

25 HISTORICAL HIGHLIGHTS: SIGNIFICANT CONTRIBUTIONS FOR USE OF THE MMPI/MMPI-2 IN PERSONNEL APPLICATIONS¹

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Extensive research has been conducted on the use of the MMPI and MMPI-2 scales in personnel assessment applications (see Reference File for more complete listing). The following highlights describe special contributions that were made to assure that the scales on the test were appropriate, reliable, and valid in predicting behavior pertinent to screening applicants in high risk occupations such as police, fire, seminary, nuclear power plants, and airline pilots. Major research studies and a relevant court ruling are highlighted and their findings/implications noted here.

- 1940 Hathaway & McKinley (1940) introduced the Minnesota Multiphasic Personality Inventory as an empirically based self-report instrument that could assess clinical symptoms by differentiating people with mental health problems from normal individuals.
- 1944 During World War II, shortly after the MMPI was published, Abramson (1944) established the value of the MMPI in personnel selection in the military.
- 1948 Two early empirical studies gave impetus for using the MMPI in personnel screening among civilian populations. Barnabas (1948) conducted research and concluded that when used properly and in accordance with sound experimental research methods, the MMPI could be very useful in selection and placement. Bier (1948) contrasted MMPI scores of 5 groups consisting of individuals from: Catholic seminarians, medical, law, dental, and college students. He determined

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"the well adjusted seminarian differed far more from the poorly adjusted seminarian than he did from the well adjusted members of the four comparative groups."

- 1951 A scale (Dominance or Do) for assessing important interpersonal relationships and attitudes was developed by Gough, McClosky & Meehl, (1951). It is one of two central indices for providing information on job related personality characteristics. Gough, McClosky & Meehl, (1952) published their second scale (Responsibility or Re), useful for personnel assessment.
- 1955 Cook and Medley (1955) developed a scale to assess Hostility (Ho) in school teachers; a measure that has come to be widely used to evaluate this characteristic among potential job applicants.
- 1955 Research examining the combined use of several MMPI scales to make predictions as to adjustment in US Navy aviation cadets was valuable in classification. The MMPI was utilized as a measuring instrument with US Naval Cadets who were correctly categorized into pass and fail categories using the scales (Melton, 1955).
- 1957 Various MMPI scales demonstrated significant correlation with the military adjustment criteria (Voas, Bair, & Ambler, 1957).
- 1958 Test defensiveness in personnel screening was highlighted by Fulkerson, Sells, and Raynor (1958). They reported that interpretations of the MMPI norms required supplementation or modification in order to better assess the personality of military pilots who appeared more defensive (K), more prone to conversion symptoms (Hy), more manic ((Ma), and less introverted (Si).
- 1964 Research by Matarazzo, Allen, Saslow, & Wiens, (1964) revealed that civil service police applicants and firemen with well-adjusted personality can be successfully detected by the MMPI.
- 1974 Research indicating that the MMPI is valuable in assessing the rate of attrition and problems in emotional adaptation that can lead to separation from a military academy (Lachar, 1974).
- 1976 A validity study (Schoenfeld, Preston & Adams, 1976) showed that the MMPI, particularly Validity (F), Psychopathic Deviate, Psychasthenia, Schizophrenia, and Hypomania scales, was valuable at predicting significant differences between accepted and rejected applicants for a suicide prevention service.
- 1976 Saxe & Reiser (1976) verified that groups of applicants who were successful as police officers differed from those who were rejected as applicants and those who terminated from training. The mean MMPI profile of applicants who became successful police officers was significantly different from the profile of applicants

