

Article 1

A Comparison of the Use of the Antisocial and Borderline Personality Disorder Scales in the MCMI-III and Personality Assessment Inventory With a Criminal Justice Population

Christine L. Chasek, Thomas Z. Maxson, Brittany Schmidt, Julie A. Dinsmore,
Douglas R. Tillman, and David D. Hof

Chasek, Christine L., Department of Counseling & School Psychology,
University of Nebraska at Kearney.

Maxson, Thomas Z., Department of Counseling & School Psychology,
University of Nebraska at Kearney.

Schmidt, Brittany, Clinician.

Dinsmore, Julie A., Department of Counseling & School Psychology, University
of Nebraska at Kearney.

Tillman, Douglas R., Department of Counseling & School Psychology, University
of Nebraska at Kearney.

Hof, David D., Department of Counseling & School Psychology, University of
Nebraska at Kearney.

Abstract

The present study compared outcome measurements on the Antisocial and Borderline scales of the Personality Assessment Inventory (PAI) with those on the Milion Clinical Multiaxial Inventory (MCMI-III) when both were used with a criminal justice population. Significant positive correlations were found between the Antisocial scales on the PAI and MCMI-III, as well as between the Borderline scales of both assessments, indicating that in an evaluation process it would be sufficient to use only one assessment. It is suggested that the MCMI-III is the better option to save costs and time while preserving the clinical accuracy of the testing protocol for use with a criminal justice population to make appropriate treatment recommendations.

Keywords: assessment, criminal justice

In clinical practice, it is important to select psychological tests that meet the intended purpose for testing and are appropriate for the intended test taker (Joint Committee on Testing Practices, 2004; Widiger & Coker, 2001). Psychological testing can provide a wealth of knowledge and insight into a client's symptom profile, including

clarifying connections between patterns of thought and behavior. For example, research has shown that personality traits have an impact on the predictability of an individual's involvement in criminal behavior (Bartol & Bartol, 2008). Thus, psychological assessment has been used in the criminal justice system to assist with appropriate sentencing and to identify mental health disorders that need to be addressed during and after incarceration in order to reduce recidivism after individuals leave the system (Osher, 2005; Peters, Bartol, & Sherman, 2008). This has become an important task as currently persons with mental illness and co-occurring disorders are overrepresented in the criminal justice system in the United States by rates of two to four times the normal population (Mueser, Noordsy, Drake, Wolfe, & Frisman, 2001; Osher, 2005; Prins, Draper, & Catherine T. MacArthur Foundation, 2009; Sacks, Sacks, McKendrick, Banks, & Stommel, 2004). A 2006 study by the U. S. Bureau of Justice Statistics found that over half of all jail and prison inmates have mental health issues; an estimated 1.25 million suffered from mental illness, over four times the number in 1998 (James & Glaze, 2006). About 75% of these people have a co-occurring alcohol or drug use disorder (Arons, 2000). At the community level, each year approximately one million detentions in county jails involve persons with mental health disorders. In fact, these individuals are imprisoned about eight times more frequently than they are admitted to state mental hospitals (Morissey, Meyer, & Cuddeback, 2007). Consequently, evaluation to identify mental health and co-occurring disorders has even become mandatory in several states when someone is presenting to the criminal justice system as a result of committing a crime (Bartol & Bartol, 2008; Osher, 2005).

Barriers to Psychological Assessment With Criminal Justice Clients

Even though psychological testing can provide necessary and useful information, it is expensive for the systems of care that require the assessments and frequently pay for them on behalf of the client. Testing protocols utilizing several assessment instruments are often costly due to the expense involved in purchasing the testing instruments and the time involved for the professional administering, interviewing, interpreting, and writing up of the results. In addition, administration of multiple instruments in a testing battery can require 3 to 6 hours to complete, possibly leading to test fatigue, and the reading level required for most testing instruments can make them difficult to understand for some clients (Peters et al., 2008). Careful selection of assessment instruments can potentially streamline the assessment process and minimize the impact on critical resources such as time and financial cost while preserving diagnostic accuracy and maximizing the benefits of psychological treatment (Osher, 2005; Peters & Osher, 2004; Widiger & Coker, 2001).

