cross-sectional analyses, Yin (2008) recommends the use of word tables displaying the data from individual cases according to some uniform framework. Table 15 presents data for the four groups on the hypotheses that were developed after the theoretical replication of cases. As seen in this table, four out of the seven hypotheses were supported by theoretical replication. A cross-synthesis of the case studies show that regardless of HCR-20 status, all participants who failed diversion reported a history of physical or sexual abuse (hypothesis 1), a family history of substance abuse or criminality (hypothesis 2), lacked emotional support (hypothesis 4), and did not take full responsibility for their crimes (hypothesis 7). On the other hand, also

regardless of HCR-20 status all participants who complied with diversion denied any history of abuse or family history of substance abuse or criminality, had at least one person who supported them through the diversion process, and took full responsibility for their crimes.

The rest of the hypotheses were not confirmed through theoretical replication. The severity of psychiatric illness or history of mental health treatment (hypothesis 3) varied within Groups 3 and 4, as well as the violence of the index offense (hypothesis 5), and the type of match to the treatment program (hypothesis 6). A cross-synthesis of all cases also show that the PAI profiles and M-Fast scores varied within cases with no patterns were identified in terms of performance in these tests and diversion compliance.

Table 15

Cross-case syntheses: patterns of variables identified across cases that are not measured by the HCR-20

Low HCR-20 and compliance: Group 1	High HCR-20 and compliance: Group 2
No history of physical/sexual abuse	No history of physical/sexual abuse
No family history of substance abuse or criminality	No family history of substance abuse or criminality
Social/emotional support	Social/emotional support
Took responsibility for offense	Took responsibility for offense
Low HCR-20 and non-compliance: Group 3	**High HCR-20 and non-compliance: Group 4**
History of physical/sexual abuse	History of physical/sexual abuse
Family history of substance abuse	Family history of substance abuse
Social/emotional support	Social/emotional support
Took responsibility for offense	Took responsibility for offense

CHAPTER V

DISCUSSION

Diversion programs and mental health courts are growing in number and an increasing number of defendants are being released from the jail system to enter treatment in the community in lieu of incarceration (Redlich et al., 2006; Steadman & Naples, 2005). However, this population has only been described in terms of demographic variables, but little is known about the type of individuals who are being selected to enter these programs in terms of their clinical, social, and risk characteristics.

The present investigation represented one of the first efforts to study the psychological, social, and clinical characteristics of individuals diverted from the criminal justice system into community treatment, and to examine psychosocial and risk assessment variables that may help predict non-compliance or recidivism in court mandated treatment. Three different strategies were used to approach the research questions posed by this investigation. Descriptive statistics were used in Study 1 to describe a sample of defendants released from Rikers Island to enter treatment through diversion programs and mental health courts in three of the New York City boroughs. Study 2 explored the utility of two widely used risk assessment instruments in the prediction of non-compliance and recidivism in the context of diversion. Finally, Study 3 employed a multiple-case study design to explore alternative variables that were not captured by quantitative strategies that may further explain why defendants succeed or fail diversion. This chapter discusses the results of each study separately, followed by a general discussion.

Study 1

This study described a sample of 61 defendants who were released from Rikers Island to enter court-mandated treatment through different diversion programs and mental health courts. Demographic characteristics of participants were consistent with those found in criminal justice populations (Beck et al., 2002). Most of the sample consisted of males from minority groups, and with low levels of education.

In terms of clinical characteristics, the base rate of substance abuse was high, and all participants were diagnosed with an Axis I psychiatric illness. These results revealed that a high percentage of this sample (93.4%) had co-occurring mental and substance use disorders, meeting the definition for MICA patients. In addition, most of the participants of this study were repeat offenders with long histories of arrests and incarcerations. This information is important because research has suggested that MICA offenders do not tend to benefit from traditional Treatment Community (TC), or substance abuse treatment alone, but instead, this population requires interventions that address criminal thinking and behavior, and increase insight into the interrelationship of substance misuse, mental illness and criminality (Sullivan, McKendrick, Sacks, & Banks, 2007). Further complicating this picture is the high prevalence of Antisocial Personality Disorder (APD) among inmates with serious mental disorders. Some estimates suggest that close to half of the mentally ill offender population meets criteria for APD (Teplin, 1994). Unfortunately, Axis II diagnoses were not available for participants in this study because most of the psychiatric evaluations obtained by the programs (most of which were conducted at Rikers Island) did not provide personality disorder diagnoses. However, given the elevated mean score on the PAI's antisocial scale and the high rate of criminal

offending found in this sample, it is likely that a large number of participants in this study also meet criteria for APD. It has been argued that the absence of self-reflection and insight commonly seen in individuals with APD reduces their motivation for change, limiting the provider's ability to encourage treatment retention and making these patients more resistance to treatment (Reid & Gacono, 2000).

It was striking to find that this sample was characterized by a high rate of trauma, suicidality and homelessness. Forty-two percent of the participants reported a history of physical or sexual abuse, almost half of the participants had attempted suicide at least once, and more than half reported a history of homelessness. These results suggest that individuals participating in diversion have fragmented lives, severe histories of trauma, and co-morbid substance abuse and mental disorders, requiring specialized types of treatments. This is consistent with results of the PAI where the TPI obtained the highest mean elevation, suggesting a bad prognosis in terms of treatment response. This elevation further emphasizes the need for specific treatment approaches for a challenging group of individuals who may recognize their need for treatment (Morey, 1996), but whose dysfunctional upbringing, chaotic environments and lack of emotional attachments make them more resistant to treatment.

Generally, results of the PAI were inconsistent with the severity of Axis I diagnoses reported for this sample. An examination of the clinical scales revealed that only the ALC and DRG scales obtained mean scores that were significantly deviated from the norm (scores above 70). Psychiatric samples tend to provide PAI profiles marked by several significant elevations in the clinical scales. Given that all participants in this study were diagnosed with psychiatric disorders other than substance-related

disorders, the fact that no other scale was elevated at the clinically significant level was unexpected.

It is important to mention that 65% of participants in Study 1 were diverted from EAC-LINK as the other sites were recruited some months after the data collection had began. EAC-LINK does not have any psychologist on staff and rarely utilizes outside consultants to conduct psychiatric evaluations. Therefore, this program relays solely on diagnoses provided by Rikers Island's psychiatrists who usually meet with defendants for a brief period of time and do not use any standardized psychological assessment instrument. It may be the case that jail psychiatrists are overdiagnosing Axis I disorders and therefore, defendants who do not meet the SPMI criteria are inappropriately being found eligible for mental health diversion programs.

Approximately 40% of participants in this sample were arrested for drug-related offenses, 93.4% reported a history of substance abuse, and the ALC and DRG scales of the PAI obtained the highest elevations. These findings paired with the fact that results of the PAI revealed that some participants may have been inappropriately diagnosed with Axis I disorders, suggest that a number of defendants in this sample could be more appropriate for diversion into a drug treatment court.

A final mention needs to be made of the high proportion of participants who earned high scores on a screening measure of malingering or symptom exaggeration (M-Fast). Given the incentives afforded by participation in diversion, such as the avoidance of incarceration and/or the dropping of criminal charges, it was hypothesized that a significant proportion of participants would attempt to feign or exaggerate the severity of psychiatric disorders. However, it was not expected that such a high proportion of

participants (54%) would score above the cutoff recommended for malingering. It may be the case that even though participants may suffer from genuine mental illness, they may also attempt to exaggerate their presentations to ensure access to diversion. However, when malingering was assessed using the NIM and the M-Fast in conjunction, the percentage of participants who were found to be feigning psychiatric symptoms was significantly lower and generally consistent with estimates of malingering in forensic populations. What this suggests is that the M-Fast may be useful in this context to rule out malingering in at least half of the participants considered for diversion, but that further screening of malingering needs to be conducted with the other half, as the M-Fast was found to have a high rate of false positives.

Study 2

The purpose of this investigation was to assess the utility of the HCR-20 and PCL: SV in the prediction of recidivism and diversion non-compliance in a sample of 121 defendants released from jail into court-mandated treatment. Due to the limited personnel and financial resources usually available in diversion programs, the employment of multiple risk assessment instruments, although desirable, may not be feasible. In particular, since the scoring of the HCR-20 adds more time and effort to the scoring of the PCL: SV alone, this study assessed whether the HCR-20 added any incremental validity to the PCL: SV.

Even though he PCL: SV was developed to assess psychopathy, and not to predict diversion compliance, there are several reasons why this instrument was thought to be appropriate for its use in this context. There is some evidence suggesting that individuals who score high on the PCL do poorly in therapeutic community treatment, show less

motivation, and are discharged earlier from treatment (Ogloff et al., 2003; Rice et al., 1992). In addition, individuals with psychopathic traits are more likely to engage in recidivism, particularly violent recidivism (Salekin et al., 1996). Both treatment failure and recidivism are important outcomes in the context of diversion. The HCR-20 was selected for this study because of the unique contribution of clinical factors that are correlated not only with violence and recidivism, but also with treatment response. Particularly, characteristics such as lack of insight, impulsivity or prior treatment failure (evaluated by the C scale) have been identified as important variables in making prognoses about treatment success (Morey, 1996).

Results of a three-month follow-up showed a low base rate for violence, with only six participants engaging in any violence. This result may be explained by the short follow-up period and more incidents of violence are likely to be observed after longer time periods. The base rate for recidivism was 18.2%, which is also below the base rate usually found in studies that follow mentally ill offenders for longer periods of time (Douglas et al., 2005, Grey et al., 2004). However, it is important to note that these studies tend to follow individuals who are discharged into the community without follow-up plans or at least without the intense level of supervision provided by diversion programs. Therefore, even within a longer follow-up period, it is possible that the base rate of recidivism in the context of diversion could be lower than the numbers found in other less-supervised contexts.

In terms of diversion compliance, 36.4% of participants engaged in diversion non-compliance. Given the aforementioned complexity of this population in terms of demographic, clinical and criminological characteristics and its generally low amenability

to treatment, a base rate of 63.6% of success was considered to be a positive finding and provides support for the continuation of these types of programs.

