MMPI 2 RF®

Minnesota Multiphasic Personality Inventory-2 Restructured Form®

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Manual for Administration, Scoring, and Interpretation

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MMPI-2-RF (Minnesota Multiphasic Personality Inventory-2-Restructured Form) Manual for Administration, Scoring, and Interpretation

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Chapter 1
Introduction

The MMPI-2-RF® (Minnesota Multiphasic Personality Inventory-2-Restructured Form®) is a revised, 338-item version of the MMPI®-2 (Minnesota Multiphasic Personality Inventory®-2; Butcher, Graham, Ben-Porath, Tellegen, Dahlstrom, & Kaemmer, 2001) designed to provide an exhaustive and efficient assessment of the clinically relevant variables measurable with the instrument's item pool. It is a broad-band instrument intended for use in a variety of settings. The procedures described in this manual provide guidelines designed to maximize the usefulness of the findings generated by the test.

Information on the validity of the instrument is reported in detail in the accompanying *MMPI-2-RF Technical Manual* (Tellegen & Ben-Porath, 2008/2011), which also provides the rationale for developing the MMPI-2-RF, the procedures used to fashion the scales, descriptive findings on the scales, and a discussion of the extensive external correlate data reported in the appendixes. The appendix tables in the *Technical Manual* document the validity of the MMPI-2-RF scale scores in the broad range of settings in which the test is recommended for use and serve as the basis for generating the empirically grounded interpretive recommendations provided in Chapter 5 of this manual. The appendix material in the *Technical Manual* also includes an examination of the comparability of results generated with the MMPI-2-RF scales administered as either the MMPI-2 or MMPI-2-RF as well as tables that allow users to convert MMPI-2-RF raw-score means and standard deviations to T scores for descriptive purposes, and correlations between the standard substantive scales of the MMPI-2 and MMPI-2-RF.

The MMPI-2-RF test manuals are designed to fulfill the requirements for supporting documentation for tests outlined in the *Standards for Educational and Psychological Testing* (AERA, APA, & NCME, 1999). Additional resources available to MMPI-2-RF users include web pages maintained by the test publisher, University of Minnesota Press (www.upress.umn.edu/tests), and distributor, Pearson (www.PsychCorp.com), that provide updates on test developments as well as information about obtaining MMPI-2-RF materials and about training opportunities.

The MMPI-2-RF is composed of 338 items of the 567-item MMPI-2. (See Appendix E for MMPI-2/MMPI-2-RF item conversion tables.) The items that comprise the 51 MMPI-2-RF scales have been ordered such that they are distributed throughout the inventory. A number of options are available for scoring the test. It can be hand scored using scoring keys, answer sheets, and profile forms or it can be computer scored either on-site via the desktop Q Local™ software or by mail-in to Pearson. Two computer-generated reports are available. The MMPI-2-RF Score Report provides raw and standard (T) scores for the scales as well as item-level information—including unscorable responses and responses to critical items—that is to be taken into consideration when interpreting MMPI-2-RF test results. Score Report users have the option of plotting comparison group data along with the profile of the test taker. For example, for an individual tested in an outpatient mental health setting, mean scores plus and minus one standard deviation for a sample of individuals tested in such a setting can be plotted along with the test taker's profile. The MMPI-2-RF Interpretive Report includes all the elements of the Score Report, augmented by a narrative interpretation of the test results. The statements generated in the Interpretive Report are based on the item content of the scales and empirical correlates of the MMPI-2-RF. Users have the option of obtaining an annotated version of

the report that provides information about which MMPI-2-RF scale scores trigger a given statement and relevant sources for correlate-based statements.

We turn next to a discussion of important developments in the history of the MMPI® instruments.

The Original MMPI

The MMPI was developed by Starke Hathaway, a clinical psychologist at the University of Minnesota Hospitals, and J. C. McKinley, head of the Department of Psychiatry and Neurology at the university, to facilitate more accurate diagnosis of patients being treated at the hospital. In constructing items for the test, Hathaway and McKinley were guided by the descriptive diagnostic classification system of the 1930s. They developed a large pool of candidate items and employed empirical keying to construct the eight original MMPI Clinical Scales contrasting groups of differentially diagnosed patients with non-patients. Statistical analyses were conducted to identify eight sets of items that differentiated patients who were members of eight groups diagnosed, respectively, with hypochondriasis, depression, hysteria, psychopathic deviance, paranoia, psychasthenia (anxiety-related disorder), schizophrenia, and hypomania from non-patients. A number of additional analyses resulted in eight final item sets, which were converted into eight diagnostic scales. Scales measuring masculinity/femininity (designed originally to detect homosexual tendencies in an era when homosexuality was considered a psychiatric disorder) and social introversion were added later to the set of basic scales. Hathaway and McKinley documented the development of the MMPI Clinical Scales in a series of articles (Hathaway & McKinley, 1940, 1942; McKinley & Hathaway, 1940, 1942, 1944).

