

Children More Likely to Succeed with Early, Intensive Treatment

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The 3-year-old boy started screaming and kicking as the two behavioral therapists approached him. He was petrified of the strangers, and the only way the boy, who suffered from autism, knew how to react was to collapse on the floor. For three straight days, the boy continued to throw tantrums whenever the therapists came near him. But with continued intensive treatment, the boy – remarkably – attended school and graduated with a regular education diploma 15 years later.

If the boy had been given only the widely offered special education services instead of the costly and rare early, intensive behavioral treatment or EIBT he received, he probably wouldn't have been so successful. He was one of the first long-term patients of **Tristram Smith, Ph.D.**, assistant professor of Pediatrics at the University of Rochester Medical Center's Golisano Children's Hospital at Strong. Bolstered by results like this boy's, he designed a study published this month in the *Journal of Development and Behavioral Pediatrics* that shows that children diagnosed with autism who undergo intensive treatment early on have impressive results, many needing little or no assistance in school, whereas most children with traditional special education services never make it to a regular classroom.

After three years, six of the 21 children who underwent intensive treatment were fully included into regular education without assistance and 11 others were included with some support. Among 21 children who attended special education classes, only one child was in regular education after three years. The study, performed with two colleagues at outside organizations treating children with autism in California, is one of the first to compare the two treatment options in a community agency instead of in a university program.

“This study shows EIBT can be successful in a community setting,” said **Howard Cohen, Ph.D.**, clinical director of the Valley Mountain Regional Center in Stockton, Calif., a public agency, and the lead author of the study. “It also supports an impressive body of accumulating research that early, comprehensive behavioral intervention with autism spectrum disorders provides children with the best chance of learning and achieving within the normal range.”

In most communities parents have only the choice of special education services, which are usually a patchwork of speech, occupational and behavioral therapy and some specialized autism services for several hours every week. EIBT begins with 25 to 40 hours a week of one-on-one treatment with a specially trained therapist; that kind of treatment is almost impossible to find outside a university.

“Many educators have been concerned about the ability to provide these services to children outside of the university setting because of the high cost, but this study shows that it's possible –

and needed,” said Smith. “Children with autism benefit most from early intensive intervention, and we need to work toward providing that treatment option to parents everywhere.”

The study included 42 California children evenly divided between those who received intensive treatment in a community setting and those who received special education classes from local public schools. Because of legal and ethical concerns, parents chose the program in which their child participated.

How Treatments Compare

Early intensive behavioral treatment begins soon after diagnosis, before 3 years of age and consists of 25 to 40 hours per week of treatment. At first, children have intensive one-on-one sessions with behavior therapists and instructors to establish a teaching relationship, such as being able to successfully ask a child to put a block in a bucket.

The second step is to teach the children skills, such as imitation – a skill very difficult for children with autism – that will help them learn more advanced skills, such as communication. It usually starts with a therapist making a motion, such as tapping the table with his hand. If the child doesn’t tap the table in response, the therapist will take the child’s hand and tap the table for him. The therapist will again tap the table and help the child imitate the action until he gets it. Then, the therapist will move on to other actions. When the child can imitate an action he has never seen before, the therapist knows the child has mastered imitation. This process can take between a month and six months.

After that, children learn more complicated ways of communication, such as making eye contact, talking in sentences and having conversations in which they ask questions and make comments. Sometime in the second year, most children are ready to learn how to interact with other, typically developing children. Therapists will integrate the two children by choosing activities he already knows the patient enjoys, such as a board game.

The last phase is to enter into a classroom setting and eventually transition out classroom support. Throughout the process, the children are taught coping skills so they can handle interaction with people and situations that may have been difficult or impossible before. The time it takes to go through the treatment and the level of success varies from child to child.

“Many school districts use ‘eclectic’ educational approaches with little or no scientific foundations, all but ignoring the impressive, cumulative findings on early, intensive behavioral treatment,” said Mila Amerine-Dickens, M.S., director of the Central Valley Autism Project in Modesto, Calif., a privately owned company, and second author of the study. “In order to provide this treatment to more children, we need more agency collaboration, a greater understanding of short- and long-term outcomes and more state and federal funding and incentives.” This study was conducted with a unique collaboration among public schools, special education programs, and other agencies in the region.”

Parents in the study who chose traditional special education over EIBT chose from a list of different programs offered by their local school districts. The Early Start Autism Intervention

Program emphasized learning readiness skills with both the parent(s) and child. The children were in the program nine hours or less per week until age 3. Another program provided home-based development intervention that ranged from one to four hours a week.

At 3 years old the children were enrolled in a public school special day class. The classes ran from three to five days a week, up to five hours each day. Child to teacher ratios ranged from one-on-one to three children per teacher. The children received speech, occupational and behavioral therapy up to five hours each week and several of the children spent up to 45 minutes every day in a regular education classroom.

“Although the children did make gains on many of the measures, including IQ, they did not keep up with the children who participated in intensive intervention. The difference between the two programs can mean the difference between life-long dependence and independence,” Smith said.

<http://www.urmc.rochester.edu/news/story/index.cfm?id=1131>