Descriptive statistics for the risk assessment instruments showed a mean HCR-20 score that is generally consistent with other samples of mentally ill offenders. However, participants of this study earned lower scores on the PCL: SV when compared to other criminal samples. Specifically, Part 1 was particularly low when compared to other forensic samples. These results suggest that this sample may consist of what Patrick (1994) has defined as antisocial offenders (high scores on factor 2 and low scores on factor 1), as opposed to psychopathic offenders (high scores on factor 1 and low scores on factor 2). In fact, only four participants (3.3%) exceeded the cutoff score of 17 recommended by Hart et al., (1995) for strong evidence of psychopathy on the PCL: SV. The low base rate of psychopathy in this sample may be a result of the diversion program's selection criteria. Even though second generation diversion programs are more likely to divert more felony than misdemeanor offenders (Redlich et al., 2006), most of the participants found eligible for diversion were charged with non-violent offenses. In the current sample, 74.4% of participants were charged with non-violent offenses versus 25.6% of participants charged with violent offenses. Research has found that high scores on the PCL predict particularly violent recidivism (Porter, Birt, & Boer, 2001; Salekin, Rogers & Sewell, 1996; Walters, 2003a). The fact that violent offenders are generally excluded from diversion may be a contributing factor the low base rate of psychopathy in this sample.

Results of a series of logistic regression analyses demonstrated the predictive utility of the HCR-20 and PCL: SV for recidivism and diversion non-compliance

following release from jail into court-mandated treatment. Total scores for the HCR-20 were found to be superior to scores for the PCL: SV in the prediction of diversion non-compliance and recidivism, and the PCL: SV was more useful in predicting recidivism than diversion non-compliance. This result is not surprising given the inclusion of an antisocial life-style in the PCL: SV, but the lack of clinical factors that are found to correlate with treatment response.

It is important to note that because of the generally low scores on Part 1 of the PCL: SV, PCL: SV total scores were restricted in range, which may have contributed to the superiority of the HCR-20 over the PCL: SV in this sample. The low scores found on the PCL: SV were not unexpected. In fact, the HCR-20 had been hypothesized to be more useful in the context of diversion because of the inclusion of clinical (dynamic) variables in addition to antisocial historical (static) variables. Because of the nature of this population as primarily mentally ill, more variability was expected to be found on instruments that include clinical factors. In addition, the low base rate of psychopathy found in this sample is consistent with the low co-morbidity between psychopathy and Axis I diagnoses reported by prior research (Hare, 2003; Hidebrand & de Ruiter, 2004; Stalenheim, & Von Knorring, 1996). Nevertheless, the restriction in range may also be specific to this sample, and replications of this study are needed to see if consistent base rates of psychopathy are obtained.

Incremental validity analyses showed that the HCR-20 added incremental validity to the PCL: SV, even when the psychopathy item (HCR-20 item 7) was subtracted from the total score. Conversely, the PCL: SV failed to contribute significantly to the predictive power of the HCR-20. Even though the HCR-20-7 was found to be the most

useful in the prediction of diversion compliance, it is important to mention that this instrument showed to have better specificity than sensitivity in this context. The regression analyses correctly classified 83.1% of the participants who complied with diversion and 54.5% of participants who failed diversion. Therefore, a significant number of participants who did not comply with diversion were misclassified as being in the compliance group. The relative significance attributed to indices of predictive accuracy for a given instrument is different across contexts (Rogers, 1997). When predicting diversion compliance, it is probably preferable to maximize the specificity of a risk measure because of the potential consequences of labeling a defendant as likely to fail diversion (e.g., taking away the opportunity to receive treatment in lieu of incarceration).

Consideration of the subscales showed that when predicting diversion non-compliance, the C and R scales of the HCR-20 were highly significant whereas the H scale was not, and that the C scale proved to be the most useful. Prior studies have found different trends in terms of the comparative predictive validity of the HCR-20 scales. Some studies have found the H scale be a better predictor of violence and recidivism when compared to the C and R scales (Cote, 2001), other studies have found the C and R scale to outperformed the H scale (Ross et al., 2001; Strand et al., 1999; Belfrade et al., 2000), while yet other studies did not find any significant differences between the three scales (Pham et al., 2000). Participants in this study were quite homogenous on historical factors given the high prevalence of substance abuse, mental illness, early victimization, and type of offenses (mostly non-violent felonies). This characteristic of the sample, paired with the fact that the criterion variable was diversion compliance and not violence alone, may explain the superiority of the C scale in differentiating the groups. Some of

the variables included in the C scale are theoretically related to treatment response, such as insight, impulsivity, and prior treatment failure. Furthermore, item 3 of the clinical scale (active symptoms of major mental illness) is particularly significant given the short follow-up period. This result provides support for what Douglas (2004) identified as a general emerging trend in which the C and R scales might show superior predictive ability in forensic psychiatric samples compared to correctional samples.

The HCR-20 was also selected because of the special contribution of the R scale, which provides the evaluator with the opportunity of considering discharge/treatment plans when making determinations of risk. It was expected that because of the participants' similar treatment dispositions, the R scale was not going to add incremental validity to the H and C scales when predicting diversion compliance. This hypothesis was not supported as the R scale added a unique contribution to the predictive power of H and C. It may be the case that raters took into consideration the scores on the H and C items such as history of violence, impulsivity, negative attitudes, insight, or prior response to treatment, when determining whether the same treatment plans seemed feasible for different participants. When the criterion variable was recidivism, the C scale did not outperform the H scale. The three subscales were found to be useful as a group, and none of the subscales performed better than the others. Again, this result is consistent with the importance of historical factors such as prior history of violence in the prediction of future offending.

Study 3

The purpose of this study was to explore alternative variables, not measured by the risk assessment instruments that may shed light into the factors that predict diversion

compliance. This investigation used a multiple-case design based on the premise that diversion compliance may be influenced by variables that are too complex for quantitative analyses. A cross-case synthesis of all cases resulted in the identification of the following patterns: Participants who did not have histories of abuse or trauma, did not have family histories of substance abuse and/or criminality, took full responsibility for their offenses and had some type of personal support throughout the diversion process, complied with treatment and diversion, regardless of their HCR-20 scores. These results suggest that these four variables appear to be serving as protective factors for diversion non-compliance even if all of the other risk factors are present. Conversely, not taking full responsibility for the instant offence, being a victim of abuse or trauma, being around family members who engage in substance abuse or criminal behavior, and not having any personal support, appear to make individuals more resistant to treatment and therefore more likely to fail diversion, even when other risk factors for recidivism and violence are not present.

Even though the HCR-20 was found to be useful in the prediction of non-compliance and recidivism, the sensitivity of this instrument was far from perfect and a high number of participants who failed diversion were incorrectly predicted by the HCR-20 to be in the compliance group. The variables identified in Study 3 (history of abuse and trauma, family history of substance abuse and criminality, emotional support, and level of responsibility taken for the crime) may enhance the predictive model and classification rates derived from the ROC curve may be more accurate if these variables are combined with the HCR-20.

General Discussion

Mental health diversion programs were created as an attempt to alleviate the overrepresentation of mentally ill individuals in the criminal justice system. Over the past 30 years these programs had rapidly proliferated without strong evidence of their effectiveness or without a clear definition of the type of defendants for whom these programs may be more effective. In recent years some empirical outcome studies began to emerge and in 2005, two of the most recognized journals in the field of psychology and law, dedicated issues to criminal justice diversion (e.g., *Behavioral Sciences and the Law* and, *Psychology, Public Policy and Law*).

The research available is methodologically compromised in many important ways (see Wolff and Pogorzelski, 2005 for a review of methodological problems in diversion research) and authors have identified a need for thorough psychological screening pre-diversion. The lack of comprehensive examinations may prevent mentally ill individuals from being appropriately matched with treatment providers, and even though diversion programs are growing in number, available beds in treatment community programs are very limited, especially in highly populated cities. Therefore, appropriate screening of the defendants who would benefit the most from court mandated treatment is essential to ensure the continuation and successful implementation of criminal justice diversion. In particular, it is important to be able to understand what characteristics make defendants more likely to succeed in treatment or to avoid recidivism.

This study represents one of the first attempts to provide a comprehensive description of the type of population being processed through these programs, identify psychological assessment instruments that may be useful in predicting success in

diversion, and examine additional variables that may help understand what type of defendants are most likely to benefit from these programs. Results of this investigation indicate that the type of population participating in criminal justice diversion consists primarily of individuals from minority groups with dysfunctional upbringings, histories of trauma, fragmented lives, extensive involvement with the criminal justice system, and co-morbid substance abuse and psychiatric disorders. Because of all of these factors, this type of population is particularly difficult to treat, as was reflected by the consistent elevations on the TPI of the PAI, an index that suggests poor prognosis in treatment.

These findings however, should not discourage diversion programs from attempting to treat this population, but should adjust the intensity and type of treatment accordingly. Frequently diversion programs have no control over the quality of treatment that the mentally ill are receiving (Selzter, 2005), and available mental health treatment programs may not be equipped to meet these individuals' needs. However, diverting this population into treatment programs that are not suited for such a complex group of patients may set them up for failure in diversion. This study found that almost 40% of participants failed diversion within three months of being discharged from jail, potentially creating a sense of frustration among themselves and all the parties involved (e.g., judge, attorneys, case managers, families).

This study underscores the fact that the type of population that diversion programs deal with is a very unique one. In general, there are two types of treatment offered to mentally ill individuals. The regular psychiatric population is being treated in hospital settings, and the forensic population (defendants who have been found not guilty by reason of mental disease or defect, or incompetent to stand trial) are often treated in

specialized forensic hospitals (Lamberti, Weissman & Faden, 2004.) However, the population being diverted from jail does not fall into any of these categories. These individuals have not been found incompetent to stand trial, or NGRI. Likewise, they are not considered typical psychiatric patients because of their involvement with the criminal justice system. As a result, individuals being diverted from jail usually end up in treatment programs that might not have been designed to treat such a special population.

Lamberti et al. (2004) conducted a survey of programs that are members of the National Association of County Behavioral Health Directors (NACBHD) across 28 states. Only three of the 16 programs that served severely mentally ill adults with histories of arrest and incarceration reported that they had published outcome data in academic journals, and although clinicians in the surveyed programs were knowledgeable about the criminal justice and mental health systems, few were forensic specialists. As stated by Seltzer (2005), the mentally ill individuals placed in these treatment programs often receive sanctions for any type of non-compliance with treatment. In some cases, these sanctions include jail time. Therefore it should be a requirement of the courts to ensure that these individuals are receiving the appropriate services. Ideally, these services should include evidence-based treatments that match the participants' psychosocial, psychiatric, and psychological needs.

