



**C.A.R.D.**

Center for Autism & Related Disorders, Inc.  
www.centerforautism.com

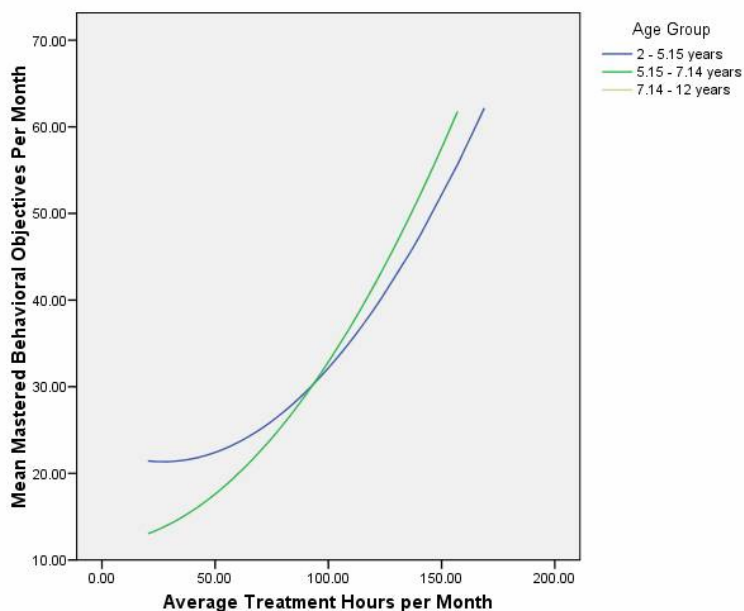
Media Contact: Daphne Plump  
Tel: 818.345.2345. x 270  
Email: d.plump@centerforautism.com  
19019 Ventura Blvd, Ste 300, Tarzana, CA 91356

**FOR IMMEDIATE RELEASE**  
**October 01, 2009**

### **The Center for Autism and Related Disorders Research Team Finds that a Higher Intensity of ABA Treatment at a Younger Age Leads to Faster Learning**

**Los Angeles, CA – October 05, 2009** Researchers at the Center for Autism and Related Disorders, Inc. (CARD) found that increasing treatment hours within an early intensive behavioral intervention program resulted in greater efficiency in new skill acquisition. This effect was the strongest in younger children within their study.

In *Effects of age and treatment intensity on behavioral intervention outcomes for children with autism spectrum disorders*, published in the September 2009 edition of *Research in Autism Spectrum Disorders*, CARD researchers Doreen Granpeesheh, Dennis R. Dixon, Jonathan Tarbox, Andrew M. Kaplan, and Arthur E. Wilke found that an increase in treatment hours and a decrease in child age predicted an increase in the number of skills learned per hour of treatment. For example, a child between two to five years old, receiving 150 therapy hours per month would master an average of 54 skills per month. If this same child received only 40 therapy hours per month they would on average master 21 skills per month. This is contrasted to a child between five to seven years, who would master 57 skills per month if given 150 monthly therapy hours. And an average of 15 skills per month if given 40 therapy hours per month.



The 245 participants were selected from a pool of clients receiving behavioral intervention services at a CARD, a nationwide provider of Applied Behavior Analysis-based treatment programs for children and young adults with ASDs. The participants were between 16 months and 12 years old, received an average of 20 or more hours of intervention per month, and had mastered at least one skill per month. Participants were from California, Arizona, Illinois, Texas, Virginia, and New York.

“While several studies have addressed the association between age and treatment

intensity or hours of therapy received, this study is one of only two that used such a large sample of children,” Tarbox said. “Plus, since CARD serves a large number of children across the United States, we were able to investigate questions at a scale that isn’t normally possible. The size and geographic diversity of the study population decreases the likelihood that there are regional biases and increases the likelihood that these outcomes can be generalized across a larger region.

Only one other autism treatment study, based in Canada, included a larger number of participants. It included over 300 children residing in Ontario, Canada.

The study outcomes showed that younger children learned faster than the older children, all other things being equal. It also showed that increases in therapy hours resulted in increases in new learned skills.

“This is what we have suspected all along, but it wasn’t until now that we had data across such a large group of children that really showed it clearly,” Dixon said. “It’s important to keep in mind, though, that this does not mean older kids on the spectrum can’t learn – they certainly can and do – it just means you get a larger effect out of the same dose of behavioral treatment when the treatment is implemented early.”

The study also showed no point of diminishing returns as hours were increased. Meaning that 20 hours per week was better than 10, 30 hours per week was better than 20, and 40 was better than 30. The degree of improvement did not decrease as treatment intensity approached 40 hours per week.

“It’s common for therapy programs to max out at 40 hours per week, however, based on our findings the magic number of 40 hours per week may not really be the upper limit at all,” Tarbox said. “We may actually be able to get even better outcomes with a larger intensity of treatment – but of course, more research would be needed before we could make conclusions such as those.”

Questions regarding this study should be directed to Dr. Jonathan Tarbox, CARD Director of Research at [j.tarbox@centerforautism.com](mailto:j.tarbox@centerforautism.com) or 818.345.2345.

**About the Center for Autism and Related Disorders, Inc. (CARD):**

CARD is committed to science as the most objective and reliable approach to evaluating treatment for autism. CARD’s mission is to conduct empirical research on the assessment and treatment of autism and to disseminate CARD’s research findings and derived technology through publication and education of professionals and the public. While the primary focus of CARD’s research is ABA-based methods of assessment and treatment, CARD’s overall approach to research includes any topic which may hold promise for producing information that could improve the lives of individuals with autism.

In addition, CARD maintains a reputation as one of the world’s largest and most experienced organizations effectively treating children with autism, Asperger’s Syndrome, PDD-NOS, and related disorders. Following the principles of Applied Behavior Analysis (ABA), CARD develops individualized treatment plans for children worldwide. For more information about CARD, visit [www.centerforautism.com](http://www.centerforautism.com) . For more information about the CARD Research department, visit [www.centerforautism.com/autism\\_research](http://www.centerforautism.com/autism_research).