- of 3 other groups who did not succeed.
- 1979 Weybrew & Noddin (1979) studied and detected MMPI patterns that were found to provide a means for early identification of U.S. Navy submariner candidates predisposed to significant psychopathology during long patrols.
 - 1982 Computer-based scoring and interpretation for personnel assessment decisions became available and provided in the Minnesota Report (Butcher, 1982, 2010).
 - 1985 Beutler, Storm, Kirkish, Scogin & Gaines, (1985) reported that the behavior of police personnel on the job was associated with patterns and elevation of their MMPI profiles and interpersonal needs. Overall results show a high amount of association between psychological variables and criterion behaviors.
 - 1985 Further validation of the MMPI's utility in assisting psychologists in making selection decisions was found. The accuracy in predicting academic attrition and low ratings of emotional suitability was further noted (Hargrave, 1985).
 - 1988 Additional validation of the value of the MMPI in detecting potential disciplinary actions among law enforcement candidates (Hiatt, & Hargrave, 1988).
 - 1990 Research on job performance and occupational interests as they relate to the MMPI variables pertinent to assessing career counselors. Research indicates that the MMPI is appropriate for evaluating clients in this setting (Peterson & Clark, 1990).
 - 1994 MMPI-2 performance of airline pilot applicants was described and analyzed with a large sample of pilot applicants (Butcher, 1994). A measure for detecting invalidating response conditions in personnel assessment, the Superlative Self Expression Scale or *S*, was developed using a sample of pilot applicants to address the tendency of some to claim extreme virtue through presenting oneself in a superlative manner (Butcher & Han, 1995).
 - 1996 The test-retest reliability of the majority of MMPI-2 scales in a personnel setting was demonstrated (Putnam, Kurtz & Houts, 1996).
 - 1997 The development and subsequent validation of the test-retest method under special instructions for administering the MMPI-2 to lower test defensiveness and obtain a higher percentage of valid protocols in personnel screening (Butcher, Moffitt, Rouse, & Holden, 1997; Butcher, Gucker & Hellervik, 2009; Cigrang, & Staal, 2001).
 - 1998 An important court decision assuring the appropriateness of personnel screening for police applicants was decided. "Appropriate psychological screening is job related and consistent with business necessity where the selection of individuals

- to train for the position of police officer is concerned” (U.S. Court of Appeals, Eighth Circuit, # 97-3268)
- 2005 A recent study (Plante & Aldridge, 2005) investigating the psychological profiles of Roman Catholic clergy who have confronted credible accusations of sexual misconduct was described. The study confirmed the validity and utility of assessing in personnel settings. MMPI-2 results suggest that these men tend to have profiles that were defensive, repressive, mistrustful, isolative, and irritable.
- 2007 Gamino, Sewell, Mason & Crostley (2007) detailed the MMPI-2 variables that are valuable in a test battery evaluating Catholic Deacon aspirants. Using an assessment battery of psychological tests and clinical interview they developed a systematic psychological description of those candidates deemed acceptable for training. Review of archival records identified differences between those aspirants accepted for training versus those not accepted
- 2009 The appropriateness of using the MMPI-2 in assessing minority clients was confirmed further. The MMPI-2 symptom scores for Hispanic employees are generally similar to the scores for Anglo employees and do not require adjustments in interpretive strategies (Zapata, Kreuch, Landers, Hoyt & Butcher, 2009).

References

- Abramson, H. A. (1945). The Minnesota personality test in relation to selection of specialized military personnel. *Psychosomatic Medicine*, 7, 178-184.
- Barnabas, B. (1948). Validity of personality and interest tests in selection and placement situations. *Transactions of the Kansas Academy of Science*, 51, 335-339.
- Beutler, L. E., Storm, A., Kirkish, P., Scogin, F., & Gaines, J. A. (1985). Parameters in the prediction of police officer performance. *Professional Psychology, Research and Practice*, 16, 324–335.
- Bier, W.C. (1948). A comparative study of a seminary group and four other groups on the Minnesota Multiphasic Personality Inventory. *Studies in Psychology & Psychiatry from the Catholic University of America*, 7, 107.
- Butcher, J. N. (1994). Psychological assessment of airline pilot applicants with the MMPI-2. *Journal of Personality Assessment*, 62, 31–44.

