



Autism Interventions Come of Age

Brian Vastag

ON THE FAR SIDE OF A ONE-WAY window, a 5-year-old boy with a shock of blond hair arranges colored blocks. When he finishes the task, his teacher praises him, and the boy rushes off to his toys.

Similar scenes play out in preschools across the country every day, but this calm episode carries a special significance. Eight weeks earlier, the tow-headed boy arrived at the Early Childhood Program at the University of California–Los Angeles (UCLA), Neuropsychiatric Institute and promptly flopped on the floor and screamed. He lashed out, hitting and kicking anyone within range. He yelled “No!” when teachers asked him to perform simple tasks. He fixated on power cords, spending hours—if allowed—twisting them and plugging them in and pulling them out.

Exhausted and exasperated, his parents brought him to UCLA for an autism assessment. They witnessed something astounding.

“Parents come in and are amazed the kids can learn,” said Stephany Freeman, PhD, who helps run the program. “It’s like there’s a door in their head and you need to pry it open or else it just stays closed.”

The crowbar that affords such leverage is called applied behavior analysis, a vague term for a specific system developed at UCLA in the 1970s and 1980s by Ivar Lovaas, PhD. Widely modified since, the basic theme is unchanged: children receive intensive instruction and learn “no fail” repetition of individual tasks. If the goal is to put a colored block into a box and the child is unable or unwilling, the teacher will pick up the child’s hand—and put her body on top of his, if need be, to keep him from fleeing—and lead him through the motions. Each trial and its outcome is recorded. When a child can consistently complete a task independently, the next skill is introduced.

“It’s certainly not a gentle approach,” said Freeman, as a teacher locks her legs around the back of the 5-year-old’s chair to prevent him from scooting away from the table where they are working.

“The best evidence is that if you can get to the children early in the course of the disease, you can have a rather profound impact,” said Thomas Insel, MD, director of the National Institute of Mental Health in Bethesda, Md. “And there are kids—somewhere between 20% and 25% perhaps—for whom you can see a reversal of symptoms and what one could almost call a recovery.”

CONTROVERSIAL FINDINGS

Lovaas created a stir when he first reported that 30 to 40 hours of repetitive instruction each week helped a group of 19 preschool-aged children with autism obtain better school placements and demonstrate higher IQs than a control group of children with autism (*J Consult Clin Psychol.* 1987;55:3-9). But because the children were not randomly assigned to each group, questions lingered about the study’s validity.

Randomized, controlled trial data is finally becoming available through the efforts of Connie Kasari, PhD, an educational psychologist, and colleagues at UCLA. Kasari wanted to address a specific deficit in children with autism: their inability to share experiences. Nonautistic children, when playing, will share a joy or a discovery by looking up at others in the room and seeking approval.

“Joint attention is a very profound experience,” said Marian Sigman, PhD, director of UCLA’s Center for Autism Research and Treatment. “It’s the precursor to understanding that other people have a different point of view.”

Joint attention is also a precursor to language, Kasari notes. Her team studied children aged 3 and 4 years from the Early Childhood Program and randomly assigned them to one of three

groups. Children in the first group received 30 minutes of intense joint attention training each day; they were taught to share toys and experiences with their teachers. “These are things that children do at 9 months of age that our kids just don’t do,” said Kasari.

Children in the second group received 30 minutes of intense directed play each day; they were encouraged to play symbolically, by, for instance, making a doll take a bath or go to bed. Children in the two intervention groups received 24 to 30 half-hour sessions over 6 weeks. Children in the third group were the controls, and remained in their classrooms for the regular 6-hour day.

One year later, the 40 children in the intervention groups demonstrated language skill improvements of 15 to 17 months, on average, compared with language skill improvements of only 7 to 8 months in the control group children. “It’s the first hard evidence that this kind of structure is good,” said Kasari.

