Child- and Family-Focused Cognitive-Behavioral Therapy for Pediatric Bipolar Disorder: Development and Preliminary Results

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ABSTRACT

Objective: To describe child- and family-focused cognitive-behavioral therapy (CFF-CBT), a new developmentally sensitive psychosocial intervention for pediatric bipolar disorder (PBD) that is intended for use along with medication. CFF-CBT integrates principles of family-focused therapy with those of CBT. The theoretical framework is based on (1) the specific problems of children and families coping with bipolar disorder, (2) a biological theory of excessive reactivity, and (3) the role of environmental stressors in outcome. CFF-CBT actively engages parents and children over 12 hour-long sessions. **Method:** An exploratory investigation was conducted to determine the feasibility of CFF-CBT. Participants included 34 patients with PBD (mean age 11.33 years, SD = 3.06) who were treated with CFF-CBT plus medication in a specialty clinic. Treatment integrity, adherence, and parent satisfaction were assessed. Symptom severity and functioning were evaluated before and after treatment using the severity scales of the Clinical Global Impression Scales for Bipolar Disorder (CGI-BP) and the Children's Global Assessment Scale (CGAS) respectively. **Results:** On completion of therapy, patients with PBD showed significant reductions in severity scores on all CGI-BP scales and significantly higher CGAS scores compared to pretreatment results. High levels of treatment integrity, adherence, and satisfaction were achieved. **Conclusions:** CFF-CBT has a strong theoretical and conceptual foundation and represents a promising approach to the treatment of PBD. Preliminary results support the potential feasibility of the intervention. *J. Am. Acad. Child Adolesc. Psychiatry,* 2004;43(5):528–537. **Key Words:** cognitive-behavioral therapy, bipolar disorder, family, treatment.

The unpredictable and refractory nature of pediatric-onset bipolar disorder (PBD) warrants a comprehensive and immediate approach to treatment. Bipolar disorder that has its onset before puberty and in early adolescence differs in its presentation from that with an onset in late adolescence (Geller et al., 1998b; Pavuluri et al., 2002). Despite a better understanding of the clinical psychopathology of PBD in children and adolescents and steps to advance pharmacotherapeutic strategies (Geller et al., 2002; Pavuluri et al., 2002), progress in the area of psychosocial treatment is limited. The purpose of this paper is to provide an overview of a new protocol-based treatment for PBD. Child- and family-focused cognitive-behavioral therapy (CFF-CBT) employs cognitive-behavioral therapy as its underpinning and uses both an individual- and family-based approach to the treatment of PBD. In this paper we present the conceptual framework for CFF-CBT, its rationale, and a description of the treatment protocol. We then provide findings from preliminary investigation of an open trial of CFF-CBT.

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Family psychoeducational models appear to be the most carefully studied psychosocial treatments for PBD to date. Building on psychoeducational models in the adult treatment of bipolar disorder, Fristad et al. (1998) developed multifamily psychoeducation groups (MFPGs) to educate families about mood disorders and provide opportunities for family members to discuss problems related to managing symptoms of mania and depression. To date, MFPGs have been used as adjuncts to medication. Preliminary results for MFPGs are encouraging and include positive attitudinal shifts for parents, improved family climate, and increased social support for children with PBD and depressive disorders (Fristad et al., 2002).

Miklowitz and Goldstein (1997) developed a family-focused treatment (FFT) for adults with bipolar disorder and are in the preliminary stages of adapting their protocol to treat adolescents with bipolar disorder. FFT is based on the premise that patients with bipolar disorder will experience a decrease in symptomatology as a result of greater awareness of how to cope with the disorder, decreased levels of expressed emotion from caregiving relatives, and improvement in family problem-solving skills and communication skills. Randomized, controlled trials have shown that FFT is associated with lower relapse rates, lower rehospitalization rates, better medication adherence, and reductions in mood symptoms for up to 15 months after treatment termination (Miklowitz et al., 2003; Rea et al., 2003).

Although FFT does not address the developmental needs of younger children, its emphasis on psychoeducation, expressed emotion, crisis management, and relapse prevention is applicable to the needs of children with bipolar disorder. The CFF-CBT model is an adaptation of Mikowitz and Goldstein's FFT model to address the developmental needs of younger children and their families. FFT and CFF-CBT share a foundation in the vulnerability-stress model of recurrences and a common view of the putative mechanisms for therapeutic change. The vulnerability-stress model as it pertains to PBD posits that psychosocial stressors interact with the individual's genetic and biological predisposition in eliciting episodes of illness. Stressful life events, expressed emotion, coping, and negative communication styles within families serve as environmental provoking agents that influence the course of the disorder (Miklowitz et al., 1988).

