

## QUESTIONNAIRE REVIEW

# Modified Fatigue Impact Scale – 5-item version (MFIS-5)

Whatever the cause, the impact of fatigue on daily function and work ability can be significant in many chronic health conditions but is difficult to measure, in a clinic setting, by history and examination methods alone. Fatigue is a common symptom with 251 possible causes, if you're a patient using a 'symptom checker' on the internet [1].

The Modified Fatigue Impact Scale – 5 item (MFIS-5)—also known as the MFIS abbreviated version—is one of over 50 available questionnaires for assessing fatigue in clinical and research practice. It is a short version of the 21-item MFIS. The MFIS derives from the Fatigue Impact Scale (FIS) [2]. Both modified versions of the FIS were developed for research purposes for multiple sclerosis (MS) patient groups [3]. The FIS is a 40-item self-administered questionnaire and as such may prove less practical to administer in a clinic setting, than shorter questionnaires such as the MFIS and MFIS-5.

The MFIS-5 measures the impact of fatigue on cognitive, physical and psychosocial function—considered by some authors to be three important sub-scales—in patients with MS. It does not identify cases or non-cases of fatigue, unlike the Chalder Fatigue Scale 11, that was recently reviewed in this journal [4]. It consists of 5 of the 21 items of MFIS that most strongly correlate with the total MFIS score.

### Administration

It is a self-administered questionnaire and begins with introductory statements about how fatigue can affect a person, what fatigue is and that, in medical conditions like MS, fatigue can occur more often and have a greater impact. Patients are then asked to circle the one number (from a 5-point Likert scoring system) that best indicates how often fatigue has affected them during the past 4 weeks. The scale ascends from 'never', 'rarely', 'sometimes', 'often' and 'almost always' each scored 0–4, respectively. Five statements are offered that are suffixed with, 'Because of my fatigue during the past 4 weeks', as follows: 'I have been less alert'; 'I have been limited in my ability to do things away from home'; 'I have had trouble maintaining physical effort for long periods'; 'I have been less able to complete tasks that require physical effort' and 'I have had trouble concentrating'. The sum provides a total score from 0 to 20. In practice, it is short and quick to administer and therefore practical to use in a clinic setting.

### Validity

The FIS questionnaire is considered to be a widely used, robust and validated tool for patients presenting with chronic fatigue, MS, chronic obstructive pulmonary disease, primary biliary sclerosis and chronic hepatitis C infection [5]. It is considered to be a good tool for assessing the impact of fatigue on patients' lives and has been shown to have good internal consistency, validity and reproducibility [6].

The MFIS versions have been validated and accepted for use in patients with MS and in some other neurological-condition-defined patient groups, e.g. traumatic brain injury and Parkinson's disease [7,8]. The 21 and 5-item MFIS questionnaires have a Cronbach's alpha coefficient of 0.81 and 0.80, respectively, suggesting acceptable internal consistency. The MFIS also has various problems that result in limitations when interpreting the scores, particularly when trying to interpret what a change in score might mean and consideration of symptom confounders such as depression [9].

### Availability

The MFIS 21- and 5-item versions form part of the Multiple Sclerosis Quality of Life Inventory developed by The Consortium of Multiple Sclerosis Research Centres Health Services Research Subcommittee, funded by the National Multiple Sclerosis Society. Both can be accessed from <http://www.nationalmssociety.org/For-Professionals/Researchers/Resources-for-Researchers/Clinical-Study-Measures/Modified-Fatigue-Impact-Scale-%28MFIS%29>, within the 'MSQLI: A User's manual' document. It is free to download and use (all rights reserved).

### Discussion

I find the MFIS-5 useful in quantifying fatigue symptoms in patients with MS. I have also found it useful in my assessment of patients with other conditions in which fatigue is a dominant symptom, e.g. cancer, stroke and chronic fatigue syndrome—as an adjunct and always with the caveat that the questionnaire has been primarily validated for use in patients with MS. My patients have reported that it helps them to view their fatigue symptoms more objectively and assists them in monitoring

their progress in managing these symptoms. Anecdotally, I have found that work ability levels improve as the score reduces. I have also found, more rarely, that this can happen when the score is unchanged—perhaps indicative of better self-management techniques and outcomes, rather than absolute improvement in fatigue symptoms. My view is that it has the potential for wider use, beyond MS patient groups, although further research and development is needed to demonstrate its validity in other patient groups and to address some of the limitations arising when interpreting the score and any score changes between tests.

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