Maintenance Model of Integrated Psychosocial Treatment in Pediatric Bipolar Disorder: A Pilot Feasibility Study

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ABSTRACT

Objective: The chronic and refractory course of pediatric bipolar disorder merits the study of adjunctive psychosocial interventions designed to facilitate long-term improvements. The objective of this study is to conduct a pilot study of a maintenance model of the child- and family-focused cognitive-behavioral therapy program (CFF-CBT), which comprises psychosocial booster sessions and optimized pharmacotherapy, and to assess whether positive effects seen after the acute phase of treatment could be sustained over time with the use of this model. **Method:** The study design was an open trial with the goal of assessing feasibility of such a maintenance model over time. Thirty-four patients 5 to 17 years of age who underwent CFF-CBT were delivered the maintenance model of treatment over a 3-year period and assessed for symptom changes (Children's Global Impressions Scale-Bipolar) and global functioning (Children's Global Assessment Scale). **Results:** Results indicated that participation in the maintenance model of CFF-CBT treatment was associated with positive effects in symptoms and functioning over the 3-year follow-up period. There were no statistically significant differences in postacute-phase treatment scores and scores at years 1, 2, or 3 on any study measures, indicating the maintenance of clinically significant improvements. **Conclusions:** These findings suggest that maintenance treatment models are feasible and may help facilitate the long-term management of symptoms. Controlled clinical trials that build on this model will help advance treatments for pediatric bipolar disorder toward addressing the low recovery and high relapse rates associated with the disorder. *J. Am. Acad. Child Adolesc. Psychiatry,* 2007;46(2):205–212. **Key Words:** pediatric bipolar disorder, psychosocial treatment, maintenance treatment.

Pediatric bipolar disorder (PBD) is characterized by mixed mood states, rapid cycling, excessive elation, prominent irritability, and frequent comorbid conditions (Birmaher et al., 2002; Findling et al., 2001; Geller et al., 1998; McClellan et al., 1999; Wozniak et al., 1995). This mood instability, not surprisingly, is associated with behavioral and academic difficulties in school, poor social skills, conflictual relationships with siblings, and stressed parents (Geller et al., 2000). Furthermore, the complex presentation of PBD is encumbered with a chronic and refractory course, low recovery, and high relapse rates (Geller et al., 2003). Thus, a primary challenge facing treatment researchers in PBD is to develop treatments that target disorder-specific symptoms and functioning and promote sustained remission. This challenge calls for a treatment approach that integrates different psychotherapeutic modalities to target specific problems affecting both children with PBD and their family members across a range of individual, peer, and family domains. This kind of comprehensive approach is likely to facilitate lasting improvement.

There is an unfortunate scarcity of research investigating long-term maintenance in pharmacological or psychosocial treatments for PBD. One preliminary pharmacological study of maintenance treatment with

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mood stabilizer monotherapy found a median time to dropout of 4 months. This was an 18-month follow-up study of children 5 to 17 years old with PBD type I or II (Findling et al., 2005). These findings suggest the need for strategic pharmacotherapy regimens that incorporate alternative methods for addressing the multitude of symptoms and complexity of symptoms in PBD. Pavuluri et al. (2004a) tested a systematic evidence-based pharmacotherapy algorithm in children with PBD type I. These children were studied closely for 18 months, and if there was emergence of new symptoms, worsening, or poor response, strategic medication changes were made according to the algorithm. At the end of the study, there were significant differences between the algorithm group and the treatment-as-usual group, with the children on the algorithm showing greater symptom reduction and better overall functioning. However, the response rate was limited to 68%. These results suggest that although pharmacotherapy for PBD is an iterative process requiring careful follow-up to prevent the loss of positive effects, as many as 30% of patients still remain unimproved. Neither of these studies tested the combined effect of pharmacotherapy with psychotherapy. More long-term follow-up studies and those that combine a psychosocial approach with pharmacotherapy are needed to determine whether the potential for positive outcomes can be maximized.

The lack of long-term studies of combination or psychosocial treatment for PBD may be result of the paucity of manual-based psychosocial treatments for PBD (e.g., Fristad et al., 2002; Miklowitz et al., 2003). However, long-term studies of evidence-based psychotherapies for childhood depression indicate that establishing continuation components after acute-phase treatment may be important in maintaining treatment effects. Clarke et al. (1999) conducted a randomized trial of the Adolescents Coping With Depression (CWDA) that included booster sessions every 4 months and found that for those children who were still actively symptomatic after treatment, booster sessions accelerated their recovery in a 24-month follow-up period compared with those who did not receive booster sessions. Another randomized trial of this intervention demonstrated that initial posttreatment differences in favor of CWDA disappeared after 12 months with no booster sessions (Rohde et al., 2001). A recent trial of cognitive-behavior therapy (CBT) for adolescents with depression (Brent et al., 1999) found that when an average of three booster sessions were included, treatment effects lasted at least 24 months beyond the acute treatment phase. However, at the 2-year follow-up, if booster sessions had been discontinued or not administered, then there was no significant difference between CBT and the other treatment conditions. Kroll et al. (1996) demonstrated that the addition of 6 months of CBT continuation treatment consisting of booster sessions from once every 2 weeks to once per month, depending on patient need, produced lower relapse rates than CBT without the continuation phase. Findings from these studies collectively suggest the imperative need for maintenance models of therapy in childhood mood disorders to prevent relapse and to sustain positive changes over time.

The combination of promising results from maintenance psychotherapy in the treatment of depression and the insufficiency of pharmacotherapy alone in treating some patients with PBD suggests that a maintenance model of treatment for PBD would ideally include both pharmacotherapy and psychosocial therapy. The feasibility of a maintenance pharmacotherapy algorithm was documented in a previous study (Pavuluri et al., 2004a). Therefore, the present study focused on developing and testing an adjunct psychosocial component for use in a maintenance model of treatment for PBD. The purpose of testing models such as this is to determine whether adding a psychosocial component to maintenance therapy for PBD results in better outcomes for the patient beyond what medication accomplishes. The present study was conducted as an open trial to investigate the feasibility of a psychosocial treatment component in addition to an evidence-based pharmacotherapy algorithm in helping patients sustain healthy symptom status and functioning over time. This represents an initial step in establishing the role of psychosocial treatment integrated with pharmacotherapy in maintaining long-term remission in PBD, with larger randomized clinical trials to follow.

The maintenance phase of the child-and-family–focused CBT (CFF-CBT) was developed to meet the need for a comprehensive and integrative long-term model of treatment for PBD. The CFF-CBT methods, in both the acute and maintenance models, integrate psychoeducation, cognitive-behavioral, and interpersonal psychotherapeutic techniques to address the