

RAISING DOUBTS ABOUT CLAIMS OF MALINGERING:
IMPLICATIONS OF RELATIONSHIPS BETWEEN MCMI-II
AND MMPI-2 PERFORMANCES

JOSEPH GRILLO, RICHARD S. BROWN AND ROBIN HILSABECK

*Lees-Haley Psychological Corporation
Encino, California*

J. RANDALL PRICE

Richardson, Texas

PAUL R. LEES-HALEY

*Lees-Haley Psychological Corporation
Encino, California*

Test results from 90 personal injury claimants were used to explore the relationship between personality disorders (Dependent, Histrionic, Compulsive, Schizoid, Schizotypal, Paranoid, Narcissistic, Borderline, Antisocial, Avoidant, and Passive-Aggressive) as assessed by the MCMI-II and response style measured by MMPI-2 validity scales (F, K, L, F-K, O-S, Es, and FBS). With the exception of the Dependent and Narcissistic scales, all personality disorder scales were found to have a significant relationship with validity indicators in the direction of faking bad. These results suggest that the presence of characterological factors (i.e., a personality disorder), rather than malingering, contributes to exaggerated results in a forensic setting. Implications for future research are addressed.

The introduction of validity indices in the development of the original MMPI (Hathaway & McKinley, 1940) was an important contribution to psychological assessment. Scales L, F, and, later, K, were created to assess the test taker's response style and to determine whether the examinee replied to the test items in a straightforward manner. The scales also would, therefore, determine whether exaggeration (or a deviant response set) could be detected, such as deliberately making oneself appear to have more (faking bad) or fewer (faking good) problems and complaints than one actually has.

Possibly the most popular scale for determining the presence of exaggeration is the F scale. As Butcher (1990) has pointed out, an individual who achieves a high F scale score is admitting to a broad range of complaints that are not endorsed frequently in the general population. Such a high score may reflect genuinely high rates of psychopathology, or "a tendency to exaggerate problems" (p. 29).

In the years since the creation of the MMPI and its revision as the MMPI-2 (Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989), additional indicators of validity have been developed. Among the most popular is the F-minus-K (F-K) Index, proposed originally by Gough (1947) as an indicator of the examinee's tendency to answer in a manner that might be described as faking bad. Gough (1950) reported high hit rates in the ability of the F-K Index to discriminate faking bad profiles from legitimate non-faking profiles. Graham (1990) has advised that whenever the F scale raw score is higher than the K scale raw score, "the possibility of faking bad should be considered; and as the difference becomes greater, the likelihood of a fake bad profile becomes greater" (p.42).

Another measure often used to assess validity is the Obvious-Subtle (O-S) scales (Wiener & Harmon, 1946). Wiener and Harmon rationally sorted MMPI items into categories labeled "obvious" and "subtle" by whether the content obviously indicated emotional distress or psychological disturbance. Subtle items are those for which it is difficult to determine how a genuinely disturbed person would respond. Thus, individuals who are pretending to have psychological problems can recognize obvious items, but are forced to guess at the subtle items. Because they are not able to simulate or fake

emotional distress as well on the subtle items as on the obvious items, when the psychologist scores the subtle and obvious items separately, the faker obtains a higher score on the obvious scale than on the subtle scale. The amount of difference between the two scales is a clue to response style.

Other scales have been linked to an exaggerated response style. The Ego strength (Es) scale was developed originally by Barron (1956) as a measure of prognosis for psychotherapy and later applied to the study of healthy, creative persons (Barron, 1968). Butcher (1990) and Graham (1990) both have noted the association between low Es scores and exaggeration. Recently, Lees-Haley (1991), using Stone's (1988) definition of malingering as an examinee's deliberate exaggeration of symptoms and complaints for some external gain, reported empirical data that supported the scale's utility in differentiating malingered and nonmalingered MMPI-2 profiles. A T score of 30 was found to be an effective cut-off for identifying malingerers of personal injury who were not obviously grossly disabled. This finding was consistent with Caldwell's (1988) comments on the Ego strength scale, i.e., that scores below 30 reflect a need for extensive care and possibly hospitalization. Thus, for a functional individual, such a score would suggest exaggeration.

