

Non-Compliance After First Episode of Manic or Mixed Mood State: A 17-Months Follow-up

Amir Shabani MD* , Mehrdad Eftekhari MD*

Objective: This study aimed to evaluate the non-compliance rate in patients with Bipolar I disorder (BID).

Methods: The patients admitted to Iran Psychiatric Hospital who were diagnosed as a case of the first episode mania of bipolar I disorder (DSM-IV-TR) by 2 psychiatrists followed by one of them in a longitudinal, prospective and naturalistic study. In the follow-up early non-compliance/irregular drugs use, drug discontinuation and good compliance (GC) in the patients were registered in addition to the recurrences of mood episodes. The term poor compliance (PC) was used for early non-compliance/irregular drugs use and drug discontinuation.

Results: The patients were 11 males and 11 females aged 19.6 to 59 (28.4±10.4). The study lasted 32.5 months and the subjects were followed between 8 to 24 months (17±5.3). Poor compliance (PC) was observed in 8 subjects (38.1%) with male to female ratio of 1.7. Six subjects in PC group (75%) and 3 subjects (23.1%) in GC group had a recurrence of mood episode. Eight subjects with poor compliance included 3 with non-compliance/irregular use and 5 with drug discontinuation.

Conclusion: The poor compliance rate in BID cases admitted to this center is close to the previous studies. Repetition of the study with a larger sample size and in multi-center setting is proposed.

Iranian Journal of Psychiatry and Behavioral Sciences (IJPBS), Volume 1, Number 2, Autumn and Winter 2007: 46-49.

Keywords: Bipolar Disorder • Compliance • First Episode • Treatment Refusal

Introduction

Non-compliance is one of the most effective factors in the course of bipolar disorders and its treatment costs (1). Non-adherence is common in patients with bipolar I disorder and is reported to be 20% to 66% with mean of 41% in different studies (2). The compliance is under the influence of many other factors (3). One of these factors reported to be important in non-compliance of bipolar patients is cultural and racial differences (4). Considering the lack of information regarding this area, the compliance rate was evaluated in a prospective, longitudinal study on a small Iranian sample to achieve a preliminary picture. Compliance was one of the factors evaluated in the “study of course and outcomes in bipolar I disordered subjects admitted to Iran Psychiatric Hospital”.

Materials and Methods

In this observational prospective and longitudinal study, the natural clinical course of admitted subjects to Iran Psychiatric Hospital because of the first episode mania of bipolar I disorder were scrutinized. The inclusion criteria were 18 and up, speaking Persian, diagnosis of the first episode of manic or mixed episode of bipolar I disorder (DSM-IV-TR), living in Tehran, Karaj or suburbs, and giving consent.

The subjects entered the study from November 2003 to August 2005 in a period of around 21 months. Every subject diagnosed as the first episode of mania or mixed episode by a psychiatrist referred to another psychiatrist and if there was a consensus on the diagnosis, the subject entered the study and was followed by one of them. The subjects were followed for 8 to 24 months (17.0±5.3) and the study took 32.5 months to be done. The subjects were asked to come for a visit at least monthly during the first year and every other month during the second year. The follow-up was active and if the

Authors' affiliation : * Iran University of Medical Sciences, Mental Health Research Center, Tehran, Iran.

Corresponding author : Amir Shabani MD, Assistant Professor of Iran University of Medical Sciences, Tehran, Iran
Tel : +98 21 66506899
Fax : +98 21 66506899
E-mail : amirshabani@tehranpi.org

subjects did not come for the visit, the responsible doctor would call them three times and request them and their family to come for visit. If they did not come in spite of three calls, a telephone interview would be made. If the subjects preferred other doctors for the visit, another psychiatrist from the research team would follow him for the rest of the period. The subjects were not charged during the study. The comprehensive report of the study has published before (5).

The compliance rate of the subjects for the prescribed drugs was registered regularly by their responsible doctor. The term 'early non-compliance/irregular drugs use' was used when the subject did not take the drugs at all or took them irregularly after remission. The term drug discontinuation was used when the subject took the ordered medications but she/he discontinued drugs willingly at least once. Poor compliance (PC) referred to the sum of these, and Good compliance (GC) referred to regular prescribed drug use without discontinuation. Descriptive statistics and fischer's exact test were used for analysis of collected data.