The Clinical Scales did not work as had been intended. Attempts to replicate their validity as predictors of diagnostic group membership were only marginally successful for some scales and mostly unsuccessful for others (Hathaway, 1960). However, early users of the MMPI observed that certain patterns of Clinical Scale scores were associated with certain personality characteristics. Researchers began to shift their focus from individual scale correlates to the identification of replicable empirical correlates of patterns of scale scores. The term *profile* was used to refer to the complete set of scores on the eight Clinical Scales; *profile types* or *code types* identified certain patterns or combinations of scores.

By the 1960s, use of the MMPI had changed dramatically. The diagnostic model was dropped in favor of the considerably broader goal of assessing normal and abnormal personality characteristics, symptoms of psychopathology, and behavioral propensities. Code types, rather than individual scales, were viewed as the primary information vehicles. Comprehensive studies of the empirical correlates of the code types (e.g., Gilberstadt & Duker, 1965; Marks & Seeman, 1963; Marks, Seeman, & Haller, 1974) served as major sources of interpretive inferences for the test. Also beginning in the 1960s, efforts to construct and interpret MMPI scales on the basis of item content rather than external correlates led to the development of new scales and interpretive approaches (e.g., Wiggins, 1966). Content-based scales complemented the original, empirically derived scales by providing a more direct means of communication between test taker and interpreter.

The original MMPI was without precedent or peer in the volume and variety of the research that guided its application in a broad range of assessment tasks. By the 1980s, it had become the most widely used measure of personality and psychopathology in the world. Nevertheless, over the years researchers and practitioners became aware of some shortcomings in the test that needed to be addressed. In 1982 the University of Minnesota Press instituted the Restandardization Project, whose mission it was to develop a revised version of the original MMPI. The MMPI-2 was published in 1989; the original MMPI was discontinued in 1999.

The MMPI-2

The need to update the MMPI had been recognized and expressed for some time before the Restandardization Project began its work (see Butcher, 1972). The collection of new norms was perceived to be the most immediate need. The original MMPI normative sample was collected in the 1930s and consisted almost exclusively of Caucasian, working-class rural Minnesotans with an average of eight years of education. This sample, although appropriate when the test was released, was no longer adequate as the MMPI came to be used in a wide variety of settings in the United States and throughout the world. A second goal of the revision was to update the test items. Items not scored on any of the more widely used scales or items deemed offensive because they concerned religious beliefs or contained sexist wording or references to bowel and bladder functioning were eliminated. Items containing outdated language or

cultural references were revised. These two goals were pursued in the context of a commitment by the Restandardization Committee to maintain continuity between the original MMPI and the revised instrument. Consequently, the Clinical Scales were left essentially intact—a small number of items were revised, and an even smaller number deemed offensive were dropped from the scales.

The MMPI-2 normative sample was collected in several areas of the United States, matching insofar as possible the then-current census and producing an adequate general population sample. Over 2,900 individuals completed the test battery composed of an experimental version of the test booklet, the MMPI-AX, made up of the 550 original test items and 154 revised and new items added as candidates for replacing some of the older, non-working items; a Biographical Information Form providing extensive demographic data; and a Life Events Form (a check-list of recent stressful life events). Of the roughly 2,900 individuals tested, 2,600 (1,462 women and 1,138 men) produced valid and complete protocols and constituted the normative sample. Approximately 1,680 members of the normative sample who participated with their spouses or live-in partners completed two additional forms, a modified version of the Katz and Lyerly (1963) Adjustment Scale and Spanier's (1976) Dyadic Adjustment Scale. Individual subjects were paid $15 for their participation; couples received $40.

The final version of the MMPI-2 consisted of 567 items. Of the 383 items scored on the basic Validity and Clinical Scales of the original MMPI, 372 were retained in the MMPI-2. Eleven were deleted because of objectionable content. No Clinical Scale lost more than four items, and none were added. Of the MMPI-2 items, 64 were slight revisions of original MMPI items. Ben-Porath and Butcher (1989) found these changes to have a negligible impact on the psychometric functioning of the scales that included any of these items. Consistent with the goal of maintaining continuity with the original MMPI, the basic Validity Scales (L, F, and K) were also left unchanged except for deleting four objectionable items from the F Scale, and the MMPI-2 Clinical Scales were nearly identical to those of the MMPI.