The design of the CFF-CBT model also can be distinguished from FFT and other approaches to the treatment of bipolar disorder in several ways. First, CFF-CBT is driven by consideration of three sets of factors: (1) an understanding of the affective circuitry of the brain and its putative dysfunction in PBD, (2) the unique psychopathological characteristics of PBD, and (3) environmental stressors in the family and school associated with PBD. Second, CFF-CBT combines principles of cognitive-behavioral therapy with interpersonal psychotherapeutic techniques to address the intense interpersonal demands associated with early-onset PBD. Third, CFF-CBT places emphasis on providing direct assistance to parents in addressing their frustrations, and employs specific techniques to alleviate symptoms and associated functional impairments characteristic of PBD. The CFF-CBT model is illustrated in Figure 1, and an explanation of the model follows.

BIOLOGICAL MODEL OF PBD: AFFECTIVE CIRCUITRY DYSFUNCTION IN THE BRAIN

Studies of the biological dysfunction involved in bipolar disorder suggest that the brain structures involved in this disorder are those considered part of the affective circuitry in the brain (Mayberg, 1997; Yurgelun-Todd et al., 2000). They include the dorsolateral prefrontal cortex (DLPFC), orbitofrontal contex (OFC), and amygdala. The DLPFC is believed to be related to problem-solving (Perlstein et al., 2002). The OFC and amygdala work in close concert to modulate affective response (Mayberg, 1997). Functional neuroimaging studies have demonstrated reduced activation of the DLPFC (Yurgelun-Todd et al., 2000) and OFC (Mayberg, 1997) and increased activation of the amygdala (Mayberg, 1997; Yurgelun-Todd et al., 2000) in adult bipolar disorder. During negative emotional states (Perlstein et al., 2002) or episodes of excessive reactivity with either positive or negative emotions, problem-solving can be compromised by excessive activity in the amygdala and/or compromised synchrony among the amygdala, OFC, and DLPFC. Thus there may be distinct connections between different emotional states and higher-order cognitive functions, including problem-solving. Consequently, one of the goals of treatment for PBD is to improve problem-solving by normalizing affect modulation. For example, parents need to be educated on the biological basis of their child's emotional dysregulation. When parents' attributions for their child's emotional outbursts can be

