

Comprehensive Autism Program using Strategies for Teaching based on Autism Research (CAPSTAR)

USDE, Institute of Ed Sciences (IES), Nat. Center for Special Education Research (NC SER),
CFDA 84.324A-1

ED Grant Number: R324A090094

Start Date: 04/01/09 End Date: 03/31/13

Project Director: Dr. Helen Young

Phone: 503-725-5207

Email: Youngh@pdx.edu

Purpose: With an increasing number of young children with autism spectrum disorders in public schools, local and state education agencies must find cost-effective, research-based preschool programs that educators can use. To date, many programs for children with autism spectrum disorders have not been empirically evaluated. Minimal guidance is therefore available for educators and other school personnel for determining which approaches may be best to use with children with autism spectrum disorders. Despite limited empirical support for any particular approach, experts agree that the earlier a child with an autism spectrum disorder can be enrolled in a program to specifically address academic and life skills, the better.

Researchers in this study are evaluating the *Comprehensive Autism Program Using Strategies for Teaching Based on Autism Research*, which is a comprehensive program for preschoolers with autism spectrum disorders. The program is intended to improve language, pre-academic skills, social skills, adaptive behavior, and cognitive skills for children with autism spectrum disorders. The intervention incorporates multiple recommended strategies and approaches for teaching young children with autism spectrum disorders, but rigorous evidence of the efficacy of the entire program is limited. The intervention will be compared to a typical classroom service model serving young children with autism spectrum disorders. The researchers are including key outcomes related to the learning and development of young children with autism spectrum disorders and exploring factors that may mediate and moderate outcomes. The researchers will also be examining key outcomes for children after one and two years of the intervention.

Project Activities: Approximately 300 children with autism spectrum disorders ages 2–5 will participate in the study. Recruitment will take place in 120 classrooms or programs (minimum of 5 students per classroom). In year 1, the first cohort of classrooms will be randomly assigned to either the *Comprehensive Autism Program Using Strategies for Teaching Based on Autism Research* or typical classroom service model. In year 2, the second cohort of classrooms will be randomly assigned to the intervention or typical service model. Outcomes of interest include children's pre-academic, language, cognitive, and adaptive behavior skills. A cluster

randomized design with repeated measures will be used to evaluate the treatment models after one and two years of participation in the intervention.

Products: The products from this study include published reports and presentations describing the effects of the *CAPSTAR* on the pre-academic, language, cognitive, and adaptive behavior skills of children ages two-five years diagnosed with autism spectrum disorders.

Population: Participating children will be from Oregon and Washington. Approximately 120 classrooms or programs (minimum of five students per classroom) that include children ages two-five years identified with autism spectrum disorder will participate. Instruction will be provided by a trained classroom teacher at the individual and classroom level.

Intervention: The *CAPSTAR* will be compared to the typical classroom service model.

CAPSTAR is a fully developed, manualized program for children with autism spectrum disorder between the ages of two-five years. A curriculum based assessment tool is used to individually design a child's program based on his or her current strengths and learning needs. The program uses discrete trial training and pivotal response training as teaching strategies for curriculum content related to language, preacademic skills and social skills as well as functional routines to build adaptive skills. Another component of the intervention is training parents to use naturalistic teaching strategies and applied behavior analysis strategies to support the generalization of skills at home and in the community. The intervention combines instruction in one-to-one group and family settings.

Impact on the community: The incidence of autism (autism spectrum disorder or ASD) is on the rise in Oregon, at present it is estimated that one out of every 110 children in Oregon has ASD. Oregon has one of the highest rates of ASD in the U.S. This research study will examine the impact of a program to improve language and social development that was developed in Oregon and is used by many school districts and teachers. This project will have a national impact in that the intervention is one that has been successfully implemented in public schools, rather than through more expensive private therapists.