International Journal of Environmental Sciences
ISSN: 2229-7359
Vol. 11 No. 18s, 2025
https://www.theaspd.com/ijes.php

Understanding Crime Through Personality: A Pilot Application Of MCMI-III In An Indian Central Jail

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ABSTRACT

Objectives: *Psychological assessment has found its niche within the various sub - speciality fields of Psychology - with one such field being the specialized field of Forensic and Correctional Psychology. The Millon Clinical Multiaxial Inventory (MCMI) has been found to be well suited for use as an assessment tool in multiple setting; including clinical and correctional settings. The current research has undertaken as pilot study to understand the MCMI - III's applicability within the Indian Cultural and Correctional context; as there has been seen a dearth of empirical evidence of the utility of MCMI within this specific context.*

Methods: *Using a purposive sampling technique, the authors collected a total sample of N = 46 convicted inmates from a Central Jail in India. This sample was divided in two sets of inmates; inmates convicted of murder, MCT (n=22) and inmates convicted of rape, RCT (n = 24). The MCMI - III was administered on the sample and the scores statistically analyzed using non - descriptive statistics. The scores were then compared across the sub - scales of MCMI - III; i.e. the 11 Clinical Personality scales, 3 scales of Severe Personality Disorders, the Basic Clinical Syndrome scales and the Severe Clinical Syndrome scales to understand the effect of the offense committed on the disruptive personality patterns of the inmates.*

Results: *Results showed that the two inmate groups (rape and murder) only differed in two sub - scales of MCMI - III; while not showing significant differences in other scales; the Histrionic and the Compulsive scale. Further analysis using rank bi-serial correlation also showed that within the these two scales; compulsive scale showed significantly higher effect size for inmates convicted of rape.*

Conclusion: *The current research conducted as a pilot study to understand how understanding disruptive personality patterns could relate to the particular crime that the inmate has been imprisoned for. The authors use this study as a foundation to put forth a theoretical basis for rehabilitation practices within the correctional psychology and discuss how MCMI - III as an assessment tool could be used to formulate a plan for reformation and rehabilitation of inmates.*

Keywords: *Forensic Psychology, Crime Patterns, Psychometric Assessments, Inmates.*

1. INTRODUCTION

Millon Clinical Multiaxial Inventory - III (MCMI - III) is a self report inventory that most closely resembles and/or relates to the Axis II of Diagnostic and Statistical Manual (DSM) diagnosis of the personality disorders. This makes it an interesting and a useful tool to assess maladjusted personality patterns. Character pathology has been

known to play an important role in inmates acting out while elevated psychopathy levels, could also cause severe behavioral problems (Gacano, 2000; Young, et.al., 2000).

MCMI - III is specifically designed to assess personality disorders or rather more accurately, disruptive personality patterns; symptoms of which closely correlate with Personality Disorder scales in *Diagnostic and Statistical Manual* (DSM) criteria (Millon, 1986); providing support to the mental health professionals within the correctional settings.

Using MCMI - III as a screening instrument and as an assessment tool in correctional settings can aid in the formulation of strategies to manage as well as contain categorically disturbed inmates. Thus, it not only becomes imperative to manage such maladjusted and disruptive behavior but also necessitates screening for psychological issues for mental health management.

While there are multiple literatures available on the usage of MCMI with specific types of offenders, say for example, sex offenders (Chantry, 1994); there is shockingly very less research conducted on the actual usage and efficacy of administering MCMI within the correctional administrative setting, i.e. for use in screening, treatment planning as well as mental health management. This is especially true within the Indian Criminal Justice System, which is overburdened and prisons overcrowded, and thus face a unique set of mental health challenges. In fact, according to the National Crime Records Bureau's Prison Statistics of India (PSI), 2021; 9180 inmates were reported to have suffered from various mental health issues while out of 185 unnatural deaths reported from the prison, suicide was reported to be the leading cause of death (PSI, 2021).

