What are effective treatments for oppositional and defiant behaviors in preadolescents?

■ EVIDENCE-BASED ANSWER

Parent training is effective for treating oppositional and defiant behaviors (strength of recommendation [SOR]: **A**, based on systematic reviews). Parent training programs are standardized, short-term interventions that teach parents specialized strategies—including positive attending, ignoring, the effective use of rewards and punishments, token economies, and time out—to address clinically significant behavior problems. In addition to parent training, other psychosocial interventions (**Table**) are efficacious in treating oppositional and defiant behavior.

To date, no studies have assessed the efficacy of medication in treating children with pure oppositional defiant disorder (ODD). However, studies have shown amphetamines to be effective for children with ODD and comorbid attention deficit/hyperactivity disorder (ADHD) (SOR: **A**, based on a meta-analysis).

■ EVIDENCE SUMMARY

Oppositional and defiant behaviors include noncompliance, temper tantrums, arguing, and mild aggression. Children exhibiting these behaviors may have a diagnosis of ODD. Importantly, this review does not examine treatments for children diagnosed with conduct disorder or those exhibiting more deviant behaviors such as serious aggression and delinquency.

Eight well-done systematic reviews examined the effectiveness of parent training programs. Parent training is typically conducted by clinical child psychologists but may also be available through certified parenting educators (see the National Parenting Education Network web page for links to state organizations, at www.ces.ncsu.edu/depts/fcs/npen/). Parent training strategies are also described for parents in books such as *Your Defiant Child.*[1]

The most rigorous of the reviews looked at 16 randomized controlled trials that examined the effectiveness of training programs for children between the ages of 3 and 10 years who had "externalizing problems," including temper tantrums, aggression, and noncompliance.[2] All studies included in the review compared a group-based parent training program with a no-treatment wait-list control group and assessed outcomes using a standardized measure of behavior. In studies where sufficient data were provided, effect sizes ranged from 0.6 to 2.9. This indicates that, on a standardized child behavioral measure, parental report of children's externalizing problems decreased by 0.6 to 2.9 standard deviations from pre- to posttreatment (an effect size of >0.8 is considered large). In the 2 studies that included independent observations of child behavior, the benefits reported by parents were confirmed by these observations.

Although parent training has the strongest evidence as a treatment for oppositional and defiant behavior, other psychosocial treatment interventions have been found by multiple randomized controlled trials to be superior to no treatment or wait-list controls (**Table**).

In treating oppositional behaviors among children with ADHD and comorbid oppositional defiant disorder or conduct disorder, a meta-analysis identified 28 studies of children age 7 to 15 years that addressed oppositional/aggression-related behaviors within the context of ADHD.[8] The analysis found that stimulants are efficacious. The overall weighted effect size (a measure of improvement representing the average effects across all reporters) was 0.89. This indicates that raters saw a change in oppositional behaviors—noncompliance, irritability, and temper tantrums—that corresponded to a drop in scores of approximately 1 standard deviation.

CONTINUED

TABLE

Additional ODD treatments supported by randomized controlled trials

Treatment and representative study	Treatment description	Outcome
Anger Coping Therapy[3] SOR: **B**	A 12- to 18-session group cognitive-behavioral and social problem-solving training program. Assessed independently (AC) and with a teacher component (ACTC)	AC and ACTC exhibited reductions in directly observed disruptive and aggressive classroom behavior ($P<.05$). No significant differences between AC and ACTC
Problem Solving Skills Training[4] SOR: **B**	A 20- to 25-session individual child skills training. Assessed individually (PSST) and with PT	33% (parent report) to 57% (teacher report) of the PSST group and 64%–69% of the PSST+PT group were within the normal range after treatment. Gains maintained at 1 year. No control group. In an inpatient population, PSST showed greater decreases in externalizing and aggressive behaviors than controls ($P<.01$)[5]
Dina Dinosaur Social Emotional and Problem Solving Child Training/ Incredible Years Child Training[6] SOR: **B**	An 18- to 22-session group skills training program. Assessed as an independent treatment and with PT	PT and PT+CT groups demonstrated fewer mother-reported behavior problems at post-test. Effect sizes: PT vs. control = .89 ($P<.05$); PT + CT vs. control = .73 ($P<.05$) One-year follow-up: compared with baseline, 95% of children in the PT+CT group, 74% in the CT group, and 60% in the PT group exhibited at least a 30% reduction in home-observed deviant behaviors. The difference between the PT + CT and PT groups was significant ($P<.01$)
Incredible Years Teacher Training[7] SOR: **B**	A classroom teacher training program. Assessed with PT, CT and PT+CT	Per parent report, 55% (PT + CT + TT), 59% (PT + TT), 47% (CT + TT) and 20% (control group) had a reduction of 20% or more in behavior problems. The difference between the control group was significant for the PT + CT + TT and PT + TT groups. Two-year follow-up: 75% of treated children were within the normal range per parent and teacher reports. No control group.

