

نسخه فارسی مقیاسهای اعتباری فرم کوتاه MMPI

The Validity Scales of the Short Form of MMPI in Farsi

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Abstract

The validity scales of the MMPI short form, Mini Mult in Farsi language were tested using 279 males and females in a hospital comprising four groups: 1) 120 job seekers referred for employment medical examinations, 2) 32 men referred for disability determination, to be exempt from military service or to receive economic and social support, 3) 68 psychological outpatients, 4) 59 normal people randomly selected from the hospital staff and visitors. Group 1 presented significantly higher scores on the Lie(L) and Corrective (K) scales and lower scores on the clinical scales, trying to appear better than they were. In contrast, Group 2 showed elevation in the infrequency (F) scale and lower scores on the "L" and "K" validity scales, and higher scores on the clinical scales trying to appear worse than they were. Therefore, it is important for the clinician to take into account the intention of subjects and scores presented in both validity and clinical scales.

Key words: short form of MMPI, validity scales, clinical scales, Farsi version.

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چکیده

هدف پژوهش بررسی مقیاسهای اعتباری فرم کوتاه MMPI به زبان فارسی بود. 279 زن و مرد در چهار گروه در یک بیمارستان آزمون شدند: 1) 120 متقاضی شغل که برای معاینه‌های پزشکی استخدامی مراجعه کرده بودند؛ 2) 32 مرد که برای تعیین درصد جانبازی، از کارافتادگی و مشکلات جسمانی به منظور معافیت پزشکی از خدمت سربازی و یا دریافت حمایت‌های اقتصادی و اجتماعی ارجاع داده شده بودند؛ 3) 68 بیمار سرپایی که به دلایل مشکلات روانشناختی مراجعه کرده بودند؛ 4) 59 فرد عادی که بطور تصادفی از میان کارکنان بیمارستان و ملاقات کنندگان انتخاب شده بودند. مقایسه چهار گروه نشان داد: گروه اول به طور معناداری در مقیاسهای اعتباری "K" و "L" نمره‌های بالاتر و در مقیاسهای بالینی نمره‌های پایینی کسب کردند و سعی داشتند خود را بهتر از آنچه بودند نشان دهند. در مقابل، گروه دوم در مقیاس اعتباری F نمره بالاتر، در مقیاسهای اعتباری "K" و "L" نمره‌های پایینی و در مقیاسهای بالینی نمره‌های بالاتری به دست آوردند. آنان سعی داشتند خود را بدتر از آنچه بودند نشان دهند. بنابراین، این امر برای متخصصین بالینی حائز اهمیت است که غیر از نمره‌های مقیاسهای اعتباری و بالینی نیت آزمون‌شوندگان را در نظر بگیرند.

واژه‌های کلیدی: فرم کوتاه MMPI، مقیاسهای اعتباری، مقیاسهای بالینی، نسخه فارسی

Introduction

The Minnesota Multiphasic Personality Inventory (MMPI) has been regarded as a prominent and valid inventory in both psychometrics and psychological studies. The MMPI inventory has generated a massive body of research literature including articles, books, and fueled a powerful commercial force in psychology assessment market such as, clinical, employment, and personality fields. The MMPI is a leading instrument and has been applied in a variety of domains in both psychology and psychiatric fields. In addition, researchers and authors have provided considerable literature, over 8000 published research references (cited in Butcher, 1989; Groth-Marnat, 1990). The MMPI has been widely applied in different communities and by 1992 there were more than 140 translations in 46 countries (Butcher and Williams, 1992). It is reported that 84% of research in personality assessment has been conducted using MMPI (Butcher & Owen, 1978). The relevant research and studies have produced valuable results and much progress have been achieved in different fields, especially in diagnosing psychological diseases. The MMPI was developed by Hathaway and McKinley in 1943, and has been one of the most popular inventories in clinical personality evaluation (Groth-Marnat, 1990).

The inventory consists of two different scale groups, clinical and validity. The clinical scales comprise 10 different clinical and personality symptoms. The validity scales include the following four scales: I can't say (?), Lie (L), infrequency (F) and corrective (K). The "I can't say"(?) consists of questions which are left unanswered. If there are too

many unanswered questions, this can damage the validity of the person's answers. The L scale, in fact, shows that a person is attempting to present himself/herself in an overly positive light, but in a naive style. The high score of an individual in the L scale indicates the unskilled and naive attempts of him/her in providing a good and ideal self - image. In this scale some items have been included which show the disinclination of the individual to admit his or her faults, even the minor ones. The F scale consists of items which were endorsed by 10% or less of the normative sample. Therefore, the higher score of the individual in the F scale indicates that the subject confirms great numbers of the questions which are usually of deviation type. The corrective scale K relates to the defensiveness of the subject. Those individuals who, despite the presence of psychological symptoms of mental disease, in respect to MMPI scales, would answer in a normal way will usually present higher scores (Groth-Marnat, 1990). The main function of the K scale is to determine whether or not the clinical scales of MMPI can detect psychopathology accurately. The individuals who tend to present themselves as more sophisticated persons, as well as in a more positive light, get high scores on the K scale (Nurse, 1999, Archer & Krishnamurthy, 2002).

