The MMPI:
Its Validity in Assessing People With CFS

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In 1994, a trial judge in Alberta decided that a woman in her 40's who claimed damages for injuries sustained as a consequence of a motor vehicle accident, did not suffer from fibromyalgia. Instead, relying heavily on defense experts who interpreted the results of MMPI testing, the trial judge concluded that the plaintiff had an obsessive, compulsive personality with a hysterical conversion disorder. Unfortunately, there was little psychiatric or psychological evidence tendered by the plaintiff to challenge the defense experts.

This decision, Mackie v. Wolfe, reflects a serious problem which people with CFS/ME may face when asked to take psychological tests so that some third party can diagnose or clarify the cause, nature and/or extent of their illness.

The problem lies in the interpretation of the "Minnesota Multi-Phase Inventory" (MMPI), updated in 1989 and called the MMPI-2. The MMPI is the most frequently used and extensively validated test instrument in clinical psychology. It is also easily subject to misinterpretation when administered to a person who suffers from an illness which is associated with physical symptoms of unknown origin, such as CFS or Fibromyalgia.

To see how, we need to first understand the MMPI's design and normal usage.

What is the MMPI?

The MMPI consists of a test booklet with over 500 statements (called "items") which the person writing the test is required to decide are either true or false, as applied to that person. The test is designed to assess the **psychiatric** state of the person by eliciting information relevant to the following categories:

Scale #	Name	Description
1	Hypochondriasis	Abnormal concern over bodily health
2	Depression	Depressed phase of manic depression
3	Hysteria	Hysteria or histrionic personality
4	Psychopathic Deviate	Characteristics of young delinquents under court-ordered assessments
5	Masculinity-Femininity	Characteristics of gay invert males, soldiers and airline employees
6	Paranoia	Paranoid state, paranoid condition, paranoid schizophrenia
7	Psychasthenia	Inability to resist maladaptive actions or thoughts (obsessive-compulsive)
8	Schizophrenia	Schizophrenia
9	Hypomania	Mild to moderate mania (a type of affective disorder characterized by euphoric mood, excessive activity, impaired judgment and sometimes psychotic symptoms, etc.)
10	Social Introversion	Characteristics of high and low-scoring female college students

In addition to these categories, the MMPI has a number of “validity” scores which indicate how open and honest the person was in answering the questions.

Once the person completes the test, it is scored by registering each answer in at least one, and sometimes two or three of the above categories. The test results produce what is called a “profile” with a visual summary of important personality information, plotted on an easy-to-read graph. The higher the score in any category, the more prominent those psychiatric traits are thought to exist in the person.

Why is the MMPI so popular?

The MMPI is popular for a number of reasons:

- it is perceived to provide an objective evaluation of an individual’s personality characteristics, symptom patterns and personal attitudes;
- it is easy to administer;
- it is cost effective since it takes very little professional time to obtain the necessary information; and
- the test can be computer scored. There are 6-8 computer programs on the market which assist in the interpretation of various MMPI-2 profiles.

Can the MMPI be used to accurately diagnose CFS?

The usefulness of the MMPI in shedding light on a diagnosis of CFS is affected by one major factor: ***The MMPI is based on the assumption that a person is physically healthy.***

Several of the statements in the MMPI relate to the person's physical state. Some examples are:

- I am troubled by attacks of nausea and vomiting
- I am in just as good physical health as most of my friends

The MMPI was originally designed to assess physically healthy individuals who, when asked the above questions, would tend to answer F and T respectively. The intent of questions such as those above was to identify people who were physically healthy but who suffered from a psychiatric state that made them think they were ill.

Difficulties arise when people with "genuine" or organic physical problems write the MMPI. In response to the above questions, they may answer T and F, opposite answers to those of a healthy person. Their answers would register as elevations on scale 1 (suggesting a psychiatric state of hypochondriasis) even though they were responding truthfully and accurately and in a manner consistent with a "normal" person who was ill.

