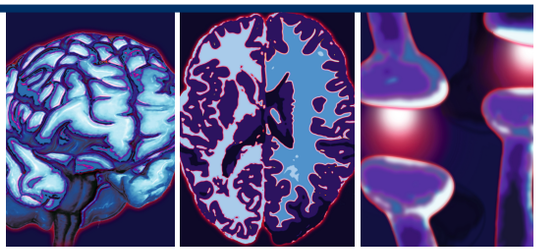
REVIEW



Family interventions for bipolar disorder: a review of the literature

Abigail K Mansfield*, Jennifer A Dealy & Gabor I Keitner

Practice points

- Pharmacotherapy is the mainstay of treatment for bipolar disorder, but fails to remit symptoms in some patients. Adjunctive interventions are therefore needed to help patients and their family cope with this disorder.
- Both patients and family members benefit from interventions aimed at helping the family adjust to this chronic disease.
- Bipolar disorder and other mood disorders are associated with lower satisfaction with family functioning.
- Family-based interventions have not been effective in alleviating acute symptoms.
- Family-based interventions show promise in delaying relapse or recurrence of symptoms of bipolar disorder.
- Family-based psychoeducation has shown promise in reducing recurrence of manic symptoms.
- Family-focused psychotherapy has shown promise in reducing recurrence of depressive symptoms.

SUMMARY Pharmacotherapy is the front-line treatment for bipolar disorder, but for many patients, pharmacotherapy alone fails to fully remit symptoms. The present review surveyed existing treatment-outcome randomized controlled trials of adjunctive family-based interventions for bipolar disorder. A review of PubMed databases performed on 1 September 2011 revealed ten unique randomized controlled trials of family-based interventions for bipolar disorder. Approaches to intervention varied, but results indicated that family-based psychoeducation is effective in reducing relapse of manic symptoms, while family-based psychotherapeutic interventions are more effective in reducing relapse of depressive symptoms. More studies are needed to determine which types of intervention are most effective.

Rhode Island Hospital, Department of Psychiatry, 593 Eddy Street, Providence, RI 02903, USA
*Author for correspondence: Tel.: +1 401 444 3925; Fax: +1 401 444 3298; amansfieldmarcaccio@lifespan.org

Future Medicine part of fsg

Bipolar disorder is a debilitating condition, associated with a high degree of disease burden and impaired functioning. At present, psychopharmacology is the primary treatment, but for many patients, pharmacotherapy does not result in full remission of symptoms [1]. As a result, adjunctive individual and family-based interventions are common. Individual psychotherapies that have demonstrated empirical support include: psychoeducation, cognitive behavioral therapy (CBT), and interpersonal and social rhythm therapy. Family-based interventions have included psychoeducation as well as family therapy. Bipolar disorder exerts a heavy toll on family functioning, as both patients and caregivers lives are affected by the disorder.

The role of the family in bipolar disorder has been discussed since the 1960s when family therapy proliferated. However, until the 1980s, no research on family interventions for bipolar disorder had been carried out. Instead, scholarship focused on characteristics of families of patients with bipolar disorder, and on milieu interventions. In the 1980s, family-based therapies for bipolar disorder were developed, but none were tested until the 1990s when Simoneau *et al.* piloted a family-based intervention for bipolar disorder designed to reduce expressed emotion [2]. Since the 1990s a number of studies have explored the effect of various forms of family-based interventions on bipolar disorder.

Despite the chronicity and debilitating nature of the disorder, relatively little research has systematically examined the efficacy of family-based interventions. The purpose of the current paper is to review randomized controlled trials (RCTs) of family-based interventions for bipolar disorder. Family-based interventions refer to psychosocial interventions that include family members of the bipolar patient with or without participation of the patient with bipolar disorder.

Method

We reviewed the literature available for RCTs of family interventions for bipolar disorder. A review of PubMed databases performed on 1 September 2011 produced 953 citations using the search terms 'bipolar disorder' and 'family therapy'. The citations ranged from the year 1964 to 1 September 2011. Each of these was reviewed by title and abstract, and we generated a list of 19 articles evaluating ten unique RCTs that evaluated the efficacy of family therapy for bipolar disorder. Three unique RCTs were excluded because they included participants with any major mood or affective disorder and the specific impact on participants with bipolar disorder was not reported [3–5]. Another article [6] was excluded because the results were presented more fully in a subsequent article [7] that is included in our analysis. Similarly, another article [8] was excluded because it reported on the subset of patients that achieved remission status in an RCT that is more fully reported in another article [9], which is included in our analysis.

