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Modified Fatigue Impact Scale (MFIS)
Component of Multiple Sclerosis Quality of Life Inventory (MSQLI)**

Availability:	Freely available at the NMSS website: Modified Fatigue Impact Scale (MFIS) website.
Classification:	Supplemental.
Short Description of Instrument:	<p>Construct measured: Impact of fatigue on patient’s daily life.</p> <p>Generic vs. disease specific: Generic.</p> <p>Means of administration: Self-report or by a trained interviewer.</p> <p>Intended respondent: Patient.</p> <p># of items: 21.</p> <p># of subscales and names of sub-scales: 3 – Physical, cognitive and psychosocial functioning.</p> <p># of items per sub-scale: N/A.</p>
Comments/Special instructions:	<p>Scoring: The total score for the Modified Fatigue Impact Scale (MFIS) is the sum of the scores for the 21 items. Individual subscale scores can also be generated by calculating the sum of specific sets of items. Users should refer to the MSQLI User's Manual for detailed scoring instructions for both the full length 21-item MSSS and abbreviated 5-item version.</p> <p>Background: The MFIS is a modified form of the Fatigue Impact Scale (Fisk et al, 1994) based on items derived from interviews with MS patients concerning how fatigue impacts their lives. This multidimensional instrument includes physical, cognitive, and psychosocial subscales and assesses the impact of fatigue on a variety of daily activities. The full-length MFIS consists of 21 items while the abbreviated version has 5 items. The abbreviated version can be used if time is limited but the full-length version has the advantage of generating subscales. The MFIS is one of the components of the MSQLI.</p>

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References:	<p>Key Reference: Ritvo PG, Fischer JS, Miller DM, Andrews H, Paty D, LaRocca NG. Multiple Sclerosis Quality of Life Inventory: A User's Manual. New York, NY: National Multiple Sclerosis Society;1997.</p> <p>Other References: Tellez N et al. Does the Modified Fatigue Impact Scale offer a more comprehensive assessment of fatigue in MS? <i>Mult Scler</i> 2005;11(2):198–202.</p> <p>Kos D et al. Evaluation of the Modified Fatigue Impact Scale in four different European countries. <i>Mult Scler</i> 2005;11(1):76–80.</p> <p>Kos D et al. Assessing fatigue in multiple sclerosis : Dutch Modified Fatigue Impact Scale. <i>Acta Neurol Belg.</i> 2003;103:185-191.</p> <p>Whitehead L. The measurement of fatigue in chronic illness: a systematic review of unidimensional and multidimensional fatigue measures. <i>Journal of Pain and Symptom Management.</i> 2009;37:107-128.</p> <p>Mathiowetz V. Test–retest reliability and convergent validity of the Fatigue Impact Scale for persons with multiple sclerosis. <i>American Journal of Occupational Therapy</i> 2003;57, 389–395.</p> <p>ALS References:</p> <p>Fischer JS, Rudick RA, Cutter GR, Reingold SC. The Multiple Sclerosis Functional Composite Measure (MSFC): an integrated approach to MS clinical outcome assessment. National MS Society Clinical Outcomes Assessment Task Force. <i>Mult Scler.</i> 1999 Aug;5(4):244-50.</p> <p>Fisk JD, Pontefract A, Ritvo PG, Archibald CJ, Murray TJ. The impact of fatigue on patients with multiple sclerosis. <i>Can J Neurol Sci.</i> 1994 Feb; 21(1): 9-14.</p>
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Rationale/ Justification:	<p>Strengths/Weaknesses: The MFIS is easy to administer and focuses on the ways in which fatigue affects everyday life. As such it has high face validity for patients. The availability of the three subscales may be useful to investigators interested in testing hypotheses concerning these different areas of function. However, the three subscales tend to correlate highly with one another, which limits their usefulness to some extent.</p> <p>MS Psychometric Properties: NOTE: Limited data on psychometric properties in North American MS populations are available. Summary of demonstrated properties below includes data from both N. American and European MS studies.</p> <p>Reliability: Cronbach's alpha [MSQLI field test population]: Total MFIS = .81, Cognitive subscale = .95, Physical subscale = .91, psychosocial subscale = .81, and abbreviated version = .80; Cronbach's alpha [four-country European study³]: Total MFIS = .92, Cognitive subscale = .92, Physical subscale = .88, psychosocial subscale = .65; Reproducibility: ICC = .91³; Convergent Validity: MFIS correlates with the Fatigue Severity Scale: Spearman $r = .68$, $p < .0001$ in an RRMS predominate Spanish population²; $r = .66$, $p < .0001$ in a four-country European study³; Kendall's Tau-b = 0.729, Dutch MFIS.⁴ Divergent Validity: Does not diverge from Beck Depression Inventory (Spearman $r = .7$, $p < .0001$); divergence from EDSS ($r = .30$, $p < .0001$; $r = 0.15$, $p = .02$ after adjusting for BDI)² Sensitivity: Dutch MFIS sensitive to change ($z = -3.401$, $p = .001$) following a four-week rehabilitation program; no floor or ceiling effect detected.</p> <p>Administration: Administration time is approximately 5-10 minutes for the full-length version and 2-3 minutes for the abbreviated version. The MFIS is a structured, self-report questionnaire that the patient can generally complete with little or no intervention from an interviewer. However, patients with visual or upper extremity impairments may need to have the MFIS administered as an interview. Interviewers should be trained in basic interviewing skills and in the use of this instrument.</p>
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