

Efficacy of supportive family interventions in bipolar disorder: a review of the literature

Efficacia degli interventi di sostegno familiare nel disturbo bipolare: una review della letteratura

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Summary

Background

To review the efficacy of supportive family interventions for bipolar disorder on patients' clinical and social outcome and family functioning.

Methods

A review of the studies on supportive family interventions in bipolar disorder carried out in the last 20 years has been performed using the main databases. Searched keywords include "psychoeducational family intervention", "family therapy", "family supportive interventions", "caregivers"; these terms have been matched with "bipolar disorder", "affective disorders" or with "manic-depressive illness".

Results

The different approaches developed, alone or integrated with

more complex treatment strategies, can improve the course of bipolar disorder, reduce the risk of relapses and hospitalizations and improve patient adherence to pharmacological treatment. Only few studies have tested the efficacy of these interventions on the reduction of suicidal ideation or in patients with an early onset of the disease. Supportive family interventions improve coping strategies of relatives and family burden.

Conclusions

Supportive family interventions should be an integral part of optimal management of bipolar disorder. Studies on the implementation of these interventions in routine practice are needed.

Key words

Bipolar disorder • Supportive family intervention • Psychoeducation, family burden

Background

Bipolar disorder occurs in 1 to 3.7% of the general population and will represent the sixth leading cause of disability worldwide among all medical illnesses by the year 2020¹⁻³. The disorder has a significant impact on social functioning and quality of life of affected people and their relatives⁴.

The illness is highly recurrent with 40-60% of patients experiencing at least one relapse of depression or mania within two years, even if they are on a regular pharmacological treatment⁵. Patients present multiple impairments in school, work and social functioning, even when they are asymptomatic⁶⁻¹⁰. Suicide risk is 15 times higher in bipolar patients compared to the general population^{11 12} and mortality rates due to suicide rise up to 15-20%¹³; moreover, as many as 50% of patients attempt suicide at least once¹⁴.

The family environment plays an important role in this disorder¹⁵, similar to schizophrenia^{16 17} and major depression¹⁸. In bipolar disorder, family burden is

mainly associated with: a) manic symptoms; b) poor social functioning; c) presence of an acute episode during the last two years; d) rapid cycling course of illness; e) lack of adherence to pharmacological treatment^{2 19 20}.

A study carried out in 500 caregivers of patients with bipolar disorder has highlighted that 89% expressed concerns for the patient's behaviour, 52% for loss of social role and 61% for discontinuation of family daily life²¹. Caregivers with high levels of family burden report a high number of physical problems, depressive symptoms, high risky behaviours, frequent referral to health agencies and less support from the social network.

During the last 10 to 15 years several studies have shown that active involvement of family in the treatment of patients with bipolar disorder improves outcome by reducing family burden and improving communication skills²². Thus, family interventions have been proposed for an optimal management of bipolar patients²³.

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Family interventions, according to the available evidence, represent one of the most effective psychosocial interventions for the treatment of bipolar disorder²⁴. Several models have been developed, all being “psychoeducational” in nature, meaning that patients and/or relatives are thought to manage and recognize affective episodes early. The “family-focused therapy” (FFT), developed by Miklowitz et al. in the early 2000s, consists of 21 psychoeducational sessions including a special training for the improvement of problem-solving strategies and communication skills. This approach specifically focuses on strategies to manage emotions and to improve interpersonal communication²³. The model developed by Colom and Vieta²⁵ is delivered without the patients and aims to provide relatives with information about the nature of the illness and with coping strategies for its management. Lam et al.²⁶ have developed an educational intervention which combines information modules and cognitive skills to modify the behaviours of patients and relatives. The approach developed by Ian Falloon^{27,28} for the management of schizophrenia has been adapted to bipolar disorder only recently by our group²⁹, and its results will be described elsewhere.

The aim of the present paper is to review the current status of research on the efficacy of supportive family interventions on clinical status and social functioning of patients with bipolar disorder and on outcomes in relatives.

Methods

All studies on supportive family interventions for bipolar disorder carried out over the last 20 years (until June 2012) have been searched through Medline/Pubmed databases. The keywords “psychoeducational family intervention”, “family therapy”, “family supportive interventions”, “caregivers”, “family burden” were used in the search and matched with “bipolar disorder”, “bipolar affective disorder” and “manic-depressive illness”. Only papers in English were considered for this review. In this paper, “supportive family intervention” and “psychoeducational family intervention” will be considered as synonymous, although we are aware that they are not.