The randomized trials examined the efficacy of three types of family-based intervention: family-focused therapy (FFT), problem-centered systems therapy of the family (PCSTF) and family-based psychoeducation. Each of the family interventions will be described in turn, and evidence from the RCTs for each modality will be reviewed. Study characteristics and results of the unique RCTs and secondary analyses of the data are summarized and reported.

Family-focused therapy

FFT is a structured approach to family therapy that begins with psychoeducation about bipolar disorder. FFT consists of 21 1-h sessions, the first 12 of which are delivered weekly, the next six biweekly and the next three monthly. Treatment is designed for the patient and family members [10], typically spouses or parents. Therapy consists of three modules: psychoeducation (seven sessions), communication enhancement and problem-solving training. Psychoeducation focuses on symptoms and etiology of bipolar disorder, and uses a vulnerability–stress model [10]. Emphasis is placed on relapse prevention. Communication enhancement (seven to ten sessions) focuses on acquiring active listening skills, skills for delivering feedback and skills for requesting changes in a significant other's behavior. Problem-solving skills (four to five sessions) entail identifying family problems, brainstorming solutions, choosing the best solution and evaluating the solution once it has been implemented.

Problem-centered systems therapy of the family

PCSTF [11] was used in two studies and consists of a comprehensive assessment of the family, including an assessment of how the family functions in six domains: roles (how responsibilities are allocated, and how the health and welfare of family members are being addressed);

communication (the extent to which family members can communicate clearly and directly with each other); problem solving (the family's ability to identify and respond to problems that arise), affective responsiveness (the capacity of each family member to experience and respond to emotions in a way that is appropriate to the situation); affective involvement (the ability of family members to be involved with each other, and support each other); and behavior control (the family's ability to set expectations and rules for behavior, and to enforce standards of behavior). Following the assessment, the family engages in contracting to choose a problem or set of problems to be addressed and, with the therapist, sets goals and identifies tasks necessary to achieve these goals. Treatment involves working on the goals laid out during the contracting phase, and termination follows when the family and therapist decide together that the goals of treatment have been attained or have been addressed as fully as possible under current conditions. Length of treatment varies at the discretion of the family therapist, but most families receive 10–15 family therapy sessions [12].

Family-based psychoeducation

Multigroup family psychoeducation has been used in a variety of studies, and is often executed differently depending on the research group employing it. One approach [9] used a six-session format in which the following topics were covered: signs and symptoms of depression and mania; experiences, concerns and coping strategies for living with a family member who has a mood disorder; questions and answers about pharmacotherapy; and differences in perspectives on the disorder between patients and family members. Multiple families, including family members and patients, participated in this group.

In another study [13–16], six 2-h sessions were delivered biweekly to individual families. The first three sessions provided disorder-specific education, and the following three sessions addressed effective coping strategies. The purpose of this multigroup psychoeducation intervention was to reduce expressed emotion in families. Expressed emotion refers to critical, hostile, or emotionally intrusive attitudes. Research has demonstrated that psychoeducation reduces the relapse rate in schizophrenia [17,18]. The purpose of the study by Honig *et al.* [15] was to examine whether a similar model would reduce relapse rates for bipolar disorder.

Three studies delieverd psychoeducation to a family member of the patient, rather than including the patient in the intervention [13,14,16]. In these studies, the family member participated in a group in which the symptoms and etiology of bipolar disorder were reviewed, as well as the importance of adherence to pharmacotherapy and signs of relapse.

Findings from FFT studies

In the earliest study of FFT [19], 101 patients with bipolar I were enrolled with a family member. Four articles were published on this sample [2,19–21]. The mean age of participants was 35.6 years, 63% of participants were female and 84.2% were Caucasian. The mean number of prior mood episodes was 4.7. All participants had a DSM III-R diagnosis of bipolar I disorder, were between 18 and 60 years of age, had at least one relative willing to participate in a study, screened negative for alcohol and drug disorders in the 6 months prior to the study, and were an in acute depressive episode at the time of enrollment. Participants also had to be willing to maintain a pharmacotherapy regimen including mood stabilizers and/or antipsychotics. Participants were randomized into either FFT or case management. Case management included monthly supportive phone calls, continued treatment as usual, and two 1-h psychoeducation sessions on relapse prevention and family conflict. Participants were followed for 1 year after treatment ended. Outcomes of interest included family-level expressed emotion; family problem solving; adherence to medication; mania, depression, and psychosis severity; and time to relapse. Results indicated that both treatment arms evidenced symptom improvement during the follow-up period. However, patients in the FFT group experienced fewer relapses, had a longer time to relapse, and had greater improvements in depression symptoms over time [2,19–21]. Families with higher baseline levels of emotional expression experienced greater reductions in depression severity in the FFT group than the case management group [21]. There was no differential treatment effect on mania symptoms [19,21]. Adherence to pharmacotherapy was associated with less severe mania scores in both treatment arms [19,21].

