THE RELATIVE USEFULNESS OF THREE FORMS OF THE
MINI-MULT WITH COLLEGE STUDENTS

by

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TABLE OF CONTENTS

	Page
LIST OF TABLES	v
LIST OF ILLUSTRATIONS	vi
ABSTRACT	vii
INTRODUCTION	1
METHOD	5
Subjects	5
Procedure	5
RESULTS	8
Group Correlational Results	8
MMPI and Form M Correspondence	8
MMPI and Independent Mini-Mult Correspondence	9
Independent Profile Analyses	14
Validity	14
Peak Scores	18
Elevation	21
DISCUSSION OF RESULTS	24
Group Correlational Analyses	24
Individual Profile Analyses	26
Validity	26
Peak Scores	27
Elevation	28
CONCLUSION	30
Future Directions	31
REFERENCES	33

LIST OF TABLES

Table	Page
1. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form M Scores for Male College Students	10
2. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form M Scores for Female College Students	12
3. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form M Scores for All College Students	13
4. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Oral Form Scores for Subjects in Condition 1	15
5. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form Q Scores for Subjects in Condition 2	16
6. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form S Scores for Subjects in Condition 3	17
7. Profile Pairs with the Same Highest and the Same Two Highest Clinical Scales on both the Standard MMPI and the Mini-Mult	20
8. Distributions of Shifts in Rankings	20

LIST OF ILLUSTRATIONS

Figure	Page
1. Group Mean Profiles for Male Subjects	11
2. Group Mean Profiles for Female Subjects	11

ABSTRACT

The present study investigated the relative accuracy with which three forms of James Kincannon's Mini-Mult--an oral version, a written-question version, and a written-statement version--predicts the standard Minnesota Multiphasic Personality Inventory (MMPI) in a college student population. The subjects, 121 undergraduate students, were administered the MMPI and one of three forms of the Mini-Mult. Group correlations between the standard MMPI scores and those of the Mini-Mult scored from the MMPI answer sheet ranged from .76 to .94, which were comparable to those found in previous studies. Correlational analyses also showed no relative superiority of one form of the independently administered Mini-Mult over the others. Analyses of individual profile pairs studying the validity, peak scores and general elevation of MMPI and Mini-Mult profiles, however, did reveal a lack of adequate correspondence. Finally, these results are discussed in light of relevant test-retest studies of the MMPI itself; and some future research possibilities for improvement of the Mini-Mult are suggested.

INTRODUCTION

One disadvantage of the standard Minnesota Multiphasic Personality Inventory (MMPI) is the extreme length of the questionnaire. It is surprising, in view of the widespread use of the test, that, until recently, no abbreviated form of the MMPI has existed from which the standard scale scores could be reliably predicted. A reliable short form of this test would have much clinical and research usefulness.

Kincannon (1968) developed a 71-item form of the MMPI which he hoped would reliably predict, within reasonable limits, scores on the standard MMPI validity and clinical scales for a psychiatric population in a hospital setting. He called this short form the Mini-Mult. Kincannon compared the similarity of the profiles produced by the MMPI and the Mini-Mult to the similarity of two MMPI profiles completed over the same brief period of time. In comparison to the reliability and degree of correspondence of the two MMPI profiles, he found that the Mini-Mult entailed only a further loss of 9% in reliability and 14% in profile correspondence.

Kincannon advocated the use of the Mini-Mult only when the administration of the standard MMPI is not

practical. He did imply, however, that the Mini-Mult has sufficient predictive validity to justify its use in contexts in which MMPI profile information is desired but the standard MMPI cannot be administered.

The utility of any test, however, as Ebel (1961) has argued, in settings with groups and for purposes other than those on which the test is validated, cannot be assumed. A world of empirical evidence, reviewed by Dahlstrom and Welsh (1960), has revealed that frequencies of item endorsements and profile characteristics vary with the age, sex, psychiatric status, socio-economic level and intelligence of the respondent. The items selected for inclusion in the Mini-Mult do not necessarily predict equally well the scales which they represent for a different population. By this we mean that items which satisfactorily predict the score of a given scale for psychiatric patients may be much less representative of that scale's content for different populations. The Mini-Mult, then, must not be used with a nonpsychiatric population until its correspondence to the standard MMPI has been demonstrated with that specific population.