As research on detecting response styles continues for the MMPI-2, new scales have been proposed. For example, Lees-Haley, English, and Glenn (1991) created the Fake Bad Scale (FBS), which consists of items that had the greatest utility in differentiating personal injury malingerers from personal injury claimants who do not appear to be malingering and from the MMPI-2 normative group. This scale holds promise as a method of evaluating exaggeration of emotional distress in forensic settings.

In the context of forensic psychology, deliberate exaggeration or malingering is a possibility that must be considered and evaluated carefully, and the validity measures created for the MMPI/MMPI-2 are of considerable importance in this area. The use of such scales in the detection of malingered profiles has been the subject of considerable research and study. (For an overview, see, for example, Butcher, 1990; Graham, 1990; Greene, 1991.) Recently, Berry, Baer, and Harris (1991) conducted an empirical study of research concerned with detecting malingering on the MMPI. Their meta-analysis of 28 studies that had employed the MMPI to detect malingering found that the F scale, F-K Index, and the Obvious-Subtle scales were all effective at detecting malingering. The meta-analysis determined that there was an overall mean effect size of 2.07, which is considerably greater than that which Cohen (1992, p. 157) describes as a "larger" effect size ($d = .8$). The effect size for the Obvious-Subtle Scales, while not as great as those for the other indices noted above, was, nonetheless, found to be large.

However, malingering is not the only possible cause of exaggerated responding on the MMPI and MMPI-2. The authors of the present study noted what appeared to be a coincidence of clients with personality disorders whose results also reflected deviant response styles. This suggests that another source of exaggeration might be the presence of a personality (Axis II) disorder. Indeed, one might expect intuitively that individuals with personality types that the DSM-III-R (American Psychiatric Association, 1987) describes as engaging in exaggeration—such as the histrionic or narcissistic personalities—also would produce exaggerated results on measures of validity that can detect a tendency to exaggerate. If so, one would expect a relationship between personality, as assessed on a popular measure of personality disorders, the Millon Multiaxial Clinical Inventory-II (Millon, 1987), and the validity scales of the MMPI-2. A search of the literature, however, has not revealed research that examined possible relationships between the MMPI validity scales and personality types as assessed by the MCMI or MCMI-II. The present study, therefore, proposed to investigate this area by examining a measure of personality disorder, the MCMI-II, and its relationship to the validity indicators on the MMPI-2. It was hypothesized that there would be a statistically significant relationship between MCMI-II measures of personality disorders and MMPI-2 measures of validity, an indication that some personality disorders may be related to certain types of response styles.

METHOD

Subjects

The subjects ($N = 90$) consisted of 53 men and 37 women, who ranged from 19 to 67 years of age, with a mean age of 39.90 years ($SD = 11.53$). Each subject was administered the MMPI-2 and MCMI-II as part of a comprehensive forensic psychological evaluation.

Procedure

The MMPI-2 and the MCMI-II were administered according to the instructions in their respective manuals. After completion of each test, responses were scored by a computerized scoring program consistent with accepted scoring protocols. This procedure generated BR scores for the personality scales of the MCMI-II and raw and T scores for several validity measures developed for the MMPI-2. These scores then were correlated for those variables proposed to be associated: the MCMI-II personality scales for Histrionic, Dependent, Compulsive, Schizoid, Schizotypal, Paranoid, Narcissistic, Borderline, Antisocial, Avoidant, and Passive-Aggressive personalities; and MMPI-2 validity measures, including F, F-K, Obvious-Subtle, Ego strength, and Fake-Bad scale.

Table 1
Correlations between MCMI-II Personality Disorder Scales and MMPI-2 Validity Scales

Scale	F	K	L	F-K	O-S	ES	FBS
Depend.	.00	-.12	.1	.06	.14	-.13	.09
Hist.	-.18	-.13	-.34**	-.03	-.14	.22	-.17
Comp.	-.07	.16	.35**	-.13	.00	-.16	.19
Schizoid	.31*	-.16	.21	.29*	.37*	-.34**	.19
Schiztyp.	.47*	-.49**	.01	.57*	.62**	-.50**	.18
Paranoid	.13	-.42**	-.05	.32*	.39**	-.29*	.13
Narciss.	-.10	-.21	-.15	.07	.00	.16	-.22
Border.	.45**	-.67**	-.40*	.67**	.65**	-.55**	.34**
Antisoc.	.26*	-.44**	-.30*	.42*	.35**	-.14	-.03
Avoidant	.48**	-.53**	-.01	.59**	.63**	-.55**	.27*
Passaggr.	.46**	-.68**	-.35**	.68*	.68**	-.47**	.20

* $p < .01$. ** $p < .001$.

