

ABA's benefits not limited to younger children

An intensive program of applied behavior analysis (ABA) treatment can be highly effective even for children beyond the preschool years, according to a new study conducted in Norway.

Svein Eikeseth and colleagues recruited 25 autistic children between the ages of 4 and 7, assigning them either to an ABA program or to a group that received a variety of educational interventions. Children were selected randomly on the basis of trainer availability,

been higher functioning at the beginning of the study than is typical for children with autism. Intake IQ was a strong predictor of outcome in both groups.

Noting that the ABA and eclectic-treatment groups received a similar number of hours per week of training, the researchers conclude that the specific techniques used in ABA accounted for the differences in outcome, saying, "The results suggest that an effective intervention involves more than providing an intensive, comprehensive treatment program."

Intensive behavioral treatment at school for 4- to 7-year-old children with autism," Svein Eikeseth, Tristram Smith, Erik Jahr, and Sigmund Eldevik, *Behavior Modification*, Vol. 26, No. 1, January 2002, 49-68. Address not listed.

The researchers say their results show that "some 4- to 7-year-olds with autism may benefit as much as younger children from this intervention [ABA], contrary to the view... that children younger than 4 years would respond most favorably."

and all had IQs of 50 or above. The researchers excluded children with major medical conditions other than autism.

Both groups received an equal number of hours of therapy (an average of 28 hours per week) in a school setting. Therapists in the ABA program did not have previous formal training in conducting ABA programs, but received training during the study. Parents of children in the ABA group also received training so they would be able to extend treatment to the home and community.

After one year of treatment, the researchers assessed the children's intellectual functioning, visual-spatial skills, language skills, and adaptive behaviors. Children in the ABA group, they report, made significantly more progress than those in the eclectic treatment group. "On average the intensive behavioral group gained 17 points in IQ, 13 points in language comprehension, 23 points in expressive language, and 11 points in adaptive behavior," they say. "By comparison, the eclectic group obtained average changes of +4 points in IQ, -1 point in language comprehension, -2 points in expressive language, and 0 points for adaptive behavior." Moreover, they note, children receiving ABA achieved average standardized test scores more often at follow-up than did children in the eclectic group. The gains of the ABA group were smaller than those reported in earlier studies, the researchers note, but that may be because the children received fewer hours of therapy per week (28 vs. 40), and the therapy only lasted one year while the previous studies followed children for two years.

The researchers say their results show that "some 4- to 7-year-old children with autism may benefit as much as younger children from this intervention [ABA], contrary to the view... that children younger than 4 years would respond most favorably." They note, however, that the children in the study, because they had IQs of 50 or above, may have

Supplement treats intractable bipolar disorder

The mineral lithium is well established as a treatment for bipolar disorder (manic depression), a condition that can co-occur with autism, and new studies indicate that other nutrients can have equally powerful therapeutic effects on bipolar individuals.

Bonnie J. Kaplan and colleagues recently tested the effects of a nutritional supplement, containing high doses of vitamins, minerals, and other nutrients, on 11 adults diagnosed with bipolar disorder. The ingredients of the supplement were based on similar supplements used successfully for many years to treat aggression and other behavior problems in livestock.

Subjects in the study either were unresponsive to drug treatments, or (in one case) responded to drugs but suffered from debilitating side effects. Ten of the subjects had been hospitalized at least once, four had undergone electroconvulsive therapy, and subjects had tried an average of 10 medications prior to entering the study.

All of the subjects took the supplement for at least six months. Tests revealed symptom reductions of 55 to 66 percent, Kaplan et al. say, and "need for psychotropic medications decreased by more than 50 percent." All 11 subjects who were originally symptomatic experienced improvement, and two were able to stop taking medications entirely and remained symptom-free. The only reported side effect was temporary nausea.

"Some patients reported being able to distinguish their subjective reactions to the supplement (which they described as feeling more normal) from the benefit they have derived from psychotropic medication treatment (described as symptom reduction or masking)," the researchers say.

While the study was not blinded because the psychiatrists treating the patients and making their medication adjustments knew about the supplement, Kaplan et al. note, "It

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would be fair to say that the majority of the psychiatrists expected to see no benefit from nutritional supplementation, so perhaps this form of bias was not a major influence on our data." They are now conducting placebo-controlled trials of the supplement.

A second trial of the nutritional supplement, by Charles Popper, had equally beneficial results. Popper gave the supplement to 22 adults or children with bipolar disorder, and reports that 19 had a positive response, with 17 showing either moderate or marked improvement. "Among the 15 patients who were being treated with medications when they began the nutritional supplement," he says, "11 patients have been stable for 6 to 9 months without psychiatric medications."

Kaplan et al. say that there are two possible explanations for the effectiveness of the supplements. One is that bipolar disorder stems, at least in part, from an inborn error of metabolism, "analogous to others such as phenylketonuria in which metabolic 'errors' lead to altered brain function, but whose symptoms become clinically evident long after birth." The other is that people with bipolar disorder may be more vulnerable to nutrient deficiencies in the food supply.

"Effective mood stabilization with a chelated mineral supplement: an open-label trial in bipolar disorder," Bonnie J. Kaplan, J. Steven A. Simpson, Richard C. Ferre, Chris P. Gorman, David M. McMullen, and Susan G. Crawford, *Journal of Clinical Psychiatry*, Vol. 62, No. 12, December 2001, 936-44. Address: Bonnie J. Kaplan, Alberta Children's Hospital, 1820 Richmond Rd., S.W., Calgary, AB T2T 5C7, Canada.

—and—
 "Do vitamins or minerals (apart from lithium) have mood-stabilizing effects?" Charles W. Popper, *Journal of Clinical Psychiatry*, Vol. 62, No. 12, December 2001, 933-5. Address: Charles W. Popper, McLean Hospital, 115 Mill St., Belmont, MA 02478-1048.