

Educators as Environmental Engineers: Psychosocial Interventions for AD/HD in Schools

by Sam Goldstein, PhD

RELATIVELY FEW DAILY EDUCATIONAL INTERVENTIONS FOR STUDENTS with AD/HD have been

systematically evaluated until just recently. AD/HD has become a widely used term in school systems throughout the world in the past decade, however. Schools employ the description to identify students presenting in class as inattentive, hyperactive, and impulsive.

In this Research Brief, I will summarize a number of articles that appeared in a special issue of the *Journal of Attention Disorders* in September 2005. These researchers emphasized that the design, implementation, and evaluation of classroom interventions for students with AD/HD must be data-based; driven by child advocacy; focused on attainment of clearly identified, valid goals; thoroughly defined; implemented with integrity; and aimed at increasing rates of appropriate behavior rather than just decreasing undesirable behavior.

► Evans, S.W., Langberg, J., Raggi, V., Allen, J., & Buvinger, E.C. (2005). Development of a school based treatment program for middle school youth with AD/HD. *Journal of Attention Disorders*, *9*(1), 343-353.

These authors conducted an evaluation of a mid-dle-school-based treatment program for youth with AD/HD during early stages of treatment development. Parent reports indicated that the majority of students demonstrated improvements in academic, social, and overall functioning. Teachers reported beneficial effects as well. However, there was not consistent agreement between teachers and parents about individual students. The authors concluded that this program held the potential to be an effective psychosocial treatment program for young adolescents with AD/HD.

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Mautone, J.A., DuPaul, G.J., & Jitendra, A.K. (2005). The effects of computer-assisted instruction on the mathematics performance and classroom behavior of children with AD/HD. *Journal of Attention Disorders*, *9*(1), 301-312.

These authors examined the effects of computerassisted instruction on mathematics performance and classroom behavior of a number of second- through fourth-grade students with AD/HD. The effects of computer software on students' mathematics performance as well as on-task behavior was evaluated. Mathematics achievement improved and on-task behavior increased during the computer-assisted sessions relative to independent seatwork conditions. In addition, the authors demonstrated that students and teachers considered computer-assisted instruction to be an acceptable intervention for students with AD/HD struggling with mathematics. All three students in this controlled study demonstrated gains in their mathematics fluency, increased academic engagement, and decreased off-task behavior during the course of the intervention.

▶ Owens, J.S., Richerson, L., Beilstein, A., Crane, A., Murphy, C.E., & Vancouver, J.B. (2005). School-based mental health programming for children with inattentive and disruptive behavior problems: First year treatment outcome. *Journal of Attention Disorders*, 9(1), 261-274.

These authors examined the effectiveness of an evidence-based behavioral treatment package for children with inattentive and disruptive behavior problems delivered within the context of a school-based mental health program. Child symptomatology and functioning was assessed in a treatment group of thirty children and a wait-list control group across multiple time points during a single

school year. Treatment included a daily report card procedure, yearlong teacher consultation, and parenting sessions. Based on parent report, children in the treatment program showed marked reductions in hyperactive, impulsive, oppositional, defiant and aggressive behaviors, as well as improvements in peer relationships. Teachers observed treatment-related group differences with improvements noted in attention span, academic functioning, and student-teacher relationships. These authors confirmed that by providing mental health services in the schools, they not only reached children who were not receiving needed treatment, but were also able to provide a comprehensive program improving school and

schools, they not only reached children who were not receiving needed treatment, but were also able to provide a comprehensive program improving school and home functioning.

Plumer, P.J., & Stoner, G. (2005). The relative effects of classwide peer tutoring and peer coaching on the positive social behaviors of children with AD/HD. Journal of Attention Disorders, 9(1), 290-300.

These authors investigated the effects of a classwide peer tutoring and coaching program on the peer social behaviors of children with AD/HD. Using students in grades three and four, the authors demonstrated that students participating in a peer tutoring program were actively and positively engaged with their peers. However, it was not until the peer coaching aspect was added that improvements were observed in social behaviors during recess and lunch. These authors demonstrated the combination of peer tutoring and coaching had positive

What We Have Learned

- Parents and teachers don't always agree on the benefits of psychosocial treatment for a particular child with AD/HD, despite the fact that in group studies there is an overall positive effect of these programs.
- Psychosocial treatments can positively impact social, behavioral, and educational functioning of children with AD/HD at school and at home.
- ➤ Computer-based instruction can be beneficial for students with AD/HD.
- ➤ A comprehensive psychosocial treatment program for AD/HD can be effectively provided in a school setting, benefitting home and school functioning.
- Peer tutoring is effective for AD/HD, particularly when paired with peer coaching.
- Consistent, effective communication among parents, educators, and treating professionals is difficult to establish and even harder to maintain.

effects on important outcomes in the classroom for children with AD/HD. The interventions appeared to work synergistically and were ably implemented by classroom peers and favorably viewed by students with AD/HD, their peers, and teachers.

▶ Wolraich, M.L., Bickman, L., Lambert, E.W., Simmons, T., & Doffing, M.A. (2005). Intervening to improve communication between parents, teachers and primary care providers of children with AD/HD or at high risk for AD/HD. Journal of Attention Disorders, 9(1), 354-368.

These authors examined interventions designed to improve communication among individuals who take care of children with AD/HD. Parent interviews and information from teachers were collected on 243 children randomized into treatment and control conditions and followed for thirty-nine months. The interventions consisted of group workshops and single oneon-one tutorials with parents, teachers, and providers about the evaluation and treatment of AD/HD, stressing the need for communication among all three parties. The authors found few significant effects on improved communication. Although parent, teacher, and physician communication is critical to the optimal diagnosis and management of children with AD/HD, unless some type of ongoing program is underway, little communication actually occurs. The authors make recommendations for additional strategies that might yield long-lasting benefits in improving communication among parents, teachers, and care providers for children with AD/HD. **②**