Another study exploring the efficacy of FFT drew on a sample of 53 recently hospitalized inpatients being treated for a recent manic episode [7]. Patients were included if they had

a diagnosis of bipolar disorder, manic type as determined by a 'Present State Examination' and supplementary mania items from the DSM III-R SCID (Structured Clinical Interview for Axis I DSM-IV Disorders) [7]. Medical records and family member reports were used to aid in diagnosis. Participants were aged 18–45, were taking mood stabilizing medications at the time of enrollment, and had at least one family member willing to participate in a research study. In addition, participants could not meet criteria for a chronic organic nervous system disorder, or chronic alcohol or substance abuse or dependence. Participants were randomized into one of two treatment arms: medication management and FFT or medication management and individually focused treatment, which consisted of supportive, educational and problem-solving strategies. The individually focused treatment consisted of 21 30-min sessions delivered over the course of 9 months. The study follow-up period was 1 year. The objective of the study was to evaluate treatment effect on mania and depression-symptom severity, symptom relapse, time to relapse, medication adherence and rehospitalization rates. Results indicated that patients in both treatment arms did not differ in the number of relapses or hospitalizations during the active treatment period. However, during the follow-up year and for the treatment and follow-up years combined, the FFT group experienced fewer hospitalizations and relapses. Patients with poorer premorbid functioning were less likely to relapse during the active treatment year in the FFT group relative to the individually focused treatment arm. Medication adherence was high in both treatment arms. Better premorbid functioning was associated with lower rates of rehospitalization during the follow-up period.

Two studies addressed findings from two arms of the STEP-BD trials [22,23]. STEP-BD (NIMH-funded Systematic Treatment Enhancement Program for Bipolar Disorder) was designed to evaluate all existing treatment modalities for bipolar disorder to find out which treatments or combinations of treatments are most effective for treating depression and mania, and for preventing future episodes [24]. The two studies reported here analyzed data from 293 participants who agreed to be randomized into a psychosocial treatment trial [22,23]. Analyses examined data from participants who received one of four psychosocial treatments, of which FFT was one. FFT was compared with Interpersonal Social Rhythm Therapy (IPSRT), CBT and collaborative care, all of which are defined in detail elsewhere [23]. FFT, IPSRT and CBT treatment consisted of 30 sessions over 9 months. Collaborative care consisted of three brief psychoeducational sessions delivered over 3 weeks, in addition to treatment as usual. Participants were assessed at seven time points, including 3 months pretreatment, every 3 months for the first year of the study, and once every 6 months for the remainder of the study. Outcomes included the presence or absence of depression and mania, depression and mania severity, functional impairment, and time to recovery. Results indicated that patients in any of the intensive therapeutic arms, including FFT, IPSRT and CBT, experienced shorter time to recovery, and more days spent without symptoms during follow-up than patients in the collaborative care condition [23]. An additional analysis using a subset of the same sample examined psychosocial, recreational and vocational functioning at baseline and follow-up [22]. This sample included the 152 participants that had completed a functional impairment assessment at baseline and at least one follow-up. Results indicated that participants in the intensive treatment arms endorsed better functioning overall than patients in the collaborative care condition. Specifically, patients in intensive treatments, including FFT, endorsed greater changes in relationship functioning and life satisfaction. There were no differential treatment effects on participants' work or role functioning [22]. Baseline depression severity and functional impairment scores predicted follow-up functional impairment scores [22].

One study explored the efficacy of FFT with adolescents [25]. Participants were 58 adolescents who met criteria for bipolar disorder I, II or Not Otherwise Specified (NOS). Inclusion criteria were: mood episodes in the 3 months prior to enrollment; age 12–17 years; at least one parent willing to participate; and either 1 week of mania or 2 weeks of depression within the 3 months prior to enrollment. Exclusion criteria included active psychosis, substance abuse, or any eating disorders requiring hospitalization in the near future, as determined by study staff. Eligible participants were randomized to the FFT group or enhanced care and pharmacotherapy, which consisted of pharmacotherapy and three sessions of psychoeducation

focused on relapse prevention and adherence to medication. The follow-up period was 2 years. Outcomes studied included mania, hypomania, and depression severity, recovery status and recurrence. Results indicated that there were no group differences in rate to recovery or time to recurrence from baseline manic or depressive episodes. However, patients in the FFT arm had a quicker recovery from baseline depression symptoms and spent fewer weeks in depressive episodes over the 2-year follow-up period.

