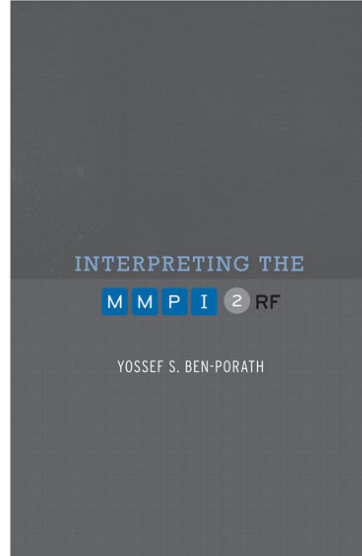


TRAINING SLIDES FOR:

INTERPRETING THE MMPI-2-RF



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MINNESOTA

INTERPRETING THE MMPI-2-RF

CHAPTER 3: MMPI-2-RF SUBSTANTIVE SCALES

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MINNESOTA

MMPI-2-RF Substantive Scales

The introduction of the RC Scales may stimulate additional MMPI-2 scale development. It may prove worthwhile to search for and measure distinctive core features of important MMPI-2 scales other than the MMPI-2 Clinical Scales, some of which may also be confounded with a strong Demoralization component. Investigations along these lines may lead to additional measures that are incrementally informative beyond the RC Scales. Through such efforts it may be possible eventually to capture the full range of attributes represented by the large body of MMPI-2 constructs with a set of new scales more transparent and effective than those currently available. (Tellegen, Ben-Porath, McNulty, Arbisi, Graham & Kaemmer, 2003, pp. 85–86)

MMPI-2-RF Substantive Scales

- RC Scales not intended to assess everything that can be measured with the MMPI-2 item pool
- Goal in completing the MMPI-2-RF:
 - A comprehensive set of measures representing the clinically significant substance of the entire MMPI-2 item pool
- Five additional sets of scales:
 - Higher-Order
 - Specific Problems
 - Interest
 - PSY-5
 - Validity

MMPI-2-RF Substantive Scales

- Higher-Order Scales – Background:
 - Ongoing search for meaningful structural model to provide an organizing descriptive framework for psychological assessment and psychodiagnosis
 - Factor analyses of “normal” and clinical personality measures yield similar structures:
 - Primary constructs to emerge from factor analyses:
 - Clinical: *Internalizing and Externalizing Psychopathology*
 - Normal: *Positive Emotionality, Negative Emotionality, Constraint*
 - Missing Construct: *Thought Dysfunction*

MMPI-2-RF Substantive Scales

- Higher-Order Scales – Development:
 - RC Scales provide an opportunity for a “fresh” analysis
 - Factor analyses of the RC Scales identify three higher-order dimensions marked by
 - RCd, RC2, RC7
 - RC6, RC8
 - RC4, RC9
 - Combined items of these scales factor analyzed and three factor scores generated
 - Three factor scores correlated with 567 MMPI-2 items
 - A set of items selected for each scale to produce diverse and distinctive markers associated statistically and conceptually with one, but not the other two higher-order factors

MMPI-2-RF Substantive Scales

- Higher-Order Scales - Outcome:
 - EID - **Emotional/Internalizing Dysfunction**
 - THD – **Thought Dysfunction**
 - BXD – **Behavioral/Externalizing Dysfunction**
- Two applications of H-O Scales:
 - Dimensional measures allow for identification of more than one broad domains of dysfunction (and indication of relative prominence)
 - Organizing framework for MMPI-2-RF interpretation

MMPI-2-RF Substantive Scales

- Specific Problems and Interest Scales - Objectives:
 - Augment H-O and RC Scales with measures needed to achieve comprehensive instrument that assesses the broad range of constructs measurable with the MMPI-2 item pool:
 - Constructs assessed by Clinical Scales 5 and 0
 - Clinical Scale components not assessed by the RC Scales (e.g., a “social anxiety” component contained in the items of Clinical Scale 3)
 - More narrowly-focused facets of some RC Scales (e.g., substance abuse within the item pool of RC4)
 - Clinically significant attributes not represented in either the Clinical or RC Scales (e.g., suicidality)

