

Applying an Implementation Science Framework for Adoption of a Comprehensive Program for High School Students with Autism Spectrum Disorder

The CSESA program is designed for teachers to use with students across the spectrum of autism in public high school settings.

Teachers and service providers work hard to achieve positive outcomes, but for many teenagers with ASD, independence, social integration, and employment after high school can be elusive. Single interventions that focus on one behavioral issue or problem are unlikely to be sufficient, but few broader programs specifically target adolescents with ASD in high schools settings. Developed by FPG and six partner universities, the Center on Secondary Education for Students with Autism Spectrum Disorder (CSESA) has designed a comprehensive approach to help meet the needs of high school students with ASD. In addition, the principles from the field of implementation science that CSESA planners embedded in the program facilitate its efficient adoption.

A Complex Solution: The CSESA Program

The developmental period of adolescence, autism as a spectrum disorder, and the social and organizational ecology of high schools merge to create a “perfect storm” of complexity, which poses challenges for accomplishing positive post-school outcomes.

The CSESA program targets a wide variety of urgencies and is designed for teachers to use with students across the spectrum of autism in public high school settings. The approach operates on a foundation of program quality and evidence-based practices (EBPs).

CSESA’s model utilizes a peer-mediated approach to build social networks— ongoing engagement in interactions with peers during social times of the day, such as lunch. Peers may also provide support to students with ASD in learning and social tasks. For students with ASD who have sufficient communication and intellectual abilities, the model focuses on understanding emotions, friendship development, social problem solving, and executive function.

For many students with ASD in high school, limited literacy skills affect performance across most areas of the curriculum. Thus, the CSESA program focuses on reading comprehension, group peer support in literacy activities, and application of skills in literacy-rich subjects (e.g., English, history, and biology).



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To address the challenges in the logistical, organizational, and social characteristics of high school environments for students with ASD, the CSESA program emphasizes increasing students' independence, promoting basic high school survival skills, and addressing challenging behavior. In establishing goals related to independence and behavior, linking goals to EBPs, and identifying school personnel who will use them, CSESA's process also encourages students with ASD to prioritize their own goals.

CSESA's approach additionally focuses on preparing students for life after high school in post-secondary education and employment by creating maps of school and community resources, including family members and students in planning work-based learning experiences, and drawing on EBPs related to transition to support goals—including an 8-week program that covers autism in adulthood, transition planning, problem solving, and risks to adult independence.

Implementing the CSESA Program

CSESA's developers drew from implementation science—"methods to promote the systematic uptake of research findings and evidence-based practices into routine practice"—in order to facilitate the program's smooth, timely, and effective adoption.

CSESA first made efforts to include best practices and stakeholder advice from a broad range of perspectives when developing its model. Planners incorporated focus group information, as well as pilot studies of individual features and combinations of features. This information led to the specification of practices in procedural guides, development of fidelity measures for each feature, delineation of roles and responsibilities, and a summative implementation index.

Support from administrators is essential for establishing policies that foster change, and, at the outset, CSESA staff meets with school district administrators, sharing the features of the program and its roles, responsibilities, and intended outcomes. Only after the local school staff indicates interest in the program does the process continue with establishing an autism team ("A-Team") of practitioners, which will provide feedback on the effectiveness of policies on practices. Because personnel in many high schools tend to focus on isolated and independent teaching without a shared vision for change, A-Teams (modeled on implementation science's "implementation teams") are essential throughout the implementation process, and, therefore, are a condition of participation.

Before the school year starts, initial training for A-Team members provides knowledge and skills related to assessing program quality, establishing measurable IEP goals, and matching

IEP goals with EBPs. In the fall, A-Teams begin using CSESA procedures.

CSESA staff and select A-Team members provide concentrated coaching and to assist school personnel with the progressive rollout of program features. The coaching model emphasizes pre-observation, observation/action, and post-observation, and coaches collect data and plan to enhance implementation if necessary. Initially, coaches are CSESA staff members, with the responsibility shifting to the local school district personnel when feasible. Coaching decreases as A-Team members and other school staff implement the program on their own.

Full implementation occurs when school personnel use the model independently. Although most complex programs take 5-7 years to put into place, the CSESA program's embedded implementation science means schools can administer the program by the end of a 2 ½-year schedule—despite the considerable challenges involved in serving adolescents with ASD in high school settings.

Full Article

Odom, S. L., Duda, M., Kucharczyk, S., Cox, A., & Stabel, A. (2014). Applying an implementation science framework for adoption of a comprehensive program for high school students with autism spectrum disorder. *Remedial and Special Education, (35)*2, 123–132. doi: 10.1177/0741932513519826
<http://rse.sagepub.com/content/35/2/123.full.pdf+html>

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Snapshots 72–77 provide brief synopses of articles from the special issue on "Autism, Adolescence, and High School" for *Remedial and Special Education*. Kara Hume, the issue's guest editor, serves as co-principal investigator of FPG's Center on Secondary Education for Students with Autism Spectrum Disorder.

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The Center on Secondary Education for Students with Autism Spectrum Disorder is a partnership between FPG and six universities: University of Wisconsin, University of California at Davis, University of North Carolina at Charlotte, Vanderbilt University, University of Texas at Austin, and San Diego State University.

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