Findings from PCSTF

One unique study explored the efficacy of PCSTF for patients with bipolar disorder and their families [9]. Three other articles have been published that were conducted preliminary analyses of the data before the total sample was enrolled or on secondary analyses [26,27]. The sample consisted of 92 inpatients with current bipolar disorder I using SCID III-R criteria combined with an inpatient psychiatrist's evaluation. The patients ranged in age from 18 to 65, and had a relative or significant other willing to participate in the study. Participants could not have alcohol or drug dependence within the 12 months prior to enrollment. Participants were randomized to pharmacotherapy and PCSTF, pharmacotherapy and multifamily group psychoeducation, or pharmacotherapy alone. The multifamily group psychoeducation intervention consisted of six weekly 90-min sessions that focused on education about bipolar disorder, the importance of medication adherence, how to respond to the patient's bipolar episodes and techniques to enhance communication between family members about the disease. The follow-up period was up to 28 months, and outcomes measured included: depression and mania severity; family functioning; social support; and functional impairment. Results indicated no group differences in symptom severity. However, relative to patients who received pharmacotherapy alone, patients from families with high levels of baseline dysfunction experienced fewer depression recurrences during the follow-up period in both of the family intervention groups [9,26,27], and spent less time in a depressive state [26]. Of note, attrition was high in this study, with 34% of participants in pharmacotherapy alone, 36% in the PCSTF, and 33% in multifamily group psychoeducation dropping out of the study within the 6-month active treatment phase, and 51% dropping out prior to the 1-year assessment [27].

Findings from psychoeducation of relatives of patients with bipolar disorder

Four studies examined the efficacy of psychoeducation interventions for relatives of patients with bipolar disorder [13,14,16,28]. In one study [28], 14 spouses of patients with bipolar disorder, as diagnosed by two independent psychiatrists using DSM-III-R criteria, participated in five psychoeducational sessions. In the control condition, 12 spouses completed questionnaires but received no treatment. The psychoeducation sessions focused on education about bipolar disorder, identifying early symptoms, education about pharmacological agents and information about enhancing life satisfaction. The study period was 12 months. Outcomes included medication adherence, problem solving, knowledge about bipolar disorder, knowledge about lithium pharmacology and symptom severity. Results indicated that partners in the intervention group endorsed more knowledge of social strategies, bipolar illness and lithium pharmacology than partners in the control group. Results of the intervention on bipolar symptoms were not reported clearly.

In another study, 52 participants with bipolar I or II, as determined by diagnosis of the referring psychiatrist, diagnoses noted in patients' medical records and family member reports, participated in a study of multifamily group psychoeducation in the Netherlands [13]. Families (n = 29) of patients with bipolar disorder were randomized into the psychoeducation condition or the wait-list control condition (n = 23). The multifamily group psychoeducation consisted of six 2-h sessions focused on education about bipolar disorder and coping strategies. The study period was 14 weeks, including a baseline assessment 1 week prior to treatment, a 12-week treatment period, and an assessment 1 week after treatment ended. The main outcome was family levels of expressed emotion. Results indicated that the treatment group experienced greater reductions in expressed emotion than the wait-list control group. In addition, lower rates of expressed emotion were related to lower rates of hospitalization, but it was not clear whether the intervention group experienced fewer hospitalizations relative to the control group. The impact of the intervention on patients' bipolar symptoms was not reported.