However, despite the possibility of psychological problems in populations, individuals respond differently to MMPI. Some tend to exaggerate their problems, while others like to conceal their internal and psychological problems and present themselves in a more favorable light than they are in reality and so forth (Mirzamani & Bolhari, 1999).

Longtime users of the test provide a more valid style in the interpretation of MMPI data (Hathaway & McKinley, 1989). Fifty years after the work on the MMPI test was initiated at the University of Minnesota by Starke R. Hathaway, a clinical psychologist, and J. Charnley McKinley, a neuropsychiatrist, an updated and restandardized version called MMPI-2 test with 567 items was made available (Butcher, 1989). But the short form of MMPI-2 is not yet available. In the present study the Farsi version of short-form of the MMPI was used.

Extensive and long time application and studies about various aspects of MMPI were the main reasons in performing the present study. It is important to note some of the results of the Iranian studies which have used the Farsi version of MMPI.

Okhovat and Jalili (1983) have studied the mental characteristics of a sample population of front line soldiers in the Iran - Iraq war. This research was carried out on 54 patients hospitalized at the psychological ward in Khuzestan province in 1981. The validity profile of the subjects revealed that the scores on the F scale were higher than the K scale. Examining the exaggeration of symptoms in soldiers suffering from PTSD is an issue that has been recently considered, of course, prior to this it was studied in Vietnam veteran soldiers. The F-K index of MMPI has been used as a marker of symptom overreporting.

The purpose of this research was to study the validity scales of MMPI. Anastazi notes (cited in Barahani, 1983) "High scores in the F scale show the possibility of errors in scoring, indifference in answering, or malingering". Malingering has been

considered as one of the reasons for elevations in the F scale. With regard to the K scale Anastazi states: "Low score is an indication of out spokenness, self - criticism and/or endeavor to provide unsuitable and worse self -image".

In the this study the main hypotheses were as follows: 1- Subjects seeking jobs tend to show themselves better than they actually are. We assumed that, their profiles in the validity scales are similar to V form. That is, their score in K is higher than their score in the F scale. They also present low scores on the clinical scales. 2- People referred for having their disability percentage determined gain high scores in F and lower scores in the K scales. That is, the individuals with different levels of disabilities tend to show themselves worse than they actually are and their validity profile shape is similar to Λ form. People with disabilities also present high scores in the clinical scales.

Method

Four different groups of subjects were selected for this study.

- 1- Job seekers: 120 individuals including 29 females and 91 males who were referred to the clinic for employment medical examinations.
- 2-Disabled: 32 males who were referred to the medical committee for determination of their degree of disability inflicted during the Iran-Iraq war. With regard to their level of disability persons may receive social and economic benefits.
- 3- The clinical group: 68 outpatients with psychological problems including 16 females and 25 males.

The subjects of these three groups were among those individuals who were referred to the psychology clinic of Baqiyatallah hospital during the period from April 6, 1997 to Sept. 6, 2000.

4- A normal group: 59 individuals including 11 fe-

males and 48 males also were randomly selected from the hospital staff.

Table 1 shows the numbers and percentage of subjects in different groups in terms of gender.

Table 1: Number and percentage of subjects in different groups in terms of gender

<u>Groups</u>	<u>Female</u>		<u>Male</u>		<u>Total</u>
	<u>Frequency</u>	<u>Percent</u>	<u>Frequency</u>	<u>Percent</u>	
Job seekers	29	24.2	91	75.8	120
Disabled	0	0	32	100	32
Patients	16	23.5	52	76.5	68
Normal	11	18.6	48	81.4	59
Total	56	20.1	223	79.9	279

