

Kohn - 21 November

Minnesota Multiphasic Personality Inventory

I Construction of the Inventory

Construction of scales

hypochondriasis

depression

psychasthenia

hysteria

K-scale

Other evidence on individual scales

K-scale

masculinity-femininity

psychopathic deviate

II General Evaluations of MMPI

III Evaluation of MMPI for Screening

Hathaway, S.R. & McKinley, J.C.

A Multi phasic Personality Schedule: I, Construction of the Schedule, Journal of Psychology, 10, (1940) 249-254

"Subjects for standardization and development of scales are being obtained from several sources:

"1- a normal group from the University hospital and out-patient department (724 cases)....."

"2- a normal group from the University Testing Bureau (265 cases). These are mainly pre-college high school graduates who came to the testing ~~bureau~~ bureau for pre-college guidance, but there are a number of representatives from various college classes as well."

"3- a group of normals whom we were able to contact through the local WPA administration (265 cases)....."

"4- Patients in the general wards of the University Hospital (254 cases)....."

"5- Patients in the psychopathic unit of the University Hospital & outpatient neuropsychiatric clinic (221 cases). All of the inpatients who are not too disturbed or otherwise unusable, become subjects of the inventory regardless of diagnosis."

→ this is a report on plans; no results available at this time (1940)

McKinley, J.C. & Hathaway, S.R.

A Multiphasic Personality Schedule: II A Differential Study
of Hypochondriasis, Journal of Psych., 10 (1940) 255-268

"Hypochondriasis is defined for the purposes of this study as abnormal psychosomatic concern over bodily health."

— construction of scale for hypochondriasis — selection of "pure" cases of hypochondriasis. Only 50 such cases — compared to normal groups and those items which showed a %age frequency difference between the criterion groups and the normal groups which was at least twice its normal error selected for hypochondriasis scale. A few of these items excluded because it didn't seem they'd apply to the larger population.

— examples of the 55 questions in this scale:

3 - I do not tire quickly.

9 - There seems to be a fulness in my head or nose most of the time.

22 - I frequently notice my hand shakes when I try to do something

27 - My hands & feet are usually warm enough

46 - I enjoy social gatherings just to be with people

— Above is H scale. CH scale (corrective scale) designed to differentiate non-hypochondriacs who scored highly on H (48 additional questions)

— Final corrected score for hypochondriasis is $H - CH$

— Indications of reliability & validity on small population.

Hathaway, S.R., & McKinley, J.C.

A Multiphasic Personality Schedule III The Measurement
of Symptomatic Depression, Journal of
Psychology 14 (1942) 73-84

(3000 individuals tested at time of this report)

Subjects for scale derivation:

- (a) 139 normal married males 26-43
200 " " females 26-43
- (b) 265 college students
- (c) 40 normal persons having a high depression score on
a preliminary depression scale
- (d) a group of 50 patients without clinically observed
depression but with a tendency to score high on
the depression scale
- (e) a group of 50 carefully chosen depressed patients
as a criterion group

Derivation of scale similar to that for hypochondriasis
group (d) served as basis for correcting scale

60 items chosen as scale

Validation 35 clinical cases of depression given MMPI - 24 of them
made scores better than 70.

Scale yields scores that differentiate at least 50%
of the test cases from normals —

Reliability For 40 cases, test-retest $.77 \pm .044$

Other scales constructed by Hathaway & McKinley
Hathaway & McKinley — Construction of scales:

- 1- Psychasthenia (Jof Applied Psych XVI, 5)
- 2- hysteria, hypomania, & psychopathic deviate (28, 2)
- 3- K-scale, (Jof Consulting Psych. XII, 1)

Psychasthenia: refers to group of individuals who are frequently troubled by compulsions, obsessions, & phobias and who are often disabled by vacillation, excessive worry, & lack of confidence

Validated clinically (stat. not offered)

hysteria: only slight evidences of validity

K-scale: " " " " " (for lies, etc.)

2: Other evidence on individual scales

A: K-scale and F-scale for detection of lies:

2 studies offer evidence for validity of K-scale:

Cofer, J. of Psych., 27 (81 cases)

Gough, J. of A. & S. Psych., 42 (11 cases)

3 studies attack validity of K & F-scales

Hunt, J. of Consulting Psych., XII, 6, shows that use of both scales has some value for observation of simplest & most obvious falsification only (109 & 74 cases)

Kazan. & Scheinberg, Amer. J. of Psychiatry, 102, show that F-score has definite psychopathological indications, does not work as a validity scale for abnormals

Schmidt, J. of Consulting Psych., XII, 5 - K-factor contributes little if anything to differential diagnosis

SUM: strongly doubt ability of MMPI to eliminate possibility of falsification -

B: Masculinity-Femininity scale

(a) Burton, J. of Psych 24 - scale constructed on rapist - invert continuum (using extremes for validation) (no reliability) - n.g.

(b) Benton, J. of M+N Disease - very discerning with small population but easily falsified

C: Psychopathic Deviation

Van Vorst, Psych. Bull., 40, 8 - MMPI does not differentiate psychopaths

3: Evaluations of MMPI generally

A: Evaluations which generally support MMPI for screening "abnormals"

- (a) Leverenz
(b) Michael & Buhler } see next 2 pages
(c) Schiele, Baker, + Hathaway: The MMPI, Lancet, 63, (1943) "making cautious allowance for present imperfections, the validity of the scales is surprising. One should hardly expect to assay an individual's personality accurately & completely in a single behavior test session of an hour or two...."