In order to be able to adjust different levels of supervision or intensity of treatment according to the needs of the defendants, it seems important to be able to use a risk assessment instrument that would be useful in the prediction of risk for recidivism and non-compliance This study assessed the predictive validity of the HCR-20 and PCL: SV in the context of diversion. Both instruments proved to be useful in predicting both

outcomes, although the HCR-20 proved to be superior and to add incremental validity to the PCL: SV. An examination of the subscales of the HCR-20 indicates that for this type of population and in a short follow-up period, dynamic factors, such as active symptoms of mental illness, lack of insight or negative attitudes seem to be more important when predicting diversion non-compliance, than static factors. This is a positive finding considering that dynamic factors are changeable while static factors are not. Therefore, reducing severity of symptoms, improving insight and fostering more positive attitudes, may in fact improve the prognosis in terms of diversion compliance.

The HCR-20 was developed to help clinicians identify the factors that need to be considered when making predictions of risk. A final determination of low, moderate or high risk is encouraged as opposed to using scores when making these types of decisions. In the context of diversion, it is recommended that the HCR-20 be used in the same fashion and that scores would not be used to screen eligibility for diversion, which is why cutoffs have not been suggested in this study. Instead, the HCR-20 should be used to guide clinicians in consideration of important risk factors than need to be taken into consideration when making decisions about diversion. In addition, and because clinical factors have been shown to be more useful in predicting treatment response, the HCR-20 could also be used as a way to guide treatment by pointing out areas that need to be addressed to improve a prognosis about diversion. Finally, variables such as history of abuse and trauma, family history of substance abuse and criminality, emotional support, and responsibility for the instant offense, are also factors that should be explored when making decisions about eligibility for diversion and treatment.

Limitations and Directions for Future Research

The relatively small sample size of studies 1 and 2 was a significant limitation of this investigation. It is acknowledged that the limited sample size may have prevented the analysis from adjusting for measurement error, underestimating the relationships among the constructs measured by the different instruments.

From a program evaluation perspective, the outcome variables were limited in number, and did not exhaust all of the outcomes of importance to all relevant stakeholders. In addition, the design of this study made it difficult to control for confounding variables. Therefore, other variables not considered in this study as predictors could have affected treatment outcome biasing the coefficient estimates.

Further research should include larger sample sizes and longer follow-up periods because the rates of diversion non-compliance and recidivism may increase as participants stay in the community for longer periods of time. In addition, a longer follow-up period may result in increased incidents of violence allowing for the examination of the accuracy of the HCR-20 and PCL: SV in the prediction of violence.

Moreover, it is possible that the relative homogeneity of the participants, especially in terms of history of antisocial behavior, resulted in a restriction of range in risk assessment scores, potentially attenuating the degree of significance of statistical tests. Related to the restriction of range in the PCL: SV scores is the low base rate of psychopathy found in this study. It is important to replicate the preset study to see if the low base rate of psychopathy is specific to this sample or if it generalizes to other diversion samples.

Future research should further assess the usefulness of the HCR-20 and PCL: SV in the prediction of diversion non-compliance, recidivism and violence in this population. The performance of the VPI and TPI of the PAI should also be explored.

It is also important to remember that information about each participant's history of physical abuse, sexual abuse, suicide attempts and homelessness was primarily based on self-report raising concern about the accuracy of the participants' own recollections and reports of these events. In addition, just as participants may exaggerate psychiatric symptoms to ensure access to treatment, they may also over-report histories of trauma and suicidality as a means to seek attention.

A major limitation of the present study is the lack of assessment for severity of psychopathology after the three-month follow-up period as an index of program effectiveness. Participants receiving court-mandated treatment should not only comply with the rules and regulations of diversion and not engage in new criminal activity, hopefully they will also experience an improvement in symptomatology and quality of life after diversion. Therefore, further research should include quality of life measures and measures of psychopathology pre and post-diversion.

Study 3 of this investigation attempted to identify factors not captured by the risk assessment instruments, revealing a number of variables that may be a focus of treatment. Further research should systematically explore whether an appropriate treatment match increases the likelihood of success in diversion. Another limitation of study 3 includes the fact that not all information was available on all case studies. For instance, some case managers were not available for telephone interviews, and the PAI was not available for

all participants because some participants refused to complete it or provided invalid protocols.

In spite of these limitations, the results of this study suggest that the HCR-20 is a reasonable predictor of success in diversion, and that there is a relatively high risk of suspected malingering in this sample, indicating that assessment of malingering may be recommended in the context of diversion. In addition, this study identified some variables such as history of abuse, family history of mental illness or criminality, and levels of social support that should be a focus of attention for future research aimed at identifying factors that are predictive of diversion compliance.

Appendix A

Literal Replication: Group 1 (Low HCR-20 Scores and Compliance)

Participant 1: The Case of Mr. M

1. Identifying and demographic information

Mr. M is a 23 year-old African-American single male, who was charged with Grand Larceny (a non-violent felony) in May of 2007. Mr. M was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty in July of 2007 and was subsequently released on his own recognizance to enter treatment in a Treatment Community (TC) facility that offers substance abuse counseling. Mr. M was offered an alternative jail sentence of five years if he violated the conditions of his plea. Alternatively, Mr. M felony's charge will be dropped to a misdemeanor if he successfully completes 18 to 24 months in treatment. Mr. M's treatment plan included complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

Approximately two weeks after being placed in a substance abuse program where he was not prescribed psychotropic medications, Mr. M psychiatrically decompensated and was not returned to the program because it was decided that Mr. M was in need of a MICA program. He was remanded to jail until EAC-LINK found a bed available in a more structured treatment program that addressed Mr. M's mental health needs. Four months later, Mr. M was released to enter treatment in a residential treatment facility that provided both mental health and substance abuse counseling services.

2. Psychosocial History

Mr. M was born in Jamaica and moved to the United States with his mother when he was two years of age. He moved back and forth between the U.S. and Jamaica, where he lived with his grandparents until he was eight, at which point he remained in the U.S. Mr. M is an only child and lived mostly with his mother. He lost contact with his biological father at a young age, but has recently been reunited with him. Mr. M denied any history of physical or sexual abuse and described his childhood as "nice." Mr. M has never been married and has no children. He was living at his residence in Brooklyn at the time of his arrest. He lived in the basement by himself, and his mother rented the floor above him. He denied any history of homelessness.

Mr. M graduated from high school and attended college for three years. He was unable to graduate because he was admitted to psychiatric hospitals several times. He reported that he plans to return to college in the future. Mr. M stated that he liked school and obtained good grades. He reported that he got alone well with other kids. However, Mr. M stated that while in high school, he began to skip classes, hang out with friends and smoke marijuana. Mr. M's first job was working in a bookstore at the age of 14. He reported that his last job was repairing elevators for six months at the age of 19 although he said that he did some club promoting recently. Mr. M stated that he had one serious romantic relationship at the age of 19 that lasted approximately four months, but that he has had at least 20 casual relationships.

Mr. M denied any history of impulsive or antisocial behavior as a child. He denied doing crazy or dangerous things for fun, or being expelled or suspended from school for behavioral problems. However, Mr. M stated that as an adult, he has engaged in impulsive behavior such as running around naked, but only while intoxicated.

3. Psychiatric and substance abuse history

Mr. M is currently diagnosed with Schizophrenia, Chronic, Paranoid Type. He is currently prescribed an anti-psychotic medication. He reported a history of at least three psychiatric hospitalizations since 2003 for auditory hallucinations and paranoid ideation. Mr. M denied any history of suicidal ideation or attempts. He reported a history of marijuana and alcohol abuse since the age of 15. However, he stated that he abuses drugs socially and has stayed sober for months at a time. Mr. M has attended three substance abuse programs in the past, but completed only one. Mr. M did not report any significant medical history. He denied any family history of substance abuse, but stated that his mother has a history of Bipolar Disorder.

4. Criminal History

Mr. M has a history of two prior arrests and incarcerations. He was first arrested at the age of 17 for possession of marijuana. At the age of 19, he was arrested and charged with trespassing. Mr. M reported that he was out with his friends, and on his way home he became paranoid, thinking that someone was following him and jumped through a window inside of his neighbor's apartment. Mr. M was not convicted for any of these crimes. He denied any family history of arrests or incarcerations.

5. Participant's description of the instant offense

"I was upset with my grandmother, I entered my grandmother's house, took her purse and left."

6. Testing results

Mr. M was administered the PAI. Review of the validity scales revealed that Mr. M responded in a consistent manner indicating that he attended well to item content. In

addition, he did not appear to consciously create either an unfavorable or overtly favorable representation of himself. His clinical profile was marked by a single elevation (T= 75) on the paranoid scale. Specifically, Mr. M endorsed items consistent with hypervigilance. None of the treatment scales were elevated, suggesting that Mr. M may be amenable to treatment. In addition, Mr. M was administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. He produced a total score of 1, which is considered well below standard cut-offs used with clinical populations, suggesting that he did not attempt to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. M's interview, as well as a thorough review of his file records. Mr. M yielded a total HCR-20 score of 11 out of 40 (Historical scale= 6, Clinical scale= 3, Risk Management scale= 2). This score places him more than one standard deviation below the mean of a sample of 60 participants. Only the H6 item of the HCR-20 (Major Mental Illness) obtained a score of 2 indicating the item is definitely present. Mr. M's PCL: SV yielded a total score of 10 out of 24, indicating that he does not fall in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. M was not trying to exaggerate or minimize psychiatric symptoms, and that he endorses symptoms commonly observed in individuals who experience paranoid ideation. There is no evidence to suggest that Mr. M exhibits personality characteristics associated with psychopathy. Finally, summary of tests scores, behavioral observations and review of records placed Mr. M in a low level of risk for future violence, and results of the treatment scales of the PAI suggest that he may respond well to treatment.

7. Diversion outcome

A one-year follow-up indicates that Mr. M has successfully completed one year in residential treatment. He has not engaged in any threatening behavior or physical violence, has complied with his psychiatric medication, as well as with all the rules and regulations of the program. Mr. M's toxicology exams were negative for all substances, and he has attended court hearings monthly with positive updates from his program. It is important to note, that during this period, Mr. M had to be psychiatrically hospitalized once for bizarre behavior and paranoid ideation. He was returned to the residential treatment program after being stabilized on a different medication regime. This psychiatric hospitalization was not considered a violation of the conditions of his release by either the judge or EAC-LINK because it did not result from medication non-compliance. Mr. M has received emotional support from his mother throughout the course of his court mandated treatment process.

