

Efficacy trial of *I Control*: An intensive intervention to improve self-regulation for middle school students with emotional & behavioral problems

Project Summary/Abstract

Topic and Goal. Social and Behavioral Outcomes to Support Learning, Goal Three.

Purpose. Our proposed study is designed to test the efficacy of *I Control*, a theoretically-based self-regulation curriculum, developed and piloted through an IES Goal 2 development and innovation grant.

Sample & Setting. Across 3 implementation years, we will recruit a total of 92 middle schools that are diverse in geographic location, degree of urbanicity, and size, across multiple districts in Florida and Ohio. We will randomly assign one grade 6-8 classroom serving students with emotional and behavioral disorders (EBD) per school to a treatment or comparison condition.

Intervention. *I Control* is a fully developed and piloted intensive curriculum to improve self-regulatory skill deficits of middle school students with EBD. The 46 lessons and associated activities provide explicit instruction in setting goals, regulating emotions, and solving social problems. *I Control* also has an adjunct computerized training regimen (Brain Training Lab) designed to provide direct practice on cognitive tasks (executive function, [EF]), student self-monitoring, and teacher progress monitoring. In addition to initial professional development sessions, teachers are provided support via web-based resources (e.g., lesson-specific content acquisition podcasts) and ongoing implementation assistance. Our Goal 2 pilot data showed promising evidence that *I Control* improves key social-behavioral outcomes.

Control Condition. Comparison classrooms will demonstrate the variations in behavioral and instructional practices that naturally exist among schools and comparable classrooms, i.e., services as usual (SAU).

Research Design & Data Collection. Using an RCT design, we will evaluate whether the *I Control* curriculum yields more positive proximal and distal outcomes for students in the treatment condition versus SAU. To measure whether the intervention is being implemented as intended, we will assess training fidelity, fidelity of implementation, and treatment receipt. We will also assess each year's participating students at one-year follow-up.

Key Measures. We will assess student improvement on proximal measures of self-regulation using the *I Control Goal Setting Questionnaire* developed and tested during our Goal 2 pilot year, the *Emotion Regulation Index for Children and Adolescents*, and the *Social Problem-Solving Inventory for Adolescents*. We will use the *National Institutes of Health Toolbox List Sorting Working Memory* test, Flanker Task, and Dimensional Change Card Sort Test to evaluate students' EF abilities. For distal outcomes of general behavioral functioning we will use the *Child Behavior Checklist - Teacher Report and Youth Self-Report Form*, the *Social Skills Improvement System* (teacher and parent report), and *Direct Behavior Ratings* of student behavior in the classroom. For distal outcomes of academic/school performance, we will use state student performance data, attendance, office referrals, suspensions/expulsions, and educational

placement (follow up only). We will use the *I Control Knowledge Questionnaire* as a check on fidelity of treatment receipt.

Data Analytic Strategy. We will use 2-level (school, student) hierarchical linear modeling analyses to examine effects on self-regulation and EF (proximal outcomes) and general behavioral functioning and academic/school performance (distal outcomes). We will use the same analytic strategy for follow-up data on distal outcomes only. We will also use a 2-2-1 analysis to explore mediation effects of EF and self-regulation related outcomes on distal outcomes.