

ASSESSMENT OF PERSONALITY AND PSYCHOPATHOLOGY IN THE CLINICAL-FORENSIC CONTEXT: CONTRIBUTION OF THE MMPI-2-RF

Bárbara Gonzalez^{1,3}, Rosa Novo^{2,3}, & Maria João Afonso²

¹Lusófona University/HEI-Lab: Digital Human-Environment Interaction Lab (Portugal)

²Faculty of Psychology, University of Lisbon (Portugal)

³CICPSI (Portugal)

Abstract

The clinical-forensic context requires broad instruments for personality and psychopathology assessment, due to the seriousness of decision making in this context. It is of utmost importance to ground those decisions in accurate knowledge of psychological features, enabling a broad characterization of the individuals' level of functioning and adaptation. The Minnesota Multiphasic Personality Inventory-2-Restructured Form (MMPI-2-RF) is among the most used instruments in this setting, as it is a broad inventory with several substantive scales, also including a set of validity scales aiming to identify response attitude. Within this context, some common psychological and behavioural features may exist that characterize the involved samples, but also a number of relevant differences, depending on the diversity of situations. This diversity includes criminal context individuals, serving a sentence or accused of crimes; individuals assessed following judicial requests for parenting skills and competence assessment; and individuals involved in court processes of litigation, related to compensation requests for work accidents, or domestic violence victimization. Thus, our main goal was to compare these specific forensic areas on the substantive and validity scales, and identify psychological characteristics more directly linked to the behavioural patterns of individuals in each sample.

A total of 377 participants, grouped in three samples – Criminal ($n = 163$; $M_{age} 39.09$, $SD 11.30$), Parenting skills ($n = 133$; $M_{age} 41.45$, $SD 9.09$) and Civil ($n = 81$; $M_{age} 44.01$, $SD 11.87$) – were assessed with the MMPI-2-RF and the results on the validity and substantive scales (i.e., higher order, restructured clinical, specific problems, and personality psychopathology) were considered. Multivariate analysis of covariance was used to assess the significant differences between the samples. Globally, both validity and substantive scales identify relevant characteristics of each sample. The criminal sample displayed the highest values in externalizing dysfunction, antisocial behaviour, hypomaniac activation; juvenile conduct problems, substance abuse, instrumental and intentional aggressiveness, and under-controlled behaviour. The parenting skills sample reached higher values in the validity scales that denote an inconsistent response attitude characterized by high social desirability. Finally, the civil sample showed clinically elevated profiles, indicating significant clinical issues. These results point out relevant psychological features characterizing different kinds of clinical-forensic areas, something that must be taken into account in psychological assessment in this field, and also as validation evidence supporting the use and interpretation of the validity scales.

Keywords: *Personality, psychopathology, MMPI-2-RF, clinical-forensic context.*

1. Introduction

Psychological assessment in the clinical-forensic context is of great importance, as it is a high stake context, in which resulting decisions have a serious impact on the individuals future, in different areas of their lives, i.e., personal, family, professional and social. Within this context, beyond the psychological features that the involved people may share, there is a diversity of situations, which may presumably be associated with relevant differences, at the psychological and behavioural levels. This diversity includes criminal context individuals, serving a sentence or accused of crimes; individuals assessed following judicial requests for parenting skills and competence assessment; individuals involved in litigation processes, in which a compensation request related to a work conflict or accident is made, or a family situation involving domestic violence. The MMPI-2 is the most extensively used worldwide psychometric instrument for psychological assessment in the forensic context (Farina et al., 2017). Most

studies in this field, both with MMPI-2 and its updated version, MMPI-2-RF, however, focus on the validity scales only, as ways of detecting the under-reporting and/or the over-reporting response attitudes (e.g., Chmielewski et al., 2017; Farina et al., 2017; Tylicki et al., 2020), and on one specific type of sample.