Participant 2: The Case of Mr. L

1. Identifying and Demographic Information

Mr. L is a 37 year-old Caucasian single male, who was charged with Attempted Disseminating of Indecent Material to Minors (a non-violent felony) in August of 2007. Mr. L was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in an outpatient facility that offers services for patients with co-existing Traumatic Brain Injury (TBI) and mental health issues. Mr. L was offered an alternative jail sentence of thee years if he violated the conditions of his plea. Alternatively, Mr. L felony's charge will be dropped to a misdemeanor if he successfully completes 18 to 24 months in treatment. Mr. M's treatment plan included complying with prescribed medication,

attending program's groups and activities, attending weekly counseling sessions with his case manager in the EAC-LINK office, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial History

Mr. L was born in New York and raised by his mother. He reported that his father was never around and that he has no siblings. Mr. L denied any history of physical or sexual abuse as a child and stated that he has a god relationship with his mother. Mr. L has never been married and has no children. He has always lived with her mother and denied any history of homelessness.

Mr. L completed the 10^{th} grade but was unable to continue school due to cognitive impairment. He denied aver being suspended or expelled due to behavioral problems and stated that he got alone well with other kids. Records indicate that Mr. L sustained a TBI as a child. Although the circumstances surrounding this incident are unclear, he stated that he still has a "still plate in my head," near his right eye as a result of this injury. Mr. L has never worked and receives public assistance.

Mr. L denied any history of impulsive behavior as a child or an adult. He denied doing crazy or dangerous things for fun, getting into fights, or getting in trouble with the police when he was a child or an adolescent. Mr. L also denied engaging in any adult impulsive behavior such as getting into physical fights.

3. Psychiatric and substance abuse history

Mr. L is currently diagnosed with Major Depressive Disorder, Moderate, Recurrent, and concomitant neurological disorder that is the result of TBI. He is currently prescribed Benadryl for insomnia. Mr. L has one prior psychiatric hospitalization in 1999

after he hit himself in the head with a metal chair. He remained hospitalized for six months. Results of neuropsychological assessment indicated that as a result of Mr. L's TBI, his cognitive abilities are on the level of a person with mental retardation: his Full Scale IQ on the WAIS-III was 65, which is in the 1st percentile for individuals his age. This report stated that Mr. L is not able to assume the responsibilities that are usual for an adult his age (e.g., Mr. L has never lived alone, or had a checking or savings account), and his ability to cope and deal with routine difficulties is very limited. Neuropsychological assessment also suggested that Mr. L's cognitive deficits have impacted his general capacity for social judgment, as evidenced by his scoring in the bottom 1st percentile on the subtest on the WAIS-III that assesses social judgment. The report concluded that his deficits and weakness in this area of cognitive functioning appear to have been major contributory factors in his actions that led to his arrest. Mr. L has no substance abuse history. He denied any family history of mental illness or substance abuse.

4. Criminal history

Mr. L has no prior history of arrests or incarcerations. He denied any family history of criminal activity.

5. Participant's description of the instant offense

"I was on computer chatting, got carried away and did not look at age, was an undercover cop, I was so excited to be making a friend, I just wanted someone to talk to." Mr. L reported being satisfied with the decisions made in his case.

6. Testing results

Mr. L was administered the PAI. Review of the validity scales revealed that Mr. L responded in a consistent manner indicating that he attended well to item content. In addition, he did not appear to consciously create either an unfavorable or overtly favorable representation of himself. Mr. L did not significantly elevate any of the clinical scales. Investigation of the subscales revealed significant elevations on the resentment subscale (T= 75), the somatization subscale (T= 73), and the social detachment scale (T= 73). However, these elevations are still below those found in clinical populations. None of the treatment scales were elevated, suggesting that Mr. L may be amenable to treatment. In addition, Mr. L was administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. He produced a total score of 3, which is considered well below standard cut-offs used with clinical populations, suggesting that he did not attempt to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. M's interview, as well as a thorough review of his file records. Mr. M yielded total HCR-20 score of 3 out of 40 (Historical scale= 3, Clinical scale= 0, Risk Management scale= 0). This score places him more than three standard deviations below the mean of a sample of 60 participants. Only the H6 item of the HCR-20 (Major Mental Illness) obtained a score of 2 indicating the item is definitely present. Mr. M's PCL: SV yielded a total score of 1 out of 24, indicating that he does not fall in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. L was not trying to exaggerate or minimize psychiatric symptoms. Mr. L is not endorsing severe symptoms of psychopathology, and his PAI treatment scales profile suggest that he may respond well to treatment. Results of previously conducted neuropsychological

testing suggest that Mr. L suffers from severe cognitive impairments. There is no evidence to suggest that Mr. M exhibits personality characteristics associated with psychopathy, and Mr. M has no history of threatening behavior or violence. Finally, summary of tests scores, behavioral observations and review of records placed Mr. L in a low level of risk for future violence, and results of the treatment scales of the PAI suggest that he may respond well to treatment.

7. Diversion outcome

Information of a six-month follow-up period indicates that Mr. M has successfully completed six months of outpatient treatment. He has not engaged in any threatening behavior or physical violence, has complied with his psychiatric medication, as well as with all the rules and regulations of the program. Mr. M's toxicology exams have resulted negative for all substances, and he has attended court hearings monthly with positive updates from his program. Mr. L has received individual psychotherapy by a program psychologist as well as speech and language therapy. Mr. L has received emotional support from his mother throughout his court mandated treatment process.

Participant 3. The Case of Ms. R

1. Identifying and Demographic Information

Ms. R is a 49 year-old African-American divorced female, who was charged with Possession of a Controlled Substance (a non-violent felony) in January of 2007. Ms. R was offered treatment in lieu of a jail sentence through Queens-Tasc. She entered a plea of guilty and was subsequently released on her own recognizance to enter treatment in a residential treatment facility that offers services for patients with co-existing substance abuse and mental health issues. Ms. R is facing an alternative jail sentence of three years

if she violates the conditions of her plea. Alternatively, Ms. R felony's charge will be dropped to a misdemeanor if she successfully completes 18 to 24 months in treatment. Ms. R's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Ms. R was born in North Carolina and raised by her grandmother. She has four siblings and stated that her parents were not around for unknown reasons. Ms. R stated that her childhood was uneventful, that she got alone well with her grandparents, and that there were no fights or arguments in the house. Ms. R was married for seven years and has two sons. She stated that one of her sons was taken away from her due to her substance abuse problems, and is currently in foster care. However, Ms. R maintains a close relationship with both of her children. She denied any history of physical/sexual abuse, or homelessness.

Ms. R stated that she completed college and that she enjoyed elementary and high school. She denied ever been suspended or expelled from school and stated that she got alone well with other students. Ms. R reported that she worked as a correction officer for the NYC department of corrections for eight years. She subsequently held a job for seven years as a monitoring agent for the NYC housing authority. Ms. R has been unemployed for the past five years. Her current goals include getting her son out of foster care, and returning to work.

Ms. R denied any history of impulsive or antisocial behavior as a child. She denied getting into fights with other kids, stealing or doing any dangerous or crazy things for fun. She also denied any history of fighting or impulsivity as an adult.

3. Psychiatric and substance abuse history

Ms. R is currently diagnosed with Bipolar Disorder, Manic Type. She is currently prescribed mood stabilizer medications. Ms. R also reported a history of Agoraphobia. She began experiencing symptoms of mental illness in 1991, and has been psychiatrically hospitalized twice. Ms. R denied any family history of mental illness.

Ms. R has a history of crack and heroin dependence. She started abusing drugs approximately at the age of 20, and has attended seven residential treatment programs for substance abuse treatment. She denied any family history of substance abuse.

4. Criminal history

Ms. R has a history of one prior arrest for Possession of a Controlled Substance. However, she was not convicted on this arrest and has never been incarcerated. She denied any family history of arrests or incarcerations.

5. Participant's description of the instant offense.

"I committed the crime, police searched me and found the drugs."

6. Testing results

Ms. R was administered the Personality Assessment Inventory (PAI). Review of the validity scales revealed that Ms. R responded in a consistent manner indicating that she attended well to item content. However, she appeared to consciously create a slightly unfavorable representation of herself as evidences by her elevation on the negative impression management scale (T= 83). Therefore, clinical elevations should be

interpreted with caution. Her clinical profile is marked by elevations on the alcohol scale (T= 88), the drug scale (T= 82), anxiety related disorders (T=74), and schizophrenia (T= 73). None of the treatment scales were elevated, suggesting that Ms. R may be amenable to treatment. In addition, Ms. R was administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. Ms. R produced a total score of 11, which is above the standard cut-off of 6 used with clinical populations, suggesting that she may have attempted to exaggerate her psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Ms. R's interview, as well as a thorough review of his file records. Ms. R yielded total HCR-20 score of 10 out of 40 (Historical scale= 5, Clinical scale= 2, Risk Management scale= 3). This score places her more than one standard deviation below the mean of a sample of 60 participants. Only the H5 and H6 items of the HCR-20 (substance use problems and major mental illness, respectively) obtained a score of 2 indicating the item was definitely present. Ms. R's PCL: SV yielded a total score of 0 out of 24, indicating that she does not fall in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that even though Ms. R may have attempted to exaggerate psychiatric symptoms, she endorsed symptoms on the PAI consistent with her history of anxiety and substance abuse problems. There is no evidence to suggest that Ms. R exhibits personality characteristics associated with psychopathy, and she has no history of threatening or violent behavior. Finally, summary of tests scores, behavioral observations and review of records place Ms. R in a low level of risk for future violence, and results of the treatment scales of the PAI suggest that she may respond well to treatment.

7. Diversion outcome

Information of a four-month follow-up period indicates that Ms. R has successfully complied with the conditions of her plea. She has not engaged in any threatening behavior or physical violence, has complied with her psychiatric medication, as well as with all the rules and regulations of the program. Ms. R's toxicology exams have resulted negative for all substances. Mr. R has received support emotional support from her mother throughout his court mandated treatment process.