- Butcher, J. N. (1989, 2010). *User's guide for the Minnesota Personnel Report*. Minneapolis, MN: National Computer Systems.
- Butcher, J. N., Gucker, D. K., & Hellervik, L. W. (2009). Clinical personality assessment in the employment context. In J. N. Butcher (Ed.), *Oxford handbook of personality assessment* (pp. 582–598). New York: Oxford University Press.
- Butcher, J. N., & Han, K. (1995). Development of an MMPI-2 scale to assess the presentation of self in a superlative manner: The S Scale. In J.N. Butcher and C.D. Spielberger (Eds). *Advances in personality assessment Vol. 10*. (pp. 25-50). Hillsdale NJ: Lawrence Erlbaum Associates Inc.
- Butcher, J. N., Moffitt, R. C., Rouse, S. V., & Holden, R. R. (1997). Reducing MMPI-2 defensiveness: The effect of specialized instructions on retest validity in a job applicant sample. *Journal of Personality Assessment*, 68(2), 385–401.
- Cigrang, J. A., & Staal, M. A. (2001). Readministration of the MMPI-2 following defensive invalidation in a military job applicant sample. *Journal of Personality Assessment*, 76, 472–481.
- Cook, W.W., & Medley, D.M. (1955). The relationship between Minnesota Teacher Attitude Inventory scores and scores on certain scales of the Minnesota Multiphasic Personality Inventory. *Journal of Applied Psychology*, 39, 123-129.
- Fulkerson, S. C., Freud, S. L., & Raynor G. H. (1958). The use of the MMPI in the psychological evaluation of pilots. *Journal of Aviation Medicine*, 29, 122-129.
- Gamino, L.A., Sewell, K.W., Mason, S.L., & Crostley, J.T. (2007). Psychological Profiles of Catholic Deacon Aspirants. *Pastoral Psychology*, 55, 283-296.
- Gough, H. G., McClosky, H., & Meehl, P. E. (1951). A personality scale for dominance. *Journal of Abnormal and Social Psychology*, 46, 360–366.
- Gough, H. G., McClosky, H., & Meehl, P. E. (1952). A personality scale for social responsibility. *Journal of Abnormal and Social Psychology*, 47, 73–80.
- Hargrave, G.E. (1985). Using the MMPI and CPI to screen law enforcement applicants: A study of reliability and validity of clinicians' decisions. *Journal of Police Science & Administration*, 13, 221-224.
- Hathaway, S. R., & McKinley, J. C. (1940). A multiphasic personality schedule (Minnesota): I. Construction of the schedule. *Journal of Psychology*, 10, 249–254.
- Hiatt, D., Hargrave, G.E. (1988). MMPI profiles of problem peace officers. *Journal of Personality Assessment*, 52, 722-731.

- Lachar, D., (1974). Prediction of early US Air Force freshman cadet adaptation with the MMPI. *Journal of Counseling Psychology*, 21, 404-408.
- Matarazzo, J.D., Allen, B.V., Saslow, G., Wiens, A.N. (1964). Characteristics of successful policemen and firemen applicants. *Journal of Applied Psychology*, 48(2), 123-133.
- Melton, R.S. (1955). Studies in the evaluation of the personality characteristics of successful naval aviators. *Journal of Aviation Medicine*, 25, 600-604.
- Peterson, G.W., & Clark, D.A. (1990). The use of the MMPI as a measure of personal adjustment in career counseling. *Journal of Career Development*, 16, 297-307.
- Plante, T.G., Aldridge, A. (2005). Psychological patterns among Roman Catholic clergy accused of sexual Misconduct. *Pastoral Psychology*, 54, 73-80.
- Putnam, S.H., Kurtz, J.E., & Houts, D.C. (1996). Four-month test-retest reliability of the MMPI-2 with normal male clergy. *Journal of Personality Assessment*, 67, 341-353.
- Saxe, S.J., & Reiser, M. (1976). A comparison of three police applicant groups using the MMPI. *Journal of Police Science & Administration*, 4, 419-425.
- Schoenfeld, L.S., Preston, J., & Adams, R.L. (1976). Selection of volunteers for telephone crisis intervention centers. *Psychological Reports*, 39, 725-726.
- U.S. Court of Appeals, Eighth Circuit (1998). *Miller v City of Springfield* , 1998, # 97-3268).
- Voas, R.B., Bair, J.T., & Ambler, R.K. (1957). Validity of personality inventories in the Naval aviation selection program. (USN SAM Res. Rep. Proj. No. NM 16 01 11, Sub. 1, Rep. No. 13, iii, 22, A).
- Weybrew, B.B., & Noddin, E.M. (1979). The mental health of nuclear submariners in the United States Navy. *Military Medicine*, 144, 188-191.
- Zapata, A., Kreuch, T., Landers, R. N., Hoyt, T. & Butcher, J. N. (2009). Clinical personality assessment in personnel settings using the MMPI-2: A cross-cultural comparison. *International Journal of Clinical and Health Psychology*, 9, 287-298.

