

Executive Function Interventions for Students with Autism Spectrum Disorders

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Introduction

Students with Autism Spectrum Disorder (ASD) may also have deficits in their Executive Function (EF) abilities. These deficits can manifest in problem behaviors that can disrupt learning (Freeman, Locke, Rotherman-Fuller, & Mandell, 2017). Teachers could consider interventions that address behavior concerns within the classroom.

Issue

Children with ASD experience significant difficulties in attention, learning, executive functions, and behavioral regulation (Kirk, Gray, Ellis, Taffe, & Cornish, 2017). Poor executive functioning is associated with increased playground isolation and less engagement with peers (Freeman et al., 2017). During the past decade, researchers have investigated interventions that aim to improve EF via targeted intervention (Kirk et al., 2017)

Purpose

The purpose of this integrated review of literature is to explore existing research for interventions that may improve EF of students with ASD.

Please refer to handout for references.

Method

The literature was reviewed using the databases Academic Search Complete, Child Development & Adolescent Studies, Education Source, ERIC, Professional Development Collection, PsycARTICLES, Psychology and Behavioral Sciences Collection, and Teacher Reference Center.

154

- Autism
- Emotional
- Executive Function
- Intervention

122

- Peer Reviewed
- Published after 2009

35

- Children
- Executive Function
- Autism

6

- Empirical Study
- Measure

Results

Social Competence Intervention for Adolescents

Stichter, Christ, Herzog, O'Donnell, & O'Connor, 2016

SCI-A is a social competence intervention for adolescents with ASD.

Adult Led

Examinations of various measures of EF indicated significant improvements following SCI-A participation.

Social Emotional Learning Foundations

Daunic, Corbett, Smith, Barnes, Santiago-Poventud, Chalfant, Pitts, & Gleaton, 2013

SELF is a curriculum for students at risk for emotional/behavioral problems.

Adult Led

SELF lessons improved teacher reported EF.

Training Attention and Learning Initiative

Kirk, Gray, Ellis, Taffe, & Cornish, 2017

TALI is a computerized cognitive training program to remediate EF impairments.

Computer Based

Students had a reduction in parent-rated EF difficulties, but same as control group.

Implications

Only two studies investigating EF interventions for students with ASD were located and that could indicate the need for more research. There were no reviews of financial constraints of teachers and parents in purchasing any of the discussed programs. A cost comparison of interventions could indicate the need for additional research.

Conclusion

EF is a set of cognitive skills including metacognition, sustained attention, multitasking, and working memory (Kirk, Gray, Ellis, Taffe, & Cornish, 2017). Students who lack the ability to regulate their emotions or inhibit problematic behavior present challenges in general education classrooms. EF deficiency is associated with increased playground isolation and less engagement with peers (Freeman et al., 2017). Of the six selected articles, only two are EF interventions for students with ASD.