The present study investigated, among other things, the accuracy with which the Mini-Mult could predict the standard MMPI profiles in a college student population. No attempt is made to justify the use of the MMPI with a normal population, a usage open to much argument. The fact is

that for good or ill the MMPI has come to be used widely with college students in counseling situations and with mildly neurotic people as well. In these situations a shortened form would have great usefulness. Also, as Kincannon points out, "many research projects could well include a standard self-administered personality inventory except that time and/or motivation considerations may mitigate against the use of a lengthy standard instrument" (1968, p. 319).

Attention in the present study was also directed at the mode of presentation of the Mini-Mult. In one condition of Kincannon's study, the Mini-Mult was administered orally by undergraduate students. He cites the Wolf, Freinek, and Shaffer (1964) and Urner, Block, and Wendland (1960) studies as demonstrating negligible effects attributable to oral presentation. Both studies, however, utilized a tape-oral presentation of the MMPI items rather than an administration by a live examiner. It would seem possible that some loss in correspondence between the standard MMPI profiles and those predicted by the Mini-Mult may be due to the confounding of variables such as social desirability in responding to test items. This hypothesis was tested in the present study by use of both an oral and a written form of the Mini-Mult.

Another contextual change in Kincannon's short form was introduced by the fact that all of the 71 items were

rephrased to form questions rather than being presented in statements as they are in the standard MMPI. Rorer (1963) suggests that the effects of such a change are negligible. However, rewording the items into questions changes the direction of scoring on 11 items and might provide one source of response-set variance with a normal population. This change was studied by using two different written forms of the Mini-Mult, one worded in statements and the other rephrased to form questions.

Interest was directed to overall similarity between group results produced by the MMPI and the Mini-Mult and, more importantly in terms of the individual utility of the Mini-Mult, to determining the proportion of cases in which the Mini-Mult provides accurate information for decisions regarding the validity, peak scores, and elevation of the standard MMPI profile for the same subject.

METHOD

In the present study attempts were made to minimize the intertest interval. Loss in reliability between the MMPI and the Mini-Mult is a function not only of the Mini-Mult itself but also of real life experiences which may ensue between the administrations of the two tests. It was therefore necessary to choose a normal subject population and make procedural decisions which would facilitate this goal.

Subjects

The subjects were 53 males and 68 females from elementary psychology courses (1a and 1b) at The University of Arizona. Participation in the study was voluntary. Subjects were offered individual feedback on their MMPI profiles in order to encourage participation. The age range for males was 17 to 51, with a mean of 22.9; the range for females was 17 to 43, with a mean of 23.3.

Procedure

Subjects were permitted to take the MMPI booklets and answer sheets home to complete at their own convenience. When each subject returned his completed MMPI to the experimenter, he was administered one of three different forms

of the Mini-Mult to be described below. Subjects were urged to return their MMPIs as soon as possible after completion. The intertest interval between the MMPI and the Mini-Mult varied from 0 to 5 days, with a mean of 1.5 days.

After taking the MMPI each subject was administered one of three forms of the Mini-Mult. In Condition 1, 40 subjects, 21 males and 19 females, were asked the 71 questions by the experimenter in the manner used by Kincannon; this will hereafter be referred to as the Oral Form. Since it was hypothesized that some loss in correspondence between the short test and the MMPI might be due to the mode of test administration--that is, the confounding of such variables as social desirability in the face-to-face, oral administration--the remainder of the subjects were given one of two written forms of the Mini-Mult. In Condition 2, 40 subjects, 17 males and 23 females, were given a written form (Form Q) in which the 71 items were worded in questions, again using Kincannon's wording. In Condition 3, 41 subjects, 15 males and 26 females, were administered a written form (Form S) in which the 71 items were worded into the original statements of the MMPI.

Finally, each subject's MMPI answer sheet was scored for the 71 items of the Mini-Mult as well as for the full-scale MMPI scores; this shall be referred to as Form M. Thus each subject had three sets of scores: the MMPI scores; Form M scored from the MMPI answer sheet; and the

independent Mini-Mult administered as a separate test, the form of which depended upon the experimental condition in which the subject was placed.

RESULTS

The results are divided into two general areas, one which deals with the statistical stability of the Mini-Mult and the other which concerns its clinical usefulness. Group correlational reliability is a fundamental requisite to the use of the Mini-Mult in place of the MMPI. Of equal importance to the clinician, however, is the analyses of individual Mini-Mult profiles and their comparability to the standard MMPI profiles.

