II CHAPTER

- Review of Previous studies

- Survey of previous studies on M.M.P.I. in India
REVIEW OF PREVIOUS STUDIES

Research with the M.M.P.I. has continued at a high level in recent years. In 1972, Buros reported that over 200 books and articles on the M.M.P.I. are published annually.

Dahlstrom, Welsh and Graham (1975) cited over 6,000 references to the M.M.P.I. Butcher and Pancheri (1976) reported over 600 recent references in cross national M.M.P.I. research alone. Butcher and Owen (in press) recently reviewed and classified M.M.P.I. research for the past five years. They found that 1/4 of the research was focussed on two areas of "popular" investigation, alcohol and drug abuse, and crime and delinquency. Approximately 37% of the studies focussed on the use of the M.M.P.I. to study non-psychiatric populations, medical patients, parents, women, ethnic groups, college students and the aged. The only serious efforts to modify the M.M.P.I. have been directed at shortening it. About 12% of the published research in the past five years concerned the development or use of shorter versions of the instruments.

A survey of psychological research in India by Joshi (1965) reveals that experimental psychology has been the most popular field of psychology during the last 50 years. He has analysed 1365 research papers of which 365 were in the field of experimental psychology covering about 27% of the total work. The field of testing was covered by only 5.4% of the work. He concludes that the field of testing
is not a very popular area with researchers in India.

In 1963, a handbook of educational investigations in Indian universities covering the period from year 1939 to 1961 was published by the NCERT. In this book though 2960 references have been listed in various fields like achievements, interest, learning, language development, motivation, personality etc., there is not a single reference to multidimensional personality tests.

The contribution of Indian psychologists during the period of 1950-60 has been critically reviewed by Krishnan (1961). He has examined some 342 references, but he is also silent on the multidimensional personality inventories.

A survey research report in psychology published in 1952 by ICSR, Delhi gives documented information regarding the work done in the country. Only a few have used or adapted the well-known clinical instrument, M.M.P.I.

An attempt has been made to review almost all the work done in India and a few in Western countries as it is just impossible to review here all the work.

Current clinical usage of the M.M.P.I. relies heavily on various coding systems by which profiles can be classified according to type. Terrill; Holland, Mariolevi and Charles G. Walson undertook a study to accomplish this purpose by comparing the discriminatory accuracy of the M.M.P.I. basic scales versus common two point code types among hospitalized
psychiatric patients. They found that levels of group
differentiation were relatively low for both scales and
codes. The latter approach was seen to result in a
considerable loss of information and a concomitant reduction
in criterion related validity.

James C. Lingoes was concerned with testing the merits
of the two factors versus multi-factor hypotheses of the
M.M.P.I as represented by Wiener and by Harris.

From the 36 subscales analysed, it was concluded
(1) Reliably more than two dimensions can be demonstrated.
(2) The "obvious", "subtle" distinction, which having some
pertinence for the study of response sets, cannot fully
explain the present factor results. (3) Performing analysis
on the basis of subscales rather than composite scales is
suggested.

Arthur Canter administered the short form of the
M.M.P.I. made up of D, Pt, and K items only to two patient
groups which had differed in their degree of depression and
emotional disturbance and to a group of normal adults. The
scores of the three groups on the three keys revealed that
they could be differentiated from each other according to the
degree of disturbance.

Alfred B. Heilbrum evaluated two hypothesis suggested
by Smith. 1. The 'K' scale is a measure of psychological health
(adjustment) in normal group. 2. The 'K' scale is not a measure
of defensiveness in a normal population. To evaluate the K scores of the two samples of maladjusted (males $N=146$, females, $N=143$) counselling service clients were compared with the K scores of males ($N=153$) and females ($N=193$) college normals. The correlational data tended to support Smith's contention that K is a better measure of defensiveness among the more maladjusted subjects.

