

Autism Research Review

I N T E R N A T I O N A L

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Reviewing biomedical and educational research in the field of autism and related disorders

New study replicates Lovaas findings: nearly half of children attain normal IQs, skill levels

Strong confirmation of the benefits of early, intensive educational intervention for autistic children, using methods based on applied behavioral analysis techniques pioneered at UCLA, comes from a new study by Glen Sallows and Tamlynn Graupner of the Wisconsin Early Autism Project.

Sallows and Graupner randomly assigned 24 three-year-old autistic children to a clinic program replicating the intervention techniques of Ivar Lovaas's UCLA Young Autism Project (see ARRI 13/4, 9/2, 1/3, 1/1), or to a parent-directed program using the same

techniques with less professional supervision. (One child did not complete the study for family reasons.) Therapists trained in the Lovaas approach provided one-on-one therapy to children in each group, averaging nearly 40 hours per week in the clinic program and more than 30 in the parent-supervised program during the first two years with hours decreasing gradually afterward. As the children developed social skills, they also began attending typical preschool programs for several hours each week. The program followed the original Lovaas study but was not university-based and did not include aversives. After four years of treatment, the researchers measured the children's cognitive, language, adaptive, social, and academic skills using a variety of standardized tests.

Sallows and Graupner report that in the clinic-directed and the parent-directed programs combined, "48 percent of all children showed rapid learning, achieved average post-treatment scores, and at age 7, were succeeding in regular education classrooms." The best predictors of success included the ability to

imitate, the presence of some language, and some degree of social responsiveness. Rapid acquisition of skills early in treatment also predicted a better long-term outcome.

The average full-scale IQ score of the 11 "rapid learners" rose from 55 prior to treatment to 104 after treatment. The remaining children did not exhibit significant IQ gains and were not able to participate independently in regular school classes by the end of the study, but did make notable progress in acquiring speech, academic skills, and social skills.

The researchers note that even the most successful children exhibited some residual symptoms, including inattentiveness and mild delays in social skills. However, they say, these behaviors were not clinically significant.

Their findings, Sallows and Graupner say, are consistent with those reported by Lovaas and colleagues. "In the present study," they say, "we demonstrated that the UCLA early intensive behavioral treatment program could

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Autism numbers continue to decline in California

According to new data from California, autism rates in that state dropped last year to the lowest number (2,848) since 2001. This continues a decline that began in 2003, several years after manufacturers began removing mercury-containing thimerosal from vaccines (see related cover story in ARRI 19/2). Prior to 2003, autism rates in California, which keeps careful records of developmental disability diagnoses, had climbed consistently for more than a decade.

Autism advocate Rick Rollens notes that even with the current decline, autism continues to be epidemic. Two of every three individuals entering California's DDS system (which also serves people with mental retardation, cerebral palsy, and epilepsy) have professionally-diagnosed full-syndrome autism, he notes, "easily making autism the number one disability entering California's developmental services system."

Child's death due to drug error, not chelation

An expert at the Centers for Disease Control and Prevention has released a report concluding that the recent death of an autistic child in Pittsburgh while undergoing chelation therapy was the result of a medication error, and was not due to the chelation process itself. (See page 3 for more information.)

Widely used autism drug linked to benign pituitary tumors

The drug risperidone (Risperdal), one of the most popular drugs prescribed for autistic children, is already linked to dangerous blood glucose alterations and possibly to a greatly increased risk of diabetes—and new research suggests that it may cause pituitary tumors as well.

A team of researchers from the Food and Drug Administration and Duke University, headed by Ana Szarfman, analyzed 2.5 million reports of adverse drug reactions collected since 1968, and found 307 reports of pituitary tumors. Sixty-four of these cases involved patients taking antipsychotic drugs, and of these, 48 involved patients taking risperidone.

The new finding is consistent with the known association between risperidone and hyperprolactinemia, a condition in which an excess of the pituitary hormone prolactin causes symptoms including menstrual problems and abnormal secretion of breast milk. Pituitary tumors are one cause of hyperprolactinemia.

The researchers, who uncovered their finding while testing a new "data mining" technique designed to identify patterns in reports of adverse drug reactions, say more studies are needed to determine if the link between risperidone and pituitary tumors is real. However, animal studies tentatively link risperidone to adenomas (tumors) of the endocrine pancreas in male rats and pituitary adenomas in female mice, as well as mammary neoplasms in rats and mice.

Study collaborator P. Murali Doraiswamy recommends that patients who develop abnormal breast milk production while taking antipsychotic drugs be tested for high prolactin levels. Patients with high levels, he says, should be checked for pituitary tumors.

Szarfman et al. reported their findings at the Sixth International Conference on Bipolar Disorder, June 16-18, 2005, in Pittsburgh, PA. For more information, see "FDA assesses antipsychotic's link to certain tumors," *Psychiatric News*, Vol. 40, No. 15, August 5, 2005, p. 35.