The following improvements were introduced:

- new norms more representative of the population of the United States,

- a new method of calculating MMPI-2 standard scores (Tellegen & Ben-Porath, 1992),

- two new response inconsistency scales, VRIN and TRIN, to assist in identifying protocols marked by random or fixed responding, fashioned after similar indicators developed by Tellegen (1982, 1988),

- a new scale, F_B, designed to identify infrequent responding to items that appear in the latter part of the MMPI-2,

- the MMPI-2 Content Scales (Butcher, Graham, Williams, & Ben-Porath, 1990), which replaced the original MMPI Content Scales (Wiggins, 1966) and offered, as did the Wiggins scales, a more focused assessment of some of the same attributes targeted by the Clinical Scales (e.g., anxiety, depression, bizarre mentation) and assessment of some areas that were not covered directly by the Clinical Scales (e.g., fears, anger, family problems).

The development and validation of the MMPI-2 were documented in the first edition of the test manual (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989). Although some doubts were expressed initially about whether continuity had been preserved (see Dahlstrom, 1992), research on the congruence of code types generated by the two sets of norms indicated that in the vast majority of cases the same findings were obtained when taking measurement error into account (Ben-Porath & Tellegen, 1995; Graham, Timbrook, Ben-Porath, & Butcher, 1991).

Consistent with the history of the instrument, research and development continued after publication of the MMPI-2. A revised edition of the test manual (Butcher et al., 2001) documented new MMPI-2 scales: two Validity Scales, F_p (Arbisi & Ben-Porath, 1995), a measure of infrequent responding less likely than the F Scale to reflect genuine psychopathology, and S, assessing superlative self-presentation (Butcher & Han, 1995); component scales for the Content Scales (Ben-Porath & Sherwood, 1993); a set of scales designed to measure major dimensions of personality pathology, the Personality Psychopathology Five (PSY-5; Harkness, McNulty, & Ben-Porath, 1995; Harkness, McNulty, Ben-Porath, & Graham, 2002); and a revised version of the Ho (Hostility) scale (Cook & Medley, 1954). Subsequent developments included introduction of non-gendered norms for the instrument (Ben-Porath & Forbey, 2003) and the

addition of the Symptom Validity Scale (FBS, Lees-Haley, English, & Glenn, 1991) to the standard Validity Scales of the test.

None of these improvements had a direct impact on the core information source of the MMPI-2, the Clinical Scales. It is worth noting that in the preface to Dahlstrom and Welsh's (1960) *MMPI Handbook*, Starke Hathaway, developer of the Clinical Scales, wondered why no improvements had been proposed to the scales that had been published nearly two decades earlier. It would be two more decades before Tellegen would initiate such improvements shortly after the MMPI-2 was published in 1989, which culminated in the development of the MMPI-2 Restructured Clinical (RC) Scales, documented in a test monograph (Tellegen et al., 2003).

The MMPI-2 RC Scales

Two major and jointly compelling factors motivated the RC Scale development project. One is the well-recognized major strength of the Clinical Scales, namely, the largely empirical method of selecting items on the basis of important diagnostic correlates, ensuring that embedded in the Clinical Scale item pools are clinically significant dimensions. The second factor is the equally well known fact that the Clinical Scales are not psychometrically optimal. Arguably, the basic problem, one that compromises convergent and discriminant validities of most of the scales, is excessive structural heterogeneity (i.e., overextended multidimensionality, conflicting directionality, and some noise), which is reflected in overly wide-ranging item content, concomitant item overlap, and some unacceptably high scale intercorrelations.

The RC Scales were designed to address the heterogeneity problem and to facilitate access to clinically significant information. Each scale measures separately one of the dimensions that had been identified as a major component of one or more of the Clinical Scales. Construction of the RC Scales (Tellegen et al., 2003) occurred in four steps. Throughout the process, analyses were conducted and replicated with large clinical samples to reduce the likelihood that chance findings would affect the restructuring effort.