Many investigators (Astin, 1959, Gilberstadt and Duker, 1960, Rampel, 1968) eliminated M.M.P.I. profiles containing high P scores from their analysis of the data on the grounds that such profiles are not valid.

The study by Malcolm D. Gynther investigated the relationship between invalid M.M.P.I. F scores diagnostic classes, aggressive vs passive criminal behaviour to determine if $F=16$ have any predictive significance. M.M.P.I.'s protocols of 246 white male court referrals were analysed and it was found that the practice of discarding M.M.P.I. data because of invalid F scores was highly questionable.

John E. Overall and Francisco Gomez (1974) have described a convenient short form administration of the M.M.P.I. Rather than selecting the items out of context, it is recommended that the abbreviated administration consisting of the first 168 items of the standard M.M.P.I. is better. The usual scoring can be applied to obtain scores which can be used to estimate K corrected clinical scale scores by application of regression weights.
John E. Overall and James M. Butcher (1975) found the validity of an abbreviated 168 item administration and it was compared with the standard M.M.P.I. to discriminate psychiatric patients from normal college students. Better discrimination was obtained from factor scoring. The abbreviated M.M.P.I. 168 items actually produced slightly better discrimination than did the longer parent instrument.

Sanford Golin and Norman Solkoff in 1971 found that hysterical subjects were more emotionally responsive under the stress than pt subjects. It was also shown that distraction resulted in a decrease in emotionality, but only among high response hysterical subjects. Such a finding is in accordance with the hypothesis that subjects who score highly on the by are more distractible than subjects who score relatively highly on the pt scale.

Reuben J. Silver and Lloyd K. Sines (1961) investigated to determine the effectiveness of the M.M.P.I in differentiating various state hospital patient groups. Data were gathered on 187 male and 219 female acute patients and 228 male and 208 female continued treatment patients at the Fergus Falls State hospital. The results clearly indicated subscale differences between the acute and chronic groups, and also between diagnostic groups within the two chronicity categories. In general, Schizophrenics showed higher elevations on the psychotic scales and lower scores on the neurotic scales. The validity scales were
found to differentiate acutely from chronic as well as to reflect differences between diagnostic classes within comparable chronicity groups.

Christine Miller et al (1961) found that rather than trying to develop appropriate norms for Negro and white subjects on the M.M.P.I., there is a need to evaluate M.M.P.I. findings for social or racial groups for particular settings.

John F.C. McLachlan (1974) found using readmitted as subjects of the shortened scales, Kincannon's B, By, C pt scales and Graham and Schroeder's S.I. Scales were found to be stable over 2 years with retest coefficients above .90. In the resultant 94 item Maxi-mult, 11 scales were found to be comparable to the standard M.M.P.I. scales in retest reliability and to be sufficiently stable for use in research studies of treatment effectiveness.

Kincannon developed a shortened "Mini" form of the test which used only 71 items. Dean added 15 items and produced "Medi" of the M.M.P.I. Above findings are the results of the long term stability of these short scales compared to the standard M.M.P.I. scale.


Melvin A. Gravitz (1970) investigated normal adult endorsement of the 15 M.M.P.I. L scale items by 6,603 males
and 4,717 females to ascertain if these statements measure socially desirable but obviously unlikely behaviour i.e. if L scale was valid for its announced purposes. It was found that a large number of these subjects endorsed more than $\frac{1}{2}$ of the items in the direction scored as deviant and the validity of the scale was questioned.

Lt. Col. Herman O. Schmidt (1945) found M.M.P.I. to distinguish graphically and with statistical significance between normal soldiers and those diagnosed as constitutional psychopaths and suffering from mild or severe neurosis and psychosis. It differentiates with significance between major clinical groups.

Lindsey R. Harman and Daniel N. Wiener (1945) used M.M.P.I. in vocational diagnosis of disabled veterans applying for rehabilitation. In his opinion, M.M.P.I. has proved to be an instrument of prime utility.