Group Correlational Results

MMPI and Form M Correspondence

Attention will be given first to the correspondence between the scores of the MMPI and the adjusted scores of Form M, the scores derived by scoring only the 71 Mini-Mult items on the MMPI answer sheet. Results for males and females will be reported separately.

For each sex group, mean raw scores and standard deviations were computed for each scale of the two instruments. Pearson product-moment correlations were then calculated between the subjects' scores on the standard MMPI and those predicted by Form M for each scale.

The data presented for male subjects are presented in Table 1. Profiles produced by the group mean raw scores are shown in Figure 1. There is striking similarity between the two mean group profiles, except for the elevation of scale D of Form M. The similarity of the group profiles and the highly significant correlations, all beyond the .001 level, suggest that the Mini-Mult corresponds well to the MMPI for these subjects as a group.

Analogous data for the female subjects are presented in Table 2. Group mean MMPI and Form M profiles for the female subjects are shown in Figure 2. Again, the similarity is striking, with the scores of scales Hs, D, Hy and Pd being the same on both instruments. The correlations were all significant beyond the .001 level, which suggests good correspondence between the standard MMPI and adjusted Mini-Mult scores.

In Table 3 mean raw scores, standard deviations and correlations are presented for the whole group of subjects. The correlations are consistently as high and as significant as those which took sex into account.

MMPI and Independent Mini-Mult Correspondence

Kincannon (1968) stated that the independent administration of the Mini-Mult (in the present study, the Oral Form and Forms Q and S) is an "acid test" situation since there are many changes in context introduced.

Table 1. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form M Scores for Male College Students (N=53)

Scale	Standard MMPI Raw Scores		Form M Raw Scores		r**
	Mean	SD	Mean	SD	
L	3.68	2.58	4.34	2.12	.80
F	7.47	5.19	5.92	3.44	.84
K	13.68	4.90	13.13	3.67	.89
1	6.15	4.72	7.55	4.21	.94
2	21.19	5.56	23.66	6.66	.86
3	21.57	4.06	22.94	4.24	.78
4	19.57	5.60	21.53	5.47	.88
6	10.08	3.34	11.32	2.94	.78
7	15.25	8.23	15.49	7.66	.91
8	16.74	10.09	17.43	9.64	.87
9	19.30	4.65	17.57	3.64	.77

** The t tests showed statistically reliable differences beyond .001.

Figure 1. Group Mean Profiles for Male Subjects (N=53)

Figure 2. Group Mean Profiles for Female Subjects (N=68)

Table 2. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form M Scores for Female College Students (N=68)

Scale	Standard MMPI Raw Scores		Form M Raw Scores		r**
	Mean	SD	Mean	SD	
L	3.12	1.87	3.59	1.40	.71
F	6.24	4.39	4.53	2.98	.79
K	13.60	4.68	12.49	3.42	.89
1	7.06	5.24	7.79	4.84	.94
2	22.25	5.92	22.18	6.18	.84
3	22.41	5.06	22.18	4.62	.88
4	17.74	5.20	19.10	4.56	.87
6	10.54	2.93	11.16	3.18	.82
7	15.04	8.85	14.34	9.24	.90
8	15.93	10.66	14.79	9.61	.90
9	17.90	4.97	17.00	3.82	.75

** The t tests showed statistically reliable differences beyond .001.

Table 3. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form M Scores for All College Students (N=121)

Scale	Standard MMPI Raw Scores		Form M Raw Scores		r**
	Mean	SD	Mean	SD	
L	3.36	2.23	3.92	1.79	.77
F	6.78	4.79	5.14	3.26	.82
K	13.64	4.78	12.77	3.55	.89
1	6.66	5.04	7.69	4.58	.94
2	21.79	5.79	22.83	6.44	.83
3	22.04	4.67	22.51	4.48	.82
4	18.54	5.45	20.17	5.13	.87
6	10.34	3.12	11.23	3.08	.79
7	15.13	8.59	14.84	8.60	.90
8	16.28	10.42	15.95	9.71	.89
9	18.51	4.88	17.25	3.75	.76

** The t tests showed statistically reliable differences beyond .001.

Table 4 contains the data for the subjects in Condition 1, Table 5 for Condition 2, and Table 6 for Condition 3. Although Forms Q and S appear to be consistently better than the Oral Form at predicting the MMPI scores, Q and S are not systematically better than the other. The data would suggest, however, that a written version of the Mini-Mult is preferable to an oral version.

