

Functional assessment of multiple sclerosis

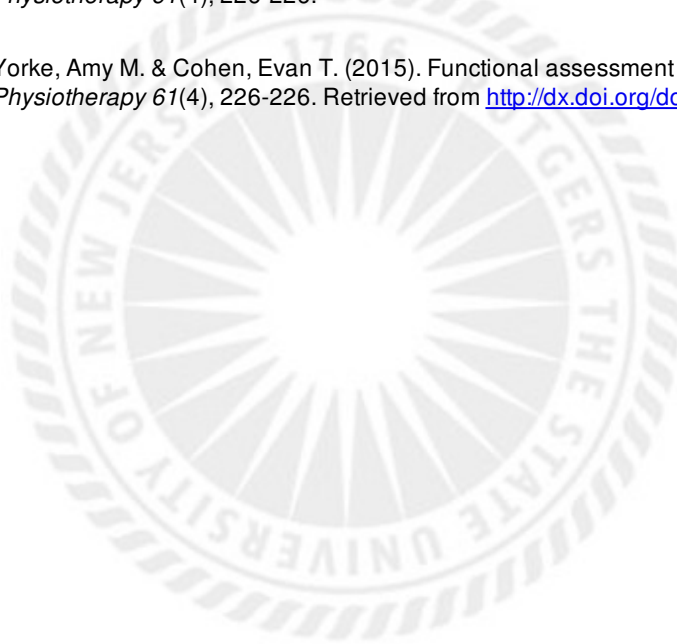
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Functional Assessment of Multiple Sclerosis

Summary

Description: The Functional Assessment of Multiple Sclerosis (FAMS) is a self-report health-related quality-of-life instrument for people with multiple sclerosis.¹ The FAMS consists of 44 scored items in six quality-of-life domains: Mobility (seven items), Symptoms (seven items), Emotional wellbeing (seven items), General contentment (seven items), Thinking/fatigue (nine items), and Family/social wellbeing (seven items). An Additional concerns subscale consists of 15 other items that fall outside of the six domains but may provide valuable information to the clinician.¹ The FAMS includes items across the International Classification of Functioning components of body functions, activities and participation, and environmental factors.²

Instructions to patient and scoring: On assessment, the patient indicates the appropriate response as it has applied to his/her life in the past 7 days. Items are rated on a five-point Likert scale ranging from 0 (not at all) to 4 (very much). Some items are given their original score while others are scored in reverse. The FAMS total score (range 0 to 176) is derived by adding the Mobility (0 to 28), Symptoms (0 to 28), Emotional wellbeing (0 to 28), General contentment (0 to 28), Thinking/fatigue (0 to 36), and Family/social wellbeing (0 to 28) subscales.¹ The Additional

concerns (0 to 56) subscale is not included in the total FAMS score.¹ If a subscale form is incomplete, scores can be prorated if more than 50% of the items were entered. A higher score indicates a better quality of life. The FAMS takes approximately 20 minutes to administer and score. The FAMS instrument and guidelines for administration and scoring (including a formula for scoring of incomplete forms) can be found at www.facit.org.

Reliability, validity and sensitivity to change: The test-retest reliability of the FAMS total score and subscales range from 0.85 to 0.91.¹ A high association exists ($r = 0.59$ to 0.78) between the FAMS (Mobility and Emotional) and the SF-36 (physical and mental component scales).¹ The reported effect size for FAMS total is 1.06. Subscale effect sizes range from 0.56 (Family/social wellbeing) to 1.24 (Mobility) in people with multiple sclerosis with lesser (0 to 1) or greater (2 to 4) disability, as measured by the Eastern Cooperative Oncology Group performance status rating.¹ The FAMS has demonstrated moderate responsiveness to changes in health status.^{3,4} The reference population used in the FAMS validation study had an average total score of 107.5 (SD 32.9). Lower scores on the FAMS may predict disability progression in people with multiple sclerosis.⁵

Commentary

The FAMS is a reliable, valid and responsive health-related quality-of-life instrument that can be administered and scored in 20 minutes. The FAMS is available in 29 languages. It may be utilised to measure health-related quality of life in people with MS across all severity levels. The FAMS measures a variety of important constructs, making it a useful tool to measure quality of life in the typically heterogeneous population of people with MS. The moderate time investment and its usability across levels of disease severity make the FAMS an appropriate choice as a person-level or population-level measure for physiotherapists.

Limitations: The original validation study of the FAMS did not include a diverse population based on race, gender and educational status.¹ The psychosocial consequences of multiple sclerosis have an increased weight on the FAMS as compared to the other dimensions.⁶ Although the Additional concerns subscale includes clinically relevant questions, answers from this subscale are ultimately excluded from FAMS scoring. As these do not affect the FAMS scoring, their inclusion may be unnecessary. The FAMS was created to broadly measure quality of life, thus it includes constructs that may not be relevant to the treating physiotherapist. This may be particularly true when the patient is working with a

multidisciplinary team, where the physiotherapist's scope of interest is narrower. In this case, consideration might be given to a more mobility-specific quality-of-life measure such as the 12-item Multiple Sclerosis Walking Scale. The 20-minute completion time is somewhat long, which reduces the clinical utility of the FAMS if the clinician or patient has limited time in which to conduct the examination.

Provenance: Invited. Not peer-reviewed.

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References

1. Cella DF, et al. *Neurology*. 1996;47:129–139.
2. Khan F, et al. *Neurodegener Dis Manag*. 2013;3:549–564.
3. Giordano A, et al. *J Neurol Neurosurg Psychiatry*. 2009;80:1023–1028.
4. Riazi A, et al. *Mult Scler*. 2003;9:411–419.
5. Benito-Leon J, et al. *Eur J Neurol*. 2013;20:79–86.
6. Benito-Leon J, et al. *Disabil Rehabil*. 2003;25:1291–1303.