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The role of psychoeducation in the complex treatment of bipolar disorder

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Summary
The importance of psychosocial interventions in bipolar disorder has recently been recognized. Apart from cognitive-behavioural therapy, interpersonal and social rhythm therapy, and family-focused therapy, psychoeducation plays a central role in psychological approach. In our review paper we present evidence supporting the efficacy of psychoeducation, the topics to be addressed in a psychoeducational program and its postulated mechanisms of action as well as side-effects.

bipolar disorder / **psychoeducation** / **psychotherapy**

INTRODUCTION

As Colom and Lam notice [1], there has been a noticeable paradigm shift in the treatment of bipolar disorder (BD), switching from an exclusively pharmacological approach, to a combined yet hierarchical model in which pharmacotherapy plays a central role, and psychological interventions help cover the gap that exists between theoretical efficacy and "real world" effectiveness .

Several multimodal psychotherapeutic interventions have been developed for BD, such as family-focused therapy (FFT), interpersonal and social rhythm therapy (IPSRT), and cognitive-behavioural therapy (CBT). All these treatment approaches encompass patient psychoeducation (PE). More recent research has also began to address the efficacy of PE as a stand-alone treatment for BD, and manual-based standardized PE interventions have now been developed [2, 3, 4].

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Since its effectiveness in enhancing treatment adherence and improvement of long-term outcome in several medical conditions (cardiac illness, diabetes, asthma), psychoeducation can be viewed as a key element of a good medical practice. As Colom and Lam put in: "psychoeducation covers a fundamental right of our patients: the right to be informed about their illness" [1].

Psychoeducation – the review of evidence

Psychoeducation for patients

Harvey and Peet (1991) explored the effect of a brief educational program on lithium adherence. Sixty clinic attendees were allocated to the interventional group or to usual treatment. The intervention consisted of a simple 12-minute videotaped lecture with graphic illustrations of how lithium is used to treat affective disorder. This was complimented with an illustrated transcript. Patients also received a visit two weeks later to discuss any particular difficulties they were having with lithium. Six weeks after the intervention the education group, compared to usual treatment, showed a reduction in their self-report-

ed missed doses of lithium, which just failed to reach statistical significance, p=0.07). The significant between-group differences in plasma lithium levels were not observed [5].

Another early study by van Gent and Zwart (1991) compared 14 bipolar patients attending psychoeducation sessions with 12 controls. Following the sessions and 6 months later, the psychoeducated patients showed more knowledge of the disease, medication and social strategies [6].

In another later study van Gent (2000) showed a significant decrease of non-compliant behaviour and hospitalizations amongst psychoeducated patients [7].

In 1980 Seltzer, Roncari, and Garfinkel conducted an elaborate inpatient education study. 44 patients with schizophrenia, 16 patients with bipolar disorder, and 7 with major depression were placed in either education groups or no-education control group. The patients were provided with nine lectures on their diagnosis, course of treatment, medication, side effects, relapse, and importance of social support. Five months later, the non-compliance rate for educational group members was 9%, while the non-compliance rate for the control group was 66%. Compliance was measured through pill counts or medication blood levels [8].

Altamura and Mauri (1985) and Youssel (1983) also tested the effectiveness of patient education in improving treatment compliance in depressed outpatients. Both studies indicated that patients who received information about their illness were more likely to follow the prescribed treatment regimen [8].

Bauer [9] investigated a mixed psychoeducational and behaviour-oriented form of group psychotherapy, which was divided in two phase group treatment. Each group consisted of 5 or 6 patients and the sessions were highly structured. Phase I was mostly psychoeducational and consisted of five weekly sessions. The sessions contained information about BP, early detection of symptoms, and adaptive and maladaptive coping strategies. Phase II was unstructured and the treatment was more flexible and adapted to individual needs. Moreover, there was a behavioural plan directed at improving social adaptation during which cognitive, behavioural or interpersonal psychotherapy may have been used. The study measured only adherence to psychotherapy with good results after treatment. The increase in knowledge of BD was also observed.

In 1999, Perry et al conducted the randomized controlled trial of efficacy of teaching patients with BP to identify early symptoms of relapse and obtain treatment. 69 bipolar patients received 7 to 12 individual treatment sessions from a research psychologist plus routine care or routine care alone. Teaching patients to recognize early symptoms of manic relapse and seek early treatment was associated with longer time to first manic relapse and improvements in social functioning and employment [10].