In recent times, the focus of the Indian Criminal Justice System has shifted from punitive measures to restorative measures through the introduction of the three new criminal laws - Baharatiya Nyaya Sanhita (BNS, 2023); Bharatiya Nagarik Suraksha Sanhita (BNSS, 2023) and Bharatiya Saksha Adhiniyam (BSA, 2023) - focusing on the rehabilitation and reintegration ion criminals as productive members back into the society (Government of India Notification, 2024).

This shift in focus means setting the stage for a foundation of understanding mental health issues faced by inmates incarcerated in prisons. However, it has also become imperative to understand that psychological testing is only a small part of what can be termed as *"Correctional Psychology Practice"*. This practice allows for both, group and individual assessments with recommendations that be tailored to an inmate's specific needs within the correctional settings (Retzlaff, 2002).

The authors realized that with this shift in focus of the Indian Criminal Justice System, the main aim would be the inevitable rehabilitation and reintegration of the inmates back into the society. For this, as discussed before, MCMI - III as a screening and assessment tool can be used to categorize the disruptive personality patterns as associated with their specific offense. This in turn would provide a solid foundation for mental health professionals within the correctional setting for a comprehensive mental health evaluations as well as mental health management that could be tailored to an inmate's specific needs.

2. METHOD

2.1. Participants

The participants in the current pilot study were a total of 46 convicted inmates (N = 46) which included inmates convicted of rape [RCT] (n = 24) and inmates convicted of murder [MCT](n = 22) who were incarcerated in one of the Central Jails of India.

Table 1: Descriptives of the sample across MCT and RCT

	Age	
	MCT	**RCT**
Mean	36.182	33.875
Std. Deviation	8.033	6.986
Minimum	20.000	22.000
Maximum	45.000	45.000
Note. MCT = Murder Convicted, RCT = Rape Convicted		

The Table 1 shows that the mean age across the sample (n = 22) of inmates convicted of murder (MCT) was 36.18 with a Std Deviation of 8.033 whereas the mean age in the sample (n = 24) of the inmates convicted of rape (RCT) was 33.875 with a Std Deviation of 6.986. The Minimum age of the participants in sample of MCT was 20 while for RCT was 22 whereas the maximum age was 45 for both the categories (RCT and MCT) of the sample.

Table 2: Frequencies of the Crime across the Sample.

Frequencies of Crime				
Crime		**Counts**		**% of Total**
MCT		22		47.82 %
RCT		24		52.18 %

Note. MCT = Murder Convicted, RCT = Rape Convicted
Table 2 displays the frequency distribution of the two crime types within a sample of 46 participants; i.e the categories of inmates convicted of murder (MCT) and inmates convicted of rape (RCT). The inmates convicted of murder (MCT) accounted for 22 incidents (47.82%) whereas the inmates convicted of rape (RCT) accounted for 24 incidents (52.18%).

Table 3: Frequencies of Marital Status across the Sample.

Marital Status	Counts	% of Total
Married	28	61 %
Unmarried	18	39 %

Note. % = Percentage
Table 3 shows the frequency distribution of marital status within the sample of 46 participants across the two categories of inmates (RCT and MCT). Of those, 28 participants (61%) were classified as "Married" while 18 participants (39%) The remaining 35 participants (37.2%) were classified as “Unmarried."

2.2. Procedure

Inmates convicted of rape and murder from one of the Central Jails of India were invited to participate in the study. The participation in this study was completely voluntary and the inmates were informed regarding the purpose of the study and that their participation in the study will have no impact on their legal status. The inmates were also informed that their responses will be kept anonymized. No financial or otherwise reimbursement was made to the inmates who volunteered to participate in the study. The access to the inmates was provided by the appropriate authorities.

