Children's Hospital of Philadelphia PolicyLab

Evaluating the Effectiveness of an Organizational Skills Training Intervention for Children with Executive Function Difficulties

Statement of Problem

Throughout early schooling, children are expected to increase their organization skills, and by 3rd grade experience a relatively high demand for these skills. Organization, time management and planning (OTMP) skills are behavioral manifestations of executive function, a cognitive ability associated with persistent goal-directed behavior. OTMP skills are strongly connected to a child's academic progress and lay the foundation for future success. Despite support from teachers to help foster these skills in late elementary school years, some students still struggle to develop OTMP skills, which can put them at increased risk for academic failure. These difficulties are particularly common among children with attention deficit/hyperactivity disorder (ADHD), and also co-occur with other conditions, including learning disorders and early experiences of care deprivation and stress.

In order to help build these critical skills for children with ADHD, our colleagues at New York University developed a clinic-based skills training intervention, known as Organizational Skills Training (OST), for students in 3rd through 5th grades who have ADHD and OTMP deficits. They initially adapted it for use in schools in small groups for a broader population of children. Our team further adapted the OST program in collaboration with the original developers as a Tier 2 intervention to be implemented in the context of a multi-tier system of support (OST-T2), and we evaluated the effectiveness of this program.

Description

We conducted a cluster randomized controlled trial of OST-T2 in 22 schools serving a diverse population in the Greater Philadelphia region. As part of this project, general education teachers referred 3rd to 5th grade students whose OTMP deficits particularly impacted their academic performance to OST-T2, regardless of diagnosis.

This intervention used small group child skills training and interventions to promote both within session and between session practice of new skills, in addition to consultation to caregivers and teachers to support a child's acquisition and use of skills. The intervention was administered by school staff with training and consultation from study team members. The consultation included strategies to effectively implement OST-T2, as well as guidelines to adapt strategies to meet the needs of each school's uniquely diverse student body. Student sessions addressed four key organization challenges:

- tracking assignments
- managing materials
- managing time
- planning for long-term assignments

Each session includes cognitive framing to promote a growth mindset; teaches a specific skill that addresses one of the four organizational challenges; provides opportunities for practice of skills; and prepares students to practice skills between sessions. Caregivers and teachers receive consultation to help students practice skills between sessions.

Our primary study findings indicated that:

- Participation in OST-T2 results in immediate and short-term improvement in OTMP skills and homework performance among students in grades 3-5.
- OST-T2 is effective when delivered in a school setting by well-trained and supported school professionals as a small-group, Tier 2 intervention.
- Participation in OST-T2 appears to improve academic performance for a limited number of students; students with OTMP deficits and academic skills difficulties likely need targeted academic skills training in addition to OST-T2.
- The effects of OST-T2 were lower, although still perhaps meaningful, nine months after intervention when students advanced to the next grade level. Ongoing sessions to continue the practice likely would be useful to maintain the benefits of the program.

We also conducted additional analyses to understand whether subgroups of students respond differently to OST-T2. Findings of these analyses indicated that:

- Students with higher levels of anxiety according to caregivers demonstrated greater gains in OTMP skills and reductions in homework problems relative to students with lower anxiety.
- Students with and without ADHD generally experienced similar benefits during the program, based on OTMP skills ratings immediately after completing OST-T2. However, those with ADHD had more difficulty sustaining the benefits of intervention. Students with ADHD might benefit from booster sessions to maintain gains.
- Students from a range of socioeconomic backgrounds seem to benefit from OST-T2, as long as their schools have the resources to deliver the intervention and are supported by a consultant.
- Improvements in students' OTMP skills in response to participation in OST-T2 have downstream effects on students' homework and academic performance.

Additional research is needed to investigate whether OST-T2 can be effective under routine school conditions that can be supported by schools over time.

Next Steps

Our team is examining whether the quality of intervention implementation by school professionals and the degree of engagement by participating students has an effect on outcomes.

Improving the OTMP skills of students likely has important downstream effects, including improved study skills and academic performance in middle and high school, which will increase the likelihood students stay in school and achieve social and occupational success in adulthood. In addition, training school professionals to provide the intervention on their own will substantially increase the capacity of schools to offer this intervention.

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May 2026

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School-based Organizational Skills Training for Students in Grades 3-5: A Cluster Randomized Trial
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