

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

Long-term follow-up: early intervention effects lasting

Six years ago, the first issue of ARRI reported on a paper by Ivar Lovaas of UCLA detailing the astonishing and controversial results of an intensive early intervention program for 3-year-old autistic children. Forty-seven percent of these children were in normal first-grade classes following two years of treatment.

Now John McEachin, Tristram Smith and Lovaas report in the *American Journal on Mental Retardation* on a follow-up of the same children, as well as control subjects who did not receive the intensive 40-hour-a-week therapy. They report that in the experimental group, eight of the nine "best-outcome" autistic children—those who were successfully placed in regular classes after treatment, and whose IQ scores had risen to normal levels—continue to function very well, and are "indistinguishable from average children on tests of intelligence and adaptive behavior."

"These eight subjects (42% of the experimental group) may be judged to have made major and enduring gains and may be described as 'normal-functioning,'" the researchers say. "By contrast, none of the control group subjects achieved such a favorable outcome."

Among the researchers' findings:

—Subjects in the experimental group (including both the "best-outcome" children and the 10 who did not progress as well) had maintained their level of intellectual functioning, and their mean IQ was about 30 points higher than that of the autistic control group that did not receive intensive therapy.

—Subjects in the experimental group scored significantly higher on measures of adaptive behavior and personality.

—Eight of the nine "best-outcome" children in the experimental group "demonstrated average IQ, with intellectual performance evenly distributed across subtests, were able to hold their own in regular classes, did not show signs of emotional disturbance, and demonstrated adequate development of adaptive and social skills within the normal range." Additionally, the researchers say, "subjective clinical impressions of blind examiners [that is, examiners who did not know the subjects had ever been diagnosed as autistic] did not discriminate them from children with no history of behavioral disturbance." Some deviance from test norms was seen, they say, but this appears to be the result of

the abnormal scores of one subject—the only one of the "best-outcome" group who later had to be placed in special education classes.

As for the children who did not reach the level of normal functioning after undergoing intensive training, the researchers say, "perhaps an earlier start in treatment would have been all that was needed to obtain favorable outcomes with many of these children. More pessimistically, perhaps such children require new and different interventions that have yet to be discovered and implemented." While not achieving normality, however, most of these 10 made significant gains, and one progressed from special education classes to a regular junior college.

The UCLA program involved two or more years of very intensive, structured one-on-one behavior modification provided by

highly skilled therapists and augmented by parents trained in behavior modification techniques. Students were then mainstreamed into regular classrooms. (The basics of the program are outlined in *Teaching Developmentally Disabled Children: The Me Book*, Pro Ed Publishers, 1981.)

Other researchers comment

The initial report, in 1987, created a flurry of excitement and controversy. Some researchers questioned why the program—which uses techniques incorporated into a number of programs around the country—reported such a remarkable success rate.

The new study by McEachin et al. appears to be getting a more positive reception, possibly because other programs are beginning to report high success rates using similar techniques on similar groups of

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Diagnosing autism—at 18 months?

A key part of the UCLA program (see above) is early intervention—"early" usually meaning by age three, when autistic children typically are diagnosed. But an exciting new report suggests that accurate diagnosis of autism in children as young as 18 months old may be possible, using a simple 14-question test.

Simon Baron-Cohen, Jane Allen and Christopher Gillberg developed the "CHAT" (Checklist for Autism in Toddlers), which asks questions pertaining to social play, social interest, pretend play, joint-attention skills, communicative pointing, and imitation. Parents answer nine questions (e.g., "Does your child take an interest in other children?") and physicians answer five (e.g., "During the appointment, has the child made eye contact with you?").

The researchers had the test administered to 50 randomly selected 18-month-olds and to 41 "high-risk" 18-month-olds with autistic siblings. (About 2% of autistic children have autistic siblings.) None of the control subjects (those without autistic siblings) failed on more than one item pertaining to pretend play, social pointing, joint attention (attempts to direct another person's attention), social interest, or social play. In

the "high-risk" group, four children failed on two or more of these items.

Each child was re-examined at 30 months of age. The 87 children (both control and high-risk) who had passed four or more of the key developmental areas tested at 18 months had developed normally. In contrast, the researchers say, "The four toddlers who had failed on two or more of these key types of behavior at 18 months received a diagnosis of autism by 30 months." In other words, "the CHAT detected all four cases of autism in a total sample of 91 18-month-olds."

The CHAT takes only a few minutes to conduct, which the researchers say means that "the early detection of autism is both possible and economic." They note that the CHAT includes several items that autistic children pass but most retarded children fail, thus making the test more specific for autism.

A large-scale follow-up study is being conducted.

"Can autism be detected at 18 months? The needle, the haystack, and the CHAT," *British Journal of Psychiatry*, 1992, 161, pp. 839-843. Address: Simon Baron-Cohen, Institute of Psychiatry, University of London, De Crespigny Park, London SE5 8AF.