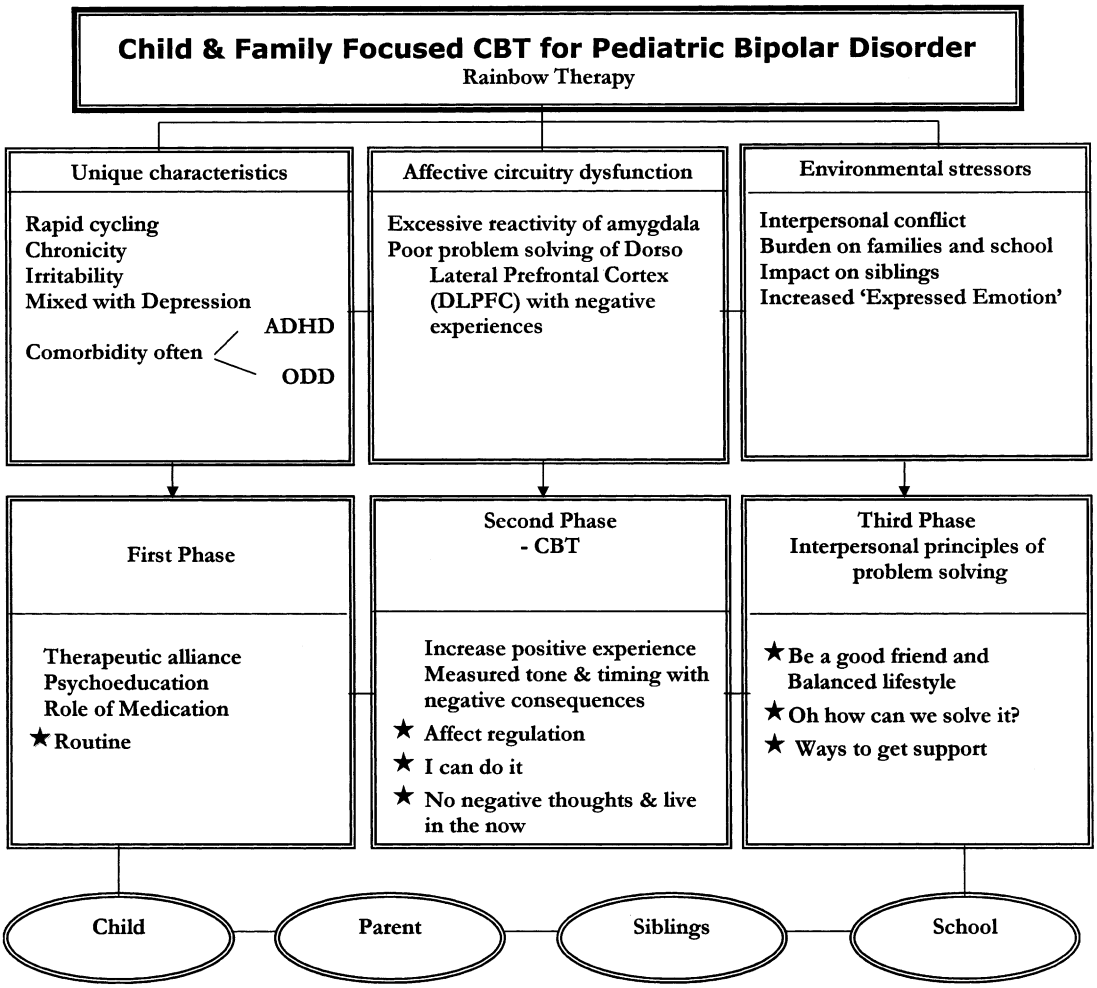

Fig. 1 Child- and family-focused cognitive behavior therapy for pediatric bipolar disorder: RAINBOW therapy.

reframed as "unintentional," parents are more likely to act in a compassionate fashion toward their child in times of crisis.

CHARACTERISTICS OF PBD AND THERAPEUTIC IMPLICATIONS

In this section, we discuss the unique features of PBD and the implications of these features for the design of new psychosocial interventions.

Rapid Cycling

Compared to adults, children and young adolescents with bipolar disorder are more prone to exhibit ultra-rapid or ultradian cycling (Geller et al., 1998b). In addition, children and young adolescents may experience minicycles that are sporadic or interspersed with cycles of longer duration with well-defined onset and offset (Geller et al., 1998b). These features of PBD suggest that an immediate focus on affect regulation is imperative in treatment. Psychoeducation, prospective monitoring of mood, and affect regulation strategies are incorporated in CFF-CBT to address rapid cycling.

Irritability

Although this symptom is nonspecific to PBD, it is present to a significantly greater degree in children and young adolescents compared to older adolescents and adults with bipolar disorder (Findling et al., 2001; Geller et al., 2002; Wozniak et al., 1995). Further, severe rage attacks and explosive outbursts are more common in PBD (Biederman et al., 1996). When feedback or negative consequences follow, they often serve

to fuel an already out-of-control fire. Therefore, therapeutic interventions need to directly address these contentious episodes by implementing appropriate consequences and conjoint problem-solving using a measured tone of voice and waiting until the rages subside.

Mixed Episodes With Depressive Symptoms

PBD presents more commonly in mixed states with elevated risk for suicidal behavior or manic states with subsyndromal depressive symptoms (Findling et al., 2001; Geller et al., 2002; Pavuluri et al., 2002). Depressive symptoms need to be addressed alongside manic symptoms. Furthermore, intrusive and demanding manic behavior fosters rejection from others. These negative experiences, intermingled with the negative thinking inherent in depression, can lead to a negative sense of self. This negative sense of self can in turn serve as a breeding ground for further rejection sensitivity. Empathy and interpersonal problem-solving are typically required to address rejection sensitivity and are integral components of CFF-CBT.

Comorbid Conditions

Attention-deficit/hyperactivity disorder (ADHD) and oppositional defiant disorder (ODD) show high comorbidity rates with PBD (Geller et al., 2002; Wozniak et al., 1995). Any treatment for PBD must also address the associated behavioral and academic difficulties secondary to ADHD and ODD. When comorbid conditions are present with PBD, the CFF-CBT protocol requires the therapist to first evaluate how the comorbid disorders may be contributing to the patient's functional impairments and then develop a treatment plan that augments CFF-CBT with evidence-based treatments for ADHD (Root and Resnick, 2003) or ODD (Greene et al., 2002).

Environmental Stressors

Due to the recalcitrant nature of PBD and the mercurial changes in mood that occur during the course of the illness—from irritable, excitable, impulsive, intrusive, and loud to sullen, withdrawn, and weepy—interpersonal relationships are often significantly strained. High expressed emotion may occur between caregiving parents and their children with PBD as a result of the exhaustion and strain that can arise from caring for these youngsters. Continual provocative, abrasive, or taunting behavior by the affected child can significantly erode parent and sibling self-worth. Family support and problem-solving needs to be an integral part of any model of psychotherapy for PBD and is an essential component of CFF-CBT.