Participant 4. The Case of Mr. S

1. Identifying and Demographic Information

Ms. S is a 37 year-old African-American single female, who was charged with Criminal Possession of Stolen Property (a non-violent felony) in November of 2006. Ms. S was offered treatment in lieu of a jail sentence through EAC-LINK. She entered a plea of guilty and was subsequently released on her own recognizance to enter treatment in a MICA residential facility. Ms. S faces an alternative jail sentence of one and a half to three years if she violates the conditions of her plea. Alternatively, Ms. S felony's charge will be dropped to a misdemeanor if she successfully completes 18 to 24 months in treatment. Ms. S's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Ms. S was born in New York and raised by her mother. Ms. S stated that her father was never around. Ms. S's mother made her believe that she had never met her father. However, Ms. S later found out that her father kidnapped her when she was a baby

for several months. Ms. S has no siblings. She reported that her mother was an alcoholic, behaved erratically, and had strict and unreasonable rules. Ms. S stated that her mother used to corporally punish her for breaking rules. She denied any history of sexual abuse. Ms. S reported that while in high school, she was sent to live with relatives in Michigan (aunt, uncle, cousin and grandmother). She described those years as "great" stating that she got along well with everybody and there were no strict rules or physical punishments.

Ms. S reported that she completed three years in college. She stated that she enjoyed elementary and high schools, that she never skipped classes, had good grades, and got alone with other kids. Ms. S reported that she had her first psychiatric decompensation while in college, which prevented her from graduating. Ms. S reported that she worked as a law enforcement agent with the NYPD for 17 years, and she working for the NYPD when she was arrested. She reported that she liked the job, and that she got along with her bosses and co-workers. She was never fired and she progressed through different positions throughout the years. Ms. S denied any history of homelessness. However, while incarcerated she lost her apartment and job and is currently homeless.

Ms. S stated that her longest relationship lasted almost three years when she was 21 years old. She has had three other shorter relationships since then. She has no children but maintains close relationships with two friends from childhood and with some family members. Ms. S's goals for the future include finding an apartment, and finishing college.

Ms. S denied any history of impulsive or antisocial behavior as a child. She denied getting into fights with other kids, stealing or doing any dangerous or crazy things

for fun, as well as being expelled or suspended for behavioral problems. As an adult, she also denied any history of fighting or violence. She admitted to engaging in shoplifting.

3. Psychiatric and substance abuse history

Ms. S is currently diagnosed with Major Depressive Disorder, moderate, recurrent, and is prescribed anti-depressant medication. She reported that she has experienced symptoms of depression since childhood, but her symptoms became acute in 2001. She has a history of at least three psychiatric hospitalizations for depression from 2002 to 2004. Ms S denied any family history of mental illness. Ms. S has no substance abuse history. She also denied any history of suicide attempts.

4. Criminal history

Ms. S has no prior history of arrests or incarcerations. She denied any family history of arrests or incarcerations.

5. Participant's description of the instant offense.

"I was charged with Criminal Possession of Stolen Property for shoplifting, I had done it before but was never arrested. I am not sure why I do it; maybe not forming an attachment led me to this? I am obviously the one to blame and I should have entered therapy before to avoid this"

6. Testing results

Ms. S was unable to finish the PAI because she had to leave the interview to attend her monthly court hearing. Ms. S was administered the Miller Forensic Assessment of Symptoms Test (M-FAST), a screening measure of feigned or exaggerated symptoms of psychopathology. She produced a total score of total score of 3, which is

considered well below standard cut-offs used with clinical populations, suggesting that she did not attempt to exaggerate her psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Ms. S's interview, as well as a thorough review of his file records. Ms. S yielded total HCR-20 score of 10 out of 40 (Historical scale= 5, Clinical scale= 1, Risk Management scale= 3). This score places her more than one standard deviation below the mean of a sample of 60 participants. Only the H6 item (major mental illness) of the HCR-20 obtained a score of 2 indicating the item was definitely present. Ms. S's PCL: SV yielded a total score of 5 out of 24, indicating that she does not fall in the range of psychopathy.

In summary, results of the interview and psychological assessment indicate that Ms. S suffers from Major Depressive Disorder and there is no evidence to suggest that she attempted to exaggerate psychiatric symptoms. There is also no evidence to suggest that Ms. S exhibits personality characteristics associated with psychopathy, and she has no history of threatening or violent behavior. Summary of tests scores, behavioral observations and review of records place Ms. S in a low level of risk for future violence.

7. Diversion outcome

Information of a two-year follow-up period indicates that Ms. S successfully complied with the conditions of her plea. She has not engaged in any threatening behavior or physical violence, has complied with her psychiatric medication, as well as with all the rules and regulations of the program. Ms. S completed one year of residential program and one year of outpatient treatment. She received a graduation diploma from EAC-LINK. Her felony charged was dropped to a misdemeanor and her court case was closed.

Appendix B

Literal Replication: Group 2 (High HCR-20 Scores and Non-Compliance)

Participant 5: The Case of Mr. T

1. Identifying and Demographic Information

Mr. T is a 42 year-old African-American single male, who was charged with Robbery in the Second Degree (a violent felony) in April of 2006. Mr. T was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty in December of 2006 and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that provides both mental health and substance abuse counseling services. Mr. T was promised a fail sentence of one and a half to three years if he violates the conditions of his plea. Alternatively, Mr. T's charge will be dropped to a misdemeanor and a conditional discharge if he successfully completes 18 to 24 months in treatment. Mr. T's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

Shortly after his release, Mr. T was arrested by the Suffolk County parole department for an open case of parole violation. However, several months later, he was released and returned to the residential treatment program.

2. Psychosocial History

Mr. T was born and raised in New York. He reported that he grew up poor and on welfare while he resided with his mother, five siblings, cousins and cousins' children. He stated that he only met his father once when he was a child. Mr. T reported that his

childhood was not very easy and that his mother used to be physically abusive toward him and his siblings. He stated that his mother was an alcoholic and that ACS got involved several times and placed him and his siblings into foster care more than once. Mr. T reported that after his mother died when he was 13 years old, he taken to different group homes and institutions. Mr. T stated that he got along well with his siblings, but that he "would put a knife out any time they didn't do what I wanted them to do."

Mr. T reported that he dropped out of school in the 8th grade after he was expelled for drinking and hitting a security guard. He stated that he liked reading and spelling and that he never failed a grade. However, he remembered being unhappy because his mother did not buy him the type of clothes that other children had. Mr. T reported that he started drinking at an early age and used to drink before going to school. He stated that he was good at hiding it and that only one teacher found out. Mr. T reported that after he was expelled, the principal only let him back to school after he agreed to repeat a grade. However, he stated that he was too proud to repeat a grade and decided not to go back to school. Mr. T also admitted to engaging in stealing, fighting, and cheating while in school. He stated that he was never bullied because he would always challenge kids who tried to make fun of him.

Mr. T admitted to doing dangerous or crazy things for fun when he was a child and an adolescent. He stated that he used to go on the roof and throw snow or objects on people; he would also throw objects on cars and hit other boys randomly. He reported a history of setting fires and hurting animals. Mr. T stated that he would "drown cats and dogs, and execute them with electricity," and that he would also buried animals alive in holes. Mr. T stated that he was never caught for hurting animals. However, he reported

that he got arrested for burglary several times, and did some time in juvenile correctional institutions.

After dropping out of school in the 8th grade, Mr. T was able to obtain his GED at the age of 16 while in a juvenile institution. Since then, he has benefited from the opportunity to engage in college level courses while imprisoned. He has accumulated 39 credits in general studies. Mr. T stated that, while not institutionalized, he held different jobs (for a maximum period of six months) in construction and as a messenger in McDonalds. Mr. T described himself as a non-reliable employee because he used to get intoxicated and be late for work. He reported being fired from different jobs several times.

Mr. T has never been married but reported having had two serious relationships and approximately 20 casual relationships. Mr. T's longest relationship lasted 16 years, although he was incarcerated or imprisoned for most of that period. Mr. T reported that he was never in love with his girlfriend, but that he stayed with her because she used to bring him drugs to prison. He stated that he used to tell her not to visit him unless she had drugs for him. Mr. T reported that he had a son with her and that the relationship ended because they got into numerous physical fights and he got involved with other women after being released from prison. Mr. T has a daughter from a different relationship.

Mr. admitted to engaging in impulsive and antisocial behavior as an adult. He stated that he has a bad temper and that he gets upset if he does not get what he wants. Mr. T reported that if "I snap is going to be ugly." He stated that he has been involved in numerous fights and hat he has "knocked out a couple of guys." Mr. T has also engaged in numerous unlawful behaviors and criminal activities. He stated that when he is about

to commit a crime he is “nervous but not too much, usually I am high but sometimes my crimes are planned, I don’t hesitate.” Mr. T stated that he is a very good liar and a thief, and his criminal record shows that Mr. T has used multiple aliases.

3. Psychiatric and substance abuse history

Mr. T is currently diagnosed with Major Depressive Disorder, and is prescribed anti-depressant medication. He denies any history of mental health treatment or psychiatric hospitalizations prior to his first adult incarceration. He has a history of three hospitalizations all of them in the context of engaging in self-injurious behavior while at Rikers Island. Mr. T was first hospitalized in the forensic psychiatric unit at Bellevue Hospital in 1994 after he tried to cut himself. He stated that his girlfriend was pregnant at the time and had told him that she was going to get an abortion, which caused him to hurt himself.

Mr. T reports a long history of polysubstance dependence. He stated that he started using marijuana and alcohol at the age of 10, and that his mother provided for and allowed the use of alcohol and marijuana at an early age. He reported that he started abusing heroin in 1987 and crack in 1993. Mr. T has been hospitalized several times for detoxification and drug rehabilitation treatment. Mr. T reported a family history of substance abuse (e.g., mother and siblings).

4. Criminal history

Mr. T has a long and varied criminal history. Records indicate that he has been arrested at least 30 times, and convicted 12 times (nine felonies and three misdemeanors). Some of his charges include Assault in the First and Second Degrees, Robberies, and Burglaries. He was also charged with Rape in the First Degree in 1986. According to Mr.

T, he was out with some friends, got intoxicated and had sex with his girlfriend after hitting her because she had stolen money from him. Mr. T served a prison sentence of seven years for Assault with a Deadly Weapon. Fifteen days after his released, he was arrested on the instant offense. Mr. T reported that several of his siblings are currently serving time in state prison.

5. Participant's description of the instant offense

"I snatched someone's chain for drug money. I just took it and run away. I had a co-defendant and we planned it, but the person didn't get injured."