2.3. Instrumentation

2.3.1. Millon Clinical Multiaxial Inventory (MCMI) - III

MCMI - III has been specifically designed for rapid assessment, either individually or in groups, in a short period of time. The scores are validated using interpretative scoring guide as the manual of MCMI - III. This questionnaire was in a 175 true - false item response format and took approximately 30-45 minutes on an average, to be filled in by the inmates. While the reading level was an issue at times, as the MCMI - III questionnaire was in English, explanations were provided in the language they were comfortable in to the inmates as and when required. The test responses were manually scored, and the data coded for easy statistical analysis and further research.

The MCMI - III (Million, 1997; Millon et al., 2009) contains a total of four (04) validity and modifying indices: Validity (V), Inconsistency (W), Desirability (Y) and Debasement (Z). There are eleven (11) Clinical Personality Disorder scales: Schizoid (1), Avoidant (2A), Depressive (2B), Dependent (3), Histrionic (4), Narcissistic (5),

Antisocial (6A), Sadistic (6B), Compulsive (7), Negativistic (8A), and Masochistic (8B). There are also three (03) scales of Severe Personality Disorders: Schizotypal (S), Borderline (C), and Paranoid (P); while the basic Clinical Syndrome Scales are: Anxiety (A), Somatoform (H), Bipolar:Manic (N), Dysthymia (D), Alcohol Dependence (B), Drug Dependence (T), and Post-traumatic Stress Disorder (R). Lastly, the three (03) Severe Clinical Syndrome Scales are: Thought Disorder (SS), Major Depression (CC), and Delusional Disorder (PP) (Millon et al., 2009). The Base Rate scores are then calculated for each score and it is the Base Rate scores that were finally analyzed. These BR scores are uniquely specific to MCMI and the metric represents the mapping of the BR scores to understand the underlying diagnostic criteria [Gacano, et. Al. (2000)]. BR scores tend to provide a foundation for optimal differential diagnostic cut-offs and becomes an attempt to ensure that the frequency of MCMI generated diagnosis is comparable with representative clinical prevalence rates (Millon et al., 2009). It is important to note that the clinical diagnosis should not be made on just the scores of MCMI; however these scores can be treated as the starting point to a clinical hypothesis. In the end., psychological assessment will always be complimentary to the diagnostic hypothesis but cannot be considered in isolation (Gacano, 2001).

3. RESULTS AND DISCUSSION

This section presents the results for the entire sample of respondents (N=46) on the variables considered in the study. This analysis is presented using descriptive statistics - mean, standard deviation. The table below presents overall analyses of descriptive statistical results on the sub - scales of MCMI - III.

Table 4: Descriptive Analysis of Subscales of MCMI - III between MCT and RCT

Descriptives

MCMI III	Crime	N	Mean	Median	SD
Histrionic	MCT	22	53.7	54.0	11.7
	RCT	24	63.6	62.5	15.9
Compulsive	MCT	22	56.8	54.0	13.3
	RCT	24	66.8	70.0	15.2
1 Schizoid	MCT	22	74.2	75.5	12.0
	RCT	24	72.0	70.0	18.1
2A Avoidant	MCT	22	82.5	79.5	25.8
	RCT	24	74.2	76.0	31.6
2B Depressive	MCT	22	73.1	70.0	35.5
	RCT	24	70.8	80.5	37.4
3 Dependent	MCT	22	74.3	78.0	18.7
	RCT	24	75.9	77.0	26.5
Narcissistic	MCT	22	83.5	90.0	24.3
	RCT	24	81.9	86.0	23.1
Antisocial	MCT	22	71.6	74.0	12.3
	RCT	24	59.4	64.5	30.7
Sadistic	MCT	22	66.9	68.5	11.7