2. Objectives

Thus, this exploratory quantitative study aims at comparing three clinical-forensic samples, whose specific context may be characterized by differences in response attitudes, personality and psychopathology features, in order to identify psychological characteristics more distinctive of individuals in each sample. The dependent variables are the validity scales results, and the substantive scales results, which include a broad set of clinical and specific problems measures.

3. Methods

3.1. Participants

Participants of a clinical-forensic context ($N = 377$), with age ≥ 18 years, and valid protocols, were grouped in three samples – Criminal ($n = 163$; 91% masculine; $M_{age} = 39.09$, $SD = 11.30$), including participants incarcerated and assessed within the scope of pre or post-sentence processes; Parenting skills ($n = 133$; 56% feminine; $M_{age} = 41.45$, $SD = 9.09$), including participants assessed within the scope of child promotion and protection processes, or of parental responsibilities regulation processes; and Civil ($n = 81$; 91% feminine; $M_{age} = 44.01$, $SD = 11.87$), including participants assessed within the scope of court processes related with work conflicts, compensation requests and domestic violence victimization.

3.2. Instrument

The MMPI-2-RF (Ben-Porath & Tellegen, 2011) is an inventory assessing personality and psychopathology. The Portuguese version of this instrument (Novo et al., in press) was used. This study made use of the following scales: Validity scales; Higher-Order scales; Restructured Clinical scales; Specific Problems scales (Somatic/Cognitive, Internalizing, Externalizing, and Interpersonal); and Personality Psychopathology Five scales. The results are converted into normalized T-scores for the Validity scales, and uniform T-scores for all substantive scales and, in general terms, $T > 64$ are considered clinically significant values for the substantive scales.

3.3. Procedure

The instrument was administered individually by clinical and forensic psychologists, in accordance with the test standardized guidelines and scientific research norms. Participants signed an informed consent and privacy was in conformity with the international principles for psychological research. The research was approved by two Ethic Committees.

4. Results

Descriptive statistics of the three samples' results in the MMPI-2-RF scales are presented in Table 1. MANCOVA of the composite of different sets of scales, with age, schooling years, and sex as covariates, showed significant differences between the samples:

Validity scales: $F(14, 728) = 6.114$, $p < .001$, Wilks' Lambda = .801, partial $\eta^2 = .105$;
Higher-Order scales: $F(6, 736) = 16.349$, $p < .001$, Wilks' Lambda = .779, partial $\eta^2 = .118$;
Clinical scales: $F(18, 724) = 7.360$, $p < .001$, Wilks' Lambda = .715, partial $\eta^2 = .155$;
Somatic Scales: $F(10, 732) = 9.729$, $p < .001$, Wilks' Lambda = .779, partial $\eta^2 = .117$;
Internalizing scales: $F(18, 724) = 5.043$, $p < .001$, Wilks' Lambda = .790, partial $\eta^2 = .111$;
Externalizing scales: $F(8, 734) = 6.442$, $p < .001$, Wilks' Lambda = .873, partial $\eta^2 = .066$;
Interpersonal scales: $F(10, 732) = 3.861$, $p < .001$, Wilks' Lambda = .884, partial $\eta^2 = .061$;
Personality Psychopathology scales: $F(10, 732) = 7.770$, $p < .001$, Wilks' Lambda = .817, partial $\eta^2 = .096$.

Table 1. Descriptive Statistic for the MMPI-2-RF Scales.

