Comparing the Effect of Neurofeedback and Verbal Self-Instruction on Children Afflicted with Attention-Deficit Hyperactivity Disorder: A Cognitive- Behavioral Approach

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Abstract

Attention deficit hyperactivity disorder is one of the developmental-behavioral disorders whose prevalence is between three to five years of age. There are several ways to cope with this problem. Two common methods for treating this disorder are verbal self-instruction and neurofeedback. This study intended to compare the effect of neurofeedback and verbal selfinstruction on children afflicted with attention-deficit hyperactivity disorder using a cognitivebehavioral pproach. To this end, 84 children afflicted with attention deficit hyperactivity disorder (ADHD) were selected. They were selected using purposeful sampling, and then they were randomly assigned to three groups of 28. The first two groups were selected as the experimental groups and the third group was selected as the control group. The children in the first group received verbal self-instruction for 16 sessions for sixteen weeks and the children in the second group received neurofeedback training for 32 sessions for sixteen weeks (twice a week). The third group, however, received no treatment whatsoever. Three instruments were used in this study, namely, Child Symptom Inventory-4 (CSI-4), Strengths and Difficulties Questionnaire (SDQ), and the Wechsler Intelligence Scale for Children (WISC-IV). Having analyzed the data, the researchers found that by controlling for the effect of pretest, there was a significant difference in the posttest scores of the groups. According to the post-hoc analysis, there was a significant decrease in the ADHD symptoms of the two experimental groups. However, the effectiveness of neurofeedback was higher than that of verbal self-instruction.

Keywords