Instrument

The Farsi version of MMPI Mini Mult was applied in this study. The MMPI has been designed for concrete assessment of some of the main characteristics of the personality which are suitable in social and individual adjustment. In fact, this inventory was prepared by Hathaway and McKinley in order to help the clinical diagnosis of patients. Their aim was, first of all to hand over an appropriate tool for psychologists and psychiatrists in order to study different aspects of normal and abnormal personality secondly, for the application to be simple, thirdly for it to contain almost all possible characteristics for statistical studies and cross – validation, and finally to ensure its validity by using experimental methods. This inventory, containing 550 items, was used for the first time on 800 mentally ill patients who were carefully selected and diagnosed by clinicians. Then the same inventory was used for 700 normal people who were selected from the same

geographical area as the control group. Patient responses from the different diagnostic groups were compared with responses by the control group and valuable questions were selected. Based on that data, 8 clinical criteria were obtained. Added to these 8 criteria, was an other criterion which was mainly extracted from Terman -Miles test, in which the prominent male- female characteristics were considered. These 9 scales were completed by adding 4 validity indicators that assessed distorted or biased responding. This was how the 13 scales comprising validity and clinical scales were created.

The Mini Mult is a short form consisting of 71 items from the MMPI. Kincannon made this form for the MMPI in 1968 and named it the Mini Mult. One of the reasons for designing the Mini Mult was to use it on occasions that information obtained from MMPI implementation was necessary but the application of the main form would have been im-

possible for various reasons. This form does not include the “?”, “Si”, and “MF” scales. Kincannon investigated the Mini Mult validity on mentally ill patients and compared it with the long form of the MMPI and concluded that in Mini Mult only 9% reduction in reliability and 14% reduction in profiles resemblance were observed.

Okhovat, Barahani, Shamloo and Noaparast have adopted 71 items from MMPI and by taking into account Iranian culture they have compiled it in a short form and have conducted a series of research activities (Okhovat & Daneshmand 1979). The Farsi short form of the MMPI has been widely applied in different communities, as well as, in clinical samples by Iranian researchers (Nazer, Khaleghi & Sayyadi, 2002). The psychiatric characteristics of the Farsi short form have been approved in different studies (Chegini, 1981; Momenzade, 1990; Mirzamani & Bolhari, 1999).

The number of items for each scale are as follows: L (5 items), F (15 items), K (16 items), Hypochondriasis (HS) (14 items), Depressiveness (D) (20 items), Hysteria (HY) (25 items), Psychopathic deviation (Pd) (19 items), Paranoia (Pa) (14 items), Psychasthenia (Pt) (16 items), Schizophrenia (Sc) (20 items), and Hypomania (Ma) (11 items). Like the original inventory some items are common and are used for several scales.

Procedure

All subjects were requested to fill out the Farsi short form of MMPI individually after being psychologically prepared by the clinicians. Patients, job

seekers, and the disabled subjects completed the inventory in the clinic, while the control group were free to fill the inventory in their office with respect to the inventory recommendation. This step was done during April 6, 1997 to Sept. 6, 2000. After scoring, the psychological profile of each subject was analyzed and the mean scores for each group computed and compared with each other.

Method of statistical analysis

Data were analyzed by chi - square and one way ANOVA. The Scheffe post hoc analysis was carried out.

Results

In support of the first hypothesis, the data revealed that the job seekers tended to portray themselves better than what they actually were. With respect to the validity scales, their profiles were drawn in the V form. Their scores in the K scale were higher than their scores in the F scale. As it is shown in the diagram (Figure 1), the first hypothesis was confirmed. According to previous research, it means that the subjects of this group tried to show their symptoms as being less than what they actually were (Mirzamani & Bolhari, 1999).

With regard to the importance of difference between the K and F scales, the mean scores of these two scales were calculated and compared for the group of job seekers. Table No. 2 shows the average and standard deviation of the scores in these two scales for all groups of participants in the present study.

