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Original Article

Short-Term Family-Focused Psycho-Educational Program for Bipolar Mood Disorder in Mashhad

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Abstract

Background: Bipolar mood disorder type 1 is one of the most serious psychiatric disorders. We aimed to assess the efficacy of a short-term family–focused treatment for patients with bipolar mood disorder type 1 in a one-year follow-up period.

Methods: Sixty patients with bipolar mood disorder and acute mania episodes who referred to Ibn-e-Sina Psychiatric Hospital in Mashhad were recruited. Half of them were randomly assigned to the psycho-education group. Their available adult family members received a psycho-educational training session before the patients' discharge from the hospital. All patients received concurrent appropriate pharmacotherapy and psychotherapy. All the patients were evaluated by a blind home-visit team every 3 months for a period of one year. The evaluation included the number of psychiatric visits, patients' adherence, relapse status, number of re-hospitalizations, and time to relapse.

Results: Fifty-seven patients completed the trial. In the experimental group, there were four patients with relapse (13.79%) and in the control group nine patients (31.58%) had relapse of the disorder (P=0.006). The mean time of taking medications in the education group was 11.41 months. This time was 9.14 months in the control group (P<0.001). There was also a significant difference between the two groups in terms of frequency of psychiatric visits (P<0.001).

Conclusion: Short–term family-focused psycho-education is an effective adjunct to pharmacotherapy for bipolar mood disorder. Further studies are needed to evaluate the efficacy and cost-effectiveness of long-term family-focused psycho-educational treatment for patients with bipolar mood disorder.
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Keywords ● Bipolar mood disorder ● family education ● relapse ● mania

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Introduction

Bipolar mood disorder type 1 is one of the most serious psychiatric disorders. It is also one of the most expensive disorders for the patients and the society.[1,2] Bipolar mood disorder has been ranked as the seventh non-fatal disorder in term of causing disease burden and high rates of disability in the world.[3,4] Bipolar mood disorder commonly occurs

with co-morbid substance use disorders,[5] and increases the likelihood of high risk behaviors such as suicide attempts.[6] Factors that reduce the relapse rate would decrease various types of expenses for the patients and the society; therefore, finding some ways to reduce the relapse rate in patients with bipolar mood disorder is one of the research priorities in the field of psychiatry.

Many studies have shown that medications are effective in prophylaxis of bipolar mood disorder.[7] However, even with appropriate pharmacotherapy, patients with bipolar mood disorder experience the chronic symptoms and high rates of relapse and re-hospitalizations. Relapse rate in patients with adequate pharmacotherapy is 40% in one year, 60% in 2 years, and 75 % in 5 years.[8] Review of the literature shows that only 40% of patients with bipolar mood disorder preserve the premorbid occupational and social functioning; 25-30% of such patients have partial dysfunction and the other 25-30% experience profound functional deficits.[8] Relapse could be related to four factors: poor patients' compliance, inadequate doses of medications, psychosocial stresses, and progression of the disorder.

Evidence shows that the course of bipolar mood disorder might be improved by modification of psychosocial factors. These factors may contribute to an alteration of 25-30% in the outcome.[9] Therefore, with recognition of contributing factors in the relapse of bipolar mood disorder and considering that medications alone cannot be adequate in prophylaxis of the disorder, different psychosocial interventions have been investigated to reduce the relapse rate and disability and improve the patients' functions.[10-12]

Some studies focused on social support of the family and friends and showed the relation between low levels of social support and high rates of relapse in such patients.[13]

Some researchers assessed the expressed emotions in the family members of these patients and showed that high expressed emotion predicts the worse outcome.[14]

Review articles have shown that psychoeducation can play as didactic and information-oriented approach in most forms of psychotherapy for bipolar illness.[15-17]

Family psycho-educational program is one of interesting interventions that its efficacy in reducing the relapse rate in patients with bipolar mood disorder has been investigated in several studies.[18-20] Several randomized trials have found that family psycho-education may be effective in improving the course of bipolar mood disorder.[21]

Because there is no report on psychoeducation in Iran and the available studies mainly focus on the long-term techniques, we aimed to assess the role of short-term family psycho-educational program in reducing the relapse rate in patients with bipolar mood disorder.

Subjects and Methods

Sixty patients with bipolar mood disorder referred to Ibn-e-Sina Psychiatric Hospital in Mashhad were recruited. All the patients had an acute mania episode. Included patients had definite diagnosis of bipolar 1 disorder based on the DSM-IV criteria confirmed by a psychiatrist. They were between 15 and 45 years old, had disease onset < 5 years, had no neurological disorder or developmental disability, lived in Mashhad with at least two other adults live close relatives, and written informed consent provided by them or their relatives after explanation of the study.

The study was approved by the ethical board of Mashhad University of Medical Sciences.