The results have been grouped into three areas: 1) efficacy of supportive family interventions on patients’ clinical status; 2) efficacy of supportive family interventions on relatives’ outcome; 3) efficacy of supportive family interventions on early onset bipolar disorder. This review does not have to be considered a systematic review, but rather as a description of evidence-based data supporting the implementation of supportive family intervention for bipolar disorder in routine care, as has been done recently for psychosocial interventions for the same disorder³⁰.

Results

Efficacy of supportive family interventions on patients’ outcomes

Several studies showed that this intervention improves the course of bipolar disorder, in particular by preventing relapses and reducing hospital admissions^{31,32}.

Miklowitz et al.^{33,34} randomly assigned 101 adult patients and their relatives, in a post-manic, mixed or depressive episode to two alternative groups, one receiving a family-focused therapy (experimental group) and the other receiving two-sessions of a family intervention focused on crisis management (control group). Patients from both groups were on regular pharmacological treatment. At two years, experimental intervention had a high impact in reducing depressive symptoms, probably as a consequence of improvement in communication skills between patients and family members. Moreover, the experimental group showed a lower number of relapses (52% vs. 17%) and a longer period free from symptoms (73.5 weeks vs. 53.2 weeks).

Rea et al.³⁵ compared family-focused therapy with individual psychotherapy in 53 bipolar I patients admitted to a psychiatric ward for a manic episode. The individual psychotherapy was scheduled according to the educational topics of the family-focused treatment (21 sessions over a 9-month period). Although after one year no difference was found between the two groups, at two years patients in the family-focused group showed a relapse rate of 28% and an admission rate of 12% compared to a relapse rate of 60% and an admission rate of 60% in the control group.

Reinares et al.^{36,37} carried out a study to analyze the effects of a psychoeducational programme for caregivers on the course of bipolar disorder. 113 outpatients living with caregivers were randomly assigned to an experimental or a control group; the former group received 90-min psychoeducational sessions providing information about the illness and the improvement of coping strategies. The sessions were run without the patients. Caregivers from the control group did not receive any kind of intervention. Patients were assessed monthly during the intervention and at 12 months after the end of the protocol. In the experimental group, a significant reduction of relapses and a longer period in remission have been observed.

Miller et al.³⁸ reported that the provision of any family treatment (family therapy or psycho-educational intervention) significantly improves the course of bipolar disorder, particularly the number of depressive episodes and the time spent in a depressive episode. A few studies have analyzed the impact of psychoeducational family intervention on suicide risk.

Several psychosocial approaches (i.e. cognitive behav-

TABLE I.
Efficacy of psychoeducational family interventions on patients' clinical status. *Efficacia degli interventi di sostegno familiare sullo stato clinico e il funzionamento sociale del paziente.*

Study, (Year), Country	Sample size (N)	Study design	Inclusion criteria	Main features of the interventions	Main results
Miklowitz et al., (2000; 2003), USA ^{33,34}	101 adults patients and their family members	Family-focused therapy (FFT) vs. crisis management (CM) Random allocation	1) Diagnosis of bipolar disorder in the past 3 months; 2) age between 18 and 65 years; 3) no neurological disorder, alcohol and substance abuse disorder within 6 months; 4) in regular contact or living at least 4 hours per week with a caregiver	FFT: 21 psychoeducational sessions on communication and problem-solving skills CM (crisis management): 2 one-hour, home-based family education sessions on relapse prevention and resolution of family conflicts	Effects were more evident on depressive symptoms than on manic ones During the two-years follow-up, FFT group showed a lower number of relapses and a longer relapses-free period FFT group showed a better pharmacological compliance and improvement in global functioning compared to the control group
Rea et al., (2003), USA ³⁵	53 patients and 74 relatives	Family-focused therapy (FFT) vs. individually focused patient treatment Random allocation	1) Diagnosis of bipolar I disorder; 2) admission in a psychiatric ward for a manic, mixed or depressive episode; 3) age between 18 and 65 years; 4) absence of neurological disorder, or substance abuse disorder during the last 6 months; 5) in regular in contact with the mental health centre (at least 4 hours per week with a caregiver)	21 psychoeducational sessions, on communication and on problem-solving skills	At 2 years, FFT group showed a lower relapse and admission rates than control group
Reinares et al., (2008; 2010), Spain ^{36,37}	113 caregivers of patients with bipolar I disorder	Caregivers' psychoeducational intervention vs. control group Random allocation	1) Diagnosis of bipolar I or II disorder; 2) age between 18 and 60 years; 3) absence of symptoms for at least three months; 4) on regular pharmacological treatment; 5) living with a relative for at least 1 year; 6) absence of comorbidity with other axis I disorders	Twelve 90-min psychoeducational sessions on information about the nature of the illness and on coping strategies	The experimental group showed a significant reduction of manic or hypomanic relapses and a longer period disease-free particularly during the early stages of the illness
Miller et al., (2008), USA ³⁸	92 patients with bipolar I disorder and their family members	Pharmacotherapy alone vs. family therapy + pharmacotherapy vs. multi-family psychoeducational group + pharmacotherapy Random allocation	1) Current mania, major depression, or mixed episode; 2) age between 18 and 75 years; 3) living with a relative	Family therapy was conducted according to the McMaster model of family functioning (a short-term, multidimensional treatment that emphasizes comprehensive assessment and problem-solving strategies)	In patients from families with high levels of impairment, the addition of the family intervention resulted in a significantly improved course of illness, particularly by reducing the number of depressive episodes and the proportion of time spent in a depressive episode