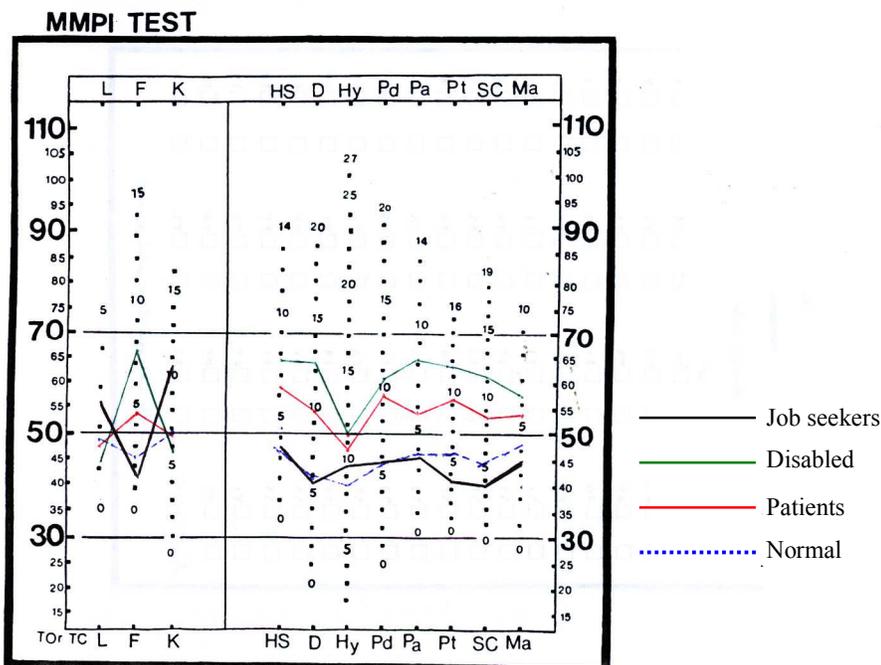


Figure 1: Scores of subjects in MMPI

Table 2: The mean and standard deviation of scores in the validity scales

Groups	K Scale		F Scale		L Scale	
	M	S.D	M	S.D	M	S.D
Job seekers	10.38	2.61	1.53	0.96	2.73	1.36
Dis-abled	5.78	2.66	7.78	2.43	1.09	0.96
Patients	6.71	3.29	4.09	2.63	1.57	1.28
Normal	6.93	2.75	2.37	1.36	1.61	1.22

In order to find out whether or not there were significant differences between the groups on the mean scores of the validity scales of the MMPI, further analyses were conducted and the results are as follows:

- Analysis variance on the mean scores in the K scale between groups was significant ($F_{3,275} = 51.19, p < 0.001$). The Scheffe post hoc indicated significant differences between the job seeker group and the other groups. In other

words, the job seeker group ($M=10.38, SD=2.61$) had higher scores than the other groups in the K scale.

- 2- Similar analyses were conducted for the mean scores of the F scale and the results were significant ($F_{3,275}=116.16, p < 0.001$). The Scheffe post hoc analysis revealed significant differences between the groups. That is, the disability group got the highest mean scores ($M=7.78, SD=2.43$) and this was significant with all three groups.

3- Again, similar analysis for the mean scores of L scale were done and the results were significant, ($F_{3,275}=23.07$, $p<0.001$). The scheffé post hoc analysis ($p<0.05$) was also computed, and the results revealed significant differences. That is, the job seeker group had significantly higher mean scores ($M=7.78$, $SD=2.43$) than the other 3 groups.

The mean scores and standard deviation of the validity scales for all groups are shown in table 2. As it is illustrated, the "K" mean scores of the job seeker group were higher than all other groups, while the disability group presented the lower mean scores. On the F scale, the patients group had the highest mean scores, while the job seeker group had the lowest mean scores among the groups. On the Lie scale, the job seeker group also had the highest mean scores. Based on these results, we concluded that those who were looking for a job liked to draw a good picture of themselves. On the other hand,

those looking to benefit from their disabilities were apt to present themselves as those with more psychological problems and social difficulties.

With regard to the importance of the correlation between the F and K scales, the amount of difference between the mean scores of these 2 scales were calculated. Table 3 shows the amount of the differences. Although, mean scores of all groups were significantly different with each other in the two scales but the differences between mean scores of these 2 scales were very high in the disability group and the job seeker group. For example, in the disability group, the mean score in the F scale was higher than the K-scale and the amount of this difference was 2. In the job seeker group, the mean score in the K scale was higher than the F scale and the amount of this difference was 8.85. This difference was much higher than the normal and patients groups.

Table 3: The differences between the scores of F and K scales in the 4 groups

	<u>Groups</u>			
	<u>Job seekers</u>	<u>Disabled</u>	<u>Patients</u>	<u>Normal</u>
Difference F-K	8.85	2	2.62	4.56

Table 4 shows the frequency and percentages of group profiles on the validity scales with respect to V or Λ shapes. Table 4 shows, more subjects from the job seeker group (90%) tended to present a favorable picture of themselves, while with the disability group, most of the subjects (94%) liked to present themselves as individuals with more psychological and social problems. Analyses by chi-

square were carried out and the significant results confirmed the differences between the groups. In other words, those subjects motivated for jobs are more likely to present themselves in a better manner and light, while those subjects expecting to benefit from the medical committee and receive social and economic support from the community, are more likely to show a bad picture of their health.

Table 4: The validity scale profile (V, Λ and none) F-K difference score with respect to the groups

Group	Profile					
	V		Λ		None	
	F	%	F	%	F	%
Job seekers	108	90	0	0	12	10
Disabled	1	3.1	30	93.8	1	3.1
Patients	13	19.1	27	39.7	28	41.2
Normal	14	23.7	3	5.1	42	71.2

Table 5 shows the mean score and standard deviation of the four groups on the clinical scales. It seems that the clinical symptoms were influenced by the validity scales respectively for each group.

