News from the Center on Human Development and Disability at the University of Washington

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Showing How Project DATA Helps Children with ASD Succeed

by Kate Forster

For the past several years, research on effective intervention for autism spectrum disorder (ASD) has looked at the role that typically developing children play in the social learning of children with ASD. This approach asserts that by integrating children with ASD with their typically developing peers, they can practice and develop social skills in a natural setting. This has been the main area of interest for Ilene Schwartz, Ph.D., professor of special education, for the past 20 years. Schwartz is also a CHDD research affiliate and the director of the Haring Center for Research and Training in Inclusive Education. The Center is part of both the CHDD and the College of Education. "At the Haring Center, we believe that ASD is primarily a socio-communicative disorder," said Schwartz, "and



Ilene Schwartz is working to provide an evidence base for Project DATA, a school-based model of intervention for children with ASD.

children with ASD need to be around typically developing children to learn to talk and play." Schwartz heads the implementation of Project DATA (Developmentally Appropriate Treatment for Autism), a school-based intervention program for young children with ASD. Project DATA was developed at the Haring Center in 1997. It is based on the premise that intervention carried out in a school setting gives children with ASD the opportunity to immediately apply the skills they learned.

The families participating in Project DATA are referred to the program by the Seattle Public Schools. There are 16 children per classroom, six of whom have an identified developmental disability, and 10 who are typically developing. "One of the core components of Project DATA is that from day one, children with ASD are included in integrated playgroups and classrooms, and they spend time interacting successfully with typically developing peers," said Schwartz. The children spend half of their day receiving intensive behavioral intervention and half in an integrated classroom setting.

"We know that children with ASD greatly benefit from behavioral intervention," she said. "We also know that earlier is better as far as intervention is concerned and that it has to be intensive to be effective. In addition, we know that the most effective instructional approach available for working with children with ASD is applied behavior analysis, which focuses on improving social behavior by implementing the principles and techniques of learning theory. We're trying to make the applied behavior analysis developmentally appropriate." This means that for Project DATA, children with ASD are working on things that typically developing children the same age are working on. "We want to give children the best of both worlds by providing them an early intensive behavioral intervention and the opportunity to use their newly-acquired skills in inclusive environments where they can interact with typically developing peers." Project DATA started with preschool-aged children, and it now includes toddlers.

Creating an evidence base for Project DATA

While Project DATA has been successfully running at the Haring Center for 18 years, Schwartz understands the need to provide an evidence base for this intervention model. She is currently engaging in research to evaluate its effectiveness. In collaboration with colleagues at the University of Oklahoma, Schwartz and her research team are performing randomized clinical trials on both the preschool and the toddler models of Project DATA over a four year period. The goal of these trials is to examine whether children with ASD who receive the Project DATA intervention show greater progress compared to those who receive the standard care available through the community. The areas being measured include cognitive function, language, social connection, and adaptive behavior. The intervention is also being evaluated on its ability to work effectively with individuals from different cultures and whether parents benefit from the recommended parenting strategies and experience a decrease in stress.

For the toddler study, Schwartz and her team randomly assigned 80 toddlers diagnosed with ASD either to services that are available in the community or to Project DATA. Those who are in Project DATA participate in an integrated play group two days a week, a one-on-one early intensive behavioral intervention three days a week, and a two-hour home visit once a week. The researchers administered a battery of assessments before the intervention began, and they continue to do so quarterly throughout the study. These assessments include measures of parent-child interaction, child play, language ability, as well as parental stress. The study began four years ago and is nearing completion. The research team is just beginning to analyze the data.

Schwartz and her team are also conducting a similar study for preschool-aged children diagnosed with ASD. This study compares Project DATA to the services typically offered to children with ASD in the public schools. There are 100 children in this study, and the same assessments and methods as the toddler



Project DATA helps children with ASD develop the communication and social interaction skills that are appropriate for their age.

study are being used. The researchers are also examining whether and how certain variables, such as gender, age, and severity of symptoms affect the intervention. They are additionally looking at how well the family functions and how satisfied they are with the intervention and whether these factors can serve as potential moderators when they measure the effects of the study. The research is currently in its fourth year, and the research team expects to collect and analyze the data next year. Schwartz is using the CHDD Clinical Translational Core for both of these studies to assist with data analysis.

Extending to the community

The ultimate goal of these studies is to provide an evidence base for an intervention program that can be both sustainable and easily implemented by public schools and the community. A number of school districts in Washington State have already based the services they provide to children with disabilities on the Project DATA model,

including those in Seattle and the Puget Sound region. "It's a strong value for us to make sure that we're doing research that increases access to inclusive communities for all people," said Schwartz. "We think of this program as the incubator. We develop programs here, and then we take the programs out into the community and scale them to the community's needs. This is what we're really interested in, and it reflects the success of the program."

CHDD is an interdisciplinary center dedicated to the prevention and amelioration of developmental disabilities through research, training, clinical service, and community outreach. CHDD includes the University Center of Excellence in Developmental Disabilities and the Eunice Kennedy Shriver Intellectual and Developmental Disabilities Research Center.

CHDD Outlook

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