Individual Profile Analyses

Although the group data is impressive, the real utility of the Mini-Mult lies with individuals. It was therefore decided to investigate the proportion of cases in which the Mini-Mult profiles led to accurate decisions about the validity, peak scores, and elevation of the corresponding standard MMPI profiles, after the manner of Armentrout and Rouzer (1970).

Validity

Validity of the MMPI was defined as a condition in which none of the three validity scales had a T-score above 70; otherwise the profile was considered invalid. In Condition 1, 15%, 5 males and 1 female, of the standard MMPI profiles were invalid by that definition. Of the 6, none had invalid Oral Form profiles. In Condition 2, 10%, 3 males and 1 female, of the standard MMPI profiles were invalid by the above criteria. Of these 4, only 1 female

Table 4. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Oral Form Scores for Subjects in Condition 1 (N=40)

Scale	Standard MMPI Raw Scores		Oral Form Raw Scores		r**
	Mean	SD	Mean	SD	
L	3.48	2.01	4.00	1.48	.50
F	6.98	4.80	3.95	2.13	.67
K	11.98	4.77	11.58	3.69	.71
1	6.95	5.11	5.75	3.69	.69
2	22.98	5.03	22.00	5.77	.73
3	21.48	5.51	20.63	4.37	.72
4	19.43	5.38	19.53	4.51	.64
6	10.15	3.28	9.93	3.08	.64
7	16.40	9.06	15.25	8.74	.76
8	17.85	10.91	15.00	8.74	.88
9	18.50	5.04	18.20	3.52	.59

** The t tests showed statistically reliable differences beyond .001.

Table 5. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form Q Scores for Subjects in Condition 2 (N=40)

Scale	Standard MMPI Raw Scores		Form Q Raw Scores		r**
	Mean	SD	Mean	SD	
L	3.60	2.34	4.20	1.72	.66
F	5.88	3.91	4.13	2.94	.46*
K	14.73	4.71	13.80	3.23	.76
1	6.23	5.16	6.25	4.36	.87
2	19.85	5.44	20.38	5.24	.75
3	21.98	3.49	21.05	3.47	.54
4	16.73	5.35	18.85	4.43	.80
6	9.85	2.96	10.65	2.73	.68
7	13.30	8.20	11.98	7.34	.88
8	14.23	9.55	12.88	8.81	.81
9	18.08	4.75	16.25	3.38	.74

* $p < .005$

** The t tests showed statistically reliable differences, except for Scale F, beyond .001.

Table 6. Mean Raw Scores, SDs, and Correlations for Standard MMPI and Form S Scores for Subjects in Condition 3 (N=41)

Scale	Standard MMPI Raw Scores		Form S Raw Scores		r**
	Mean	SD	Mean	SD	
L	3.02	2.27	4.29	1.90	.61
F	7.46	5.39	4.85	3.26	.58
K	14.20	4.42	13.12	4.13	.85
1	6.80	4.81	6.24	3.65	.83
2	22.51	6.30	22.12	6.16	.81
3	22.66	4.71	21.51	4.19	.75
4	19.44	5.18	18.90	3.88	.69
6	11.00	3.01	10.71	3.05	.65
7	15.68	8.17	13.49	8.53	.91
8	16.76	10.42	12.83	8.01	.87
9	18.95	4.82	16.59	3.25	.67

** The t tests showed statistically reliable differences beyond .001.

Form Q profile was also invalid. In Condition 3, 14.6%, 2 males and 4 females, of the standard MMPI profiles were invalid by our definition. Of the 6, none had invalid Form S profiles.

On the basis of this analysis, there is clearly no superiority of one mode of presentation over the others. Using the above definition of validity and summing the 121 subjects regardless of their experimental condition, the independent administration of the Mini-Mult gave 12.4% false negatives--that is, subjects whose Mini-Mult profiles were valid but whose standard MMPI profiles were invalid. Whether this amount of error is tolerable or not in practical situations is inevitably a judgmental matter confronting the individual test user.