Results

Only the diagnosis of one subject (4.3%) changed after 3 months of evaluation; and therefore, the data of 22 subjects was reported. The subjects included 11 women and 11 men in the age range of 19.6 to 59 (28.4± 10.4). Most of the subjects were single and had not finished high school education. There was no history of any medical condition among them. Four patients used nicotine, one had alcohol abuse and one had recent cannabis intoxication. Only two subjects(9.1%) had other comorbid diagnoses, both at least one anxiety disorder. Recurrence of a mood episode occurred in 9 (40.9%) subjects.

There was some unreliable data regarding the compliance of one subject, omitted in this part. Drug discontinuation was seen in five subjects (23.8%) which happened in one subject during the first 6 months, in 3 subjects during the second 6 months and in one during

the second year. The recurrence of disorder was observed in 4 of them, in all cases after drug discontinuation.

Good compliance to treatment (GC) was seen in 13(61.9%) subjects(Table 1) including 8 females and 5 males (F/M=1.6) of whom 3 (23.1%) had a recurrence. Eight subjects (38.1%) including 3 females and 5 males (M/F=1.7) had poor compliance (PC) of whom 6 (75.0%) recurred. Using Fischer's exact test showed a significant difference in the rate of recurrence between two groups (P=0.032). Eight cases of poor compliance included 3 women with early non-compliance/ irregular drugs use and 5 men with drug discontinuation. In the GC group 7 (53.8%) were married, 5 (38.5%) were single and one was divorced; and, in the PC group 4 (50.0%) were single, 3 (38.5%) were married and one was widowed.

Table 1. The distribution of compliance of the subjects with the prescribed drugs crossed with the recurrence

Compliance	Without recurrence (n=12)	With recurrence (n=9)	Total (n = 21)
Good compliance	10(83.3%)	3(33.3%)	13(61.9%)
Poor compliance	2(16.7%)	6(66.7%)	8(38.1%)
1-Early non-compliance /ir-regular drugs use	1(8.3%)	2(22.2%)	3(14.3%)
2- Drug dis- continuation	1(8.3%)	4(44.4%)	5(28.6%)

Discussion

The higher frequency of PC in men is in accordance with previous studies (6,7). Moreover, the rate of 38% of poor compliance is close to the previous studies (2). As it was mentioned, the subjects in this study received a particular care and planned follow-up. Also more engagement with their families, high experience of the psychiatrists in the project, more therapeutic support and lower cost of the service may lead to higher therapeutic alliance. Therapeutic alliance (8,9) and social support (10) are the known factors affecting the compliance of bipolar patients. On the other hand, lower age (11) and earlier onset(12) are associated with poor compliance. In this study the subjects up to 18 were not

entered into the study. Moreover, alcohol and other substances abuse (13-15) and also a history of frequent hospitalization (12,16) or more mood episodes (6) are associated with poor compliance. In the present study the rate of the comorbidity of alcohol and other substances abuse was lower than other studies (5) and the subjects were in the beginning of the course of the disorder. Although in one study the compliance of the patients has been reported to be poor in the first year of disorder, a better compliance of the subjects in this study was expected from all mentioned factors.

Despite relatively desirable compliance factors in this study, the rate of compliance did not have a significant difference from prior studies. Though, because of the low sample size, the result should be interpreted with more caution. Lack of enough facilities for effective psychosocial intervention and rehabilitation (17,18) and scarce social supports such as insurance services can explain the low compliance of bipolar subjects in the study. When we pay attention to the lower routine therapeutic services of psychiatric centers for bipolar patients than the services of the present study in Iran, the low compliance rate becomes more meaningful. It is worthwhile to note a finding of this study that even good compliance does not prevent recurrence completely and 23% of the GC subjects had a recurrence.

Repetition of this study in a multi-central setting and with larger sample size is recommended for evaluating the compliance of bipolar patients more precisely; and also facilitating access to qualified comprehensive therapeutic services is recommended for improving the mental health of these patients.

Acknowledgement

This study was supported by a grant from Mental Health Research Center and Tehran Psychiatric Institute. We thank all the psychiatrists and residents who referred the subjects and also from all patients and their families who kindly helped us. The authors are grateful to Dr Hamidreza Ahmadkhaniha,

Dr Badri Daneshamouz, Dr Mirfarhad Ghalebani, and Dr Mitra Hakim Shoushtari for visiting the patients and collecting the data. Also, the authors are grateful to Dr Leily Panaghi for analyzing data.