Significant interpersonal and learning problems also often occur at school. Teachers need psychoeducation and support in accurately understanding and helping children with PBD. The CFF-CBT protocol includes frequent contacts with teachers to educate them about PBD and implement interventions to address school concerns such as intrusive and excitable behavior.

In summary, CFF-CBT seeks to integrate essential ingredients of CBT and FFT, address unique problems related to the psychopathology of PBD, provide a biological rationale that links positive experiences with enhanced problem-solving capacity, and facilitate stress reduction related to environmental risks. In addition, CFF-CBT incorporates psychoeducation, support, and therapy to parents and affected youths and involves working with siblings and the school system.

SUITABILITY OF CHILDREN AND FAMILIES FOR CFF-CBT

Inclusion Criteria

The foremost inclusion criterion is that children be stabilized on medications so that they are capable of learning new skills. This decision is based on clinical judgment. The skills and the developmental issues targeted in CFF-CBT are appropriate for children 8 to 12 years of age. The intervention is ideally conducted by a nonphysician therapist or by a psychiatrist who has a solid grasp of the program.

Exclusion Criteria

CFF-CBT is contraindicated for children whose illness has not been stabilized by medication or for families in which one or both parents have a severe mental illness or very low intelligence.

ESSENTIAL INGREDIENTS OF CFF-CBT: RAINBOW

Because it is easier for children and families to remember and review the summary of the skills if presented in a mnemonic form, the acronym RAINBOW was coined. RAINBOW is also in tune with our phi-

losophy that mood variability—represented by the colors of the rainbow—is appropriate *in moderation* (green versus "ultraviolet" sad moods or "infrared" rages or manic spells, which are more extreme). The CFF-CBT is introduced to families as the RAINBOW program, and the aim is to help children with PBD reach the safe middle zone depicted in Figure 2. The RAINBOW treatment protocol for the 12 sessions is available on the journal's Web site at *www.jaacap.com* using the ArticlePlus feature.

During the first session of the RAINBOW program, all family members receive a card with the RAINBOW ingredients listed. They are encouraged to carry the card in their wallet or school bag, or post it on the refrigerator. The meaning behind the RAINBOW acronym and a brief description of each component follows.

R: Routine

A predictable, simplified routine will reduce excessive reactivity and tense negotiations in responses to changes in the patient's schedule. For instance, sleep hygiene is essential to avoid being tired and susceptible to intense moods (Frank et al., 1994).

A: Affect Regulation

Apart from the medication, consistent self-monitoring of moods is encouraged. Figure 2 delineates the level of mood in the spectrum of 1 to 10 for the depressive and manic spectrum. Parents are encouraged to serve as positive role models for their children with PBD. For example, when their child is reacting excessively, parents are instructed to maintain a neutral expression and speak in a low-pitched tone of voice while expressing calming yet appropriate words.

I: I Can Do It!

As mentioned previously, generating a list of positive self-statements will help the child develop a more positive view of himself or herself and increase motivation to engage in effective problem-solving. Encouraging parents to mention the child's positive qualities can help the child with PBD comprehend the genuineness of the parent's attempts to offer positive feedback. Children are encouraged to write a positive script for themselves to reference during depressive episodes.

N: No Negative Thoughts & Live in the "Now"

After a difficult episode, both children and parents need the opportunity to debrief and express sad and