AC = Anger coping therapy; ACTC = Anger coping therapy with teacher consultation;
CT = Child Training; PSST = Problem Solving Skills Training;
PT = Parent training; TT = Teacher training.

CONTINUED

An important role for the FP is to convince parents that their participation is critical to treatment

■ RECOMMENDATIONS FROM OTHERS

Two parent training interventions meet the American Psychological Association's criteria for well-established treatments.[9] These include programs based on Patterson and Gullion's Living with Children, a short-term, behavioral parent training program, and programs based on Webster-Stratton's Videotape Modeling parent training program. Two additional treatments, Anger Coping Therapy and Problem Solving Skills Training, meet the criteria for "probably efficacious."

According to the International Consensus Statement on ADHD and Disruptive Behavior Disorders, "pharmacological treatment of pure ODD should not be considered except in cases where aggression is a significant, persistent problem."[10]

Suzanne E, Farley, MA, Jennifer S. Adams, MA,
Psychology Department, University of North Carolina at Greensboro; ***Michelle E. Lutton, PsyD,***
Moses Cone Family Medicine Residency Program, Greensboro;
Caryn Scoville, MLS, *J. Otto Lottes Health Sciences Library, University of Missouri–Columbia*

REFERENCES

1. Barkley RA, Benton CM. *Your Defiant Child: Eight Steps to Better Behavior.* New York: Guilford Press; 1998.
2. Barlow J, Stewart-Brown S. Behavior problems and group-based parent education programs. *J Dev Behav Pediatr* 2000; 21:356–370.
3. Lochman JE, Lampron LB, Gemmer TC, Harris SR, Wyckoff GM. Teacher consultation and cognitive-behavioral interventions with aggressive boys. *Psychol Schools* 1989; 26:179–188.
4. Kazdin AE, Siegel TC, Bass D. Cognitive problem solving skills training and parent management training in the treatment of antisocial behavior in children. *J Consult Clin Psychol* 1992; 60:733–747.
5. Kazdin AE, Esveldt-Dawson K, French NH, Unis AS. Problem-solving skills training and relationship therapy in the treatment of antisocial child behavior. *J Consult Clin Psychol* 1987; 55:76–85.
6. Webster-Stratton C, Reid MJ. Treating conduct problems and strengthening social and emotional competence in young children: the dina dinosaur treatment program. *J Emot Behav Disord* 2003; 11:130–143.
7. Reid MJ, Webster-Stratton C, Hammond M. Follow-up of children who received the incredible years intervention for oppositional-defiant disorder: maintenance and prediction of 2-year outcome. *Behav Ther* 2003; 34:471–491.
8. Connor DF, Glatt SJ, Lopez ID, Jackson D, Melloni RH Jr. Psychopharmacology and aggression. I: A meta-analysis of stimulant effects on overt/covert aggression-related behaviors in ADHD. *J Am Acad Child Adolesc Psychiatry* 2002; 41:253–261.
9. Brestan EV, Eyberg SM. Effective psychosocial treatments of conduct-disordered children and adolescents: 29 years, 82 studies, and 5,272 kids. *J Clin Child Psychol* 1998; 27:180–189.
10. Kutcher S, Aman M, Brooks SJ, et al. International consensus statement on attention-deficit/hyperactivity disorder (ADHD) and disruptive behaviour disorders (DBDs): clinical implications and treatment practice suggestions. *Eur Neuropsychopharmacol* 2004; 14:11–28.

■ CLINICAL COMMENTARY

Psychological interventions for parent and child are essential

Oppositional and defiant behaviors are a family problem requiring a family solution. Frustrated parents often request a "quick fix," so this literature review is helpful in defining when medications are not indicated. Psychological interventions for the parents and for the child are essential. An important role for the family physician is to convince parents that their participation is critical in treating this problem. In addition to encouraging referrals to psychological resources in the community and occasionally prescribing medication, another role for the physician is to model parenting skills. The physician can demonstrate the "Tough Love" philosophy of holding the child responsible for unacceptable behavior without rejecting the child or blaming other people. An additional role could be to schedule brief checkup/counseling sessions with the family and child. These roles can be time consuming without necessarily having the assurance that all of them are evidence-based. However, the value of having multiple role options is that family physicians can develop an individualized approach for helping each family, as long as the emphasis remains on parental involvement.

Richard C. Fulkerson, MD, Anita R. Webb, PhD,
John Peter Smith Family Medicine Residency Program, Fort Worth, Tex

CONTINUED