

**Parent and Teacher Perspectives on the Role of Executive Functioning in School Success  
for Adolescents with Autism Spectrum Disorder**

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**Background**

- Executive functioning (EF) skills include three main domains: planning and working memory, flexibility in thinking and behavior, and response selection/inhibition (Happé et al., 2006).
- There are several skills required for middle school and high school students to be successful: attending to tasks, self-regulating, problem solving, organizing, applying existing knowledge to new situations, initiating and planning each step of multi-step processes, communication verbally and written, and higher order thinking (Argelagós & Pifarré, 2016; Capraro & Joffrion, 2006; Norwich & Ylonen, 2015; Johnson & Reid, 2011; Sheppard, 2006).
- Adolescents with autism spectrum disorder (ASD) typically have deficits in the following EF skills: attention, processing speeds, mental flexibility, problem solving, inhibition, flexibility, planning, and working memory. (Czermainski et al., 2014; Geurts, van den Bergh, & Ruzzano, 2014; Rosenthal et al., 2013; Sinzig et al., 2008; Happé et al., 2006).

- Behaviors associated with ASD that impact EF skills include restrictive, repetitive and adaptive behaviors (Happé et al., 2006).

### **Research Purpose**

The purpose of this study was to explore the role of EF skills in successful participation within the middle and high school setting for adolescents with ASD.

### **Research Questions:**

1. What is the role of executive functioning skills in the successful participation in the middle and high school setting for adolescents with ASD?
2. Which school tasks are barriers and strengths for adolescents with ASD in the middle and high school setting according to parent perspective?
3. Which school tasks are barriers and strengths for adolescents with ASD in the middle and high school setting according to teacher perspective?

### **Methods**

**Participants:** 11 parents of adolescents with ASD & 10 middle & high school teachers of adolescents with ASD; 21 total participants

**Methodology:** Narrative survey

**Data Collection:** Surveys were loaded into Qualtrics survey software; participants were recruited using purposive, snowball sampling via word of mouth and online recruitment

**Data Analysis:** Qualitative content analysis

- Phase 1: Survey data was extracted from Qualtrics for analysis
- Phase 2: Categories were determined based on research questions to aid in data analysis.

- Phase 3: Surveys were analyzed separately by three researchers who were blinded to each other's analysis. Researchers used a line-by-line approach to identify relevant/significant phrases.
- Phase 4: Data was analyzed again to develop clusters of meanings and themes.

### **Findings**

Participants perceptions of methods to enhance success with their child/student were mixed and widely varied. Overall, participants believed that motivation (praise/sense of achievement, rewards) was a major key for the children's success. They also believed that focusing on EF tasks (planning, organizing, and attention) and communication (socialization/soft skills, understanding) enhanced success. Participants also indicated that extra time for tasks, patience, and cooperation among supports (teachers, administrators, and parents) was vital.

The following four themes emerged:

- Motivation- praise/sense of achievement; rewards
- Supports- patience, extra time, cooperation among supports (teachers, administrators, parents)
- Components of success in school- planning, organization, attention
- Communication- essential for socialization, "soft skills," and understanding expectations of tasks

### **Conclusion**

Parents and teachers agreed that EF was an important aspect of student success in completing middle/high school tasks. The results of this study provide a better understanding of the perception of parents and teachers on how EF impacts success and how parents and teachers define success. By identifying components of EF that are perceived as important to success,

therapists can design interventions for parents and teachers to support students with ASD and EF difficulties to increase success in school-related tasks.

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### **Presented Research**

Parent and teacher perspectives on the role of executive functioning in school success for adolescents with autism spectrum disorder. Poster presentation with Molly Hahn-Floyd, Cari Hobbs, Diane Ethington. Occupational Therapy Association Annual Conference, New Orleans, LA, April 5, 2019.

### **Published Abstract**

Piller, A., Hahn-Floyd, M., Hobbs, C. Ethington, D. (2019). Parent and teacher perspectives on the role of executive functioning (EF) in school success for adolescents with autism spectrum disorder (ASD). *American Journal of Occupational Therapy*, 3(4\_supplement\_1). 7311515349. <https://10.5014/ajot.2019.73S1.PO5017>