Peak Scores

To investigate the correspondence of peak scores between the profile pairs, the clinical scales for each profile were rank-ordered by the magnitude of their K-corrected T scores. In Condition 1, 48%, 10 males and 9 females, of the profile pairs had the same high point while 52% had different high points. This means that in 48% of the cases the same clinical scale had the highest T-score on both profiles. Twenty percent, 3 males and 5 females, of the pairs had the same two highest clinical scales in the

same order, while 10%, 2 males, had the same two highest scales but in reversed order.

In Condition 2, 38%, 7 males and 7 females, of the profile pairs had the same high point while 62% had different high points. Thirteen percent, 3 males and 2 females, of the pairs had the same two highest clinical scales in the same order; 8%, 1 male and 2 females, had the same two highest scales in reversed order. In Condition 3, 32%, 2 males and 11 females, of the profile pairs had the same high point while 68% had different high points. Ten percent, 1 male and 3 females, had the same two highest scales in the same order; 10%, 2 males and 2 females, had the same two highest scales in reversed order. This data is summarized in Table 7.

Summing this data across the three experimental conditions, we find that 38% of the subjects had the same high point on their standard MMPI and independent Mini-Mult (Oral Form, Form Q, and Form S) profiles. Twenty-one percent had the same two highest clinical T-scores in the same or reversed order. It also appears that the Oral Form is better at predicting the high points than either of the written forms.

Another tact was taken to investigate the correspondence of high points between the profile pairs, this one after the manner of Lichtenstein and Bryan (1966). A frequency count was made of how often the highest ranking

Table 7. Profile Pairs with the Same Highest and the Same Two Highest Clinical Scales on both the Standard MMPI and the Mini-Mult (In Percentages)

	Same High Point	Same Two Highest in same order	Same Two Highest in reversed order
Condition 1	48	20	10
Condition 2	38	13	8
Condition 3	32	10	10

Table 8. Distributions of Shifts in Rankings (In Percentages)

		Rank of same score on Mini-Mult			
		1	2	3	4 or lower
Rank on MMPI	1	38	24	17	21
	2	22	23	23	32
	3	17	14	14	55

score on the MMPI was ranked first, second, third, or lower on the independent administration of the Mini-Mult (Oral Form, Form Q, and Form S). This was also done for the second- and third-ranked scores on the MMPI.

The 3-point code analysis is presented in Table 8. Since the results for the three experimental groups were quite similar, the data for all subjects were combined to facilitate presentation. The probability that the top-ranked score of the MMPI will appear among the top three in the Mini-Mult is 79%. The second- and third-ranked scores fell outside of the 3-point code 32% and 55% of the time, respectively.

Elevation

The similarity in elevation of the profile pairs was also investigated by determining the frequency of cases in which those clinical scales with T-scores above or below 70 on the MMPI profile had T-scores also falling above or below 70 on the Mini-Mult profile.

In Condition 1, 20 standard MMPI profiles, 14 males and 6 females, had clinical scales above 70. Of those, 16, 12 males and 4 females, Oral Form profiles had scales above 70. In Condition 2, 15 standard MMPI profiles, 7 males and 8 females, had at least one scale above 70. Of those, 8 Form Q profiles, 5 males and 3 females, had at least one scale above 70. In Condition 3, 24 standard MMPI profiles,

10 males and 14 females, had clinical scales above 70. Of these, 13 Form S profiles, 6 males and 7 females, had scores above 70.

To obtain a better picture of how well the independent Mini-Mult (Oral Form, Form Q, and Form S) predicts the elevation of the standard MMPI profile, data for all subjects has been summed. Of all subjects, 48.8% had standard MMPI profiles with at least one clinical T-score above 70. Of these, 62.7% had independent Mini-Mult profiles with at least one clinical T-score above 70 as well. The Oral Form was better at predicting the general elevation of the standard MMPI profile than either Form Q or Form S. Of subjects in Condition 1 who had standard MMPI profiles with clinical T-scores above 70, 80% had Oral Form profiles with comparable elevation, as opposed to 53% and 50% with Form Q and Form S, respectively.

