



FUNCTIONAL CONNECTIVITY AS OUTCOME MEASURE OF COGNITIVE REHABILITATION

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Objectives: This study examines the contributes of functional connectivity (FC) in the assessment of the efficacy of cognitive rehabilitation programs (CRP).

Methods: We conducted a systematic search on EBSCO, WoS and Pubmed, further complemented with hand search. Thirty-two studies analyzing the efficacy of CRP and having FC as outcome were included in this review.

Results: The fMRI is the most frequent technique used to assess FC, with resting-state (RS) acquisition protocols. Despite that, 7 fMRI studies used task-engaged (TE) protocols, and 4 used both RS and TE. Two studies used MEG and 1 used EEG, all with RS protocols. Significant changes in FC after CRP were reported in all studies, both compared to baseline and control groups. Additionally, significant positive improvements in neuropsychological outcomes were reported in 28 studies. Correlations between neuropsychological and FC outcomes were found in 19 studies, and FC was significantly correlated with measures of depression and quality of life in 2 studies.

Conclusion: The relationship between FC and behavioral outcomes suggests that FC can provide important measures when assessing the efficacy of CRP.

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