Additive effects of neurofeedback on the treatment of ADHD: A randomized controlled study

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Abstract

Neurofeedback (NF) has been identified as a “possibly efficacious” treatment in current evidence-based reviews; therefore, more research is needed to determine its effects. The current study examined the potential additive effect of NF for children diagnosed with ADHD beginning a medication trial first. Thirty-six children (6–12 years) with a DSM-IV-TR diagnosis of ADHD were randomly assigned to an NF with medication (NF condition) or a medication only condition. Children in the NF group attended 20 twice-weekly sessions. Outcome measures included individual cognitive performance scores (ADS, K-WISC-III), ADHD rating scores completed by their parents (ARS, CRS) and brainwave indices of left and right hemispheres before and after NF treatment. Significant additive treatment effect in any of the symptom variables was found and a reduction of theta waves in both the right and left hemispheres was recorded in NF condition participants. However our randomized controlled study could not demonstrate superior effects of combined NF on intelligent functioning compared to the medication treatment only. This study suggested any possible evidence of positive and additive treatment effects of NF on brainwaves and ADHD symptomatology.