All the patients received proper treatment for the acute phase of mania during admission by their own psychiatrists who were blind to the study protocol. Also, all the patients received routine psycho-education treatment during their hospital admission. The patients were divided into two case and control groups using random numbers table.

Half of the patients were assigned to the psycho-education group. Their available adult family members received an additional 2-hour psycho-educational session before patients' discharge from the hospital. In the psycho-educational session, they were acquainted with the symptoms, nature, type, and length of the treatment especially medications and their possible side effects and aggravating factors of bipolar mood disorder. Each group sessions took place for family members of about 2-3 patients and conducted by a single psychiatrist. Family members of the control group did not receive psycho-educational sessions and the patients had their usual treatment condition including prophylactic pharmacotherapy.

Evaluation of all patients was done by a blind home-visit team (including a psychiatrist, a nurse and a social worker) every 3 months for a period of one year. The team members completed a questionnaire including information about the number of psychiatric visits, patients' adherence, relapse status, number of re-hospitalizations, and duration of remission until relapse. Relapse status was defined as completed criteria for major depression, mania, hypo-

mania, or mixed episode based on DSM-IV-TR. A questionnaire of demographic data was also completed for all patients. Collected data were analyzed using SPSS software version 11.5. T test was used for comparing the age, duration of disorder, mean time of using medication, and frequency of psychiatric visits between the intervention and control groups. Fisher exact test was used for comparing the relapse rate in the two groups, and Chi square test was used for comparison of education state, drug regimen, and sex between the two groups.

Results

Of the 60 selected patients, three were excluded from the study because they moved from Mashhad. Of the remaining 57 patients, 29 were in the intervention and 28 were in the control group. The mean age of the patients was 29.91 years (SD=8.59 years). Average duration of disorder from the onset was 33.98 months (SD=16.46). Forty five patients (78.26 %) were males and 24 (41.74 %) were married. Educational level of most patients was below the high school diploma (62.61%). The most common medications used were sodium valproate and one benzodiazepine (60.87 %). There were no significant differences between demographic, illness and pharmacologic variables of patients in the two groups (P>0.05). The data have been summarized in table 1.

In the intervention group 76 people, who were the family members of the 29 patients, received the psycho education.

The mean age of the trained family members was 36.26 years. Thirty six (47.37%) had high school diploma, 33 (43.42 %) had education below diploma, and others were university graduates.

The disease relapsed in four (13.79 %) patients in the psycho-education group during the 12-month follow-up. One patient had two relapses. The mean time to the first relapse was 6 months after discharge from the hospital. In the control group nine (31.58%) patients had relapse and admitted to hospital. Of them two patients had two episodes of relapse and five patients had one episode. The mean time until the relapse was 4.8 months. Relapse rates in the two groups were significantly different (P=0.006).

The mean time of using medications in the intervention and control groups were 11.41 months (SD=1.02) and 9.14 months (SD=1.43), respectively. There was a significant difference between the two groups in medication compliance (t=6.88, P<0.001).

In the psycho-education group, the mean number of visits was 10.34 (SD=1.54) in the 1-year study period. This number was 7.86 (SD=1.84) in the control group (t=523.5, P<0.001). The comparison was also done after 3, 6, and 9 months of intervention; the results are shown in table 2.

Discussion

This study showed that short-term family-focused psycho-education including nature of disorder, type and length of treatment, and its aggravating factors for patients with bipolar mood disorder

Table 1: Demographic data of the patients with bipolar mood disorder

Variable	Intervention group	Control Group	Total subjects	P value
Age (year, mean±SD)	29.21±8.87	30.64±8.48	29.91±8.59	0.53
Duration of disorder (months, mean±SD)	35.31±15.64	32.61±15.44	33.98±16.46	0.51
male sex (n, %)	23, (79.31%)	22, (77.19%)	45, (78.26%)	0.68
Education below high school diploma (n, %)	19, (65.52%)	17, (59.65%)	36, (62-61%)	0.31
Sodium valproate and benzodiazepine use (n, %)	19, (65.52%)	16, (56.14%)	35, (60.87%)	0.28

n=number, SD: Standard deviation

Table 2: Patients' compliance and frequency of psychiatric visits in the two groups of patients with bipolar mood disorder during a one-year follow-up

	Follow up (months)	Intervention group Mean±SD	Control group Mean±SD	T	P value
Duration of continuing medication (month)	3	2.46±0.46	2.67±0.48	1.23	0.227
	6	5.76±0.51	5.00±0.77	4.36	<0.001
	9	8.48±0.95	7.04±1.26	4.88	<0.001
	12	11.41±1.02	9.14±1.43	6.88	<0.001
Number of psychiatric visits	3	2.76±0.43	2.57±0.57	1.38	0.0172
	6	5.34±0.81	4.46±0.96	3.72	<0.001
	9	7.72±1.36	6.21±1.50	3.98	<0.001
	12	10.34±1.54	7.86±1.84	5.52	<0.001

SD: Standard deviation

was an effective intervention for reducing the relapse rate, repeated hospital admissions, improving patients' compliance, and physician's visits in one year follow-up period.