	Criminal sample (n = 163)				Parenting skills sample (n = 133)				Civil sample (n = 81)			
	M	DP	95% CI		M	DP	95% CI		M	DP	95% CI	
			LL	UL			LL	UL			LL	UL
Validity Scales												
F-r	56.29	12.78	54.82	58.27	48.86	6.92	46.67	50.04	65.53	16.59	61.86	69.20
Fp-r	53.75	13.04	51.73	55.77	49.03	10.18	47.28	50.78	62.37	14.36	59.19	65.55
Fs	53.08	11.90	51.39	54.76	49.35	7.47	48.07	50.63	62.31	15.36	58.91	65.71
FBS-r	52.10	9.88	50.57	53.63	49.92	7.90	48.56	51.27	62.46	12.78	59.63	65.28
RBS	51.32	10.99	49.62	53.02	49.08	8.03	47.17	50.46	63.09	15.61	59.64	66.54
L-r	53.42	8.25	52.14	54.69	56.11	9.67	54.45	57.77	52.73	7.99	50.96	54.50
K-r	47.50	7.99	46.26	48.73	52.15	8.12	50.76	53.54	42.49	7.96	40.73	44.25
Higher-Order Scales												
EID	52.53	8.06	51.28	53.77	48.32	6.33	47.23	49.40	60.33	10.71	57.96	62.70
THD	58.39	11.44	56.62	60.16	54.28	9.36	52.67	55.88	63.86	13.18	60.95	66.78
BXD	59.96	12.57	58.01	61.90	47.95	9.01	46.41	49.50	52.04	9.23	50.00	54.08
Restructured Clinical Scales												
RCd	53.91	8.89	52.54	55.29	48.57	7.13	47.35	49.79	61.49	11.30	59.00	63.99
RC1	51.33	7.78	50.13	52.53	49.54	7.57	48.24	50.84	61.67	10.30	59.39	63.94
RC2	49.12	7.59	47.95	50.30	47.75	8.09	46.36	49.14	57.52	10.71	55.15	59.89
RC3	53.33	10.68	51.67	54.98	49.34	8.71	47.84	50.83	58.44	11.71	55.86	61.03
RC4	60.72	12.03	58.86	62.58	49.89	8.01	48.52	51.27	55.49	8.94	53.52	57.47
RC6	60.52	12.76	58.55	62.50	55.42	10.82	53.57	57.28	65.04	13.58	62.04	68.04
RC7	53.42	9.85	51.90	54.95	48.96	7.85	47.62	50.31	60.46	10.77	58.07	62.84
RC8	54.91	10.90	53.22	56.59	50.92	8.16	49.53	52.32	60.15	12.72	57.34	62.96
RC9	54.17	9.99	52.62	55.71	47.26	9.35	45.65	48.86	51.85	8.47	49.98	53.72
Somatic Scales												
MLS	50.33	6.95	49.25	51.40	48.31	8.19	46.90	49.71	59.49	10.98	57.07	61.92
GIC	51.96	10.40	50.35	53.57	48.65	7.27	47.41	49.90	60.36	14.58	57.14	63.58
HPC	49.98	9.41	48.52	51.43	47.93	8.52	46.47	49.39	60.28	11.78	57.68	62.89
NUC	50.49	9.01	49.10	51.88	48.89	8.14	47.49	50.28	59.28	11.28	56.79	61.78
COG	51.66	9.60	50.17	53.14	46.47	6.90	45.29	47.66	59.63	11.41	57.11	62.15
Internalizing Scales												
SUI	53.18	13.61	51.07	55.28	49.20	7.23	47.96	50.44	59.99	19.31	55.72	64.26
HLP	52.55	9.01	51.16	53.95	47.04	8.24	45.62	48.45	56.88	10.12	54.64	59.11
SFD	50.31	10.10	48.75	51.88	46.72	7.04	45.51	47.93	58.19	12.33	55.46	60.91
NFC	52.04	8.94	50.65	53.42	48.00	8.21	46.59	49.41	59.04	10.76	56.66	61.42
STW	53.79	9.40	52.33	55.24	47.71	7.27	46.47	48.96	57.40	11.25	54.91	59.88
AXY	52.15	11.32	50.40	53.90	48.08	8.47	46.63	49.54	61.42	14.65	58.18	64.66
ANP	52.32	9.63	50.83	53.81	46.83	8.25	45.41	48.24	57.94	10.70	55.57	60.30
BRF	52.55	7.88	51.33	53.77	49.89	7.67	48.58	51.21	59.91	12.99	57.04	62.79
MSF	49.33	8.00	48.09	50.56	50.35	9.20	48.77	51.93	57.04	10.17	54.79	59.29
Externalizing Scales												
JCP	60.53	13.60	58.43	62.64	49.84	10.14	48.10	51.58	53.15	10.67	50.79	55.51
SUB	57.06	13.47	54.98	59.14	46.35	5.97	45.32	47.37	49.99	9.07	47.98	51.99
AGG	52.90	11.34	51.15	54.65	48.02	8.46	46.56	49.47	51.94	9.72	49.79	54.09
ACT	51.28	9.62	49.79	52.77	48.93	9.19	47.36	50.51	53.44	8.92	53.44	55.42
Interpersonal Scales												
FML	50.88	9.70	49.38	52.38	48.53	8.88	47.01	50.06	58.74	11.90	56.11	61.37
IPP	48.31	9.29	46.87	49.74	48.93	8.43	47.49	50.38	52.48	11.15	50.02	54.95
SAV	48.55	8.84	47.18	49.91	50.13	9.41	48.51	51.74	53.22	11.62	50.65	55.79
SHY	51.13	8.92	49.75	52.51	48.56	8.10	47.18	49.95	53.78	9.18	51.75	55.81
DSF	52.99	12.05	51.12	54.85	50.85	10.80	49.00	52.70	59.49	15.31	56.11	62.88
Personality Psychopathology Five Scales												
AGGR-r	53.79	11.50	52.01	55.56	50.29	8.93	48.76	51.83	48.83	10.50	46.50	51.15
PSYC-r	56.73	11.44	54.96	58.50	52.54	9.44	50.92	54.16	61.99	13.40	59.02	64.95
DISC-r	59.43	12.31	57.53	61.33	47.37	8.86	45.85	48.89	47.73	8.94	45.75	49.71
NEGE-r	53.63	8.74	52.28	54.98	49.02	6.77	47.86	50.18	59.65	11.15	57.19	62.12
INIR-r	48.58	8.58	47.26	50.31	49.97	9.60	48.32	51.62	56.07	10.94	53.66	58.49