Clarkin et al., (1990; 1998), USA ^{43 44}	42 patients and their spouses randomly assigned to receive both medication and the psychoeducational marital intervention, and 23 patients to receive medications only	Psychoeducational interventions + pharmacotherapy vs. pharmacotherapy alone Random allocation	1) Age between 21 and 65 years; 2) diagnosis of major affective disorder or bipolar disorder; 3) married or living with a relative for at least six months; 4) absence of organic brain disorder, or of alcohol and drug abuse; 5) no pregnancy; 6) absence of contraindications to the use of lithium or carbamazepine	25 psychoeducational sessions: 10 sessions scheduled weekly, 15 bimonthly. The intervention lasts 11 months	At the end of the intervention, patients showed an improvement of compliance to pharmacological treatment and of social functioning
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journal therapy, family focused therapy, interpersonal and social rhythms therapy, systematic treatment enhancement programme for bipolar disorders) have shown a positive impact on the improvement of patient adherence to pharmacological treatments, a fundamental but rarely achieved therapeutic goal in the management of bipolar disorder ³⁹⁻⁴². Moreover, Clarkin et al. ^{43 44} reported that acute bipolar patients receiving an 11-months psychoeducational family intervention have a better adherence to treatments and global functioning than patients receiving pharmacological therapy alone. Miklowitz et al. ^{33 34} showed that family-focused therapy resulted in a better adherence to treatments at two years compared to those receiving management crisis intervention. All studies on the impact of supportive family interventions on the clinical status of patients with bipolar disorder are reported in Table I.

Efficacy of supportive family interventions on relatives' outcomes

A few studies have analyzed the effects of psychoeducational family interventions on the well-being of relatives. Reinares et al. ⁴⁵ randomly assigned 45 euthymic bipolar patients and their relatives to an experimental group receiving twelve 90-minute psychoeducational sessions on the clinical features of bipolar disorder and on the development of coping strategies or to a control group receiving pharmacological treatment alone. At the end of the intervention, treated caregivers reported lower levels of family burden. Eisner & Johnson ⁴⁶ analyzed the effects of an intervention focused on the improvement of relatives' attitudes toward patients with bipolar disorder. Twenty-eight relatives received a 1-2 day multi-family intervention, and were assessed at baseline and after one week. At the end of the intervention, relatives had more information on bipolar disorder, but anger, criticism and attitudes toward the patients did not significantly change, thus confirming the difficulties in modifying the "expressed emotions" of relatives of patients with bipolar illness ⁴⁶. Perlick et al. ⁴⁷ found a reduction of subjective burden in relatives receiving a family focused treatment-health promotion intervention. In the US, Ruffolo et al. ⁴⁸ promoted a new brief psychoeducational approach, the so-called two-hours single-session family psychoeducation workshop. During the first hour, the clinician provides information on the illness to the relatives; in the second hour participating family members are divided into breakout groups for more intensive discussion and problem solving strategies. The results of this study confirm that this approach increases relatives' knowledge about the illness and improves their coping strategies. A similar result has been found by Jönsson et al. ⁴⁹, who showed improved lifestyle behaviour and stress management in relatives re-

ceiving educational intervention. Madigan et al.⁵⁰ carried out a randomized controlled trial and grouped patients with bipolar disorder and their relatives in three arms, receiving multi-family group psychoeducation (MFGP), solution focused group therapy (SFGT) or treatment as usual (TAU). At one year, those who were allocated to either MFGP or SFGT showed significantly better knowledge about the disorder and reduced overall burden and psychological distress. These results were still significant at two years. The studies which have explored the impact of supportive family interventions on outcomes of relatives are reported in Table II.