The first step was to develop a measure of *Demoralization*, the common non-specific factor that contributes substantial shared variance to all of the Clinical Scales and is one of the dimensions

contributing to the heterogeneity of the scales. Tellegen (1985) had described Demoralization as a general factor that inflates correlations between measures of attributes that would be expected to be relatively independent in clinical inventories like the MMPI. Tellegen's observations regarding Demoralization were based on his study of the structure of mood, in which a broad, over-arching dimension of Pleasant versus Unpleasant affect (analogous to Demoralization) had been identified (Watson & Tellegen, 1985). Within this framework, Demoralization was conceptualized as combining high negative and low positive activation, conditions Tellegen (1985) had identified respectively as risk factors for pathological anxiety and depression. Guided by this conception, a measure of Demoralization was constructed by identifying a set of items that had relevant variance in common with both Clinical Scales 7 and 2. The content of these items was found to be congruent with that of the Pleasant vs. Unpleasant dimension.

The second major step in constructing the RC Scales was to conduct separate item principal component analyses of each of the original Clinical Scales combined with the Demoralization items. In each of these analyses, the first rotated factor was marked by the original Demoralization items as well as by those Clinical Scale items that were also Demoralization markers. For most Clinical Scales, a two-factor solution also led to the identification of a meaningful and distinctive non-Demoralization component. For some Clinical Scales, a three-factor solution was needed to recover a meaningful dimension that was not more properly designated as the major distinctive component of a different Clinical Scale. In the case of Scale 5, a four-factor solution was required, which produced two distinctive components. Step 2 thus yielded 12 sets of items representing Demoralization and 11 major distinctive Clinical Scale components.

The third step was the construction of a set of seed scales representing the 12 identified Clinical Scale components. A series of analyses was conducted designed to maximize both the representativeness and the mutual distinctiveness of these 12 core scales.

The fourth step of scale construction focused on developing the nine final RC Scales representing Demoralization and those eight Clinical Scales that represent or are related to major recognized psychopathologies, namely, Hs, D, Hy, Pd, Pa, Pt, Sc, and Ma but not Mf and Si. Correlations were computed for each seed scale with each of the 567 MMPI-2 items.

Those items were added to each of the nine targeted scales that were sufficiently correlated with it and minimally with the 11 other seed scales. Subsequently, a small number of items were reassigned to different scales based on correlations between RC Scale items and external criteria. Additional procedural details, including the criteria used for determining what constituted sufficient and minimal correlations for the various scales, are reported by Tellegen et al. (2003).

Following extensive validation studies, the nine RC Scales were added to the MMPI-2. Tellegen et al. (2003) recommended that the scales be used to aid in the interpretation of the Clinical Scales profile by taking advantage of the substantially improved discriminant validity and content delineation of the RC Scales. In clinical settings in particular, a heightened level of Demoralization is a common occurrence and often produces Clinical Scale profiles with a diffuse pattern of multiple elevations. In these cases, the RC Scale profile may show an elevation on the Demoralization Scale but on few other Restructured Scales, thus pinpointing the test taker's most salient problem areas other than Demoralization. In different cases, more likely to occur in outpatient or non-patient settings, a low level of Demoralization may unduly depress the Clinical Scale profile but not the RC Scale profile.

Subsequent studies (see Ben-Porath [2008]) have provided further empirical evidence of the validity and utility of the RC Scales in a variety of settings in which the MMPI-2 is frequently used. This literature, and the new correlates reported in the *Technical Manual*, form the basis for the empirically grounded interpretive recommendations provided in Chapter 5.

Although of considerable value as measures of the major distinctive core components of the Clinical Scales, the RC Scales were never thought to be sufficient for a comprehensive MMPI-2-based assessment of clinically relevant attributes. Needed in addition were scales measuring facets of the original Clinical Scales warranting separate assessments (e.g., shyness, anxiety, aggression, substance abuse) and other significant attributes not assessed, or not directly assessed, by the RC Scales (e.g., interests, suicidal ideation, fears). Moreover, as noted earlier, the final set of RC Scales did not include measures of the distinctive core components of Clinical Scales 5 and 0. Though not psychopathology measures, both tap attributes relevant to a comprehensive psychological assessment warranting inclusion in the MMPI-2-RF.

Finally, a set of higher-order dimensions was still to be identified.

The MMPI-2-RF

Our goal in developing the MMPI-2-RF was to survey the entire MMPI-2 item pool and identify potential targets for additional substantive scale construction that would result in a comprehensive set of scales yielding an efficient and exhaustive assessment of the salient, clinically relevant variables measurable with the MMPI-2 item pool. The methods for developing many of these additional scales were similar to those used to construct the RC Scales: factor analyzing relevant substantive item domains; assembling seed scales; recruiting items from the entire MMPI-2 pool; optimizing scale reliability, distinctiveness, and meaningfulness; and taking external correlates into consideration. However, the RC Scale construction project was relatively circumscribed compared to the series of wide-ranging analyses conducted to achieve a comprehensive set of substantive scales. We also developed a set of validity scales.