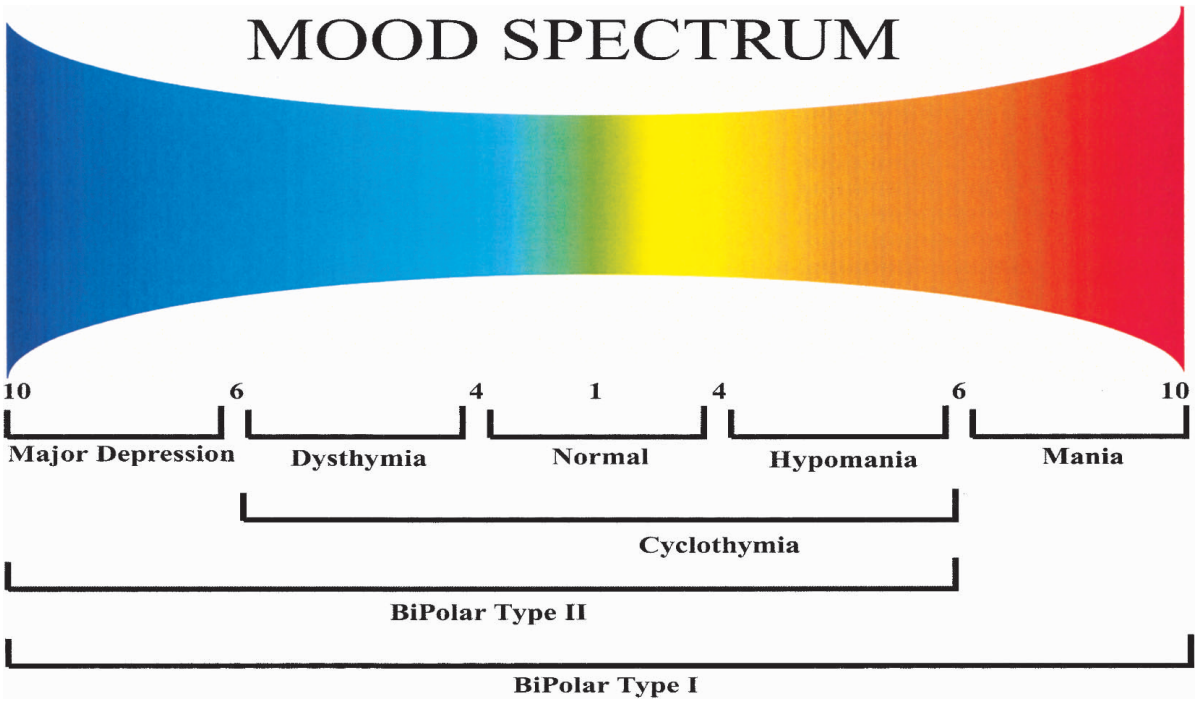

Fig. 2 Mood spectrum.

difficult feelings to decrease resentment that could incapacitate the family. The psychoeducational component of RAINBOW teaches children and families how to differentiate helpful from unhelpful thoughts and to reframe the unhelpful thoughts into helpful ones that ultimately lead them to the discovery of more effective problem-solving strategies.

RAINBOW's "Here and Now" approach helps reduce a sense of bewilderment or a feeling of being overwhelmed on the part of the parent or child. "Today is another day" and "Crossing one bridge at a time" are some of the coping statements used with children rather than dwelling on past failures.

B: Be a Good Friend and Balanced Lifestyle for Parents

Peer relations are central to self-esteem and represent a major developmental context for children and adolescents. Supportive friendships are associated with decreased symptoms of depression, anxiety, and loneliness for children and adolescents (Graczyk, 1998; Parker and Asher, 1993). Yet children with PBD often experience significant difficulties relating to peers. They can be hypersensitive to the reactions of others and demonstrate intense reactions of jealousy and bitterness in response to perceived or actual slights by their peers. Despite an intense need to be liked, children with PBD often behave in a way that pushes people away. Thus, a major goal of RAINBOW is to help children establish and maintain friendships. Children are taught the skills necessary to be a good friend and are provided opportunities within the therapy sessions to practice the skills. Parents are also encouraged to seek opportunities for the child to practice newly developed skills and develop friendships (e.g., sleepovers, play dates, and supervised group activities).

As part of the RAINBOW program, therapists seek to help parents develop a more balanced lifestyle that involves finding ways to replenish their energies and enjoy life. As an initial strategy related to this goal, the therapist may ask the parents to draw a pie diagram that depicts the amount of time the parents invest in "recharging their own batteries" versus being a spouse, worker, or parent. Then, the therapist and parents together discuss how to "carve the pie" in more equitable slices so that parents strike a healthier balance between the demands of caring for a child with PBD and taking care of themselves.

O: Oh, How Can We Solve the Problem?

This question refers to skills that need to be actively taught and practiced, but only during phases when the child is calm. Solving problems involves not only finding solutions but also practicing a process by which successful solutions can be found. As part of this component of treatment, parents are encouraged to view children as partners in the problem-solving process and to explain the pros and cons of potential solutions in an empathic way. Often it is much easier if the parent and the child develop a problem-solving strategy via anticipatory "pep talks." Through pep talks and role-playing, children can learn appropriate ways to handle an upcoming situation and understand parental expectations while in a neutral or positive state of mind.

W: Ways to Get Support

Feeling accepted, supported, and loved helps individuals feel less threatened and isolated. Perceived support can be different from viable practical support for children. During therapy, the therapist and child draw a support tree that includes the names of people who can help him or her through difficult situations. They then talk about when, how, and where the child can go for support and what are appropriate expectations of others. The therapist emphasizes to parents and children alike that seeking support when it is needed is a sign of strength, not weakness.