Efficacy of supportive family interventions on early onset bipolar disorder

Childhood onset bipolar disorder is associated with significant morbidity and mortality, but effective treatment strategies are at the moment underdeveloped and understudied. In the US, 35 patients and their relatives were assigned to an experimental group receiving multi-family psychoeducation group (MFPG) intervention or to a control group in a waiting-list. At the end of the study, MFPG parents showed significantly greater knowledge about the illness compared to the control group⁵¹. Moreover, children from this group reported a significant improvement in social support from their parents and peers.

In the US, Goldstein et al.⁵² assessed the feasibility of a dialectical behaviour intervention for young bipolar patients and found a reduction in suicidal thinking and depressive symptoms. Miklowitz et al.⁵³ explored the effects of parents' expressed emotion (EE) on the outcome of adolescent bipolar patients, and found that patients treated with family focused therapy had significantly improved depressive and manic symptoms compared to those receiving enhanced care. Studies allocated in this category are detailed in Table III.

Summary of findings and conclusions

Although a few randomized clinical trials have been carried out to evaluate the efficacy of supportive family interventions in bipolar disorder, this review is the first to analyze the benefits and limitations of supportive family interventions on patients' and relatives' outcomes.

The available data and guidelines⁵⁴ suggest combining pharmacological treatment with psychoeducational family intervention to achieve a comprehensive, good long-term outcome. In particular, this association reduces relapses and hospital admissions, improves social functioning and increases compliance to pharmacological treatment^{24 55 56}. However, all studies have some important methodological limitations, such as small sample sizes, lack of randomization and short follow-ups⁵⁷, which do

not allow the generalizability of available findings. Moreover, most of the studies did not take into account the various clinical subtypes of bipolar disorder and have not explored if the effects of this intervention vary according to the subtype. We anticipate that psychoeducational family intervention is more effective in bipolar I disorder than in the other spectrum subtypes, but this needs further investigation.

Although studies exploring the effect of psychosocial interventions on the reduction of suicidal risk are not available⁵⁸, new data are emerging on the effectiveness of these interventions in suicidal patients, but still suffer from methodological limitations. Although the association of family support with pharmacological treatment represents the optimal therapeutic strategy in patients with suicide risk, only a few studies have investigated the efficacy of psychoeducational interventions on the management of suicide ideation and attempts⁵⁹.

One of the most consistent findings among the different studies is that family psychoeducational interventions reduce subjective burden on relatives, improve coping strategies and increase knowledge about bipolar disorder and early warning signs^{45 60}. This approach must be considered an essential component of the optimal treatment strategy of patients with bipolar disorder living with their relatives, since an improvement in the family environment significantly improves patients' outcome. On the other hand, it must be acknowledged that psychoeducational family intervention does not reduce the expressed emotions of relatives in bipolar disorder⁴⁵, although this construct has been explored in only one study and further research is needed.

Almost all studies have been carried out in experimental settings, and the difficulties, limitations and benefits in providing this intervention in routine care have not been explored. Only recently, our research group has performed a study to explore the difficulties in implementing psychoeducational family intervention according to the Falloon model in Italian routine care²⁸. This study was carried out in 11 randomly selected mental health centres and found that organizational difficulties represent the main barrier to the dissemination of this intervention in clinical practice, which must be addressed at a decision-making level.

In conclusion, supportive family interventions are effective on several domains of bipolar disorder, in particular on relapses, treatment compliance and coping strategies of relatives. The efficacy of these interventions in patients with an early onset of the disorder is also documented, but requires further confirmation.

Further studies should be carried out to: a) explore the differences among the different proposed psychoeducational models; b) evaluate the effects of interventions in

TABLE II. Efficacy of supportive family interventions on relatives' outcomes. *Efficacia degli interventi di sostegno familiare su benessere, funzionamento e opinioni dei familiari.*

