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TRAINING WORKING MEMORY IN SCHIZOPHRENIA

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Background: Cognitive deficits in schizophrenia consist of deficits in attention, concentration, fluency, and executive function. Especially the working memory deficits influence everyday function and rehabilitation.

Objective: The aim of the study was to investigate a potential of a neurocognitive intervention in schizophrenia (CS) and multiple sclerosis (MS) by application of a computerised working memory training.

Methods: So far, 30 ms patients and 14 cs patients were investigated. Patients are allocated to a treatment group or to a control design. At baseline, all participants underwent a comprehensive neuropsychological examination including memory, working memory, attention, concentration, information processing speed, mental flexibility and intelligence. The treatment group performed a computer program (Brainstim®) four times a week over a period of four weeks. After 16 training sessions all participants were evaluated again neuropsychologically.

Results: In both patient groups a significant increase in cognitive performance within the training procedure could be shown. This increase was expressed by an initial exponential function with a steep increase and an asymptotic slope. Pre-post-test-comparisons revealed significant improvement for short-term and working memory on the neuropsychological outcomes. The program was well accepted by the patients.

Conclusion: This preliminary results show, that working memory might be trained in schizophrenia and thus it might interfere positively the cognitive und rehabilitative outcome.