(d) Hunt, Psychological Testing in Military Clinical Psych. II, Personality Testing, The Psych. Review, 53, 2 (1946)

".... sometimes the MM has been used as a screen test to separate the normal from the abnormal irrespective of the direction the abnormality may take...."

".... the MMPI seems to be a fairly good test. Whether or not it is worthy of the wide use being given it is more questionable...."

Benton shows that paranoia
schiz
psychopathic deviate

(small population)

are apparently valid.... but

hypochondriasis

depression

hysteria

masculinity - fem. do not

agree with clinical impression

- (e) McKinley & Hathaway — "The MMPI, J. of Amer. Med. Ass'n, 122, 3 (1943) —
aid in detection, characterization, &
measurement of psychoneurotic trends

B: Evaluations which hedge or present contradictory results:

- (a) Schmidt, Test Profiles as a Diagnostic aid, The MMPI, J. of Ap. Psych, 29, 2 (1945)

"the data are in agreement with Levenson's observation that although the clinical impression may not be corroborated always by the scores, the clinician is made aware of one or more personality abnormalities that require evaluation."

- (b) Ellis, Personality Questionnaires, Review of Educational Research (1947)

"a great many validity studies dealing with MMPI have appeared in 1945, '6, + '7. About half of these give evidence of positive validity; the other half indicated either lack of validity or only weak validity.

(another Ellis article similar)

C: Evaluations which do not accept MMPI as valid instrument for screening "abnormals"

(a) Rubin, The MMPI as a diagnostic Aid in a Veterans' Hospital, J. of Consulting Psych., XII, 4 (1948) — little diagnostic value

(B) Morris, Preliminary Evaluation of the MMPI, J. of Clinical Psych., (1947), 3, 4

It is concluded that at its present stage of development the MMPI cannot be regarded as a practical clinical tool the results of which cannot be accepted as valuable diagnostic aids to the psychiatrist

(c) Hunt, A Study of Differential Diagnostic Efficiency of the MMPI, J. of Consulting Psych., XII, 5 (1948) — Blind use of MMPI not satisfactory. K-scale too.

3: Evaluations of MMPI for our purposes:

Leverenz, Major Carleton (US Army Med. Corps)

a) Minnesota Multiphasic Personality Inventory - An Evaluation of its Usefulness in the Psychiatric Service of a Station Hospital

War Medicine, 4, 1943 (Dec.) 618-629

— major question for Army use is whether a soldier is fit or unfit for Army service.

— "....." this study was instituted to determine the applicability of the personality inventory (i.e. MMPI) to the military service. The test has more than proved itself to be sufficiently useful & therefore merits general attention as an additional instrument to assist in the clinical evaluation of psychiatric disorders."

— (based on 700 profiles)

— values of MMPI

- 1- "aided greatly in giving direction to inquiry in evaluating obviously psychiatric disorders"
- 2- "has been of assistance in evaluating the borderline conditions and mixtures of psychotic and psychoneurotic elements"
- 3- "the test has also helped materially in the medical & surgical wards in disclosing the probable contributions of neurotic components in disturbances that have finally proved to be complex psychosomatic syndromes."
- 4- "finally, the test has been valuable both diagnostically & prognostically for men who are under consideration for dismissal from the armed forces because of personality disorders."

— tests of validity

- a) 54 members of medical department showed normal profiles
- b) 105 surgical patients showed normal profiles
- c) random sample of patients in psychiatric service — majority showed same MMPI ratings as clinical evaluators

(note: no figures given here) ↗

* | 96% of patients with hypochondriasis scored above
borderline value of 70 on hypochondr. scale
93% of with classification of "depressed"
..... on depressive scale
similar results for other non-psychotic disturbances
83% of patients diagnosed as psychotics showed
abnormal curves.

Michael, Joseph C. & Buhler, Charlotte

↳ Experiences with Personality Testing in a Neuropsychiatric Department
of a Public General Hospital, Dis. Nerv. Sys., 1945,
6, 205-211

- general conclusion is that MMPI (and Rorschach) are valuable aids in diagnosis but that in present state of development there are decided weaknesses

Weaknesses in MMPI:

- 1- its range of successful diagnosis is limited
- 2- the discrimination of psychosis and psychoneurosis is not yet adequately ascertained to be reliable
- 3- it does not give much beyond the clinical definition. We are not enlightened about the whole structure of the case (as we are by Rorschach analysis)

Advantages of MMPI

- 1- easy administration & scoring
- 2- absolute objectivity of results
- 3- directly resulting clinical definition

the complexities of the problems of interpretation of results presented by both tests confine the interpretative use in diagnosis to qualified psychiatrists and psychologists

III Evaluation of MMPI for screening

- 1- MMPI is a diagnostic, not a screening device (in the sense that NSA is a screening device)
 - 2 - The validations that have been performed are studies in how well MMPI diagnoses abnormalities in particular personality traits. The MMPI is more effective for our purposes than these validations indicate, to the extent that MMPI screens abnormal but diagnoses the abnormalities in correctly. We have no evidence as to how frequently this occurs.
 - 3 - Present evidence indicates that the MMPI is effective for diagnosing (i.e. hence, screening) psychoneurotics, not as effective for psychopaths i.e. psychotics. (this is disputed — i.e. cannot be more than an impression)
- (The NSA does this job effectively, too.)
- 4 - Some scales are definitely weak or invalid. To the extent that these interfere with screening, the MMPI is ineffective (values of NSA, which screens indiscriminately — without reference to specific form of psycho-neurosis)