These results are consistent with the findings of previous investigations on non-pharmacological and psychosocial treatments such as family psycho educational programs; although the course of psycho-education in other studies was longer and more detailed. These results also showed the importance of family role and the effect of family psycho-education in predicting the outcome of bipolar mood disorder.

Honig and co-workers in a controlled study, reported that family psycho-education reduced the number of repeated hospital admissions and lowered the level of expressed emotions by family members.[18]

Simoneau and colleagues conducted a 9-month family psycho-educational program for patients with bipolar mood disorder and compared the results with a control group. Family members who received the intervention had better non-verbal communication in one year follow-up and it was related to more favorable outcome of the patients.[22]

Miklowitz and co-workers in a randomized study examined a 9-month family-focused psycho-educational treatment compared with crisis management. Patients were maintained on medications and were evaluated every 3 months for 1 year to assess the relapse status and medication compliance. Excluding the dropouts, the 1-year relapse rates in the psycho education, and crisis management groups were 28% and 53%, respectively. There were no difference in the patients' compliance and psychiatrist visits between the two groups. The authors concluded that the efficacy of family psycho-educational treatment could not be attributed to the differences in patients' compliance during the 1–year study period; however, they mentioned that they had underestimated the strength of protective effect of the drug compliance.[8]

In another study, Rea and colleagues randomly assigned 53 patients with bipolar mood disorder to a 9-month family–focused psycho-education therapy or to an individual treatment program. All the patients received concurrent mood-stabilizing medications. Follow-up assessments were done at 3-month intervals for a 1-year period of active treatment and 1-year period after the treatment. Results indicated that patients in family treatment experienced fewer relapses and hospital admissions in the 2-year study period.[23]

Miklowitz and others also examined the role of adjunctive family–focused psycho educational treatment for adolescents with bipolar mood disorder. They concluded that the combination of family psycho-education and medication was associated with improvements in mood symptoms and behavior problems over 1 year.[24]

Alloy and colleagues in a review article about the psychosocial context and treatments of bipolar mood disorder concluded that family–focused psycho educational intervention, as a 21-session program administered for 9 months, had been superior to a comparable comparison group either in reducing relapse rates, increasing the time to relapse, decreasing hospital admissions or reducing intermorbid symptoms of bipolar mood disorder.[11]

Two studies have investigated possible mechanisms by which family psycho-education works.[18,25] In one research, the effect of psycho educational intervention on verbal and non-verbal interaction patterns of patients with bipolar mood disorder and their relatives was evaluated. Results indicated that the group receiving this treatment showed a greater positive interactional behavior compared with those in the control group. In another study, authors found that family-focused psycho-education lowered the expressed emotion and that patients with close relatives who had low expressed emotion had a better outcome (lower hospital admissions) than patients with high expressed emotion. These findings suggest that changes in social support / expressed emotion` might be mediating the positive effects of psycho educational intervention.

One other research, comparing the characteristics of family functioning in bipolar children and healthy control group showed that bipolar children had families with higher levels of conflict and lower levels of cohesion and organization.[26]

The above findings confirm that families with affected patients need education and psychosocial interventions. These findings also emphasize the predictive value of communication patterns and support of family members in the course of bipolar mood disorder.

When family members of such patients learn about bipolar mood disorder, developing relapse prevention plans and implementing illness management strategies, patients stay well for longer periods of time. Didactic information may reduce the stigma of the disorder and increase the likelihood that patients obtain necessary treatments.

The psycho-education in the present study was short-term and general; so, it was less costly than more long-term programs. This could be a strength of the intervention. On the other hand, it could be a limitation because of its shortage to convey a more detailed educational

content. Working with multiple families simultaneously could be more cost-effective than working with individual families.

Measuring stressful life-event, personality traits, and cognitive factors before the initiation of psychosocial treatments may help to identify subgroups of patients who are more likely to benefit from certain approaches.

Future studies should evaluate more long-term programs of family psycho-educational treatment in Iranian society and compare its cost-effectiveness with short-term psycho-education for such patients.

Identifying the underlying mechanisms in the psychological domains will be essential for development of psychosocial treatments that are more efficient and have a greater stability of effects. Further work is needed to verify the possible mechanisms for positive effects of family-focused psycho-education in improving the natural course of bipolar mood disorder.

Conclusion

Short–term family-focused psycho-education is an effective adjunct to pharmacotherapy for bipolar mood disorder. Further studies are needed to evaluate the efficacy and cost-effectiveness of long-term family-focused psycho-educational treatment for patients with bipolar mood disorder.

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Conflict of Interest: None declared

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