This data, however, could be misleading. It is important for the Mini-Mult to predict the general elevation of the MMPI; but it is more important that corresponding scales and only those scales be elevated above 70 on both the MMPI and the Mini-Mult profiles. Of the 59 cases with at least one MMPI clinical scale above 70, only 8 had just those same clinical scales above 70 on the Mini-Mult (Oral Form and Forms Q and S). Of the 62 cases with no MMPI clinical scale above 70, 52 had corresponding Mini-Mult profiles with no scales above 70. Thus only 60 (50%) of the

121 pairs of profiles had the same pattern of clinical scales above or below 70. Individual data for the separate experimental conditions is not provided because of the similarity of this data.

DISCUSSION OF RESULTS

The results just presented lack perspective when viewed apart from existing research in this domain. It is therefore necessary to clothe these data with meaning by discussing them in relation to such prior research.

Group Correlational Analyses

Comparison of the results of the MMPI and the 71 items scored from the MMPI answer sheet (Form M) showed reasonably good correspondence for groups of male and female college students. Product-moment correlations between the two sets of raw scores for these groups ranged from .76 to .94 for the eleven clinical and validity scales, results comparable to those found in previous studies (Kincannon, 1968; Lacks, 1970; and Hewitt and Trybus, 1970). It might be argued that Form M is the truest test of the Mini-Mult since there is no time interval to allow personality changes to influence variability between the scores of the two tests. Also, Perkins and Goldberg (1964) have extensively reviewed the effects of extracting a scale from the MMPI and administering it as a separate test. They report no significant effects.

There are a number of contextual changes, however, introduced by Kincannon's independent administration of the Mini-Mult--among them: the items are presented out of the standard context; the Mini-Mult was orally administered; and, all of the items were rephrased to form questions rather than statements. The present study investigated the relative influences of the various contextual changes, oral versus written presentation and question versus statement wording.

It was for the above reason that the present study included three experimental groups--one group which took the Oral Form as the independent Mini-Mult, the second a written-question version, and the third a written-statement version. Product-moment correlations between the scores of the MMPI and the Mini-Mult ranged from .50 to .88, .46 to .88, and .58 to .91 for Conditions 1, 2, and 3, respectively. These correlations would place the written-statement form over the others, but its superiority is not great.

What is important about these correlations is that there is close correspondence between them and test-retest correlational studies on the MMPI with college students. Windle (1955) did a test-retest study with the MMPI on 55 female college students. With an intertest interval of one week, he found correlations ranging from .62 to .92. Cottle (1950) did a test-retest study using the group and card forms of the MMPI with 100 male and female college

students. Again the intertest interval was one week; and the correlations ranged from .46 to .90. If there is this much loss in correspondence in a test-retest of the MMPI, one can hardly expect better performance of the Mini-Mult.

Individual Profile Analyses

Although the group data is important, the utility of a short form of the MMPI is primarily with individuals. For this reason, it was decided to perform a number of different analyses on individual profiles.

Validity

Investigation of the individual profile pairs showed that, for these subjects, an individual Mini-Mult, disregarding experimental condition, permits few if any conclusions about the validity of a predicted MMPI profile obtained within a time span of a few days. For all subjects, 16 (13%) of the 121 standard MMPI profiles were invalid; only one had an invalid corresponding Mini-Mult profile. The independent Mini-Mult profiles produced no false positives, but they did provide a number (12%) of false negatives. This is fewer than the 24% false negatives found in a similar study with delinquent teenagers (Armentrout and Rouzer, 1970). Whether a 12% margin of error is tolerable or not, however, is a matter of individual judgment.

Peak Scores

The first investigation of the correspondence of peak scores between profile pairs was not encouraging. Only 38% of the profile pairs, disregarding experimental condition, had the same peak score; and only 21% had the same two highest scores. This is discouraging because contemporary use of the MMPI places heavy reliance on the configuration or profile of scores. Efforts have been made, for example, to construct MMPI "cookbooks" (Halbower, 1955) and actuarial descriptions of behavior (Marks and Seeman, 1963) which use configurational classifications of profiles. Crucial to this type of analysis is the fact that it is possible for relatively small shifts in individual scale scores to result in large changes in profile (Lichtenstein and Bryan, 1966). If the Mini-Mult predicts peak scores different from those of the individual's standard MMPI profile, then misclassification and subsequent misinterpretation may occur.