Sidney Wolf et al. (1964) found that the oral form of the M.M.P.I. (taped) yields scores highly comparable to those obtained with the standard booklet form and that the oral form can be used to advantage with illiterate, semi-literate or otherwise incapacitated subjects.

Phyllis M. Reese and James T. Webb in 1968 administered oral and booklet short form of the M.M.P.I. to 40 male psychiatric in-patients. Reliable agreement between oral and booklet form was found for all scales. Average correlation coefficient for the M.M.P.I. scales were respectively .81 and .89 with and without X correction factor.
Since the oral form agrees reliably with the booklet form with psychiatric inpatients, it should be considered the for use with illiterate, semi-literate and persons with poor vision.

**SURVEY OF PREVIOUS STUDIES ON M.M.P.I. IN INDIA**

Dahlstrom and Welsh have reported that on the M.M.P.I., the high status group showed significantly higher value on the MF scale than did the low status group. While the low group was higher on scales L, Hs, Hy. In the study reported by M.C. Joshi and Beer Singh (1966), the low income group scored higher on the MF scale than high income group.

In other words, the Hs, Hy & Pt types of symptoms of mental disorders are found to be more frequent in the low income group than in the high income group.

Beer Singh in 1965 found that 1. The education group differs from other groups on MF and Hs scales. 2. The two groups (arts and commerce) and (agriculture and science) differ on MF and Pt scales. As far as MF scale is concerned arts and commerce groups score highest on it which indicates that students of arts and commerce are somewhat more feminine in their interests.

M.C. Joshi and Beer Singh (1966) found that the profiles of male and female groups show that women are highest on Hs, Hy, MF and L scales and lowest on Pt scales. For men the highest is only on Pt scales.
M.C. Joshi and Beer Singh in 1966 administered five M.M.P.I. scales (Hs, Hy, MF, Pd, L) and Cattell's 16 P.F. questionnaire both in Hindi to 75 semi urban boys of freshman class. They found that Hs, MF and Pd scales correlate significantly with factor M. Hs, MF, Pd scales correlate positively and significantly with factor Q4. L scales correlate slightly negatively with factor Q4.

M.C. Joshi and Beer Singh (1966) found that there is no influence of age differences on the average scores of the five M.M.P.I. scales within 16-25 years of age range.

G.C. Gupta in 1968 administered the English version of the M.M.P.I. in small groups of 5-6 cases in Delhi University. The scores in two samples (male & female) were compared for sex differences, if any. From the analysis of the data, it was found that the sex difference is significantly observed in scales Ma, MF, Sc, SI, Pa, D, Pt, Hs, Hy & P.

Joseph E. Thomas (1973) reported a cross validation study of the Hy scale of the M.M.P.I. carried out in Kerala State. The scale differentiates a criterion group of hysterics from groups of random psychiatric cases, normals and students at a statistically significant level, but item analysis shows that only 27 of the 60 items of Hy scale discriminate the criterion group from other groups. The Hy scale seems to be greatly influenced by cultural differences and the scale has to be restandardized when used in a different culture.
The study reported was done with the purpose of finding out the validity of the M.M.P.I. in India. Such a cross cultural study is important for two reasons (1) A number of studies show that the norms of the M.M.P.I. scales developed in Minnesota do not hold good for other cultures. (Sandberg, Spreen, and Spreen, Rosen, and Rimo, Englishmann, Nokanson and Calson).

The present author has selected the M.M.P.I. on the basis of its utility in the U.S.A. It has been found to be the best clinical instrument which measures so many clinical dimensions simultaneously. Since culture plays a very important part in the development of personality, tests of personality cannot be used cross culturally. It is noteworthy that the M.M.P.I is adapted by majority of countries throughout the world. In India there is one solitary attempt at adaptation in Hindi and one attempt in Gujarati to adapt some M.M.P.I. scales only. The present work is an attempt to adapt M.M.P.I to Gujarati population with a concentration to utilize it more in clinical practice than for normal personality assessment.