What are effective treatments for oppositional defiant behaviors in adolescents?

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EVIDENCE-BASED ANSWER

Psychological interventions for the family—such as parenting skills training and behavioral therapy for the child, the parents, or the whole family—reduce conflict behaviors in adolescents with oppositional defiant disorder (ODD) (strength of recommendation [SOR]: **C**, based on extrapolation from systematic reviews of younger children with ODD and adolescents with conduct disorder).

ODD most commonly does not occur as a solitary diagnosis. When ODD is associated with attention deficit/hyperactivity disorder (ADHD) or other medication-responsive comorbid conditions, medical treatment reduces overall symptoms (SOR: **B**, based on a meta-analysis of adolescent and younger children with both ODD and ADHD).

CLINICAL COMMENTARY

Model good parenting skills, educate parents about basic behavioral tools, provide referral as resources allow

It can be challenging to distinguish oppositional defiant behaviors from variations of normal development as adolescents try to become "independent" from their parents. However, adolescents may engage in many dangerous risk-taking behaviors during this period, so timely diagnosis and interventions are important. Affected adolescents often have a difficult home life, with parents who may have very poor social support and coping skills. Typically, such parents must be convinced that the oppositional and defiant behaviors are a family problem requiring a family solution with no quick fix. Significant financial barriers to counseling and other resources are also common in many of these families. At a minimum, the family doctor can model good parenting skills in the exam room, educate parents about basic behavioral tools to use when interacting with their adolescents, and provide referral as resources allow.

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Evidence summary

No studies specifically evaluate effective treatments for ODD (distinguished by chronic argumentativeness and refusal to comply with adult requests) for adolescent patients. However, there are treatment studies of younger children with ODD and studies of adolescents with the more disruptive behavior problem of conduct disorder (distinguished by a persistent pattern of violating other's rights, aggression, and illegal acts).

FAST TRACK

At minimum, the family physician should model good parenting skills in the exam room, and educate parents about basic behavioral tools

A Clinical Inquiry summarized 8 well-done systematic reviews of ODD treatments of preadolescent children and found improved behavior with parenting interventions and behavioral therapy.[1] Each of the systematic reviews assessed multiple randomized controlled trials (RCTs) using a variety of parenting and behavioral therapy interventions. The most rigorous systematic review (which included 16 RCTs), compared group-based parenting skills training with untreated wait-list controls and found decreased aggression, noncompliance, and temper tantrums by children aged 3 to 10 years (total number of subjects not given) by an average effect size of 0.6 to 2.9. (Effect size is the difference between the means of the experimental and control groups expressed in standard deviations. An effect size of 0.2 is considered small, 0.5 is medium, and 0.8 is moderate to large.) Behavioral therapy (cognitive-behavioral therapy, social problem-solving skills training, parent management training), comprising 12 to 25 sessions with either the child alone or with teachers or parents, decreased disruptive or aggressive behaviors by 20% to 30%.

A 2-year case-control study[2] of 158 self-referred families with young adolescents (11 to 14 years old) without a formal ODD diagnosis but with reported problem behaviors (defined as smoking, negative engagement in family problem solving, and parental ratings of unpleasant events) found significant improvements ($P<.01$) with parent-only, teen-only, and parent-teen behavioral interventions for negative engagement behaviors (average of 30% reduction in scores), and with parent and teen interventions for unpleasant events (average of 9% reduction in scores). Interventions comprised 12 weekly 90-minute sessions, with the parent-only group targeting family management practices and communication skills, the teen-only group targeting adolescent self-regulation and pro-social behavior, and the parent-teen group following a structured curriculum.

A meta-analysis[3] of 8 RCTs (with a total of 749 children) of various behavioral treatments for conduct disorder and juvenile delinquency among children aged 10 to 17 years found significant reductions in rearrest rates (relative risk [RR]=0.66; 95% confidence interval [CI], 0.44–0.98; number needed to treat [NNT] to prevent 1 rearrest=3.7) and time spent in institutions (mean difference, 51 days) with family and parenting interventions (comprising 1 to 6 months of individual and group parenting training, short and long-term family therapy, and individual and group adolescent interventions).

ODD comorbid with other psychiatric conditions

Approximately half to two-thirds of adolescents with ODD also have ADHD.[4] A meta-analysis[5] evaluated 28 studies of stimulant medication (methylphenidate, amphetamine, or pemoline) for children with comorbid ADHD and ODD. A total of 683 patients aged 8 to 18 years were included. Stimulants reduced aggression-related behaviors in these children by an effect size of 0.84 for overt aggression and 0.69 for covert aggression. Stimulants typically reduce aggressive behaviors by similar effect sizes when prescribed for children with ADD alone. The study groups did not separate children with ADHD and ODD from those with ADHD and conduct disorder; they also grouped adolescents together with younger children.

An RCT[6] of different doses of atomoxetine (Strattera) treatment vs placebo for children ages 8 to 18 (mean age=11) with ADHD alone (N=178) and children with both ADHD and ODD (N=115) found significant effect sizes for atomoxetine in both groups. Two dosages of atomoxetine (1.2 and 1.8 mg/kg/d) produced equivalent effect sizes in the ADHD-only group (0.55 and 0.56); however, the higher dosage had a greater effect size (0.49 vs 0.69) in the group with ODD comorbid with ADHD.

A double-blind crossover RCT[7] evaluated divalproex (Depakote) vs placebo for 20 children (aged 10 to 18 years) with

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explosive temper and mood lability who also met *DSM-IV* criteria for either ODD or conduct disorder. Patients with significant medical problems, such as bipolar disorder, major depression, or mental retardation, were excluded. Divalproex significantly (*P*=.003) reduced aggressive behaviors and anger-hostility items by approximately 33% as reported by child, parent, school, and clinician on 2 standardized scales.

Experts say antidepressant medications may be helpful in treating children with conduct disorder and comorbid major depression.[8]

Recommendations by others

An international consensus statement on ADHD and disruptive behavior disorders (comprising ODD, conduct disorder, and disruptive behavior not otherwise specified) says that psychopharmacologic treatment would not be appropriate for cases of ODD in the absence of psychiatric comorbidity, unless severe aggression or destructive behavior persisted despite attempts at psychosocial interventions of established efficacy.[4]

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