Because both intervention groups fared equally well, Kasari thinks that the interactions themselves, rather than

For More Information

- The National Institute of Mental Health provides information on the diagnosis and treatment of autism and pervasive developmental disorders. Available at: <http://www.nimh.nih.gov/publicat/autism.cfm>.
- The National Institute of Mental Health also funds eight centers of excellence that have begun rigorously testing early behavioral interventions. Available at: <http://www.nimh.nih.gov/autismiac/staart.cfm>.
- The Autism Society of America offers background on applied behavior analysis and how it can help children with autism. Available at: <http://www.autism-society.org> (click on “Autism Info”).



their specific focus, made the children more social and quicker with language. "They both involved [play] objects and communication and sharing," she said.

Her team is continuing to follow the children, who are now 7 and 8 years old. The researchers are also in the midst of a study with mothers of children with autism; the mothers are trained in various directed communication strategies and are then videotaped interacting with their children during structured play sessions.

INTERVENTION TRIAL

More ambitiously, Kasari is launching an intervention trial for 45 children with

autism in grades 2 through 5, designed to pull the children into the social universe. Because autistic traits tend to become more ingrained over time, teaching the older children appropriate social strategies will be a challenge, said Kasari. The children will undergo a battery of language and cognitive tests, and researchers will visit classrooms to assess the children's social skills.

Working with school districts has been difficult, she said, as they each have their own ad hoc autism programs. "We haven't done a good job of integrating research into education," she said, noting that most school programs for children with autism focus

on language and academic skills rather than social skills.

While he has not seen Kasari's data, Insel, whose institute funds the UCLA work, said that the study will probably reinforce what researchers already believe about early socially oriented intervention.

Children with autism who respond to intense intervention "may not be exactly free of rituals and social deficits, but they will be subtle," Insel said. "These will be kids who can attend regular school and achieve things and be very successful. The key here is getting to them at an early stage. The earlier you can get started, the better the outcome." □

GAO: Medicare Ads Were Illegal

Brian Vastag

VIDEO NEWS RELEASES PRODUCED by the Department of Health and Human Services (DHHS) touting the new Medicare prescription drug act constitute illegal propaganda, according to the General Accounting Office (GAO), the investigative arm of Congress.

Earlier this year, the DHHS distributed the videos to news stations nationwide, ostensibly to educate the nation's 41 million Medicare beneficiaries. Included in the video package were three complete segments filmed and narrated as if they were news stories. The two English-language segments open with a narrator saying, "It's the same Medicare you've always counted on plus more benefits." The narrator closes by saying, "In Washington, I'm Karen Ryan reporting." A Spanish-language segment begins and ends in a similar manner.

Because the segments do not identify their DHHS origins, they violate a federal law forbidding the use of government funds for "publicity or propa-

ganda purposes," wrote GAO general counsel Anthony Gamboa, JD, in a May 19 decision. He continued: "The entire story package was developed with appropriated funds but appears to be an independent news story. . . . Because CMS [the Centers for Medicaid and Medicare Services] did not identify itself as the source of the news report, the story packages . . . violate the publicity or propaganda prohibition."

Some 40 news stations broadcast the segments.

Congressional Democrats who called for the GAO investigation asked the Bush re-election campaign to reimburse DHHS the \$44000 cost of the video news releases. They also asked television stations that ran the segments to air corrections.

"Republicans should not be robbing Medicare to pay for political ads," said Sen Edward Kennedy (D, Mass).

A DHHS spokesman rejected the GAO opinion. "They [television stations] knew who it was from," he said. He added that video news releases are a common means for companies and other groups to promote themselves.

However, in the GAO decision, Gamboa wrote that the standards of the news industry are irrelevant, as they are not included as an escape clause in the propaganda law. He also wrote that even though the entire package was identified to news stations as a product from the DHHS, the individual news segments were not. The intended audience, therefore, could not know their origin.

The decision cited two cases from the Reagan era as precedent. In 1986 and 1987, the administration provided opinion columns to newspapers without noting, in the columns themselves, that they were written by paid consultants to the administration. The columns promoted the Small Business Administration Act and the government's Latin American policies.

The GAO decision is nonbinding and the DHHS indicated it would not take any action.

In March, the GAO ruled that a wider Medicare education campaign did not violate the propaganda law because each brochure and broadcast advertisement was clearly identified as a DHHS product. □