Colom (2003) conducted the first large-scale randomized controlled trial of psychoeducation in bipolar disorder. They allocated 120 euthymic bipolar subjects receiving standard treatments to either 21 sessions of a structured group psychoeducation program, or to equivalent number of sessions of an unstructured support group attended by the same therapist who delivered the psychotherapy intervention. At two-year follow-up, the psychoeducation intervention compared with the control treatment was associated with a significant reduction in total number of relapses and 36% of patients in the control group were hospitalized compared with 8% in the psychoeducation group. The treatment tested in this study combined 3 interventions that have shown some efficacy individually: early detection of prodromal symptoms, enhancement of treatment compliance, and induction of lifestyle regularity and was carried out in the Bipolar Disorders Program of the Hospital Clinic of Barcelona. The authors did not conduct separate comparisons for each block of intervention, thus they could not conclude whether there is only one useful part or determine the major or minor efficacy of each block [11].

Interestingly, a recent subanalysis of the study shows that psychoeducation may even be useful in those "difficult" patients fulfilling criteria for a comorbid personality disorder. It may be particularly important if we consider worse clinical characteristics and poor outcome of comorbid bipolar patients [12].

Colom [13] have undertaken an additional study to demonstrate that benefits of psychoeducation are not mediated solely through enhanced adherence. They conducted a randomized clini-

cal trial using the same 21-session program, but included only 50 bipolar I patients who fulfilled criteria for being considered as treatment compliant Positive results were seen and the effect size was similar to the Archives' study as were the results. At the end of the 2 year follow-up 60% of the psychoeducated patients versus 92% of subjects in the control group fulfilled criteria for recurrence. Also time to relapse was longer for psychoducated patients and they had a significantly lower number of total recurrences and number of depressive episodes.

Group psychoeducation may also act as the "mood-stabilizer stabilizer" by enhancing the levels and stability of serum lithium levels [14].

Preliminary data also suggest that group psychoeducation may be associated with an increase in the reported quality of life (QoL), both in terms of general satisfaction and in relation to levels of physical functioning [2].

The summary of the studies on psychoeducation is presented in Tab. 1.

Psychoeducation for patients' families

Most patients' families will have questions about the symptoms, the treatment, and the prognosis for the future. Educating family members about bipolar disorder serves two functions. First, it helps the family members cope with their own pain and suffering and prepares them for difficult times to come. Second, it enlists them as active participants in the treatment process. As always, it is necessary to tailor the involvement of significant others to the special needs of each individual and to seek patients' permission before communicating any clinical information to their family members [8].

Miklowitz carried out a randomized study among 101 bipolar patients who were stabilized on maintenance drug therapy and were randomized to receive either 21 sessions of family-focused psychoeducational treatment or two family education sessions and follow-up crisis management. After a 2 year follow-up, patients who received the longer psychoeducational treatment had fewer relapses, longer times to relapse, significantly lower non-adherence rate than patients assigned to the shorter intervention group [15, 16].

Table 1. Summary of psychoeducation studies (modified [9])

Authors / year	Study design	Mode/Intervention	Subjects/ control	Sessions	Follow-up	Results
Harvey and Peet (1991) [5]	Controlled	Group/Videotaped lecture and illustrated transcript on lithium usage	30/30	1 (12min video)	6, 12 and 24 weeks	↑ Knowledge and attitude to lithium
Van Gent (1991) [6]	Controlled	Group	14/12	5	6 and 12 months	↑ ↑ Knowledge and attitude to treatment
Bauer et al. (1998) [in:9]	Open trial	Group	29/10	8 months	Post-trial	↑ Knowledge of BD
Perry et al (1999) [10]	Controlled	Individual/ Teaching to recognize early symptoms of mania	34/35	7–12	6 12, 18 months	↑ Time to first manic relapse, social functioning, employment
Colom (2003) [11]	Randomized, single-blinded, clinical trial	Group	60/60	22	2 years, monthly	↓ Relapses and recurrences
Miklowitz et al. (2003) [16]	Randomized	Family	31/70	21	2 years	↓ Relapses and non-adherence ↑ Time to relapse

The development of family psychoeducation for children with bipolar disorder (multifamily psychoeducation groups; MFPG and individual family psychoeducation; IFP) is also underway [17].

Topics to be addressed in a psychoeducational program

Current psychological therapies in bipolar disorder (e.g. PE and CBT) appear all to include four key components: 1. information about the disorder (psychoeducation in a narrow sense), 2. inducing lifestyle regularity (including reduction in substance use), 3. enhancing medication adherence, 4. early recognition and management of symptoms of relapse

Psychoeducation of bipolar patients should include information about high recurrence rates associated with the illness, drugs and their potential side-effects, early detection of prodromal symptoms and their management, the importance of avoiding illicit substances and alcohol, the importance of maintaining routines, stress management and some concrete information about issues such as pregnancy and bipolar disorder, suicide risk, stigma, and social problems related to the illness.