Assessments Frequently Used Post-Conviction

Two psychological assessments frequently administered as part of a testing protocol for individuals involved in the criminal justice system post-conviction, outpatient or incarcerated, are the Millon Clinical Multiaxial Inventory-III (MCMI-III) and the Personality Assessment Inventory (PAI). The Antisocial Personality Disorder and Borderline Personality Disorder subscales in both the MCMI-III and the PAI appear to describe essentially the same personality constructs. A high score on the antisocial scale of the MCMI-III indicates a sense of being above authority and holding no responsibility towards others, resisting societal expectations, being vengeful, irritable, and aggressive

while showing no remorse for behavior (Millon, Davis, & Millon, 1997). Similarly, a high score on the PAI Antisocial scale describes an individual who presents with an absence of empathy, egocentricity, irresponsibility, and unreliability (Morey, 2003). With regard to Borderline personality traits, the PAI measures whether the individual is at risk of breaking with reality while under a large amount of stress, is emotionally unstable in relationships, and seeks approval while fearing abandonment, and which of these characteristics are most prevalent (Morey, 2003). Similarly, scores on the Borderline scale on the MCMI-III measure an individual's drive to seek approval of others, fear of abandonment, manipulation in relationships, and unstable mood (Millon et al., 1997).

The Antisocial and Borderline scales on the MCMI-III and the PAI are frequently used to determine a client's symptom profile and appropriate treatment recommendations and appear to be particularly useful when assessing individuals involved in the criminal justice system post-conviction who are incarcerated (Bartol & Bartol, 2008; Morey & Quigley, 2002). For example, when attempting to identify female inmates at risk for disciplinary problems, Skopp, Edens, and Ruiz (2007) discovered that the Antisocial scale score on the PAI accounted for unique variance in predicting disciplinary problems beyond relevant demographic and criminal history factors. Kelln, Dozois, and McKenzie (1998) found that the MCMI-III enhanced predictive accuracy of misconduct of the inmate population and that individuals with higher behavioral penalties in prison scored higher on the Schizoid, Narcissistic, Antisocial, aggressive, passive-aggressive, Borderline, thought disorder, and alcohol dependence personality scales collectively. The researchers suggested that these measures could be made available to correctional facilities to help determine the supervision levels given to various types of inmates.

Milgram, Holsinger, Vannostrand, and Alsdorf (2015) have stressed the importance of post-conviction assessment to improve public safety and fairness in pretrial decisions; decisions made before incarceration occurs. However, a review of the literature (Osher, 2005; Peters et al., 2008; Peters & Osher, 2004; Skeem, Encandela, & Louden, 2003) found little in the way of established standardized testing and assessment protocols for post-conviction outpatient offenders to determine the most efficacious use of resources when evaluating and making determinations for rehabilitation treatment in the community corrections population. This leaves practitioners and criminal justice professionals making testing and assessment decisions without best practice guidelines, a process that can lead to inefficiency, potential duplication of services, or provision of services that are either inappropriate or not needed. If it can be shown that these scales do in fact measure the same constructs, it could potentially negate the necessity of using both assessments when completing a psychological profile of individuals involved in the criminal justice system post-conviction, thus reducing test administration time, test fatigue, and the expense involved while still maintaining diagnostic accuracy.

This study examined the use of the MCMI-III and the PAI in court-ordered mental health evaluations of post-conviction outpatient offenders to determine if a relationship exists between the corresponding Antisocial and Borderline scale scores. It was hypothesized that the corresponding scores would be significantly positively correlated, indicating that the two instruments assess similar personality traits and that one instrument only would be sufficient in assessing this population.

Method

Participants and Procedures

Participants in the study included 47 adults between the ages of 19–55 who completed outpatient court-ordered co-occurring mental health evaluations that assessed psychological functioning and substance use and included administration of both the MCMI-III and the PAI. All of the participants were involved in the criminal justice system prior to obtaining the mental health evaluation and were at the post-conviction stage of the legal process. Data used in this study was pre-existing assessment data from court ordered criminal justice outpatient psychological evaluations completed in the first six months of 2012 in a private Midwestern counseling practice that specializes in criminal justice psychological evaluations. A licensed independent mental health practitioner who holds a Psychological Assistant Certificate and is certified and sanctioned through the criminal justice system to complete co-occurring evaluations for offenders who enter the criminal justice system completed all of the evaluations. The evaluations were conducted in a private office, ensuring confidentiality, and consisted of completing the MCMI-III, the PAI, and a structured clinical interview. The data was gathered after the evaluations were completed from the MCMI-III and PAI Antisocial and Borderline Scales. After the data was screened for normality, three of the participants' scores were eliminated due to missing data, bringing the total number of participants included in the analysis of the data to 44; 15 (32%) were female and 32 (68%) were male.