6. Testing results

Mr. T was administered the Personality Assessment Inventory (PAI). Review of the validity scales revealed that Mr. T responded in a consistent manner indicating that he attended well to item content. In addition, he did not appear to consciously create either an unfavorable or overtly favorable representation of himself. His clinical profile is marked by elevations on the drug (T= 86) and alcohol (T= 73) scales (T= 75). Investigation of the subscales shows significant elevations on the physical aggression scale (T= 76), which is part of the treatment scales, and the self-harm borderline subscale (T= 76). In addition, Mr. T obtained significant elevations on the violence potential index (T= 75), and the suicide potential index (T= 8). Mr. T did not endorse any items consistent with depression. He was also administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. Mr. T produced a total score of 1 on the M-Fast, which is considered well below standard cut-offs used with clinical populations, suggesting that he did not attempt to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. T's interview, as well as a thorough review of his file records. He yielded total HCR-20 score of 29 out of 40 (Historical scale= 19, Clinical scale= 4, Risk Management scale= 6), which places him more than two standard deviations above the mean of a sample of 60 participants, and is the highest score obtained in this sample. Mr. T's PCL: SV yielded a total score of 20 out of 24, indicating that he falls in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. T was not trying to exaggerate or minimize psychiatric symptoms, and that he endorses symptoms consistent with alcohol and drug abuse. Results of the PAI also suggest that Mr. T has a high potential to engage in violence and self-injurious behavior. There is also evidence to suggest that Mr. T exhibits personality characteristics associated with psychopathy. Summary of tests scores, behavioral observations and review of records place Mr. T in a high level of risk for future violence.

7. Diversion outcome

Three months after Mr. T was released from jail and placed into treatment, he absconded his residential program, became intoxicated and returned two days later. As a result, a bench warrant was ordered for his arrest in February of 2008. However, the judge decided to give him another chance and Mr. T was released to returned to the same residential facility. In May of 2008, he again absconded his treatment program and came back with a positive toxicology for alcohol. Mr. T was discharged from the program and remanded to jail. The case was terminated from EAC-LINK in May of 2008, and Mr. T was sentenced to one year and a half to three years in priosn. He is currently serving his time.

Participant 6: The Case of Mr. W

1. Identifying and demographic information

Mr. W is a 28 year-old Hispanic single male, who was charged with Robbery in the First Degree (a violent felony) in 2007. He was then offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that provides primarily substance abuse counseling services. Mr. W's charge will be dropped to a misdemeanor and he will be sentenced to a conditional discharge if he successfully completes 18 to 24 months in treatment. Mr. W's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Mr. W was raised by both parents and has five brothers and two sisters. He stated that his father was a policeman and his mother a hairstylist. He described his childhood as "miserable" and reported a severe history of physical abuse by his father. He stated that his father would frequently hit him and his older brother, and would handcuff him while raping his mother. Mr. W stated that when he was a kid, he punched his father and pulled a knife on him. He stated that his parents divorced when he was teenager and that he is not in touch with him. He reported getting along well with her mother when he was young, but denied being close to his siblings. Mr. W stated that one of his brothers is currently serving a prison sentence.

Mr. W dropped out of school in the 9th grade. He reported that he did well in school although he "didn't like the haters." He stated that he used to get into fights frequently because other children were jealous of him. He was suspended once for fighting and stated that his fights resulted in other kids being seriously injured. He stopped attending school after he started drinking and smoking marijuana and skipping school to go to parties. Mr. W admitted to doing dangerous or crazy things for fun when he was a child and an adolescent, such as playing the Russian roulette and crashing derbies with stolen cars. He denied getting in trouble with the police or getting arrested when he was a child/adolescent. Mr. W reported having different jobs most of them in construction; he defined himself as a reliable worker and his longest job lasted one year.

Mr. W is not married, but has two children (2 years, and 7 months old). He maintained a relationship with the mother of his children for seven years and stated that even though he loved her, he has always been a "player." He stated that he loves his children, but believes that they are currently in foster care. Mr. W said that he has no close friends or support system.

Mr. admitted to engaging in impulsive and antisocial behavior as an adult, such as being involved in frequent fighting (e.g., throwing chairs at people resulting in serious injuries).

3. Psychiatric and substance abuse history

Mr. W is currently diagnosed with Major Depressive Disorder and is prescribed anti-depressant and mood stabilizer medications. He denied any history of mental health treatment or psychiatric hospitalizations prior to his incarceration on the index offense. However, he reported trying to overdose on over-the-counter medication at the age of 15,

and engaging in self-injurious behavior (e.g., cutting himself) several times at the age of 17. Mr. W was placed on suicide watch in Rikers Island after he tried cutting himself. Mr. W reported a history of marijuana dependence since the age of 13. In addition, he admitted to using crack cocaine regularly for a year at the age of 26. Mr. W does not think that he needs treatment and stated that he is dissatisfied with the services he is receiving in the residential facility.

4. Criminal history

This is Mr. W's first arrest and incarceration.

5. Participant's description of the instant offense

"They accused me of robbing someone on the street, taking his stuff and money, and throwing him on the floor, but I didn't do it, I was just around."

6. Testing results

Mr. W was administered the Personality Assessment Inventory (PAI). Mr. W's profile is marked by an elevation (T= 92) on the Negative Impression Management (NIM) scale, which is above the cut-off recommended for the detection of malingering in forensic populations (Kucharski et al., 2007). This score suggests that Mr. W appeared to consciously create an unfavorable representation of himself. This elevation invalidates Mr. W's PAI protocol and therefore, clinical elevations cannot be interpreted. Mr. W also completed the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. He produced a total score of 11, which is considered above standard cut-offs used with clinical populations, suggesting that he attempted to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. W's interview as well as a thorough review of his file records. Mr. W yielded a total HCR-20 score of 26 out of 40 (Historical scale= 15, Clinical scale= 6, Risk Management scale= 5), which places him more than one standard deviation above the mean of a sample of 60 participants. Mr. W's PCL: SV yielded a total score of 11. This score does not fall in the range of psychopathy, but suggests that Mr. W presents with some personality traits associated with psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. W attempted to feign or exaggerate his psychiatric symptoms. Summary of tests scores, behavioral observations and review of records place Mr. W in a moderate to high level of risk for future violence.

7. Diversion outcome

One month after Mr. W was released from jail and placed into treatment (after violating probation on the instant offense), a bench warrant was ordered for his arrest after he was discharged from the program for oppositional behavior and for continuing to use marijuana.

Participant 7: The Case of Mr. X

1. Identifying and demographic information

Mr. X is a 40 year-old African-American single male, who was charged with Possession of a Controlled Substance (a non-violent felony) in 2007. Mr. X was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that provides both mental health and substance abuse

counseling services. Mr. X's felony charged will dropped to a misdemeanor and he will be sentenced with a conditional discharge if he successfully completes 18 to 24 months in treatment. Mr. X's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Mr. X was raised by his mother and stepfather and reported that he never met his biological father. He has three younger sisters. Mr. X described his family as "dysfunctional" and stated that his stepfather was addicted to drugs and that his mother was an alcoholic and had a gambling problem. In addition, Mr. X was physically abused by his stepfather and reported feeling helpless every time his stepfather would beat his mother up in front of him and his sisters. Mr. X stated that he found school to be boring, had trouble paying attention, and had a poor academic performance. He frequently got into trouble for destroying school property, fighting and not listening to the teachers. He was suspended once for fighting. Mr. X left school before graduating high school, but subsequently completed his GED while in prison. Mr. X also spent time in juvenile detention at the age of 15 for Robbery. Mr. X admitted to doing dangerous or crazy things for fun and engaging in antisocial behavior when he was a child and an adolescent, such as jumping off roofs, riding in the back of trains, destroying property, throwing chairs our of windows and stealing.

Even though Mr. X spent most of his adult time in and out of jail and prison, he held several jobs in maintenance when he was living in the community. Mr. X is not

married and has no children, but reported that he has been in a serous relationship for 10 years. However, he stated that he has frequently been unfaithful to his partner.

Mr. X stated that he has engaged in frequent violent behaviors as an adult. He admitted to stabbing a man after they got into an argument. Although he stated that he did not mean to kill him, he did intend to hurt him and the victim was seriously injured. In addition, he reported hitting a man with a gun while trying to steal from him. M. X stated that he has a bad temper and acts aggressively when people try to take advantage of him. Ms. X's most recent fight took place in Rikers Island two weeks before his release.

3. Psychiatric and substance abuse history

Mr. X is currently diagnosed with Major Depressive Disorder and is prescribed anti-depressant medication. He reports a history of approximately 15 psychiatric hospitalizations, two of them subsequent to suicide attempts by trying to hang himself. Mr. X reports a long history of polysubstance dependence. He stated that he started using marijuana and alcohol at the age of 15, and crack at the age of 20. He has attended six substance abuse programs but did not complete any of them. Mr. X reported a family history of substance abuse (mother, uncle, and siblings).

4. Criminal history

Mr. X has a long and varied criminal history. Records indicate that he has been arrested at least 28 times and convicted nine times (six felonies and three misdemeanors). Some of his charges include Robbery, Assault, Possession of a Weapon and substance related charges. Mr. X served a prison sentence of ten years for Armed Robbery. Mr. X admitted that he committed most of his crimes for the "adrenaline rush."

5. Participant's description of the instant offense

"I did it, that's all I have to say"

6. Testing results

Mr. X was administered the Personality Assessment Inventory (PAI). Review of the validity scales revealed that Mr. X responded in a consistent manner indicating that he attended well to item content. However, he produced an elevation on the Negative Impression Management (NIM) scale of T= 84 (a cut off of 85 has been recommended for the detection of malingering in forensic populations). This elevation suggests that Mr. X may have attempted to create an unfavorable representation of himself. His clinical profile is marked by elevations on nine out of the 11 clinical scales, with the alcohol (T= 102), drug (T= 98), schizophrenia (T= 90), and antisocial (T= 86) scales obtaining the highest elevations. Mr. X also produced elevations on four out of the five treatment scales suggesting that he may not be amenable to treatment. Mr. X also produced extreme elevations on the violence potential index (T= 112), and the suicide potential index (T= 99). Mr. X was also administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. Mr. X produced a total score of 12 on the M-Fast, which is considered well above the standard cut-off used with clinical populations, suggesting that he attempted to exaggerate his psychiatric symptoms.

The HCR-20 and PCL: SV were both scored based on the results of Mr. X's interview, as well as a thorough review of his file records. He yielded a total HCR-20 score of 26 out of 40 (Historical scale= 16, Clinical scale= 5, Risk Management scale= 5), which places him more than one standard deviation above the mean of a sample of 60 participants. Mr. X's PCL: SV yielded a total score of 12. This score does not fall in the

range of psychopathy, but suggests that Mr. X presents with some personality traits associated with psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. X attempted to feign or exaggerate his psychiatric symptoms. Results of the PAI also suggest that Mr. X has a high potential to engage in violence and self-injurious behavior. Summary of tests scores, behavioral observations and review of records place Mr. X in a moderate to high level of risk for future violence.

