

good test-retest reliability and has good sensitivity and specificity.

For each symptom, participants were asked to indicate if the symptom had been present for 6 months or longer, if the symptom began before the onset of their fatigue or health problems, and how often (never, seldom, often/usually, or always) the symptom is experienced. Participants were also asked to rate the severity of each symptom they endorsed on a scale of 0 to 100, where 0 = no problem and 100 = the worst problem possible. This is a numerical rating scale (NRS), which has been shown to be a consistently valid measure of symptom intensity, particularly for pain intensity [26]. The Fukuda et al. [2] case definition symptoms (i.e., impaired memory or concentration, sore throat, tender lymph nodes, muscle pain, multiple-joint pain, new headaches, unrefreshing sleep, and post-exertion malaise) were assessed.

A series of questions assessing MCS were included in the CFS Questionnaire. Questions that qualified a diagnosis of MCS included new awareness of odors, frequency of fever (not at all through daily), how sick one would be filling his or her own gas tank (not at all through a lot), and how sick one would be if he or she had to spend four hours in an enclosed shopping mall (not at all through a lot). These questions were derived from Donnay's [27] screening survey for CFS, MCS, and FM. This survey has evidenced diagnostic specificity of 96.7% and specificity of 98.3% (A. Donnay, personal communication, December 1, 2000).

Structured clinical interview for DSM-IV

A semi-structured psychiatric interview was administered. The Structured Clinical Interview for DSM-IV (SCID) [28]. Axis I was used to establish psychiatric diagnoses. The professionally administered SCID allows for clinical judgment in the assignment of symptoms to psychiatric or medical categories, a crucial distinction in the assessment of symptoms that overlap between CFS and psychiatric disorders, e.g., fatigue, concentration difficulty, and sleep disturbance [3]. A psychodiagnostic study [29] validated the use of the SCID in a sample of CFS patients. Because CFS is a diagnosis of exclusion, prospective participants were screened for identifiable psychiatric and medical conditions that may explain CFS-like symptoms. These measures were completed at DePaul University and took approximately two hours. After the initial interview was completed, the patients' information was reviewed to ensure that they met all eligibility requirements. If an individual was eligible for the study, a medical appointment was set up. Conversely, if an individual was not eligible, alternative treatment options were discussed.

Medical assessment of CFS

The physician screening evaluation included an in-depth medical and neurological history, as well as general and neurological physical examinations. A modified version of the CFS questionnaire was used to rule out other disorders [30]. Relevant medical information was gathered to exclude possible other medical causes of chronic fatigue, including exposure histories to tuberculosis, AIDS, and non-AIDS sexually transmitted diseases. Information on prescribed and illicit drug use was also assessed and recorded. The histories of all symptoms related to CFS were gathered. Laboratory tests in the battery were the minimum necessary to rule out other illnesses [2].

FM was diagnosed by the project physician during the medical assessment. The 1990 criteria from The American College of Rheumatology [7] were used. Participants received a diagnosis of FM if they had mild to severe tenderness in at least 11 out of 18 established tender point sites throughout the body.

Medical Outcomes Study-Short Form-36

(MOS-SF-36). The MOS-SF-36, a 36 item broadly-based self-report measure of functional status related to health, identifies eight health concepts as perceived by the individual. The concepts include Physical Functioning, Role Functioning-Physical, Role Functioning-Emotional, Bodily Pain, General Health, Vitality, Mental Health, and Health Transition [31]. A higher score indicates better health or functioning. Test construction studies for the SF-36 [32,33] have shown adequate internal consistency, discriminate validity among subscales, and substantial differences between patient and non-patient populations in the pattern of scores. The SF-36 has also indicated sufficient psychometric properties as a measure of functional status in a CFS population [34].

Fatigue Severity Scale (FSS)

Krupp, LaRocca, Muir-Nash, and Steinberg's [35] Fatigue Severity Scale was used to measure fatigue. This scale includes 9 items rated on 7-point scales and is sensitive to different gradations of fatigue severity. Most items in the Krupp fatigue scale are related to behavioral consequences of fatigue. Previous findings have demonstrated the utility of the Fatigue Severity Scale to discriminate between individuals with CFS, MS, and primary depression [36]. In addition, the Fatigue Severity Scale was normed on a sample of individuals with MS, SLE, and healthy controls. A study by Taylor, Jason and Torres [37] compared the Fatigue Scale [38] with the Fatigue Severity Scale [35] with a sample of healthy controls and a CFS-like group. Within a CFS-like group, the Fatigue Severity Scale was more closely associated with severity ratings for the eight Fukuda et al. [2] CFS symptoms as well as with functional outcomes related to fatigue.