MMPI-2-RF Substantive Scales

- Specific Problems and Interest Scales – Development:
 - Iterative process relying on methods similar to those used in developing the RC Scales
 - A set of items representing targeted constructs factor analyzed along with Demoralization markers
 - Seed Scales assembled by selecting items not overly correlated with Demoralization or other targeted item sets
 - Seed scales correlated with 567 MMPI-2 items to identify ones sufficiently correlated with a specific seed and more so than with the others
 - Deletion of items that reduced internal consistency
 - Examination of empirical correlates

MMPI-2-RF Substantive Scales

- Specific Problems and Interest Scales – Outcome:
 - 5 Somatic/Cognitive Scales
 - 9 Internalizing Scales
 - 4 Externalizing Scales
 - 5 Interpersonal Functioning Scales
 - 2 Interest Scales

MMPI-2-RF Substantive Scales

- **Somatic/Cognitive**

- **MLS: Malaise** – Overall sense of physical debilitation, poor health (perceived functional incapacity)
- **GIC: Gastrointestinal Complaints** – Nausea, recurring upset stomach, and poor appetite
- **HPC: Head Pain Complaints** – Head and neck pain
- **NUC: Neurological Complaints** – Dizziness, weakness, paralysis, loss of balance, etc.
- **COG: Cognitive Complaints** – Memory problems, difficulties concentrating

MMPI-2-RF Substantive Scales

- **Internalizing (RCd Facets):**

- **SUI: Suicidal/Death Ideation** – Direct reports of suicidal ideation and recent attempts
- **HLP: Helplessness/Hopelessness** – Belief that goals cannot be reached or problems solved
- **SFD: Self-Doubt** -- Lack of self-confidence, feelings of uselessness
- **NFC: Inefficacy** – Belief that one is indecisive and inefficient

MMPI-2-RF Substantive Scales

- **Internalizing (RC7 Facets):**

- **STW: Stress/Worry** -- Preoccupation with disappointments, difficulty with time pressure
- **AXY: Anxiety** – Pervasive anxiety, frights, frequent nightmares
- **ANP: Anger Proneness** -- Becoming easily angered, impatient with others
- **BRF: Behavior-Restricting Fears** -- Fears that significantly inhibit normal behavior
- **MSF: Multiple Specific Fears** -- Fears of blood, fire, thunder, etc.

MMPI-2-RF Substantive Scales

- **Externalizing:**

RC4 Facets

- **JCP: Juvenile Conduct Problems** – Difficulties at school and at home, stealing
- **SUB: Substance Abuse** – Current and past misuse of alcohol and drugs

RC9 Facets

- **AGG: Aggression** – Physically aggressive, violent behavior
- **ACT: Activation** – Heightened excitation and energy level

MMPI-2-RF Substantive Scales

- **Interpersonal:**

- FML: **Family Problems** – Conflictual family relationships
- IPP: **Interpersonal Passivity** – Being unassertive and submissive
- SAV: **Social Avoidance** – Avoiding or not enjoying social events
- SHY: **Shyness** – Bashful, prone to feel inhibited and anxious around others
- DSF: **Disaffiliativeness** – Disliking people and being around them

MMPI-2-RF Substantive Scales

- **Interests:**

- AES: **Aesthetic-Literary Interests** – Literature, music, the theater
- MEC: **Mechanical-Physical Interests** – Fixing and building things, the outdoors, sports