Instrumentation and Data Analysis

The MCMI-III contains 175 true/false questions to identify personality characteristics underlying overt clinical symptoms (Pearson Assessments, 2013). The MCMI-III contains 27 scales, including three validity scales, 11 clinical scales, seven clinical syndromes, three severe personality pathology scales, and three severe clinical syndrome scales. Normative data for the MCMI-III are based on clinical samples and are applicable only to individuals who evidence problematic emotional and interpersonal symptoms or who are undergoing psychological evaluation. Internal consistency of the scales is estimated to be between .67 and .90 using Cronbach's alpha, and test-retest reliability is estimated to be between .84 and .96 (Millon et al., 1997). A scale score above 75 in the MCMI-III indicates clinically significant personality traits for that scale construct.

Much like the MCMI-III, the PAI was developed for making clinical and treatment decisions based on accurate diagnostic information. It is a 344-item self-report measure used to determine personality characteristics that could be indicators of personality disorders in individuals. The PAI was normed on a combination of community-dwelling adults, patients in clinical sites, and college students, yielding a reliability coefficient of .83. The assessment contains 11 clinical construct scales, four validity scales, five treatment consideration scales, and two interpersonal scales. Any scale score on the PAI above 65 indicates clinically significant personality traits and psychopathology for that scale construct (Morey, 2003, 2007).

In the review and comparison of the reliabilities of the MCMI-III and the PAI conducted by Wise, Streiner, and Walfish (2010), 78% of the respective scales on the

MCMI-III obtained alpha coefficients greater than .80; whereas on the PAI, 63% obtained alpha coefficients greater than .80. The MCMI-III test-retest coefficients were computed after 5 to 14 days and all were greater than .80. The PAI test-retest coefficients were calculated on administrations averaging 24 days apart, yielding coefficients greater than .75.

The data received by the researcher included a coded subject number, gender of the participant, and the MCMI-III and PAI Antisocial and Borderline scale scores for each participant. The data gathered did not include any identifying or confidential information and the research protocols were approved by the Institutional Review Board. For the purposes of this study, the scale scores on the MCMI-III and scale scores on the PAI were used for comparison. A Pearson correlation coefficient was used to determine the relationship between the corresponding Antisocial and Borderline scales scores on the MCMI-III and the PAI.

Table 1

Summary of Range, Means, and Standard Deviations of the MCMI-III and PAI Antisocial and Borderline Scale Score (N=47)

	Range	Mean Score	Standard Deviation
MCMI-III			
Antisocial Scale	33–96	71.28	13.64
Borderline Scale	12–95	62.68	22.60
PAI			
Antisocial Scale	45–86	62.49	10.85
Borderline Scale	37–90	61.95	12.81

Results

The MCMI-III Antisocial scale scores ranged from 33 to 96 with a mean scale score of 71.28 (SD=13.64). The PAI Antisocial scale scores ranged from 45 to 86 with a mean scale score of 62.49 (SD=10.85). The MCMI-III Borderline scale scores ranged from 12 to 95 with a mean scale score of 62.68 (SD=22.60). The PAI Borderline scale scores ranged from 37 to 90 with a mean scale score of 61.95 (SD=12.81; See Table 1). Scores on the MCMI-III were clinically significant (over 75) for 47% of participants on the Antisocial scale and for 38% of participants on the Borderline scale. On the PAI, scores were clinically significant (over 65) for 34% of participants on the Antisocial scale and for 43% of participants on the Borderline scale.

The results of the Pearson correlation analysis indicated a significant positive relationship between the Antisocial scale scores on the MCMI-III and the PAI, $r=.63$, $p < .001$, as well as a significant positive relationship between the Borderline scale scores on the MCMI-III and the PAI, $r=.76$, $p < .001$.