A study conducted in Spain explored the impact of psychoeducation for family members of patients with bipolar disorder [16]. In this study, 113 medicated, euthymic, bipolar outpatients who met criteria for bipolar I or II using SCID-IV criteria were randomized to one of two treatment arms. Participants ranged in age from 18 to 60, had to be euthymic for at least 3 months prior to randomization, and had to have at least one family member or significant other living with the patient for at least a year who was willing to participate in a research study. No rationale was provided for having patients meet criteria for euthymia for 3 months prior to randomization. Exclusion criteria included any comorbid axis I disorders, as assessed by SCID-IV criteria, as well as mental retardation or any unstable nonpsychiatric illness. Relatives were excluded if they had bipolar disorder I or II, were illiterate, were mentally retarded, or had any severe mental disorder. Study duration was 15 months, which included 3 months of the intervention period and 12 months of follow-up. The psychoeducational intervention consisted of 12 90-min weekly sessions focused on education about bipolar illness, symptom management, coping with emergencies, the role of family members in managing bipolar illness and the effect of bipolar illness on families. Outcomes included manic and depressive symptoms, and time to relapse. There were no differences between groups in rates of attrition. The intervention group had lower rates of total relapses, and manic and hypomanic relapses, relative to the control group. There were no between-group differences in depression relapse or mixed episode relapse. There were also no differences between groups on adherence to medication.

Finally, in 2010, a US group published a study which included 46 patients with bipolar disorder I or II, and caregivers of these patients who endorsed either physical or mental health problems as assessed by the Health Risk Behavior Scale, the Center for Epidemiological Depression Scale, and the Social Behavior Assessment Schedule [14]. Bipolar diagnosis was established using the SCID for the DSM-IV. The caregivers received FFT adapted for caregivers (n = 24), while the control group (n = 19) received eight to 12 sessions of education about health-related topics, provided via videotapes. FFT was administered to caregivers and consisted of 12–15 sessions focused on education about bipolar disorder, while the second phase consisted of education about how to optimize caregiving behaviors, including self-care for the caregiver. To complete participation in the study, participants in the FFT group had to complete a minimum of 12 sessions, while participants in the health education group had to complete eight sessions. The study tracked outcomes at baseline and immediately following treatment. Outcomes for bipolar patients included depression and mania severity. Outcomes for significant others included depression symptoms of caregivers, self-care behaviors and caregiver objective and subjective burden. Results indicated that relative to the health education group, patients in the FFT group evidenced decreased depression and mania scores. In addition, relative to the health education group, caregivers in the FFT group evidenced greater decreases in depression symptoms and health-risk behaviors. Improvements in caregiver depression were associated with patient improvements in depression. Decreases in patients' avoidant coping appeared to be related to decreases in depression among caregivers.

Conclusion & future perspective

As of January 2012, ten unique studies have explored the impact of adjunctive family interventions on patients' bipolar disorder symptomology. In all studies, family interventions were added to pharmacotherapy for bipolar disorder. The family interventions employed have varied significantly, as has the size and quality of the studies conducted. Findings from this review suggest that adjunctive family therapy has little effect on acute treatment response or remission; most results emerged after treatment had ended, suggesting a delayed treatment effect. In addition, findings suggest that family interventions have a greater impact on relapse and recurrence of symptoms and mood episodes. Thus, the benefit of family interventions for bipolar disorder may derive largely from the effect of family interventions on recurrence of symptoms. Literature suggests that the impact of family interventions on family levels of expressed emotion may contribute to their effect on reoccurrence of patient symptoms [29]. Finally, it is not possible at this time to comment on which family interventions are best because, to date, there has been no direct comparisons of the various interventions, apart from one study which employed both PCSTF and multifamily group psychoeducation [9,26] and found both to be equally effective in reducing recurrence of symptoms.

In summary, although family interventions appear to be a useful adjunctive treatment for bipolar disorder, more studies are needed to replicate preliminary findings, to discern whether specific types of family interventions are especially effective, and to ascertain more about the impact of such interventions on a variety of outcomes, especially bipolar symptoms and family functioning.

Financial & competing interests disclosure

The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest in or financial conflict with the subject matter or materials discussed in the manuscript. This includes employment, consultancies, honoraria, stock ownership or options, expert testimony, grants or patents received or pending, or royalties.

No writing assistance was utilized in the production of this manuscript.

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■ **This study examined the impact of intensive psychotherapy on participants' bipolar symptomology. Participants (n = 293) were enrolled in one of two treatments arms of the STEP-BD trial. Participants in these analyses were enrolled in one of the intensive psychotherapy treatment groups (i.e., FFT, CBT and IPSRT) or in the collaborative care group. Results indicated that participants in any of the intensive psychotherapy groups had a shorter time to recovery than patients in the collaborative care group.**

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■ **This study conducted a comprehensive review of the literature on the relationship between family characteristics (i.e., high EE vs low EE) and patient's disorder trajectory. The authors formulate a recursive biopsychosocial model of the interactions between symptoms, cognitions and family transactions that give rise to, and perpetuate, EE, poor family outcomes and poor patient outcomes.**