Chapter 2 of the *Technical Manual* provides an account of the major steps of the restructuring effort that resulted in 9 Validity Scales and 28 additional substantive scales (3 Higher-Order Scales, 23 Specific Problems Scales, and 2 Interest Scales). Information on the psychometric properties and empirical correlates of the MMPI-2-RF scales is presented in Chapter 3 of the *Technical Manual*. Interpretive recommendations for the scales are provided in Chapter 5 of this manual.

A revised set of PSY-5 Scales was constructed independently by Harkness and McNulty (2007). The PSY-5 model was originally developed by Harkness and McNulty (1994) to represent major dimensions of personality pathology. The clinical and personological importance of the PSY-5 Scales has been corroborated by a significant body of empirical research.

Table 1-1 provides a brief description of the 51 scales of the MMPI-2-RF. Appendix B lists the item composition of the scales, the scored direction of the items, and the means and standard deviations for each scale based on the normative sample of 2,276 men and women. Appendix C lists the 338 MMPI-2-RF items and their scale membership and scored direction. Appendix D includes item content and reading level for each item.

Table 1-1.

The MMPI-2-RF Scales

Validity Scales	
VRIN-r	Variable Response Inconsistency – Random responding
TRIN-r	True Response Inconsistency – Fixed responding
F-r	Infrequent Responses – Responses infrequent in the general population
Fp-r	Infrequent Psychopathology Responses – Responses infrequent in psychiatric populations
Fs	Infrequent Somatic Responses – Somatic complaints infrequent in medical patient populations
FBS-r	Symptom Validity – Somatic and cognitive complaints associated at high levels with over-reporting
RBS	Response Bias Scale – Exaggerated memory complaints
L-r	Uncommon Virtues – Rarely claimed moral attributes or activities
K-r	Adjustment Validity – Avowals of good psychological adjustment associated at high levels with under-reporting
Higher-Order (H-O) Scales	
EID	Emotional/Internalizing Dysfunction – Problems associated with mood and affect
THD	Thought Dysfunction – Problems associated with disordered thinking
BXD	Behavioral/Externalizing Dysfunction – Problems associated with under-controlled behavior
Restructured Clinical (RC) Scales	
RCd	Demoralization – General unhappiness and dissatisfaction
RC1	Somatic Complaints – Diffuse physical health complaints
RC2	Low Positive Emotions – Lack of positive emotional responsiveness
RC3	Cynicism – Non-self-referential beliefs expressing distrust and a generally low opinion of others
RC4	Antisocial Behavior – Rule breaking and irresponsible behavior
RC6	Ideas of Persecution – Self-referential beliefs that others pose a threat
RC7	Dysfunctional Negative Emotions – Maladaptive anxiety, anger, irritability
RC8	Aberrant Experiences – Unusual perceptions or thoughts
RC9	Hypomanic Activation – Over-activation, aggression, impulsivity, and grandiosity
Specific Problems (SP) Scales	
Somatic Scales	
MLS	Malaise – Overall sense of physical debilitation, poor health
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
Internalizing Scales	
SUI	Suicidal/Death Ideation – Direct reports of suicidal ideation and recent suicide attempts
HLP	Helplessness/Hopelessness – Belief that goals cannot be reached or problems solved
SFD	Self-Doubt – Lack of confidence, feelings of uselessness
NFC	Inefficacy – Belief that one is indecisive and inefficacious
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 activities
MSF	Multiple Specific Fears – Fears of blood, fire, thunder, etc.

Table 1-1. (continued)

The MMPI-2-RF Scales

Externalizing Scales	
JCP	Juvenile Conduct Problems – Difficulties at school and at home, stealing
SUB	Substance Abuse – Current and past misuse of alcohol and drugs
AGG	Aggression – Physically aggressive, violent behavior
ACT	Activation – Heightened excitation and energy level
Interpersonal Scales	
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
Interest Scales	
AES	Aesthetic-Literary Interests – Literature, music, the theater
MEC	Mechanical-Physical Interests – Fixing and building things, the outdoors, sports
Personality Psychopathology Five (PSY-5) Scales	
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

For more details on the development of the RC Scales, see Chapter 1 of the *MMPI-2-RF Technical Manual.*