PRELIMINARY STUDY

We conducted an exploratory study to determine the feasibility of CFF-CBT by evaluating adherence to the treatment protocol by the therapist, compliance with attending psychotherapy sessions, and parent satisfaction. We also evaluated symptom intensity and overall functioning before and after treatment.

METHOD

Participants

Participants were drawn from a specialty clinic at the University of Illinois at Chicago. They included 34 children and adolescents (24 boys, 10 girls) ranging in age from 5 to 17 years old (mean age 11.33 years, SD = 3.06). Participants were from predominantly middle-class households; 23 (68%) were European-American, 8 (23%) were African-American, 2 (6%) were Latino, and 1 (3%) was Asian. Although CFF-CBT is primarily designed and is well suited for 8- to 12-year-olds, a wider age range of subjects was included as an exploratory exercise. All participants were diagnosed with bipolar

disorder using the Washington University in St. Louis Schedule for Affective Disorders and Schizophrenia for School-Age Children (WASH-U-KSADS) (Geller et al., 1998a). The WASH-U-KSADS is a semistructured interview used to establish a *DSM-IV* diagnosis (American Psychiatric Association, 1994). Participants received treatment during the same 18-month period (July 2000–December 2001). The majority of participants (n = 28) received a primary diagnosis of bipolar disorder type 1, three were diagnosed with bipolar disorder type 2, and three were diagnosed with bipolar disorder not otherwise specified (American Psychiatric Association, 1994). All but five participants had other Axis 1 conditions; with an average of 2.76 ± 1.0 additional conditions. The most prevalent comorbid conditions were ADHD (73.5%), ODD (35%), and learning disorders (32%).

In addition to the primary diagnosis of bipolar disorder, inclusion criteria included the following: (1) a score on the Young Mania Rating Scale (YMRS) (Young et al., 1978) of more than 15, but less than 20 to ensure that participants would be receptive to psychotherapeutic strategies, assessed over an initial time frame of 1 week; (2) a standard score of more than 70 on the Wide Range Achievement Test (WRAT) (Wilkinson, 1993) to indicate basic academic competencies; (3) living arrangements with a parent or significant adult guardian; and (4) on medications supervised by a physician.

Procedure

Diagnostic interviews were conducted by a board-certified child and adolescent psychiatrist (M.N.P.) and an advanced practice nurse in child psychiatry (J.A.C.). A single therapist (M.N.P.) consistently applied the CFF-CBT protocol described in this paper.

The Clinical Global Impressions Scale for Bipolar Disorder (CGI-BP) (Spearing et al., 1997) was completed by the therapist at the initiation of treatment, at the conclusion of each session, and at the end of treatment. Severity items cover a variety of symptom dimensions such as mania, depression, ADHD, psychosis, aggression, and sleep disturbances. The Children's Global Assessment Scale (CGAS) (Shaffer et al., 1983) was completed by the therapist at the beginning and end of treatment. Participants' parents or guardians also completed a satisfaction survey at the end of treatment. Items used a 5-point Likert scale with anchors 1 = very dissatisfied to 5 = very satisfied. Satisfaction was based on availability, acceptability, and efficacy.

RESULTS

Feasibility

Feasibility was defined as a function of treatment integrity, adherence to psychotherapy, and consumer satisfaction. Operational definitions of each of these concepts and results follow.

Treatment Integrity. Treatment integrity was defined as the number of key treatment elements addressed during treatment. CFF-CBT includes an integrity checklist that highlights the critical or "active ingredients" of the intervention (Appendix). If key components delineated on the checklist are modified or omitted, the clinician runs the risk of compromised outcomes. Two other authors (J.A.C., J.H.) observed all therapy sessions through a one-way mirror and completed the treatment integrity checklist for 10 randomly selected subjects. Depending on the needs of the participants, some elements were covered more extensively than others. For example, if mood monitoring was particularly challenging for a patient, more time was spent on learning the procedures than for a patient who grasped mood monitoring relatively quickly. For each participant, treatment integrity was calculated by dividing the number of actual treatment elements covered in therapy sessions by the number of planned treatment elements and multiplying by 100. These analyses revealed that 100% of the key treatment elements were delivered to all 10 randomly selected participants.

Adherence to Treatment. Adherence to treatment was operationally defined as attending 12 scheduled treatment sessions. Participants attended an average of 8.7 sessions (range 5–15 sessions). Out of missed sessions, an average of 2.5 sessions were by mutual agreement (due to scheduling conflicts, minor medical illnesses, and family emergencies) and an average of less than 1 session was a "no show" without prior notice to the therapist. Those families who could come for only a limited number of sessions received the ingredients of treatment compressed into fewer sessions.