7. Diversion outcome

One month after Mr. X was released from jail and placed into treatment, he absconded his residential program after being confronted about a positive toxicology exam for cocaine. A bench warrant was ordered for his arrest and shortly after, Mr. X was re-arrested on a new charge of Petit Larceny.

Participant 8: The Case of Mr. P

1. Identifying and demographic information

Mr. P is a 28 year-old Hispanic single male, who was charged with Criminal Possession of a Controlled Substance (a non-violent felony) in 2007. Mr. P was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that provides primarily substance abuse counseling services. Mr. P's charge will be dismissed and he will be sentenced to a conditional discharge if he successfully completes 18 to 24 months in treatment. Mr. P's treatment plan includes complying with prescribed medication, attending program's groups and activities,

remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Mr. P reported that he was raised by his mother. He is the third oldest in a family of eight children, all reportedly from different fathers. At the age of three Mr. P was hit by a car and stayed in a coma for a year and a half. At the age of 10 he reported that his stepfather began physically abusing him and identified the abuse as very severe. Mr. P dropped out of school in the 10th grade due to peer pressure and lack of interest in school. However, he stated that he was never suspended or expelled for behavioral problems. Mr. P admitted to doing some dangerous or crazy things for fun when he was a child and an adolescent, such as jumping in the subway tracks. However, he denied getting into fights or hurting animals. Mr. P has spent most of his adult life incarcerated, but while living in the community, he held different jobs in maintenance and fast food restaurants with his longest job lasting approximately one year.

Mr. P has never been married and does not have any children. He reported a history of at least 16 romantic relationships. However, he stated that his substance abuse problems jeopardized all of his relationships. Mr. P is not in touch with his siblings or mother. He reported a history of homelessness and denied having close friends or any support system.

Mr. P denied getting in any fights as an adult, but admitted to engaging in impulsive and antisocial behavior, mostly when he was under the influence of drugs. He reported committing robberies for which he was never caught and hurting some people while trying to steal from them.

3. Psychiatric and substance abuse history

Mr. P is currently diagnosed with Major Depressive Disorder and PTSD. He is currently prescribed anti-psychotic and anti-depressant medications. He reports no prior history of psychiatric hospitalizations or mental health treatment, but stated that he has attended several residential substance abuse programs. Mr. P reported a history of suicidal ideation and one suicide attempt in 1999 when he tried to run into traffic but was held back by a friend.

Mr. P reports a long history of polysubstance dependence. He stated that he started using marijuana and alcohol at the age of 16 and subsequently became addicted to crack and heroin. Mr. P reported a family history of substance abuse (e.g., siblings).

4. Criminal history

Mr. P has a long criminal history. Records indicate that he has been incarcerated at least 15 times and has also served a prison sentence. Most of his charges are drug related although he has also been arrested for violating parole and probation.

5. Participant's description of the instant offense

"I was caught with two bags of heroin"

6. Testing results

Mr. P was administered the PAI. Review of the validity scales revealed that Mr. P responded in a consistent manner indicating that he attended well to item content. In addition, he did not appear to consciously create either an unfavorable or overtly favorable representation of himself. His clinical profile is marked by one elevation on the drug (T= 106), and another elevation on the antisocial subscale (T= 75). Mr. P did not endorse any items consistent with depression. Mr. P was also administered the M-FAST,

a screening measure of feigned or exaggerated symptoms of psychopathology. Mr. P produced a total score of 4 on the M-Fast, which is considered well below standard cut-offs used with clinical populations, suggesting that he did not attempt to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. P's interview, as well as a thorough review of his file records. Mr. P yielded a total HCR-20 score of 26 out of 40 (Historical scale= 14, Clinical scale= 6, Risk Management scale= 6), which places him more than one standard deviation above the mean of a sample of 60 participants. Mr. P's PCL: SV yielded a total score of 7 out of 24, indicating that he does not fall in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. P was not trying to exaggerate or minimize psychiatric symptoms, and that he endorses symptoms consistent with alcohol and drug abuse. There is no evidence to suggest that Mr. P exhibits personality characteristics associated with psychopathy. Summary of tests scores, behavioral observations and review of records place Mr. P in a moderate to high level of risk for future violence.

7. Diversion outcome

Three months after Mr. P was released from jail and placed into treatment, he absconded his residential program after being confronted for providing positive toxicologies for cocaine and heroin. A bench warrant was ordered for his arrest and shortly thereafter he was re-arrested for a new charge of drug possession. He is currently serving time in state prison.

Appendix C

Theoretical Replication: Group 3 (Low HCR-20 Scores and Non-Compliance)

Participant 9: The Case of Mr. J

1. Identifying and Demographic Information

Mr. J is a 59 year-old African-American widowed male, who was charged with Criminal Trespass (a non-violent felony) 2008. Mr. J was offered treatment in lieu of a jail sentence through Bronx-Tasc. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that offers mainly substance abuse services. Mr. J was promised a dismissal of his charge if he completed 18 to 24 months in treatment. Mr. J's treatment plan included complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Mr. J was born in Texas and is an only child. Mr. J's mother died from kidney failure when he was six years old, and his father died from a heard attack in 2005. He stated that both his parents were alcoholics and that he met his father for the first time when he was 25. Mr. J stated that he was raised by his maternal grandparents, and that that his grandmother physically abused him by hitting him with a switch extension cord. He denied any history of sexual abuse or family history of arrests or mental illness.

Mr. J dropped out of school in the 9th grade to "help around the house." He stated that his school performance was poor and that he had to repeat grades. He denied ever being placed in special education, being suspended or expelled. He denied engaging in

any impulsive or dangerous behavior as a child. He also denied a history of fighting, stealing, setting fires or hurting animas.

At the age of 19, Mr. J moved to New York to live with an aunt and obtained a job as a maintenance worker in a school, a job that held up to his arrest. Mr. J got married at the age of 27 to a 19 year-old woman who he described as an alcoholic. They had two sons who are currently 25 and 30 years old. He denied any history of mental illness for either of his sons, but reported that his younger son has a drug addiction and has been arrested several times for drug related offenses. Mr. J's wife died in 2005 from cancer and he reported feeling very depressed and "empty" after her death.

Mr. J reported a history of homelessness after his son was arrested in 2005 for selling drugs and the family lost the public housing apartment they had lived in for 20 years. They subsequently moved to a shelter for several months until they obtained public housing again. Mr. J reported that at the time of his arrest he was living with his 15-year-old grandson, who he raised with his wife. Mr. J denied any history of aggressive behavior or fighting as an adult. He reported being shot in his chest when he was young and experiencing post traumatic symptoms as a result.

3. Psychiatric and substance abuse history

Mr. J is currently diagnosed Dysthimic Disorder and Post Traumatic Stress Disorder (PTSD) and is currently not on psychiatric medication. He denied any history of mental health treatment or psychiatric hospitalizations, but described periods of feeling depressed and anxious. He also described symptoms of PTSD resulting from getting shot while being robbed years ago. Mr. J has a long history of polysubstance dependence including heroin, cocaine, marijuana, alcohol and Xanax addictions. He stated that he

started smoking marijuana at the age of 20 and sniffing heroin at the age of 23. He reported attending several outpatient programs for substance abuse, but stated that he would always relapse after completing treatment.

4. Criminal history

Mr. J has a history of two prior arrests for weapon possession. However, these charges were dismissed.

5. Participant's description of the instant offense.

"I sold a guy a bag of drugs, went to help a sick guy and he was set up by a cop informer. I only got the drugs for the guy because he said that he was sick"

6. Testing results

Mr. J was administered the PAI. Review of the validity scales revealed that he responded in a consistent manner indicating that he attended well to item content. However, he appeared to consciously create a slightly unfavorable representation of herself as evidences by her elevation on the negative impression management scale (T= 84). Therefore, clinical elevations should be interpreted with caution. His clinical profile is marked by elevations on the drug scale (T= 100), antisocial scale (T= 79), Schizophrenia (T=78), and paranoia (T= 78). None of the treatment scales were elevated, suggesting that Mr. J may be amenable to treatment. In addition, Mr. J was administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. Ms. J produced a total score of 14 on the M-Fast, which is above the standard cut-off of 6 used with clinical populations, suggesting that he may have attempted to exaggerate her psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. J's interview, as well as a thorough review of his file records. Mr. J yielded a total HCR-20 score of 13 out of 40 (Historical scale= 6, Clinical scale= 3, Risk Management scale= 4). This score places him more than one standard deviation below the mean of a sample of 60 participants. Only the H5 items of the HCR-20 (substance use problems) obtained a score of 2 indicating the item was definitely present. Mr. J PCL: SV yielded a total score of 4 out of 24, indicating that he does not fall in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. J may have attempted to exaggerate psychiatric symptoms. However, there is no evidence to suggest that Mr. J exhibits personality characteristics associated with psychopathy, and he has no history of threatening or violent behavior. Finally, summary of tests scores, behavioral observations and review of records place Mr. J in a low level of risk for future violence.

7. Diversion outcome

Information of a three-month follow-up period indicates that Mr. J was discharged from his program after he relapsed four times. He tested positive for opioids and cocaine on at least four different occasions.

Participant 10: The Case of Ms. G

1. Identifying and Demographic Information

Ms. G is a 19 year-old African-American single female, who was charged with Robbery, Second Degree (a violent felony) in 2007. Ms. G was offered treatment in lieu of a jail sentence through EAC-LINK. She entered a plea of guilty and was subsequently released on her own recognizance to enter treatment in a residential treatment facility that

offers mainly substance abuse services. Ms. G was promised a dismissal of her charge if she completed 18 to 24 months in treatment. Ms. G's treatment plan included complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Ms. G was born in New York and was raised by the foster care system. She stated that her biological parents were both mentally ill and substance abusers. She reported a history of being both physically and sexually abused by different foster care parents.

Ms. G dropped out of school in the 10th grade and run away from her foster care home. However, she stated that she liked school and enjoyed playing basketball and drawing. She denied ever being placed in special education, suspended or expelled. She admitted to getting involved in some "non-serious" fights and doing some dangerous things for funs such as setting things for fire. She denied stealing or hurting animals. As an adult, Ms. G admitted to getting into fights while incarcerated on the index offense. She has never had a job, but stated that before her arrest, she had just started a training program to become a mechanic. She reported that most of her family members are mentally ill and that hey maintained a strained relationship.