MMPI-2-RF Substantive Scales

- **PSY-5 – Personality Psychopathology-5**
 - Developed by Harkness and McNulty (1994) as a dimensional model of Axis II features
 - Began with DSM-III-R Axis II criteria
 - Augmented with items describing psychopathy features and Tellegen’s higher-order dimensions of Negative Emotionality, Positive Emotionality, and Constraint
 - Data reduction analyses identify five dimensions
 - Harkness, McNulty, and Ben-Porath (1995) develop MMPI-2 PSY-5 Scales using replicated rational selection
 - Lay judges select MMPI-2 items guided by descriptions of the five dimensions

MMPI-2-RF Substantive Scales

- **MMPI-2-RF PSY-5 Scales**
 - Revised versions of their MMPI-2 measures of the PSY-5 dimensional model of personality (Axis II) pathology developed by Harkness and McNulty:
 - **AGGR-r: Aggressiveness-Revised** – Instrumental, goal-directed aggression
 - **PSYC-r: Psychoticism-Revised** – Disconnection from reality
 - **DISC-r: Disconstraint-Revised** – Under-controlled behavior
 - **NEGE-r: Negative Emotionality/Neuroticism-Revised** – Anxiety, insecurity, worry, and fear
 - **INTR-r: Introversion/Low Positive Emotionality-Revised** – Social disengagement and anhedonia

MMPI-2-RF Substantive Scales

- MMPI-2-RF PSY-5 Scales
 - Provide a validated, dimensional perspective on personality disorder features
 - Very similar to PID-5 model considered for DSM-5 (now designated as needing further research):
 - Negative Affectivity
 - Detachment
 - Antagonism
 - Disinhibition vs. Compulsivity
 - Psychoticism

MMPI-2-RF Substantive Scales

- MMPI-2-RF PSY-5 Scales
 - Can be linked to clusters of DSM-5 Personality disorders:
 - Aggressiveness – Cluster B
 - Psychoticism – Cluster A
 - Disconstraint – Cluster B
 - Negative Emotionality/Neuroticism – Cluster C
 - Introversion/Low Positive Emotionality – Cluster C

Empirical Findings Substantive Scales

- Reported in MMPI-2-RF Technical Manual and peer-reviewed literature
 - Adequate reliability

Reliability and Standard Errors of Measurement of the MMPI-2-RF Higher-Order (H-O) and Restructured Clinical (RC) Scales

	Test-Retest (r _{rt})		Internal Consistency (Alpha)						Standard Error of Measurement (SEM)			Median Clinical (Alpha)		
	MMPI-2-RF Normative Sample Subset		MMPI-2-RF Normative Sample		Outpatients, Community Mental Health Center		Psychiatric Inpatients, Community Hospital		Psychiatric Inpatients, VA Hospital		Normative (Test-Retest)		Normative (Alpha)	
	Men and Women (n = 193)	Men (n = 1,138)	Women (n = 1,138)	Men (n = 410)	Women (n = 610)	Men (n = 709)	Women (n = 473)	Men (n = 1,128)	Women (n = 193)	Men (n = 1,138)	Women (n = 1,138)			
EID	.90	.86	.88	.94	.93	.95	.95	.93	.93	3	4	4	4	
THD	.71	.69	.69	.83	.80	.89	.85	.87	.87	5	6	6	6	
BXD	.91	.78	.74	.82	.79	.81	.81	.84	.84	3	5	5	5	
RCd	.88	.87	.89	.93	.93	.95	.94	.93	.93	4	3	3	3	
RC1	.79	.73	.79	.88	.89	.87	.88	.88	.88	5	5	5	5	
RC2	.76	.68	.63	.84	.82	.86	.86	.84	.84	5	6	6	6	
RC3	.82	.80	.80	.81	.80	.85	.84	.84	.84	4	5	5	5	
RC4	.89	.76	.73	.81	.77	.82	.81	.83	.83	3	5	5	6	
RC6	.64	.63	.67	.80	.78	.85	.82	.85	.85	6	6	6	7	
RC7	.88	.81	.83	.87	.87	.90	.89	.89	.89	4	4	4	5	
RC8	.74	.70	.71	.81	.81	.86	.83	.85	.85	5	6	5	6	
RC9	.86	.79	.76	.80	.78	.82	.82	.83	.83	4	5	4	5	