One of the main targets of psychoeducation concerns the enhancement of treatment adherence, which is usually very poor in bipolar patients, even when euthymic [1, 18].

The results of the BEAM survey by Paolo Morselli [19] have shown that issues traditionally considered as the main source of non-adherence and addressed by psychiatrist, i.e. side-effects concerned as few as 3% of the patients, whilst patients view 'feeling dependant' as the most frequent (22.7%) reason for non-compliance. Thus, as Colom and Vieta concluded "information is never enough to improve treatment compliance" and other psychoeducational interventions for compliance enhancement, such as the Concordance model by Scott [20], should be developed and promoted. The table 2 summarizes the results of the BEAM survey.

A cornerstone of the philosophy of concordance is that each individual is a rational consumer who makes choices that 'makes sense to them'. This philosophy also assumes that the clinician and client collaborate together to reach a shared understanding of the most appropriate way to help that individual, and differences of opinion should be acknowledged and respected.

Scott and Tacchi proposed an abbreviated model of cognitive therapy, called "concordance therapy (CCT)" based on the principles of "concordance", which was designed specifically to overcome barriers to adherence with lithium prophylaxis.

CCT uses the 'Cognitive Representation of Illness' model, which describes how an individual constructs an internal representation of what is happening to them when he or she experiences any physical or psychological symptoms.

It suggests that, no matter what the nature of the symptoms, most people organize their thinking around five key themes. These are: 1. What is it? **(identity)**, 2. Why has it happened? **(cause)**, 3. How long will it last; will it recur? **(timeline)**, 4. What effects will it have? **(consequences)**, 5. What can I do to make it go away? **(cure/control)**.

They will then make some attempt to cope with symptoms and after assessing the coping strategy they will then continue to use or modify it accordingly.

The model suggests that individuals who perceive coherence between their concrete experiences of symptoms, the meaning they have attached to them, and the explanation given to them by significant other (including health professionals) are more probably to engage with health services or adhere with the treatments offered.

The CCT reported by Scott and Tacchi comprised seven 30-minute sessions with a psychiatrist who was also an expert in cognitive therapy. The goal of the sessions was to agree to a treatment regime that was acceptable, understandable and manageable to an individual with BP and coherent with the individual's cognitive representation of the illness (individual's perceptions of the identity, cause, course, consequences and possibilities for cure or control).

Laboratory results demonstrated statistically significant increases in serum plasma lithium levels although only four of the 10 subjects completed all seven half-hour therapy sessions and homework tasks. The small sample size and the open character of the study require much fur-

Table 2. Concerns about medication (the BEAM survey) [18]

Concerns about medication (the BEAM survey)
1. Feel dependent 22.7%
2. It is slavery 9.9%
3. I am a little afraid 9.5%
4. Fear of long-term side effects 6.7%
5. Feel ashamed 4.6%
6. It is unhealthy 4.0%
7. Side effects 3.0%
8. My physical condition 0.9%
9. Treatment is useless 0.8%
10. Medication not really needed 0.6%
11. Got pregnant 0.4%

Table 3. Sessions of the psychoeducation program by Barcelona group [11].

Content of the Psychoeducative Program (Barcelona Bipolar Disorders Program)
1. Introduction
2. What is bipolar illness?
3. Causal and triggering factors
4. Symptoms (I): Mania and hypomania
5. Symptoms (II): Depression and mixed episodes
6. Course and outcome
7. Treatment (I): mood stabilizers
8. Treatment (II): antimanic agents
9. Treatment (III): antidepressants
10. Serum levels: lithium, carbamazepine, and valproate
11. Pregnancy and genetic counseling
12. Psychopharmacology vs. alternative therapies
13. Risk associated with treatment withdrawal
14. Alcohol and street drugs: risks in bipolar illness
15. Early detections of manic and hypomanic symptoms
16. Early detection of depressive and mixed episodes
17. What to do when a new phase is detected?
18. Regularity
19. Stress management techniques
20. Problem-solving techniques
21. Final session

ther research, but suggest the need to individually tailor psychoeducative interventions to individual needs of every patient [20].

Tables 3 and 4 show psychoeducational formats that have been delivered in the Barcelona Bipolar Disorders Program [11] and in a mood disorders program in the University of British Columbia Hospital in Vancouver [2]. The Barcelona group proposed twenty one 90-min sessions under the direction of two trained psychologists. The group consisted of 8–12 patients. The content followed a medical model with a directive style, encouraged participation and focused on the illness rather than on psychodynamic issues. The experts from the British Columbia Hospital proposed a PE program delivered in eight 90-min sessions, on a weekly basis, with group sizes varying between 6 and 20 participants. The sessions were led by a nurse, a social worker, and a psychiatrist.