Consumer Satisfaction. Consumer satisfaction was defined as the average score on the consumer satisfaction questionnaire completed by parents or guardians of participants, where 5 is the highest score. The average score on the satisfaction survey was high at a mean of 4.74 (SD = 0.75).

Symptom Reduction Pretreatment to Posttreatment

A series of paired comparison t tests were conducted to determine changes in CGI-BP symptom severity ratings from the initiation to the conclusion of treatment in both conditions. As can be seen in Table 1, patients demonstrated significant reductions in symptoms of ADHD ($p < .0001$), aggression ($p < .0001$), mania ($p < .0001$), psychosis ($p < .01$), depression ($p < .0001$), and sleep disturbance ($p < .0001$). On CGI-BP Overall Improvement (CGI-I) scores, 100% (34/34) of the sample scored 2 or less after treatment compared to none before treatment.

TABLE 1
Pretreatment and Posttreatment CGI-BP Severity Scores

Measure	Pre	Post	Significance
Overall	4.04 (0.81)	1.49 (0.65)	$t_{33} = 14.65$, $p < .0001$
ADHD	4.53 (1.85)	2.41 (1.13)	$t_{33} = 5.92$, $p < .0001$
Aggression	4.88 (1.53)	2.12 (1.15)	$t_{33} = 9.08$, $p < .0001$
Mania	5.24 (1.52)	1.85 (1.02)	$t_{33} = 12.83$, $p < .0001$
Psychosis	2.71 (2.01)	1.59 (1.13)	$t_{33} = 3.32$, $p < .01$
Depression	4.26 (1.69)	2.00 (1.91)	$t_{33} = 5.38$, $p < .0001$
Sleep disturbance	3.79 (1.73)	1.35 (0.77)	$t_{32} = 7.64$, $p < .0001$

Note: $n = 34$. Standard deviations are in parentheses. Higher scores indicate more severe symptoms. CGI-BP = Clinical Global Impression Scales for Bipolar Disorder; ADHD = attention-deficit/hyperactivity disorder.

Global Functioning Pretreatment to Posttreatment

A paired comparison *t* test was conducted to determine changes in CGAS scores from the initiation to the conclusion of treatment. Results indicated that participants were functioning significantly better at the end of treatment compared to their pretreatment levels, $t_{32} = 5.7$, $p < .0005$ (mean 57.67, SD = 8.26; mean 46.21, SD = 6.92, respectively).

DISCUSSION

CFF-CBT represents an innovative psychosocial approach for the treatment of PBD that engages children and other family members. It is used in conjunction with medication. The manualized treatment breaks new ground by integrating principles of CBT with those of FFT, grounding treatment in a biological theory of excessive reactivity, and targeting environmental stressors associated with PBD.

Limitations

The findings reported in this paper are from an exploratory open trial without a control group and thus should be viewed as preliminary. This was a single-site study, with a protocol developed by our team and administered by the first author. Thus, the therapist rating the outcome measures was not blind to treatment. Also, it is not clear whether participants in the CFF-CBT condition improved due to the skills of a specific therapist. Improvement could also be due to the natural history of the disorder, stabilization over time on medication, or additional attention and structure, rather than the specific intervention.

Alhough a multidimensional approach to assessing feasibility was used, future research should consider expanding patient satisfaction measures to include child participants, and compliance measures to include practicing therapeutic strategies outside the therapy sessions along with attendance at scheduled therapy sessions. In addition, measures of functioning should be completed by multiple informants, including clinicians, parents, and teachers. A final limitation to the study is that all participants did receive concurrent treatment with medications. However, medication is a front-line treatment for PBD, and withholding medication from those suffering from PBD would breach ethical boundaries.

Clinical Implications

For clinicians providing psychosocial treatment to patients with early-onset bipolar disorder, the availability of a practical and manualized treatment protocol is important. The RAINBOW treatment protocol was designed to be user-friendly to clinicians, patients, and families. For example, the metaphor of a RAINBOW is introduced in the first session as an advanced organizer and is used throughout treatment to provide a meaningful and cohesive framework to the treatment process. CFF-CBT's emphasis on family and school functioning represents recognition of families and schools as critical developmental contexts for children and adolescents, and thus critical treatment targets. Taken together, these features of CFF-CBT represent an attempt to combine current scientific understanding of PBD with practicality of design and guidelines for implementation in clinical practice.