Subjects who tended to present a good picture of themselves, showed mild psychological symptoms, while the others tried to show a profile with more psychosocial problems.

Table 5: The mean and standard deviation of the clinical scales with respect to the groups

Groups	Hs		D		Hy		Pd		Pa		Pt		Sc		Ma	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Job seekers	3.38	1.91	5.32	2.42	9.42	2.65	5.67	1.9	3.60	1.64	3.24	2.54	3.83	2.52	3.57	1.88
Disabled	7.84	2.59	12.25	3.79	11.69	2.35	10.22	2.67	8.06	2.17	11.75	3.1	11.09	3.2	6.22	1.9
Patients	6.28	3.08	9.93	3.79	10.41	3.02	9.65	12.92	5.9	2.53	9.16	4.15	8.18	3.86	5.19	2.45
Normal	3.19	1.71	5.59	2.25	8.58	2.86	5.63	2.01	3.8	1.84	5.36	3.1	5.1	2.49	4.22	1.39

Discussion and conclusion

The results of this study supported the previous research results. The findings implicate that individuals looking for employment, were more apt to “faking good”, while those anticipating socio-economic support liked to exaggerate their problems and, therefore, it is possible to find elevations on their clinical profiles and their validity profile on the F scale (Mirzamani and Bolhari, 1999; Nurse, 1999, Archer & Krishnamurthy, 2002).

The results of this study revealed the association between the validity scales and the clinical scales.

That is, those who like to present a good picture and acceptable social style, like to conceal their real problems and conflicts. On the other hand, individuals “faking bad”, had high scores on psychological scales. They like to show themselves as worse as they could. Based on their profiles, they may be given various benefits by the community.

Findings of the present study suggest that the clinician’s role is significant and he/she should also consider the individual’s intentions and motivations. In addition, results emphasize the importance of the validity scales of MMPI. That is the psychological

profile evaluation of the MMPI is initially based on the validity scales. We found the majority of the subjects looking for jobs who were referred to the employment testing center, tended to present their abilities at a higher level. They assumed that this way they would have more opportunities for getting a job. On the other hand, those who looked for social support, liked to show a worse picture of themselves and tended to fake bad. Furthermore, the results of the study supported the validity of the Farsi version of the MMPI.

The conclusions drawn from study are in agreement with this hypothesis that validity scales of the Mini Mult Farsi version are capable of revealing these kinds of attempts by subjects who wish to show their problems as minor ones. The validity scales of the Farsi version of Mini Mult are also capable of diagnosing people who try to show themselves worse than they actually are. This issue is true for people who, for a number of different reasons such as obtaining enough scores for disability or injury income, try to show their problems as more severe than they are. The results of this research, part of which have been shown in table No. 4, revealed that 93.8% of the people who were referred to the medical commission for the evaluation of their disability or injury, had profiles like Λ . It means that, as it was shown in previous research (Mirzamani and Bolhari, 1999; Nurse, 1999, Archer & Krishnamurthy, 2002), the subjects in this group tried to show themselves worse than they were.

By using variables statistical tests, the results of this study confirm the hypotheses. Therefore, it de-

rives that validity scales of Mini Mult have the capability to identify those individuals who for a number of reasons (such as getting hired and passing through selection filters) try to show themselves better than they actually are. In the other words, if people in answering the Mini Mult inventory do not want to manifest their symptoms and try to hide their temperamental and psychological problems, then this would not be overlooked by the clinician and he/she could easily detect their problems.

In fact the exaggeration and minimization of their psychological problems in response to MMPI would not be hidden from the clinician. With regard to the probability that this might happen in MMPI it is recommended that prior to analysis of the clinical scales the validity scales of MMPI be considered because as it was seen, the clinical scales with regard to the individuals' profile in validity scales, could encounter some intensity or weaknesses. It is evident that the profile of validity scales in MMPI could undermine the diagnosis made from clinical scales. Providing any clinical diagnosis with the use of the MMPI would not be valid only on the basis of clinical scales without considering the validity scales. This research, while emphasizing the capability of MMPI validity scales in determining the type of responses that people have toward this inventory, has tried to consider the importance of these scales in providing clinical diagnosis by using this inventory. MMPI test (short form) can be a very valuable tool for psychologists, who are working at organizations or in military services. It is the best instrument to screen and diagnose malingering. The

small sample size was the limitation of the present study, so the results can not be generalized simply and more research in this field with larger sample sizes are needed.

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