RESULTS

Table 1 reveals that many substantial relationships exist between the personality scales of the MCMI-II and measures of response style of the MMPI-2. Specifically, Borderline, Antisocial, Avoidant, Passive-Aggressive, and Schizotypal were correlated with the most response style measures (4), while some personality scales, such as Dependent and Narcissistic, were not related significantly to any MMPI-2 validity scale. Others (Histrionic and Compulsive) were related significantly to only the L scale (negatively for Histrionic; positively for Compulsive). All the validity measures were found to be related to at least two of the personality scales, with all but the FBS correlated to at least five personality disorder scales.

DISCUSSION

The results of the present study revealed many significant positive relationships among personality disorder indicators of the MCMI-II and measures of validity on the

MMPI-2. They suggest that scores on MMPI-2 validity indicators that fall in the ranges that indicate malingering may, in fact, reflect psychopathology connected to personality disorders, other psychopathology (that is, not related to an Axis II disorder), and/or malingering. The results also argue that caution be observed when one is interpreting results that usually would be judged as malingering (or deliberate exaggeration) because they may well be related to psychopathology (or unconscious exaggeration).

The utter lack of significant correlation between the Dependent personality scale and any of the validity scales perhaps may be explained by features that DSM-III-R suggests are associated with that personality. That is, one might expect that an individual who has trouble making everyday decisions and who fears disapproval and rejection might shy away from portraying him/herself in any extreme fashion, preferring a more middle-of-the-road course out of fear of abandonment. Item analysis in future research may assist in testing this hypothesis.

Of particular note is that the Antisocial and Borderline personality disorder scales both had a number of strong correlations with the validity indicators. These disorders, along with the narcissistic and histrionic, form the "Cluster B" or "dramatic" group of personality disorders (American Psychiatric Association, 1987, p. 337ff). The only significant correlation of the Histrionic personality scale was with scale L, despite the tendency toward exaggeration expected for the histrionic personality. This leaves the Cluster B disorders split between two (Antisocial and Borderline) with many strong correlations and two (Histrionic and Narcissistic) with only one significant correlation. Again, item analysis in future research may reveal information that explains the discrimination found in the present study.

As anticipated, the directions of the significant correlations found were consistent with the theoretical background of the scales. That is, negative correlations were found between personality disorder scales and those validity scales for which a low score suggests faking bad (for example, scales L, K, and Es). Conversely, for those validity scales for which a high score indicates faking bad, the significant correlations were positive (e.g., scales, F, F-K, O-S, and FBS).

The implications of the present study's results also may be bidirectional. In addition to suggesting that patients with personality disorders exaggerate, the findings raise the possibility that the significant elevations on some of the personality scales may reflect not only characterological components, but also more state-dependent aspects, such as exaggeration or other self-presentation concerns. This would not be a unique finding with regard to measures of traits. In a review of measures of DSM personality disorders, Reich (1987) has argued that state conditions can influence the measurement of personality disorders. Specifically, Reich cites his own research, as well as that of Leibowitz, Stallone, Dunner, and Fieve (1979) and Hirshfeld et al. (1983), and argues that depressive and anxious states can affect factors such as emotional strength, interpersonal dependency, and extraversion. The implication of Reich's (1987) research is that personality disorder scales that are thought to tap primarily traits or purely characterological variables may, in fact, also tap state variables.