	RCT	24	67.5	69.0	22.3
8A Negativistic (Passive Aggressive)	MCT	22	71.5	71.5	14.5
	RCT	24	73.3	73.0	21.4
8B Masochistic	MCT	22	83.8	82.0	24.5
	RCT	24	73.8	76.0	35.8
Schizotypal	MCT	22	77.0	78.0	24.4
	RCT	24	69.8	74.0	26.4
Borderline	MCT	22	77.7	83.0	31.3
	RCT	24	67.4	74.5	37.5
Paranoid	MCT	22	71.8	70.0	11.2
	RCT	24	69.3	71.0	23.5
Anxiety	MCT	22	78.7	81.5	18.4
	RCT	24	79.6	83.5	21.4
H Somatoform	MCT	22	58.8	62.5	21.9
	RCT	24	54.4	61.0	22.3
N Bipolar: Manic	MCT	22	68.2	69.0	18.3
	RCT	24	69.5	75.5	24.6
D Dysthmia	MCT	22	62.6	63.5	18.6
	RCT	24	59.1	63.5	15.6
Alcohol Dependence	MCT	22	82.4	83.0	11.9
	RCT	24	74.0	75.0	24.6
Drug Dependence	MCT	22	72.6	75.0	14.7
	RCT	24	60.8	68.0	26.8
Post Traumatic Stress Disorder	MCT	22	59.7	64.5	21.6
	RCT	24	64.7	67.5	20.9
SS Thought Disorder	MCT	22	64.2	65.5	15.5
	RCT	24	67.0	68.0	26.3
CC Major Depression	MCT	22	66.3	78.0	29.2
	RCT	24	67.5	71.5	31.7
PP Delusional Disorder	MCT	22	70.8	68.0	13.2
	RCT	24	68.0	68.0	25.4

A series of Mann-Whitney U tests (see Table 2) were conducted to assess differences between individuals convicted of murder (MCT) and those convicted of rape (RCT) across the Millon Clinical Multiaxial Inventory-III (MCMI-III) clinical scales. The analysis identified significant differences only on two sub - scales of MCMI - III between inmates convicted of murder (MCT) and inmates convicted of rape (RCT): the Histrionic scale (U = 164, p = .028) and the Compulsive scale (U = 150, p = .012).

Table 5: Mann-Whitney U Test and Rank Biserial Correlation

MCMI III	Statistic	p		Effect Size
1 Schizoid	218	0.310	Rank biserial correlation	0.1761
2A Avoidant	249	0.750	Rank biserial correlation	0.0568
2B Depressive	259	0.912	Rank biserial correlation	0.0208
3 Dependent	254	0.834	Rank biserial correlation	0.0379
Histrionic	164	0.028	Rank biserial correlation	0.3788
Narcissistic	254	0.826	Rank biserial correlation	0.0398
Antisocial	186	0.086	Rank biserial correlation	0.2973
Sadistic	244	0.659	Rank biserial correlation	0.0777
Compulsive	150	0.012	Rank biserial correlation	0.4337
8A Negativistic (Passive Aggressive)	249	0.741	Rank biserial correlation	0.0587
8B Masochistic	240	0.597	Rank biserial correlation	0.0928
Schizotypal	224	0.385	Rank biserial correlation	0.1515
Borderline	228	0.428	Rank biserial correlation	0.1383
Paranoid	253	0.809	Rank biserial correlation	0.0436
Anxiety	243	0.644	Rank biserial correlation	0.0814
H Somatoform	225	0.390	Rank biserial correlation	0.1496
N Bipolar: Manic	237	0.552	Rank biserial correlation	0.1042
D Dysthmia	239	0.590	Rank biserial correlation	0.0947
Alcohol Dependence	197	0.140	Rank biserial correlation	0.2557
Drug Dependence	181	0.068	Rank biserial correlation	0.3163
Post Traumatic Stress Disorder	234	0.516	Rank biserial correlation	0.1136
SS Thought Disorder	223	0.366	Rank biserial correlation	0.1572
CC Major Depression	254	0.826	Rank biserial correlation	0.0398
PP Delusional Disorder	253	0.817	Rank biserial correlation	0.0417