3. Psychiatric and substance abuse history

Ms. G is currently diagnosed with Bipolar Disorder and is prescribed a mood stabilizer medication. She reported a history of at least six psychiatric hospitalizations beginning at the age of 13, and several attendances to residential treatment programs. Ms. G has history marijuana dependence, since the age of 13.

4. Criminal history

Ms. G has a history of five prior arrests for drug-related crimes, but no incarcerations prior to the index offense.

5. Participant's description of the instant offense

Ms. G refused to talk about her instant offense.

6. Testing results

Ms. G was administered the PAI. Review of the validity scales revealed that she responded in a consistent manner indicating that he attended well to item content. In addition, she did not appear to consciously create either an unfavorable or overtly favorable representation of herself. Her clinical profile is marked by one elevation on the drug (T= 82), and another elevation on aggression (T= 72) scale. In addition, Ms. G was administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. She produced a total score of 1, which is below the standard cut-off of 6 used with clinical populations, suggesting that she did not attempt to exaggerate her psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Ms. G's interview, as well as a thorough review of her file records. Ms. G yielded a total HCR-20 score of 14 out of 40 (Historical scale= 9, Clinical scale= 3, Risk Management scale= 1). This score places her more than one standard deviation below the mean of a sample of 60 participants. Ms. G yielded a total PCL: SV score of 10 out of 24, indicating that she does not fall in the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Ms. G did not attempt to exaggerate psychiatric symptoms. There is no evidence to suggest

that she exhibits personality characteristics associated with psychopathy. Summary of tests scores, behavioral observations and review of records place Ms. G in a low level of risk for future violence.

7. Diversion outcome

Information of a six-month follow-up period indicates that Ms. G absconded her residential treatment program. A bench warrant was ordered for her arrest and she was remanded to jail and is currently serving her sentence in state prison.

Appendix D

Theoretical Replication: Group 4 (High HCR-20 Scores and Compliance)

Participant 11: The Case of Mr. Y

1. Identifying and demographic information

Mr. Y is a 30 year-old African American single male, who was charged with Criminal Sale of a Controlled Substance (a non-violent felony) in 2006. Mr. Y was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that provides primarily substance abuse counseling services. Mr. Y's charge will be dropped to a misdemeanor and he will be sentenced to a conditional discharge if he successfully completes 18 to 24 months in treatment. Mr. Y's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Mr. Y reported that he was born in New York and raised by both parents until the age of 15 when his parents separated and his father left the household. Mr. Y reported that his parents worked in the airport and described them as "hard workers." Mr. Y stated that he lived with his grandmother, with whom he had a very close relationship, since the age of 15 until she passed away approximately five years ago. He reported that she was very supportive and that he became depressed when she died. He stated that he also has a close relationship with his mother, and sister. He denied any history of sexual/physical abuse, or homelessness.

Mr. Y dropped out of school in the 9th grade because he started abusing and selling drugs. He reported that he enjoyed school but got involved in numerous fights and as a result, he was suspended and expelled several times. Mr. Y stated that he has never worked and has always supportive himself through selling drugs.

Mr. Y admitted to doing some dangerous or crazy things for fun when he was a child and an adolescent, such as stealing cars, setting fires, "beating people up," and jumping in the subway tracks. He also admitted to a history of hurting animals for fun (e.g., killed squirrels and cats). Mr. Y stated that he got arrested several times as an adolescent for "stealing mailbox trucks and sneaking into subways." However, he reported that he never served time in a juvenile facility. As an adult, Mr. Y also reported getting into frequent fights to the point of knocking other people unconscious, carrying guns and being stopped by the police for driving while intoxicated.

Mr. Y reported a history of two serious relationships and several causal relationships. He has a 14 year-old daughter, who is the product of a 12 year-old relationship. He reported that he loves his daughter and has a close relationship with her and her mother. Mr. Y emphasized that he wants to be able to do well in treatment so that he is not a disappointment for his daughter.

3. Psychiatric and substance abuse history

Mr. Y is currently diagnosed with Bipolar Disorder and is prescribed a mood stabilizer medication. He reported a history of one prior hospitalization and several attendances to outpatient programs. Mr. Y reported that he attempted suicide twice at the age of 17 by overdosing on medication. He denied any family history of mental illness.

Mr. Y reported a history of marijuana and alcohol abuse since the age of 13. He denied any family history of substance abuse or incarcerations.

4. Criminal History

Mr. Y has a history of five prior arrests and four incarcerations for drug related offenses.

5. Participant's description of the instant offense

"I was caught selling drugs, but I don't regret any of the crimes that I have committed, I did what I had to do"

6. Testing results

Mr. Y was administered the PAI. Review of the validity scales revealed that he responded in a consistent manner indicating that he attended well to item content. In addition, he did not appear to consciously create either an unfavorable or overtly favorable representation of himself. His clinical profile is marked by elevations on the alcohol (T= 79), antisocial (T= 79), mania (T= 75), borderline (T= 73), and drug (T= 72) scales. Out of the five treatment scales, Mr. Y only elevated the stress scale (T= 80). Mr. Y was also administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. He produced a total score of 2, which is considered well below standard cut-offs used with clinical populations, suggesting that he did not attempt to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. Y's interview, as well as a thorough review of his file records. Mr. Y yielded a total HCR-20 score of 28 out of 40 (Historical scale= 16, Clinical scale= 7, Risk Management scale= 5), which places him more than two standard deviations above the mean of a sample of

60 participants. Mr. Y's PCL: SV yielded a total score of 16 out of 24, which is right bellow the cutoff for psychopathy (PCL: SV= 17).

In summary, results of the psychological assessment instruments suggest that Mr. Y was not trying to exaggerate or minimize psychiatric symptoms, and that he endorses symptoms consistent with antisocial and borderline personality disorders, as well as alcohol and drug abuse. There is some evidence to suggest that Mr. Y exhibits some personality characteristics associated with psychopathy. Summary of tests scores, behavioral observations and review of records place Mr. Y in a high level of risk for future violence.

7. Diversion outcome

Information of a one-year follow-up period indicates that Mr. Y successfully complied with the conditions of her plea. He did not engage in any threatening behavior or physical violence, complied with his psychiatric medication, as well as with all the rules and regulations of the program. On August 2008, his case was successfully terminated from EAC-LINK

Participant 12: The Case of Mr. B

1. Identifying and demographic information

Mr. B is a 30 year-old Caucasian single male, who was charged with Assault with Intent to cause Physical Injury (a violent felony), and Violation of Probation in 2007. Mr. B was offered treatment in lieu of a jail sentence through EAC-LINK. He entered a plea of guilty and was subsequently released on his own recognizance to enter treatment in a residential treatment facility that provides primarily substance abuse counseling services. Mr. B's charge will be dropped to a misdemeanor and he will be sentenced to a

conditional discharge if he successfully completes 18 to 24 months in treatment. Mr. B's treatment plan includes complying with prescribed medication, attending program's groups and activities, remaining abstinent from all substances (evaluated by weekly toxicology exams), and attending monthly progress court hearings.

2. Psychosocial history

Mr. B was born in New York and raised by both parents. He has one brother and one sister. Mr. B reported that his mother was a housewife and that she spoiled him. Mr. B's father was a fireman and died while on duty during the World Trade Center terrorist attacks of Sepember 11, 2001. Mr. B described his family as "loving," and denied any incidents of physical or sexual abuse. He also denied any history of homelessness.

Mr. B completed three years in college, but dropped out after he was arrested for Attempted Bank Fraud, a federal case that involved opening insurance checks from mailboxes. Mr. B reported that while in elementary school he used to enjoy "beating kids and breaking faces" when they tried to steal from him. Mr. B stated that he got suspended several times and that at the age of 16 he got expelled and arrested for breaking a classmate's jaw. Mr. B stated that he has maintained several jobs as a lifeguard, in construction, and in a pizzeria. However, he admitted to being fired several times for being late or not showing up to work. Mr. B stated that he opened two real state offices with his siblings using money from his father's inheritance. He siblings are currently in charge of the business.

Mr. B admitted to doing some dangerous or crazy things for fun when he was a child and an adolescent, such as stealing cars, or jumping between roofs. As an adult, he also reported getting involved in frequent and serious fights, mostly in clubs while

intoxicated. He stated that on occasions, he would beat people up until they were unconscious.

Mr. B stated is engaged to his girlfriend of five years and stated that he they have a good relationship. He reported that she has been very supportive during this process and visits him frequently in the program.

3. Psychiatric and substance abuse history

Mr. B is currently diagnosed with Adjustment Disorder and is prescribed with an anti-depressant medication. He denied any history of prior hospitalizations, but reported attending several outpatient drug treatment programs. Mr. B reported that he saw a psychiatrist after the death of his father and was prescribed antidepressant and anti-anxiety medications. He has a history of polysubstance dependence including alcohol, marijuana, cocaine, and pain killers since the age of 15.

4. Criminal history

Mr. B has a history of approximately 20 prior arrests for driving without a license, driving while intoxicated, and drug possession. He has been incarcerated one time prior to the instant offense for Attempted Bank Fraud.

5. Participant's description of the instant offense

"I punched the guy and got caught"

6. Testing results

Mr. B refused to complete the PAI because it was "too long and too boring." He was also administered the M-FAST, a screening measure of feigned or exaggerated symptoms of psychopathology. He produced a total score of 1, which is considered well

below standard cut-offs used with clinical populations, suggesting that he did not attempt to exaggerate his psychiatric symptoms.

The HCR-20 and the PCL: SV were both scored based on the results of Mr. B's interview, as well as a thorough review of his file records. Mr. B yielded a total HCR-20 score of 25 out of 40 (Historical scale= 11, Clinical scale= 8, Risk Management scale= 6), which places him more than one standard deviation above the mean of a sample of 60 participants. Mr. B's PCL: SV yielded a total score of 20 out of 24, which places him within the range of psychopathy.

In summary, results of the psychological assessment instruments suggest that Mr. B was not trying to exaggerate or minimize psychiatric symptoms. Mr. B presented to the interview as grandiose and superficial and his score on the PCL: SV suggests that he exhibits some personality characteristics associated with psychopathy. Summary of tests scores, behavioral observations and review of records place Mr. B in a high level of risk for future violence.

7. Diversion outcome

Information of a two-year follow-up period indicates that Mr. B successfully complied with the conditions of his plea. He has not engaged in any threatening behavior or physical violence, has complied with his psychiatric medication, as well as with all the rules and regulations of the program.

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