Discussion

The hypothesis of this study, that the Antisocial scale and the Borderline scale scores on the PAI and MCMI-III would be significantly positively correlated for post-conviction outpatient offenders, was supported. Given these results, it would appear both instruments are measuring similar constructs related to antisocial and borderline personality disorder characteristics and that rather than administering both the MCMI-III and the PAI, administering only one of these assessments would be sufficient for assessing antisocial and borderline personality traits when evaluating this population. Given previous research regarding its efficacy in predicting behavior of individuals involved in the criminal justice system post-conviction (Kelln et al., 1998), it is suggested that the MCMI-III, as a more comprehensive test, is the better option to save costs and time while still preserving the clinical accuracy of the testing assessment protocol. Furthermore, the MCMI-III has an eighth-grade reading level (Millon et al., 1997) and 175 items, far fewer than the 344 items on the PAI, making it the better choice with regard to both client understanding and test fatigue. The MCMI-III is also a well-researched tool that is frequently revised to improve the validity and reliability of the instrument according to changes in the field and the advancements in diagnostic protocol and has been developed to coordinate with the *Diagnostic and Statistical Manual of Mental Disorders* (DSM; Framingham, 2014). The utility of the assessment in interpreting the scores in the framework of the diagnostic categories of the DSM is helpful in validating the results of the complete clinical evaluation. On the other hand, there appears to be little evidence that the PAI is being revised or researched for the best use of the instrument for individuals involved in the criminal justice system post-conviction or that it is keeping pace with advancements in the field, including a lack of connectivity to the diagnostic categories in the DSM (Blais, Baity, & Hopwood, 2011).

Limitations of the Study and Further Research

The limitations of the current study include the smaller sample size, the specificity of the sample as post-conviction outpatient offenders, and the restricted geographic location of the participants who completed the court-ordered evaluations. Because these evaluations were completed on post-conviction outpatient offenders, conclusions cannot be drawn based on these results regarding the correlation of scale scores in a population of those already incarcerated. Having a larger sample size from a variety of geographic locations would enhance the generalizability of the findings beyond the Midwest region of the United States. There is also a limitation regarding the restriction of correlating only two scales in the instruments. Valuable information may also be obtained from other scales in the instruments; however, this was not the focus of the current study and thus limits the results to the two scales examined.

It is interesting that the range and extremes of the scores on the Antisocial scales obtained in this study are substantial compared to previous studies of incarcerated individuals. Ahylmeyer, Kleinsasser, Stoner, and Retzlaff (2003) used the MCMI-III to complete a study of over 7,000 non-sexual offenders that were incarcerated in the Colorado prison system. The mean Antisocial score of this incarcerated group was 59 and the mean Borderline score of the group was 39. Furthermore, Ahylmeyer et al. discovered only 29% of the inmates scored above 75 on the Antisocial scale and 6% scored above 75

on the Borderline scale, whereas in this current study of outpatient post-conviction offenders in the community setting, nearly 50% scored above 75 on the Antisocial scale and 36% scored above 75 on the Borderline scale. This finding is striking given the large scale score differences between the incarcerated population and the outpatient population and seems to indicate a higher level of pathology in the outpatient population. Further research into the factors that may be contributing to the higher level of pathology in the outpatient offender population is warranted as well as whether there is a positive correlation between scale scores for an incarcerated population.

As resources are limited and the stakes are high for the treatment of individuals involved in the criminal justice system, further research into the testing and assessment protocol of co-occurring disorders is needed. It also seems essential to adequately assess the community corrections population to sufficiently address the possibility of significant personality disturbance, specifically antisocial and borderline personality disorders, in order to make treatment recommendations that will enhance the rehabilitation process. Despite the limitations of this current study, it starts to shine a light on ways the assessment process may be streamlined while not sacrificing the gathering of information critical to treatment and rehabilitation, as well as the importance of better understanding how test results may be used differently for outpatient and incarcerated individuals to maximize benefits of the assessment process.

References

Ahlmeyer, S., Kleinsasser, D., Stoner, J., & Retzlaff, P. (2003). Psychopathology of incarcerated sex offenders. *Journal of Personality Disorders*, 17(4), 306-318.

Arons, B. (2000). *Mental health and criminal justice*. Testimony before the U.S. Department of Health and Human Services. Retrieved from <http://www.hhs.gov/asl/testify/t000921a.html>

Bartol, C. R., & Bartol, A. M. (2008). *Criminal behavior: A psychosocial approach* (8th ed.). Upper Saddle River, NJ: Pearson.

Blais, M. A., Baity, M. R., & Hopwood, C. J. (2011). *Clinical applications of the Personality Assessment Inventory*. New York, NY: Routledge Taylor & Francis Group.