One of the unique advantages of CFF-CBT over MFPGs is the flexibility in the timing of family treatment to address individual family needs. Another distinctive feature of CFF-CBT is its inclusion of siblings

in treatment to learn cognitive-behavioral strategies for improving their own coping skills. In addition, no patients were excluded due to comorbid conditions. This is an important consideration in the development of treatment protocols due to the high comorbidity rates found with PBD.

Results from the pilot study provide preliminary evidence of the feasibility of CFF-CBT. High levels of treatment integrity, attendance at scheduled appointments, and consumer satisfaction were obtained. In addition, CFF-CBT shows promise in decreasing multiple symptoms of PBD, including mania, depression, aggression, psychosis, sleep disturbances, and ADHD and in improving overall functioning. Our results suggest the usefulness of CFF-CBT for a wide range of ages, although future studies may be designed to focus on 8- to 12-year-olds and 13- to 18-year-olds separately, as a larger sample or age-specific techniques may have specific effects on clinical efficacy

Our preliminary study suggests the feasibility of applying this treatment protocol to a very disturbed set of children and adolescents with PBD. The limitations noted above need to be addressed in future randomized controlled trials of CFF-CBT to determine the efficacy of the intervention. In summary, CFF-CBT appears to be a promising treatment for PBD that warrants further investigation.

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APPENDIX

Child- and Family-Focused Cognitive-Behavioral Therapy: Treatment Fidelity Checklist

Rationale: This checklist represents the key components or "active ingredients" of the RAINBOW that are described in the protocol and should be covered over the course of treatment. This checklist is provided so clinicians can maintain fidelity to key treatment components.

Directions: Immediately following each treatment session, check all of the following treatment elements that were covered.

Sessions One and Two—Parents and Child Together

1. _____ Provide psychoeducation on diagnosis and problems
2. _____ Develop common language, externalizing the illness by giving it a name
3. _____ Track and chart symptoms for one month
4. _____ Call bipolar disorder "wiring dysfunction" or "brain disorder"
5. _____ Provide medications overview
6. _____ Provide overview of Rainbow
7. _____ Discuss routine and relaxation

Session Three—Parents Only

8. _____ Discuss specifics of affect regulation
9. _____ Encourage use of "I can do it" self-statements and "No negative thoughts"
10. _____ Train parents/guardians to coach their children in the use of these self-statements
11. _____ Re-orient grandiosity, paranoia, and devaluing thoughts in children

Sessions Four Through Seven—Child Only

12. _____ Introduce the concept of "RAINBOW"
13. _____ Techniques of mood monitoring
14. _____ Discuss self-talk for affect regulation
15. _____ Help patients recognize the "triggers" of anger and excitability
16. _____ Teach the A-B-C model of antecedent feelings or triggers, behavior, and consequences
17. _____ Present "I can do it" and "no negative thoughts"
18. _____ Have patients write a "happy story" about themselves
19. _____ Have patients write "sad story" and rewrite into a "happy story"

Session Eight—Parents Only

20. _____ Cover joint problem solving
21. _____ Encourage parents to 'walk' their child through the A-B-C model
22. _____ Discuss effective communication techniques
23. _____ Create opportunities for healthy conversations
24. _____ Encourage active listening and validation of child's feelings
25. _____ Discuss offering children choices
26. _____ Use metaphors to view explosive rage as a fire that is nonintentional

Session Nine—Parents and Siblings Together

27. _____ Allow siblings opportunity to vent and get validation
28. _____ Explain the intensity and impact of PBD and help siblings develop empathy
29. _____ Teach siblings to act assertively and disengage from direct confrontations

(To generalize: Parents are also encouraged to watch the therapist at work and role-play how siblings can respond to the patient's provocations).

Sessions Ten and Eleven—Child and Parents Together

30. _____ Discuss life stresses and problem solving
31. _____ Discuss how to avoid in "knee jerk" fashion, but to "react smart"

Session Twelve—Child and Parents Together

32. _____ Reinforce strengths where children and parents review "goodie bag of treasures"
33. _____ Discuss ways family members can find "ways to get support"
34. _____ Have patient draw support tree
35. _____ Role play how to ask for help
36. _____ Reinforce how it is a strength to seek support

School Component of RAINBOW (with parental consent)

37. _____ Educate school personnel about the illness
38. _____ Provide educators with specific information and strategies i.e., RAINBOW
39. _____ Provide school with a portfolio of RAINBOW materials
40. _____ Optional: Provide letter of support for accommodations under Section 504 or special education services
41. _____ Optional: Provide a copy of a sample Individual Education Plan (IEP)
42. _____ Optional: Teleconference or attend IEP conference