Functional Status Examination

The Functional Status Examination (FSE) is a new measure designed to evaluate change in activities of everyday life as a function of an event or illness, including traumatic brain injury. The measure covers physical, social, and psychological domains. The FSE is based on a structured interview and includes levels of functioning that accommodate the full spectrum of possible outcomes, from death through recovery to pre-injury functioning. Based on 133 prospectively studied patients with moderate to severe traumatic brain injury, the FSE has favorable psychometric properties including good test-retest reliability ($r = 0.80$) and close correspondence of assessments provided by the patient and their significant other (SO; $r = 0.80$). The FSE correlated significantly with each of the three severity indices with the closest relationships occurring between the FSE assessed by the SO and posttraumatic amnesia ($r = 0.76$). The FSE assessed by the SO was significantly ($p < 0.05$) more closely related to each severity index than the Glasgow Outcome Scale (GOS) or Sickness Impact Profile and, for two of the three indices, than the SF-36. All measures showed significant change from 1 to 6 months after injury with the FSE showing the largest effect sizes. The FSE is significantly related to important constructs such as family burden, SO depression, and sacrifices the family makes, as well as overall indices of recovery and satisfaction with the level of functioning. The latter relationships are significantly stronger than for the GOS. The FSE has demonstrated good reliability, validity, and sensitivity, and appears to be a promising instrument for monitoring recovery and assessing functional status in clinical trials [1].

Nelson et al. revealed that raw scores for the FSE and GOSE can be linked, and a table is provided to translate scores from one instrument to the other. For example, a FSE score of 7 (on its 0-21 scale, where higher scores reflect more impairment) is equivalent to a GOSE score of 6 (where GOSE is scaled on an 8-point scale, with higher scores reflecting less impairment). These results allow clinicians or researchers who have a score for a person on one instrument to cross-reference it to a score on the other instrument. Importantly, this enables researchers to combine data sets where some persons only completed the GOSE and some only the FSE. In addition, an investigator could save participant time by eliminating one instrument from a battery of tests, yet still retain a score on that instrument for each participant. More broadly, the findings help anchor scores from these two instruments to the broader continuum of injury-related functional limitations [2]

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Dikmen S, Machamer J, Miller B, Doctor J, Temkin N. Functional status examination: a new instrument for assessing outcome in traumatic brain injury. J Neurotrauma. 2001 Feb;18(2):127-40. doi: 10.1089/08977150150502578. PMID: 11229707.
2)
Nelson LD, Magnus BE, Temkin NR, Dikmen S, Manley GT, Balsis S. How Do Scores on the Functional Status Examination (FSE) Correspond to Scores on the Glasgow Outcome Scale-Extended (GOSE)? Neurotrauma Rep. 2022 Mar 4;3(1):122-128. doi: 10.1089/neur.2021.0057. PMID: 35403101; PMCID: PMC8985527.