Psychoeducation has become the standard part of the complex treatment of affective disorders in the depression treatment unit of Department of Adult Psychiatry in Cracow. It is conducted in a group mode, in-patients, out-patients and their family members are encouraged to participate. The main topics include: information about causal and triggering factors of mood disorders, their symptomatology, course and outcome, basic principles of treatment, early recognition of symptoms and coping strategies to be implemented in case of recurrence, lifestyle regularity and risks associated with alcohol and street drugs abuse are also addressed. Active participation and sharing experiences are also encouraged.

How does psychoeducation work?

Vieta [21] suggests that psychoeducation can be fitted into the mood-stabilization paradigm developed by Ketter and Calabrese [22] – comprising stabilization from above (class "A") or below (class "B") – by creating the "C" class mood-stabilizer, i.e. those that stabilize from the centre. This would be because psychoeducation seems

Table 4. Format of psychoeducation (Mood Disorder Clinic, University of British Columbia Hospital) [2]

Session	Topic of discussion
1	Introduction: definitions and descriptions of bipolar disorder (BD)
2	Treatment modalities (I): medications and other therapeutic interventions
3	Treatment modalities (II): continued
4	Open group: open discussion (includes members of previous groups)
5	Psychosocial factors: focus on the psychosocial impact of BD
6	Relationship factors: focus o the impact of BD on interpersonal relationships
7	Family factors: focus on impact of BD on the family (includes family members)
8	Open group: open discussion (includes members of previous groups)

to work best when patient is euthymic, and provides little or no benefit over 'A' and 'B' mood stabilizers during an acute episode of mania or depression.

The mechanism of action of the psychoeducation is unknown. Colom et al. [11] hypothesize that teaching life regularity would play a main role in the prevention of depression, while the early detection of prodromal symptoms would be crucial to prevent mania. The above mentioned replication of the Archives' study conducted by the Barcelona Bipolar Disorders Program included only 50 BD I patients considered as treatment compliant, which enabled to demonstrate, that the influence of psychoeducation goes beyond the simple-but indispensable- enhancement of treatment adherence [13].

Adverse effects of psychotherapy and psychoeducation

An old humorous clinical saying claims that "if you cannot get killed by something, you will not possibly get cured by it either". To put it in other words, as with the other active treatments (e.g. pharmacotherapy), the psychoeducational approach must be attentive to the development of adverse events and consider both the risks and benefits of the planned interventions. In the review article on psychoeducation and cognitive-behavioural therapy in bipolar disorder Gonzalez-Pinto et al. [9] revealed two adverse events that must be taken into account and measured when using psychotherapies in bipolar disorder: increased use of antidepressants and increase in anxiety. Vieta stresses that psychoeducation may not be useful for all patients with bipolar disorder. Specifically he points out, that for instance, some patients with obsessive-compulsive personality features may become exceedingly concerned about detecting early prodromal symptoms, unnecessarily increasing the number of extra visits to their psychiatrists and receiving unjustified extra medication. Other patients may become too rigid about sleeping habits, missing social events or travel because they feel they must adhere inflexibly to their regular sleep schedule [23]. Vieta also cites a recent controlled trial on the efficacy of CBT in bipolar disorder, which suggests that patients who are still symptomatic and have a higher number of previous episodes may become distressed by this kind of intervention and may actually worsen [23]. Moreover depressed patients may tend to absorb only the negative aspects of psychoeducational information, and manic patients can be disruptive and may not absorb the information at all [24].

CONCLUSIONS

One limitation of some of the studies examined is the lack of separate comparisons for each block of the intervention (early detection of prodromal symptoms, enhancement treatment compliance and inducing lifestyle regularity). Another limitation of some studies on psychoeducation is insufficient information on how BD patients are "usually" treated. Also there is still lack of more other large-scale randomized controlled trials on psychoeducation.

Despite these limitations, psychological interventions have proved their efficacy in bipolar disorder. Almost every intervention tested contains important psychoeducative elements concerning both compliance enhancement and early identification of prodromal signs, stresses the importance of lifestyle stability, and explores pa-

tients' beliefs about health and illness awareness. Current treatment guidelines are already suggesting the use of psychotherapy in bipolar disorder [25, 26]. The noticeable shift in approach to bipolar disorders in which specialized and validated psychological interventions (like psychoeducation) become a requirement rather than just an option is underway.

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