Further research should extend this brief correlational analysis to investigate the influence that diagnosed personality disorders (as determined in part by specific scores on the Millon scales) have on predicting decisions with regard to response styles, such as random answering, faking good, or faking bad. Specifically, research that utilizes defined BR levels on MCMI-II scales - 75 (described by Millon (1987, p. 100) as "present") and 85 ("most prominent") - is suggested. Results would indicate whether the tendencies toward association of MCMI-II and MMPI-2 scales exist when individuals have personality disorders identified by the Millon test. Positive findings would be useful in research to determine whether alternative cut-offs are appropriate on MMPI-2 validity scales in a forensic environment for clients who have specific MCMI-II defined personality disorders.

Understanding the relationship between personality disorders and response styles in psychological assessment may prove beneficial in distinguishing between valid psychological injury and invalid presentations of illness.

REFERENCES

- AMERICAN PSYCHIATRIC ASSOCIATION (1987). *Diagnostic and statistical manual of mental disorders* (3rd ed. rev.). Washington: Author.
- BARRON, F. (1956). An ego strength scale which predicts response to psychotherapy. *Journal of Consulting Psychology, 19*, 239-245.
- BARRON, F. (1968). *Creativity and personal freedom*. New Jersey: Van Nostrand.
- BERRY, D. T. R., BAER, R. A., & HARRIS, M. J. (1991). Detection of malingering on the MMPI: A meta-analysis. *Clinical Psychology Review, 11*, 585-598.
- BUTCHER, J. (1990). *The MMPI-2 in psychological treatment*. New York: Oxford University Press.
- BUTCHER, J. N., DAHLSTROM, W. G., GRAHAM, J. R., TELLEGEN, A., & KAEMMER, B. (1989). *Minnesota Multiphasic Personality Inventory-2 (MMPI-2): Manual for administration and scoring*. Minneapolis: University of Minnesota Press.
- CALDWELL, A. (1988). *MMPI supplemental scale manual*. Los Angeles: Caldwell Report.
- COHEN, J. (1992). A power primer. *Psychological Bulletin, 112*, 155-159.
- GOUGH, H. G. (1947). Simulated patterns on the MMPI. *Journal of Abnormal and Social Psychology, 42*, 215-225.
- GOUGH, H. G. (1950). The F minus K dissimulation index for the MMPI. *Journal of Consulting Psychology, 14*, 408-413.
- GRAHAM, J. R. (1990). *MMPI-2: Assessing personality and psychopathology*. New York: Oxford University Press.
- GREENE, R. (1991). *The MMPI-2/MMPI: An interpretive manual*. Needham Heights, MA: Allyn & Bacon.
- HATHAWAY, S. R., & MCKINLEY, J. C. (1940). A multiphasic personality schedule (Minnesota): I. Construction of the schedule. *Journal of Psychology, 10*, 249-254.
- HIRSCHFELD, M. A., KLERNAN, G. L., CLAYTON, P. J., KELLER, M. B., McDONALD-SCOTT, P., & LARKIN, B. H. (1983). Assessing personality: Effects of depressive state on trait measurement. *American Journal of Psychiatry, 140*, 695-699.
- LEES-HALEY, P. R. (1991). Ego strength denial on the MMPI-2 as a clue to simulation of personal injury in vocational neuropsychological and emotional distress evaluations. *Perceptual and Motor Skills, 72*, 815-819.
- LEES-HALEY, P., ENGLISH, L. T., & GLENN, W. J. (1991). A fake bad scale on the MMPI-2 for personal injury claimants. *Psychological Reports, 68*, 203-210.
- LIEBOWITZ, M. R., STALLONE, F., DUNNER, D. L., & FIEVE, R. F. (1979). Personality features of patients with primary affective disorders. *Acta Psychiatrica Scandinavica, 60*, 214-224.
- MILLON, T. (1987). *Manual for the MCMI-II* (2nd ed.). Minneapolis, MN: National Computer Systems.
- REICH, J. H. (1987). Instruments measuring DSM-III and DSM-III-R personality disorders. *Journal of Personality Disorders, 1*, 220-240.
- STONE, E. M. (1988). *American psychiatric glossary*. Washington: American Psychiatric Press.
- WIENER, D., & HARMON, L. (1946). *Subtle and obvious keys for the MMPI: Their development*. Advice Bulletin No. 16, Regional Veterans Administration Office, Minneapolis, MN.