It is important to determine, however, whether the Mini-Mult's prediction of the 3-point code of the standard MMPI profile is any less reliable than a test-retest of the MMPI itself. In such a study, Lichtenstein and Bryan (1966) found appreciable instability between the 3-point code of a first test administration of the MMPI and that of a retest one day later. Using a group of normals, hospital volunteer workers, and newly admitted psychiatric patients,

they found that: "while the probability is high (87%) that the top-ranked score will remain among the top three on retesting, the second- and third-ranked scores subsequently fell outside the 3-point code 37% and 39% of the time, respectively" (p. 173).

We found the probability of the top-ranked score of the MMPI remaining among the top three on the Mini-Mult, disregarding experimental condition, to be less stable (79%) than the 87% of their test-retest. The second- and third-ranked scores of the MMPI fell outside of the 3-point code of the Mini-Mult 32% and 55% of the time, respectively. Thus the stability in 3-point code analysis comparing the MMPI and the Mini-Mult does not appear to be as good as that of a test-retest of the MMPI with a somewhat similar population. However, before such results can be conclusive, a study similar in design to Lichtenstein and Bryan (1966) would have to be performed using college students.

Elevation

Investigation of individual profile pairs also showed that an individual Mini-Mult profile, again disregarding experimental condition, permits few if any conclusions about the general elevation of an MMPI profile. Only 50% of the profile pairs had the same pattern of clinical scales above and below 70. The Mini-Mult seemed appreciably better at approximating the pattern of clinical scores

below 70 than above. Perhaps this indicated a tendency of the Mini-Mult to underestimate extremely high scores on the standard MMPI.

CONCLUSION

The present study gives rise to a number of important conclusions for the usefulness of the Mini-Mult as a replacement for the MMPI with a college population. First of all, the correspondence of the group mean data suggests that the Mini-Mult may be useful for characterizing groups in terms of mean MMPI profile information. Further, this group data was comparable to test-retest studies of the MMPI with similar populations. Research projects are easily imagined in which such group data would be helpful.

Secondly, no outstanding superiority was found of oral versus written presentation or statement versus question forms. Group correlations between the raw scores of the standard MMPI and those of Form S appear to be better than the conditions using the Oral Form or Form Q. If a research project wished to include a short form of the MMPI, Form S would be the best choice. The Oral Form performed better in the peak score and the first general elevation analyses. But the superiority of the different forms was not consistent nor strong enough to warrant the use of one over the others in an individual setting.

Thirdly, investigation of the individual profile pairs was not encouraging. As was mentioned, evaluation of the validity data presented is a matter of individual judgment. Perhaps our criteria were too constraining; a profile can still be useful even though some of the validity scales have T-scores above 70. However, the Mini-Mult did quite poorly on the high point, 3-point code, and elevation analyses. These results place serious limitations on the utility of the Mini-Mult with college students. Had Kincannon carried out classification analyses similar to those done in this study, he might have encountered similar difficulties in predicting MMPI profile information on the basis of the Mini-Mult.

Future Directions

Speculation may point to several possible sources for the lack of relationship between the MMPI and the Mini-Mult in hopes of directing future research and improvement of the Mini-Mult as an assessment instrument. The table of values used for predicting standard MMPI raw scores from Mini-Mult raw scores may need revision when applying the Mini-Mult to college students. Perhaps, too, for this population, other individual MMPI items might better represent item cluster content than the items presently included in the Mini-Mult do.

One definite weakness of the Mini-Mult in its present form is the lack of a Masculinity-Femininity Scale. Many useful inferences on the MMPI are made from particular elevation patterns on one or more of the clinical scales in relation to the Mf scale. Further improvement of the Mini-Mult as a clinical instrument would wisely include development of an Mf scale to predict the Mf score of the standard MMPI.

One final possibility for future research with the Mini-Mult is to use it in its present form as an instrument in its own right. Correlational data suggests good correspondence between the MMPI and the Mini-Mult. But perhaps future studies aimed at improving this correspondence would yield small returns in comparison with the large investments of time and energy which would necessarily be made. Instead, it does seem feasible to initiate normative studies to discover whether or not the Mini-Mult can differentiate between normals and psychiatric patients and between different psychiatric classifications, as once was done with the MMPI.

What is important to realize is that more work is needed before the Mini-Mult can be used to replace the MMPI with a college population. Such work is worth the effort, if for no other reason, because the Mini-Mult offers such a savings in time over the MMPI.

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