

Neurofeedback therapy reduces autistic symptoms

Neurofeedback can markedly reduce autistic behavior problems and improve verbal production, socialization, sleep patterns, and academic performance, according to a recent pilot study.

In neurofeedback therapy, participants learn how to alter their own brainwave patterns, producing more normal output. The technique has been successfully used to help people suffering from migraines, sleep problems, anxiety, depression, traumatic brain injury, epilepsy, and attention deficit hyperactivity disorder.

Betty Jarusiewicz recently tested the effects of neurofeedback training on 12 children with autism spectrum disorders, comparing them to 12 autistic controls who did not receive training. The training, which involved 20 or more sessions, consisted of rewarding participants when they produced desired brainwave patterns. The Autism Treatment Evaluation Checklist (ATEC) and parental assessments were used to evaluate the treatment's effects.

Jarusiewicz reports, "Neurofeedback training resulted in a 26 percent average re-

duction in total ATEC rated autism symptoms, compared to 3 percent for the control group." All 12 children receiving neurofeedback training showed improvement, according to both ATEC scores and parent ratings. Improvements were reported in socialization, vocalization, school performance, anxiety levels, tantrums, and sleep patterns. She also reports that "the magnitude of improvement was independent of initial severity or age."

Jarusiewicz cites earlier research revealing that for individuals with attention deficits and hyperactivity, neurofeedback proved to be as effective treatment as stimulant drugs. Because of the attention problems that are a hallmark of autism, she says, neurofeedback may be particularly effective as a treatment for autistic individuals.

—
"Efficacy of neurofeedback for children in the autistic spectrum: a pilot study," Betty Jarusiewicz, *Journal of Neurotherapy*, Vol. 6, No. 4, 2002, 39-49. Address: Betty Jarusiewicz, 51 Memorial Parkway (Highway 36), Atlantic Highlands, NJ 07716.