Long-Term Effects of Neurofeedback Treatment in Autism

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Research in Autism Spectrum Disorders, v3 n2 p496-501 Apr-Jun 2009

Previously we demonstrated significant improvement of executive functions and social behavior in children with autism spectrum disorders (ASD) treated with 40 sessions of EEG neurofeedback in a nonrandomized waiting list control group design. In this paper we extend these findings by reporting the long-term results of neurofeedback treatment in the same group of children with ASD after 12 months. The present study indicates maintenance of improvement of executive functions and social behavior after 12 months in comparison with the immediate outcomes. Neurofeedback mediated suppression of theta power is supposed to promote more flexible functioning of the brain by enhancing activation in the medial prefrontal cortex and improving flexibility of activation in the default mode network supporting the improvement of executive functions and theory of mind in ASD. (Contains 3 tables.)

Keywords: Outcomes of Treatment, Children, Pervasive Developmental Disorders, Cognitive Processes, Social Behavior, Biofeedback, Longitudinal Studies

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