If the MMPI is scored without regard to the physical state of the subject, or on the assumption (possibly mistaken) that the person is physically well, there will be artificial and inaccurate elevations in the profiles of psychiatrically normal, but physically ill, people. In an article in Arthritis and Rheumatism entitled, *Elevated MMPI Scores for Hypochondrasis, Depression and Hysteria in patients with Rheumatoid Arthritis Reflect Disease Rather than Psychological Status*, it was noted that "The MMPI has been extensively validated in hundreds of individuals with and without psychological disorders, but not in subjects with somatic diseases." The article concluded that the "widespread use of the MMPI has led to clinical interpretations of increased levels of hypochondriasis, depression, and hysteria in individual patients with RA and other chronic diseases. Our findings suggest that such interpretations are not valid for RA patients and, possibly, are not valid for patients with other diseases."

The profiles which tend to be consistently elevated as a result of physical pain are scales 1, 3, 4, 7 and 8. Because depression is a common product of pain states, scale 2 also tends to be elevated in subjects suffering from injuries or physical illness.

There is one further point to note: the standard method of scoring an MMPI results in **double** and **triple**-counting of some answers, thereby increasing the misrepresentation. Approximately 40% of the items on the MMPI are designed to be scored more than once. The maximum number of times any item is scored is 6. Scales I and 3 overlap on 20 items.

Many of the items on scales 1 and 3 relate to somatic complaints which, as described in the previous section, are susceptible to misinterpretation. When they are double and triple counted, the distortion is even more exaggerated. In an editorial in the Journal of Rheumatology in 1984, Dr. Hugh A. Smythe, Professor of Medicine and Chief, Division of Rheumatology at the University of Toronto noted: “Because of double or triple counting, these 19 questions, together with 13 more pain-related questions that appear on one scale only, contribute a total of 59 positive scoring points toward the possible maximum raw scores, a built-in bias towards a “neurotic” score of up to 3 8%”.

Because of these and other problems with the MMPI, psychologists Helmes and Reddon wrote: By any standard, the MMPI and MMPI-2 are inefficient instruments. The use of the clinical scales on either instrument requires substantial experience and sophistication by the user. Much of that sophistication is necessary only because of the many pervasive conceptual and operational weaknesses that we have itemized. . . In conclusion, assessment devices are fallible instruments and should not be taken for granted. Users of personality tests need to be cognizant of the issues and to appraise the underlying system behind their interpretations of test results.”

Dr. Linda Iger, a psychologist in California, has gone further. She analyzed the MMPI scores of a number of CFS patients and developed a CFS profile. While such a profile cannot be treated as diagnostically determinative of CFS, it can be used to indicate that a person’s MMPI score is more consistent with a diagnosis of CFS than with a diagnosis of a psychiatric illness.

In any MMPI administered to someone with CFS, it is necessary to clarify what causes elevations on the test. The answers which produced elevations (called the “endorsed items’) should be individually examined to see whether they were responses to questions concerning physical symptoms, and if so, whether those physical symptoms are consistent with a diagnosis of CFS. This does not answer the question of the cause of the physical symptoms. It does, however, provide a basis for determining the impact of these symptoms on the person’s psychological profile.

Conclusion:

The MMPI provides a great deal of potentially useful information about a person’s thoughts and feelings. For anyone who suffers from CFS, however, a proper interpretation of the MMPI score must take into account the person’s physical

symptoms. If it does not, then the conclusions drawn from the MMPI may be significantly misleading.

References:

1. Mackie v. Wolfe, (1994) A.J. 467 (Alta.Q.B.);

2. All future references to the MMPI include the MMPI-2 unless otherwise stated;

3. Pincus, Callahan, Bradley, Vaughn and Wolfe: Elevated MMPI Scores for Hypochondriasis, Depression, and Hysteria in patients with Rheumatoid Arthritis Reflect Diseases Rather than Psychological Status. Arthritis and Rheumatism, Vol.29, No. 12, 1986;

4. Smythe: Problems with the MMPI, Journal of Rheumatology, 11:4, 1984

5. Helmes and Reddon. A perspective on Developmentgs in Assessing Psychopathology: A Critical Review of the MMPI and MMPI-2. Psychological Bulletin, Vol. 113, No. 3, 453-471

6. Iger. The MMPI as an Aid to Chronic Fatigue Syndrome Diagnosis, Chapter 52. The Clinical and Scientific Basis of Myalgic Encephalomyelitis/Chronic Fatigue Syndrome, 1992

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