Framingham, J. (2014). *Millon Clinical Multiaxial Inventory (MCMI-III)*. Retrieved from <http://psychcentral.com/lib/millon-clinical-multiaxial-inventory-mcmi-iii/0006106>

James, D. J., & Glaze, L. E. (2006). *Mental health problems of prison and jail inmates*, NCJ-213600. Retrieved from <http://bjs.ojp.usdoj.gov/index.cfm?ty=pb&detail&id=789>

Joint Committee on Testing Practices. (2004). *Code of fair testing practices in education*. Retrieved from <http://www.apa.org/science/programs/testing/fair-code.aspx#>

Kelln, B. R. C., Dozois, D. J. A., & McKenzie, I. E. (1998). An MCMI-III discriminant function analysis of incarcerated felons: Prediction of subsequent institutional misconduct. *Criminal Justice and Behavior*, 25(2), 177-189.

Milgram, A., Holsinger, A., Vannostrand M., & Alsdorf, M. (2015). Pretrial risk assessment: Improving public safety and fairness in pretrial decision making. *Federal Sentencing Reporter*, 27(4), 216–221.

Millon, T., Davis, R., & Millon, C. (1997). *MCM-III manual: Millon clinical multiaxial inventory* (2nd ed.). Minneapolis, MN: National Computer Systems, Inc.

Morey, L. C. (2003). *Essentials of PAI assessment*. Hoboken, NJ: John Wiley & Sons, Inc.

Morey, L. C. (2007). *The personality assessment inventory professional manual*. Lutz, FL: Psychological Assessment Resources.

Morey, L. C., & Quigley, B. D. (2002). The use of the personality assessment inventory (PAI) in assessing offenders. *International Journal of Offender Therapy & Comparative Criminology*, 46(3), 333–349.

Morissey, J., Meyer, P., & Cuddeback, G. (2007). Extending assertive community treatment to criminal justice settings: Origins, current evidence, and future directions. *Community Mental Health Journal*, 43(5), 527–544. doi:10.1007/s10597-007-9092-9

Mueser, K. T., Noordsy, D. L., Drake, R. E., Wolfe, R. S., & Frisman, L. (2001). Rural and urban differences in dually diagnosed patients: Implications for service needs. *Schizophrenia Research*, 48, 93–107.

Osher, F. C. (2005, November). *Integrated mental health/substance abuse responses to justice involved persons with co-occurring disorders*. Paper presented at the Expert Panel Meeting of Evidence-Based Practice for Justice-Involved Individuals, Bethesda, MD.

Pearson Assessments. (2013). *MCM-III*. Retrieved from <http://www.pearsonclinical.com/psychology/products/100000662/millon-clinical-multiaxial-inventory-iii-mcmiii.html?Pid=PAg505#tab-details>

Peters, R. H., & Bartoi, M. G., & Sherman, P. B. (2008). *Screening and assessment of co-occurring disorders in the justice system*. Delmar, NY: The National GAINS Center.

Peters, R. H., & Osher, F. C. (2004). *Co-occurring disorders and specialty courts* (2nd ed). Delmar, NY: The National GAINS Center.

Prins, S. J., Draper, L., & Catherine T. MacArthur Foundation. (2009). *Improving outcomes for people with mental illness under community corrections supervision: A guide to research-informed policy and practice*. National Institute of Corrections (Washington, DC) and Council of State Governments. New York, NY: Justice Center.

Sacks, S., Sacks, J., McKendrick, K., Banks, S., & Stommel, J. (2004). Modified therapeutic community for MICA offenders. *Behavioral Sciences and the Law*, 22(4), 477–501.

Skeem, J. L., Encandela, J., & Louden, J. E. (2003). Perspectives on probation and mandated mental health treatment in specialized and traditional probation departments. *Behavioral Sciences & the Law*, 21(4), 429–458.

Skopp, N. A., Edens, J. F., & Ruiz, M. A. (2007). Risk factors for institutional misconduct among incarcerated women: An examination of criterion-related validity of the personality assessment inventory. *Journal of Personality Assessment*, 88(1), 106–117.

Widiger, T. A., & Coker, L. A. (2001). Assessing personality disorders. In J. N. Butcher (Ed.), *Clinical personality assessment: Practical approaches* (pp. 407–434). New York, NY: Oxford University Press.

Wise, E. A., Streiner, D. L., & Walfish, S. (2010). A review and comparison of the reliabilities of the MMPI-2, MCMI-III, and the PAI presented in the respective test manuals. *Measurement and Evaluation in Counseling and Development*, 42(4), 246–254.

Note: This paper is part of the annual VISTAS project sponsored by the American Counseling Association. Find more information on the project at: <http://www.counseling.org/knowledge-center/vistas>