Reliability and Standard Errors of Measurement of the MMPI-2-RF Somatic/Cognitive and Internalizing Scales

	Test-Retest (r_t)	Internal Consistency (Alpha)								Standard Error of Measurement (SEM)			Median Clinical (Alpha)
	MMPI-2-RF Normative Sample Subset	MMPI-2-RF Normative Sample		Outpatients, Community Mental Health Center		Psychiatric Inpatients, Community Hospital		Psychiatric Inpatients, VA Hospital	Normative (Test-Retest)	Normative (Alpha)			
		Men and Women (n = 1,138)	Men (n = 1,138)	Women (n = 1,138)	Men (n = 410)	Women (n = 610)	Men (n = 709)	Women (n = 473)		Men (n = 1,128)	Men and Women (n = 1,138)	Men (n = 1,138)	
MLS	.82	.59	.65	.82	.76	.79	.78	.78	4	6	6	6	
GIC	.75	.64	.69	.74	.79	.71	.75	.74	5	5	6	8	
HPC	.78	.59	.68	.78	.79	.75	.77	.77	5	6	6	6	
NUC	.54	.52	.58	.74	.78	.73	.74	.75	7	7	7	8	
COG	.74	.64	.69	.81	.83	.84	.81	.82	5	6	6	7	
SUI	.68	.41	.34	.78	.76	.80	.81	.79	6	8	8	11	
HLP	.65	.39	.50	.68	.66	.75	.73	.68	6	8	7	9	
SFD	.81	.67	.72	.82	.79	.82	.84	.74	4	5	6	5	
NFC	.84	.69	.73	.78	.80	.83	.82	.80	4	5	6	6	
STW	.77	.52	.60	.66	.62	.69	.66	.63	5	6	6	7	
AXY	.71	.42	.46	.63	.66	.70	.70	.71	5	7	8	10	
ANP	.81	.72	.71	.80	.76	.77	.73	.77	4	5	5	6	
BRF	.67	.44	.49	.48	.63	.62	.61	.57	6	7	8	9	
MSF	.85	.69	.71	.69	.70	.72	.70	.72	4	5	5	5	

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Reliability and Standard Errors of Measurement of the MMPI-2-RF Externalizing, Interpersonal, and Interest Scales

	Test-Retest (r_t)	Internal Consistency (Alpha)								Standard Error of Measurement (SEM)			Median Clinical (Alpha)
	MMPI-2-RF Normative Sample Subset	MMPI-2-RF Normative Sample		Outpatients, Community Mental Health Center		Psychiatric Inpatients, Community Hospital		Psychiatric Inpatients, VA Hospital	Normative (Test-Retest)	Normative (Alpha)			
		Men and Women (n = 1,138)	Men (n = 1,138)	Women (n = 1,138)	Men (n = 410)	Women (n = 610)	Men (n = 709)	Women (n = 473)		Men (n = 1,128)	Men and Women (n = 1,138)	Men (n = 1,138)	
JCP	.85	.65	.56	.74	.69	.75	.71	.71	4	7	6	7	
SUB	.87	.62	.62	.74	.66	.77	.74	.74	4	6	6	7	
AGG	.78	.66	.58	.75	.70	.76	.71	.71	5	6	6	7	
ACT	.77	.60	.60	.59	.64	.73	.75	.75	5	6	6	7	
FML	.78	.64	.67	.77	.75	.75	.78	.78	5	6	6	7	
IPP	.78	.71	.68	.74	.74	.75	.77	.77	5	5	6	6	
SAV	.84	.78	.77	.84	.85	.86	.85	.85	4	5	5	5	
SHY	.88	.74	.77	.78	.79	.79	.80	.80	4	5	5	5	
DSF	.60	.51	.43	.57	.62	.65	.61	.61	6	8	7	9	
AES	.86	.61	.49	.67	.60	.67	.66	.66	4	6	6	6	
MEC	.92	.62	.55	.63	.55	.64	.60	.60	3	5	4	6	