References

1. Colom F, Vieta E, Tacchi MJ, Sa' nchez-Moreno J, Scott J. Identifying and improving non-adherence in bipolar disorders. *Bipolar Disord* 2005; 7 (Suppl 5): 24-31.
2. Lingam R, Scott J. Treatment non-adherence in affective disorders. *Acta Psychiatra Scandinavia* 2002; 105: 164-172.
3. Berk M, Berk L, Castle D. A collaborative approach to the treatment alliance in bipolar disorder. *Bipolar Disord* 2004; 6: 504-518.
4. Fleck DE, Keck PE JR, Corey KB, Strakowski SM. Factors associated with medication adherence in African American and White patients with bipolar disorder. *J Clin Psychiatry* 2005; 66: 646-652.
5. Shabani A, Eftekhari M, Daneshamouz B, Ahmadkhaniha H, Hakim-shooshtari M, Ghalebani M, et al. Degree of recurrence of type I bipolar disorder: a 17 month follow-up of patients with first-episode mania. *Advances in Cognitive Science* 2006; 3: 33-42.
6. Danion JM, Neunritter C, Krieger-Finane F, Imbs JL, Singer L. Compliance with long-term lithium treatment in major affective disorders. *Pharmacopsychiatry* 1987; 20: 230-231.
7. Berk M, Berk L, Castle D. A collaborative approach to the treatment alliance in bipolar disorder. *Bipolar Disord* 2004; 6: 504-518.
8. Zaretsky AE, Segal ZV, Gemar M. Cognitive therapy for bipolar depression: a pilot study. *Can J Psychiatry* 1999; 44: 491-494.
9. Scott J, Tacchi MJ. A pilot study of concordance therapy for individuals with bipolar disorders who are nonadherent

- with lithium prophylaxis. *Bipolar Disord* 2002; 4: 386-392.
10. Lenzi A, Lazzerini F, Placidi GF, Cassano GB, Akiskal HS. Predictors of compliance with lithium and carbamazepine regimens in long term treatment of recurrent mood and related psychotic disorders. *Pharmacopsychiatry* 1989; 22: 34-37.
 11. Keck PE Jr, McElroy SL, Strakowski SM, Bourne ML, West SA. Compliance with maintenance treatment in bipolar disorder. *Psychopharmacol Bull* 1997; 33: 87-91.
 12. Maarbjerg K, Aagaard J, Vestrgaard P. Adherence to lithium prophylaxis, I: clinical predictors and patient's reasons for non-adherence. *Pharmacopsychiatry* 1988; 21: 121-125.
 13. Keck PE JR, McElroy SL, Strakowski SM, Bourne ML, West SA. Compliance with maintenance treatment in bipolar disorder. *Psychopharmacol Bull* 1997; 33: 87-91.
 14. Swartz MS, Swanson JW, Hiday VA, Borum R, Wagner HR, Burns BJ. Violence and severe mental illness: the effects of substance abuse and nonadherence to medication. *Am J Psychiatry* 1998; 155: 226-231.
 15. Weiss RD, Greenfield SF, Najavits LM, Soto JA, Wyner D, Tohen M, et al. Medication compliance among patients with bipolar disorder. *J Clin Psychiatry* 1998; 59: 172-174.
 16. Colom F, Vieta E, Martinez-Aran A, Reinares M, Benabarre A, Gasto C. Clinical factors associated with non-compliance in euthymic bipolar patients. *J Clin Psychiatry* 2000; 61: 549-555.
 17. Colom F, Vieta E, Martinez-Aran A, Reinares M, Goikolea JM, Benabarre A, et al. A randomized trial on the efficacy of group psychoeducation in the prophylaxis of recurrences in bipolar patients whose disease is in remission. *Arch Gen Psychiatry* 2003; 60: 402-407.
 18. Miklowitz DJ, George EL, Richards JA, Simoneau TL, Suddath RL. A randomized study of family-focused psychoeducation and pharmacotherapy in the outpatient management of bipolar disorder. *Arch Gen Psychiatry* 2003; 60: 904-912.