Study, (Year), Country	Sample size (N)	Study design	Inclusion criteria	Main features of the interventions	Main results
Reinares et al., (2004), Spain ⁴⁵	45 euthimic bipolar patients and their relatives	Psychoeducational intervention for caregivers vs. standard pharmacological treatment Random allocation	1) Diagnosis of bipolar I or II disorder; 2) age between 18 and 60 years; 3) absence of symptoms for at least 3 months	Twelve 90-min psychoeducational sessions on information about the nature of the illness and on coping strategies	Caregivers improved their knowledge about the illness and showed a reduction of their subjective burden
Eisner & Johnson, (2008), USA ⁴⁶	28 relatives	Psychoeducational family intervention focused on emotions and on marital communication	1) Age between 18 and 70 years; 2) living with a patient with bipolar disorder	1 or 2 days multi-family group workshop	Relatives had more information on bipolar disorder, but no change in EE levels
Perlick et al., (2010), USA ⁴⁷	46 relatives	Family-focused treatment-health promoting intervention (FFT-HPI) vs. health education (HE) intervention Random allocation	1) Age \geq 18 years; 2) living with a patient affected by bipolar disorder	FFT-HPI: 12–15 sessions of a family-focused, cognitive-behavioral approach HE: 8-12 health education sessions delivered via videotapes	The FFT-HPI group experienced a significant reduction in caregivers' depressive symptoms and in subjective burden. Psychoeducation and focused cognitive work with caregivers had an impact on patients' symptoms, even if the patient was not directly involved in the intervention
Ruffolo et al., (2011), USA ⁴⁸	353 participants (patients, parents, partner or close friends)	Single-session of family workshops	All patients and their caregivers in charge to the local mental health centre	Two-hours, single-session family psychoeducational workshops. During the first hour, information on the illness are provided. During the second hour, a more intensive discussion is performed in breakout groups	Patients and their relatives showed an increased knowledge and improved coping strategies
Jönsson et al., (2011), Sweden ⁴⁹	34 family members	Educational intervention	1) To be a relative of a patient with bipolar disorder; 2) patient is in charge in the outpatient mental health centre	10-sessions of an educational intervention designed for families of patients in charge in the mental health centre	The educational intervention improved relatives' understanding of the illness. A significant improvement in stress management and social functioning was obtained over time
Madigan et al., (2012), Ireland ⁵⁰	47 carers of 34 patients	Multifamily group psychoeducation (MFGP) vs. solution focused group therapy (SFGT) vs. treatment as usual (TAU) Random allocation	1) Age \geq 18 years; 2) IQ $>$ 80	MFGP: Five sessions of two hours scheduled weekly, performed by a psychiatric nurse and a psychiatric social worker SFGT: five sessions each lasting a 5-week period, carried out by two psychiatric nurses	At one and two years follow-up, in the MFGP and in the SFGT group a significant improvement of relatives' knowledge, reduction of family burden and of psychological distress was found

TABLE III. Efficacy of supportive family interventions on early onset patients' outcomes. *Efficacia degli interventi di sostegno familiare nei pazienti ad esordio precoce.*

Study, (Year), Country	Sample size (N)	Study design	Inclusion criteria	Main features of the interventions	Main results
Fristad et al., (2002), USA ⁵¹	35 patients and their parents	Multi-family psychoeducational group (MFIG) or waiting list Random allocation	Children aged from 8 to 11 years with a mood disorder	8 sessions on children illness and treatment options, training in communication exercises, and problem-solving strategies. During each session, caregivers and children meet separately, although their session content is thematically linked	MFIG parents showed significant improvement of knowledge about illness. The results were maintained at 6 months. MFIG children reported a significant improvement in social support from their parents
Goldstein et al., (2007), USA ⁵²	10 participants	Dialectical behavior therapy intervention	1) Age between 12 and 18 years; 2) diagnosis of bipolar I or II disorder with an acute manic, mixed, or depressive episode in the previous 3 months; 3) on a regular pharmacological regimen; 4) in contact with at least one relatives; 5) no mental retardation	24 alternative weekly sessions of family skills training or individual therapy	It had been reported an high attendance to the intervention protocol. The participants reported a reduction of patients' suicidal thinking and improvement of patients' non-suicidal self-harm behaviors, emotional dysregulation and depressive symptoms
Miklowitz et al., (2009), Spain ⁵³	58 adolescents with bipolar I or II disorder and 58 key-relatives	Family-focused therapy for adolescents (FFT-A) vs. enhanced care (EC) Random allocation	1) Age between 12 and 17 years; 2) diagnosis of bipolar I or II disorder; 3) a period of significant manic, mixed, hypomanic or depressive symptoms in the previous 3 months; 4) no evidence of mental retardation; 5) no substance abuse in the previous 3 months; 6) at least one participating parent	FFT-A: 21 sessions (12 weekly, 6 biweekly, and 3 monthly) EC: 3 weekly psychoeducational sessions with parents focused on relapse prevention, medication adherence, and communication skills	In the experimental group, adolescents living in high-EE families showed greater reductions in depressive and manic symptoms

long-term outcomes of the disorder; c) clarify the role of intervention on different clinical domains of the bipolar spectrum disorders.

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