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TRAINING OF AFFECT RECOGNITION (TAR) AND ITS NEUROPHYSIOLOGICAL CORRELATES IN SCHIZOPHRENIA

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Background: Schizophrenia patients exhibit impairments in facial affect recognition associated with neurophysiological abnormalities. Using the Training of Affect Recognition (TAR) developed by our group behavioural performance in facial affect recognition improved significantly in schizophrenia patients [1]. Purpose of the presented work was to identify the underlying mechanisms and associated generators of neuroelectric activity.

Methods: In a randomized controlled (waiting group) design 19 schizophrenia patients received TAR. Concomitant to facial affect recognition performance, ERPs were recorded and analyzed with respect to underlying generators of cortical activity using low resolution brain electromagnetic tomography (LORETA) software.

Results: Schizophrenia patients showed noticeable deviations in neuroelectric correlates of emotion recognition associated with poorer performance in the administered task. As a result of TAR treatment no significant changes in event related potentials were found. However, LORETA results showed a significant increase of activity within relevant brain areas, specific for the processing stages associated with facial emotion recognition (N170 and P240).

Conclusions: EEG findings of the present study indicate that neurophysiologic abnormalities corresponding with poorer performance in schizophrenia patients can be attenuated by training.

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