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EFFECTS OF AEROBIC ENDURANCE TRAINING ON NEUROCOGNITIVE FUNCTIONS IN SCHIZOPHRENIC INPATIENTS

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Objective: The aim of our study was to investigate the impact of aerobic endurance training on cognitive performance, psychopathology and subjective well-being in paranoid schizophrenic inpatients.

Methods: 37 inpatients who met the ICD-10 criteria for paranoid schizophrenia were randomly assigned to either a controlled endurance training (n = 20) or an occupational therapy program (n = 17). Before randomisation and prior to discharge psychopathological symptoms, subjective well-being and cognitive performance were assessed with a comprehensive neuropsychological test battery and psychometric measures. Patients in the aerobic endurance group received about four times per week a 30 minute training session. In the control group schizophrenic patients participated for an equivalent amount of time in an occupational therapy program.

Results: All patients significantly improved in psychopathologic symptoms and subjective well-being. Additionally significant time effects in cognitive functions, except for attention, could be found in both patient groups. However, significant group by time effects could only be demonstrated for working memory, short term memory and verbal learning with an advantage for the sport group.

Conclusions: Concerning verbal memory functions patients could profit by aerobic endurance training in a clinical setting. As cognitive impairments, especially memory deficits are a core feature of schizophrenic illness aerobic endurance training should be an integral part of treatment programs for schizophrenic inpatients.