Note. CI = confidence interval; LL = lower limit; UL = upper limit.

Validity Scales: Under-report – L-r = Uncommon Virtues and K-r = Adjustment Validity; Over-report – F-r = Infrequent Responses; Fp-r = Infrequent Psychopathology Responses; Fs-r = Infrequent Somatic Responses; FBS-r = Symptom Validity; and RBS = Response Bias Scale. **Higher-Order Scales:** EID = Emotional/Internalizing Dysfunction; THD = Thought Dysfunction; BXD = Behavioral/Externalizing Dysfunction. **Restructured Clinical Scales:** RCd = Demoralization; RC1 = Somatic Complaints; RC2 = Low Positive Emotions; RC3 = Cynicism; RC4 = Antisocial Behavior; RC6 = Ideas of Persecution; RC7 = Dysfunctional Negative Emotions; RC8 = Aberrant Experiences; RC9 = Hypomanic Activation.

Somatic Scales: MLS = Malaise; GIC = Gastrointestinal Complaints; HPC = Head Pain Complaints; NUC = Neurological Complaints; COG = Cognitive Complaints. **Internalizing Scales:** SUI = Suicidal/Death Ideation; HLP = Helplessness/Hopelessness; SFD = Self-Doubt; NFC = Inefficacy; STW = Stress/worry; AXY = Anxiety; ANP = Anger Proneness; BRF = Behavior-Restricting Fears; MSF = Multiple Specific Fears. **Externalizing Scales:** JCP = Juvenile Conduct Problems; SUB = Substance Abuse; AGG = Aggression; ACT = Activation. **Interpersonal Scales:** FML = Family Problems; IPP = Interpersonal Passivity; SAV = Social Avoidance; SHY = Shyness; DSF = Disaffiliativeness. **Personality Psychopathology Five Scales:** AGRR-r = Aggressiveness-revised; PSYC-r = Psychoticism-revised; DISC-r = Disconstraint-revised; NEGE-r = Negative Emotionality/Neuroticism-revised; INTR-r = Introversion/Low Positive Emotionality-revised.