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Reliability and Standard Errors of Measurement of the MMPI-2-RF Personality Psychopathology Five (PSY-5) Scales

	Test-Retest (r_s)	Internal Consistency (Alpha)								Standard Error of Measurement (SEM)		
		MMPI-2-RF Normative Sample		Outpatients, Community Mental Health Center		Psychiatric Inpatients, Community Hospital		Psychiatric Inpatients, VA Hospital	Normative (Test- Retest)	Normative (Alpha)		Median Clinical (Alpha)
		Men and Women ($n = 1,138$)	Men ($n = 1,138$)	Women ($n = 1,138$)	Men ($n = 410$)	Women ($n = 610$)	Men ($n = 709$)	Women ($n = 473$)	Men ($n = 1,128$)	Men and Women ($n = 193$)	Men ($n = 1,138$)	Women ($n = 1,138$)
AGGR-r	.84	.74	.71	.75	.72	.75	.73	.75	4	6	5	5
PSYC-r	.76	.69	.69	.81	.80	.88	.83	.86	5	6	6	6
DISC-r	.93	.72	.69	.72	.70	.73	.73	.75	3	5	5	6
NEGE-r	.85	.76	.78	.83	.81	.84	.84	.82	4	5	5	6
INTR-r	.84	.77	.73	.85	.83	.86	.86	.85	4	5	5	6

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Substantive Scales

The test-retest correlations and internal consistency values of the Higher-Order (H-O), Restructured Clinical (RC), and Personality Psychopathology Five (PSY-5) Scales for the most part exceed .80. Alpha values derived from the normative sample are, as expected, somewhat lower because of truncated distributions. Reliability estimates for the Somatic/Cognitive, Internalizing, Externalizing, and Interpersonal Scales are somewhat lower than for the H-O, RC, and PSY-5 Scales, which is to be expected since the Specific Problems (SP) Scales of the MMPI-2-RF are shorter.

SEMs are predominantly eight T-score points or lower, and a majority are six points or lower. Exceptions are SEMs of shorter and/or more highly truncated measures like Suicidal/Death Ideation (SUI), Helplessness/Hopelessness (HLP), Anxiety (AXY), Behavior-Restricting Fears (BRF), and Disaffiliativeness (DSF), which in the clinical samples range from 9 to 11 points. Larger SEM values imply that more extreme T scores are needed to justify clinically significant inferences.

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Empirical Findings Substantive Scales

- Reported in MMPI-2-RF Technical Manual and peer-reviewed literature
 - Adequate reliability
 - Good evidence of construct validity
 - Broad range of replicable empirical correlates reflected in interpretive recommendations in MMPI-2-RF Manual for Administration, Scoring, and Interpretation



Appendix A External Correlates Tables

Index to Tables by Setting

	Table
Outpatients, Community Mental Health Center	1–24
Psychiatric Inpatients, Community Hospital/VA Hospital	25–72
Mental Health Outpatients, VA Hospital	73–76
Medical Outpatients, VA Hospital	77–80
Substance Abuse Treatment, VA Hospital	81–88
Disability Claimants	89–104
Criminal Defendants	105–128
College Students	129–136

MMPI-2-RF Technical Manual: Appendix A

- Empirical Correlates in
 - Mental Health
 - Outpatient
 - Inpatient
 - Medical
 - Substance Abuse Treatment
 - Forensic- Civil
 - Forensic- Criminal
 - Non-Clinical
- N= 4,336 Men; 2,337 Women
- 605 Criteria
- 53,970 Correlations

For additional information on this chapter, please reference:

Ben-Porath, Y.S. (2012). *Interpreting the MMPI-2-RF*. Minneapolis: University of Minnesota Press.