OBJECTIVES:
Disruptive mood dysregulation disorder (DMDD) is characterized by nonepisodic irritability and has a high rate of comorbidity with attention-deficit/hyperactivity disorder (ADHD). This is the first study to explore the effects of aripiprazole combined with methylphenidate on clinical symptoms and cognitive functions in patients with DMDD and ADHD.

METHODS:
Patients with DMDD and ADHD (the DMDD-ADHD Group, n = 24; aged 7-17 years) completed a 6-week, open-label trial of aripiprazole and methylphenidate. The pre- and posttreatment outcome measures included the parent-rated Swanson, Nolan, and Pelham Scale-version IV, Child Behavior Checklist, and self-reported Beck Youth Inventories-II, as well as a neuropsychological battery composed of the Children's Color Trail Test and Conner's Continuous Performance Test. The comparison group consisting of patients with ADHD (the ADHD Group, n = 27) was recruited to investigate the differences in clinical and neuropsychological profiles between the two groups at baseline.

RESULTS:
The DMDD-ADHD Group showed worse irritability, disruptive behaviors, anxious/depressed symptoms, and social problems relative to the ADHD Group at baseline assessments. The combination treatment significantly improved irritability, externalizing symptoms, depression, anxiety, attention, social problems, and reaction time variability. The effect sizes of reductions in parent-rated irritability, oppositional defiant symptoms, and inattention were comparable (Cohen's d = 1.26, 1.11, and 1.40, respectively).

CONCLUSIONS:
This pilot study showed the tolerability of the aripiprazole/methylphenidate combination by patients with DMDD and ADHD and its efficaciousness for treating clinical symptoms and for improving cognitive function. Further randomized, controlled, cross-over studies are needed.