Note. H_a $\mu_{MCT} \neq \mu_{RCT}$

In further analysis, rank biserial correlation was done to check the effect size. On the Histrionic scale, the RCT group (med(x) = 62.5) scored significantly higher than the MCT group (med(x) = 54.0), with a medium effect size (rrb = .3788). Similarly, on the Compulsive scale, the RCT group (med(x) = 70.0) demonstrated significantly higher scores compared to the MCT group (med(x) = 54.0), with a medium-to-large effect size (rrb = .4337).
No significant differences were found between groups on the remaining 22 MCMI-III clinical scales (all $p > .05$).
These findings indicate that individuals in the RCT group exhibit more pronounced histrionic and compulsive personality traits than those in the MCT group, while other clinical features appear similar between the two groups.
This clearly shows that inmates convicted of rape would exhibit behaviors that can be considered attention seeking, overly dramatic and flirtatious behaviors; that could provide a foundation for therapies that could provide insight into the reasons for their criminal behavior as well providing insight into better behavioral patterns, to reduce the rates of recidivism.

4. CONCLUSION

MCMI - III is one of the most widely utilized tool, not just within the clinical set up but has also seen applicability in the forensic settings. Correctional Psychology requires a focus on assessment tools that are not only easy to administer but also easy to score and analyze. MCMI - III has a clear focus on the understanding of specific pervasive personality patterns with a clear foundational relation with DSM IV that can provide a clear starting point to understanding the different issues as faced by the inmates specifically and individualistically. In the current research; while we have tried to understand the substantial difference between inmates convicted of rape and murder, it was seen that there were significant difference in how they exhibit Histrionic Personality Traits, with inmates convicted of rape exhibiting attention seeking and dramatic behavior along with problems delaying gratification. Inmates convicted of rape also tend to exhibit a need for order, perfectionism and a difficulty in being spontaneous as compared to the inmates convicted of murder.
The scores of the two groups on the other sub - scales of MCMI - III were similar to each other; though it doesn't mean that the scores would not be significant to the categories of the inmates within the group. Therefore, this current study needs to be treated as a pilot study that gives the foundation to understand how MCMI - III can be effective tool within the correctional set up. Regardless of the of how many sub - scales that the two categories of inmates differ on, MCMI - III can still be used as a complimentary technique in Correctional Psychology as part of individualized treatment and rehabilitation of inmates so that the inevitable release of inmates back into the society.
However, it is important to understand that there is an updated version of MCMI available; MCMI - IV which is coordinated and aligned with the format of DSM V. DSM V has seen a lot of changes from DSM IV and DSM IV TR; with one of the main changes being that DSM V eliminated the multi - axial system. The Personality and Personality Disorders Work Group for DSM-5 as well saw a hybrid categorical-dimensional model of personality disorders (PDs) and a reduction of the Personality Disorders from ten to six.
It is however the ease of using the paper - pencil format of MCMI - III that makes it a better option for socio - economic issues faced by criminal justice systems in countries like India; especially for conduction in group settings, when there is a lack of resources and manpower remains a constant issue that correctional settings and correctional psychology constantly grapple with.

AUTHORSHIP CLARIFICATION

1) A.P. and D.P.M. made substantial contributions to the conception or design of the work and the acquisition of data.
2) A.S. and D.P.M. made substantial contributions to the analysis and interpretation of data
3) A. P. And D.P.M. drafted the paper.
4) All authors reviewed, revised it critically for important intellectual content.
5) All authors approved the version to be published.
6) All authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

INFORMED CONSENT

The participation in the study was completely voluntary and an informed consent form was duly signed by all the participants.

CONFLICT OF INTEREST

All the authors whose names are on the submission state that there is no conflict of interest.

FUNDING

No funding was received by any authors for conducting this current research.

DATA AVAILABILITY

The datasets generated during and/or analyzed during the current study are available from the corresponding author on reasonable request.

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