5. Discussion

All the samples have participants with high levels of emotional difficulties and pathological personality features, but their mean values are not clinically significant, with the exception of Ideas of Persecution (RC6), which reached significance ($T > 64$) in the Civil sample.

The Parenting Skills sample has higher values in the under-report validity scales, both defensiveness and social desirability and, accordingly, it shows significantly lower values in all substantive scales. This is in line with the results of studies comparing this type of sample with a normative sample (e.g., Mazza et al., 2019), or with an university students' sample (e.g., Sellbom & Bagby, 2008), and with a meta-analysis of studies using the previous MMPI-2 (Farina et al., 2017), which stated the same tendency. The values in our sample, although not indicative of under-reporting, point a cautious response attitude tendency, possibly related to the worries that a full disclosure could bring negative consequences in processes involving children rights. The low standard deviation this sample presents, in comparison with the other two, reveals its higher homogeneity in response attitude.

In our Parenting skills sample, the higher scale was RC6, which is in accordance with Archer et al. (2012), Mazza et al. (2019) and Kauffman et al. (2015), who stated that moderate T scores in this scale are common in child custody litigants, displaying elevated levels of suspiciousness, when compared to the normative sample. Considering that this sample participants show a tendency to minimize minor faults and present themselves in a socially desirable manner, it seems that these individuals may be more prone to endorse items that reflect their feelings of negativity and mistrust toward the litigation process and/or their ex-partner (Kauffman et al., 2015). It seems relevant that the tendency to minimize personal difficulties is reflected even in the somatic problems scales, at the level of body symptoms and preoccupations with somatic and cognitive health and disease.

Our Civil sample has significantly higher values in the over-reporting validity scales, and in most of the substantive scales. In general, this sample results are lower than the ones found in other studies with a comparable sample (e.g., Chmielewsky et al., 2017; Tylicki et al., 2020) and are closer to the values found by Wygant et al., (2009) in a sample with medical injury, and personal injury/disability groups. The clinically significant score in the Ideas of Persecution (RC6) scale is relevant, reflecting how worried and distrustful of the judicial system these individuals may be. With regard to the personality psychopathology dimensions, representing more stable and enduring characteristics, the higher mean values of this sample in some dimensions excel, while compared with the other samples. The higher neuroticism and negative emotionally, lower positive emotionally, disconnection from reality and alienation from others, are also relevant results, as they indicate that several participants were experiencing more psychological distress, and difficulties in adapting to life contexts.

Finally, the Criminal sample stands out for the highest values in scales related to externalizing dysfunction and antisocial behavior, namely problems associated with under-controlled behavior, rule breaking and irresponsible behavior, over-activation, impulsivity, grandiosity, physical and instrumental aggression. In addition, Juvenile Conduct Problems and Substance Abuse, pertaining to current and past misuse of alcohol and drugs, which are the most associated to violence scales (Ben-Porath & Tellegen, 2008/2011), are also higher in this sample. It seems relevant that, in our Criminal sample, the second higher personality psychopathology scale, even higher than Aggressiveness, is Psychoticism, which in moderate levels is not associated with psychoticism *per se*, but with an unstable working history, unemployment, and with the instability that characterizes the life path of many individuals in this type of samples (Wise, 2009).

Although these results must be taken into account as validation evidence supporting the use and interpretation of MMPI-2-RF in the forensic context, there is remarkable heterogeneity within each sample (i.e., the Parenting skills sample comprises parents disputing child custody and parents accused of parenting negligence; the Civil sample includes individuals litigating in the work and family fields, and the Criminal sample has individuals accused of crimes involving different levels of violent behaviour). This is a limitation, and further specific analysis within each sample may bring additional important features.

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