

**Group psychoeducation in bipolar mood disorders
– the influence on the cognitive representation of the illness.
The results of the program:
“Taming the bipolar affective disorder”***

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Summary

Aim. To assess the influence of group psychoeducation in bipolar disorder on selected aspects of cognitive representation of illness.

Method. 51 patients with bipolar diagnosis were included in the study, and 24 were included in the final statistical analysis. The participants took part in 8 meetings of group psychoeducation. The assessment of selected aspects of cognitive representation of illness, i.e. acceptance of illness, health locus of control, generalized self-efficiency, hope for success, therapeutic compliance, beliefs about bipolar disorder was conducted with validated questionnaires before, after, and 18 months after receiving psychoeducation to register possible changes.

Results. Statistically significant increase in acceptance of illness, perceived self-efficiency, hope for success, therapeutic compliance, and positive modification of beliefs about bipolar disorder were detected. The observed change occurred right after the intervention, but it was not sustained during the follow-up.

Conclusions. Psychoeducation may exert a positive influence on virtually important cognitive variables, which seem to be clinically important. This influence may disappear with time, thus the interventions should either be repeated or the duration of intervention should be prolonged. The study shows new possible research directions in the field of searching for the mechanism of action of psychoeducation in bipolar disorder, as well as of its active components.

Key words: psychoeducation, bipolar disorder, cognitive representation of illness

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Introduction

The properly conducted pharmacotherapy of affective bipolar disorders (BD) is a necessary and essential component of the comprehensive treatment, however, their chronic, relapsing nature and serious consequences in the psychosocial sphere, such as family problems and stigmatization of people with mental illness, [1, 2] are the foundations of the renaissance of psychosocial approaches [3]. The application of optimal, comprehensive therapeutic intervention from the earliest stages of illness seems to be especially important [4]. An important role of the patient – the beneficiary of psychiatric care – as a partner in the treatment and rehabilitation is becoming more emphasized [5, 6].

The large scale study of Miklowitz et al. Systematic Treatment Enhancement for Bipolar Program (STEP-BD) [7], allowed for the selection of the psychosocial impacts effective in the improvement the bipolar disorders treatment results. Psychoeducation is the component of all of the following interventions: interpersonal therapy and social rhythms therapy (IPRST), family focused therapy (FFT) and cognitive-behavioural therapy (CBT).

Numerous studies on psychoeducation, showing its effectiveness as an independent intervention which is valuable addition to pharmacotherapy, were conducted [8, 9].

The so-called Barcelona program by Coloma and Vieta became the point of reference. It was subjected to the careful empirical assessment and the long-term effectiveness in preventing the relapses of all episodes of the illness was observed [10-12].

Although the legitimacy of use and efficacy of psychoeducation in the complex treatment of BD raises fewer and fewer doubts, still little is known about its mechanisms of action [13]. The influence of the following factors was suggested among them [14, 15]: the improvement of compliance with pharmacological treatment, acquisition of skills of early identification of relapses and undertaking the appropriate intervention, normalisation of the sleep-wake rhythms and other daily activities, avoiding the use and overuse of psychoactive substances, acquisition of the ability to independent emotional regulation and coping with stress, reducing auto-stigmatisation and increasing the acceptance of the illness, acquisition of the balanced and less pessimistic attitudes towards oneself in the context of the illness, improvement of family relations and communication with others, improvement of social skills, increasing the external social support and support for treatment [16].

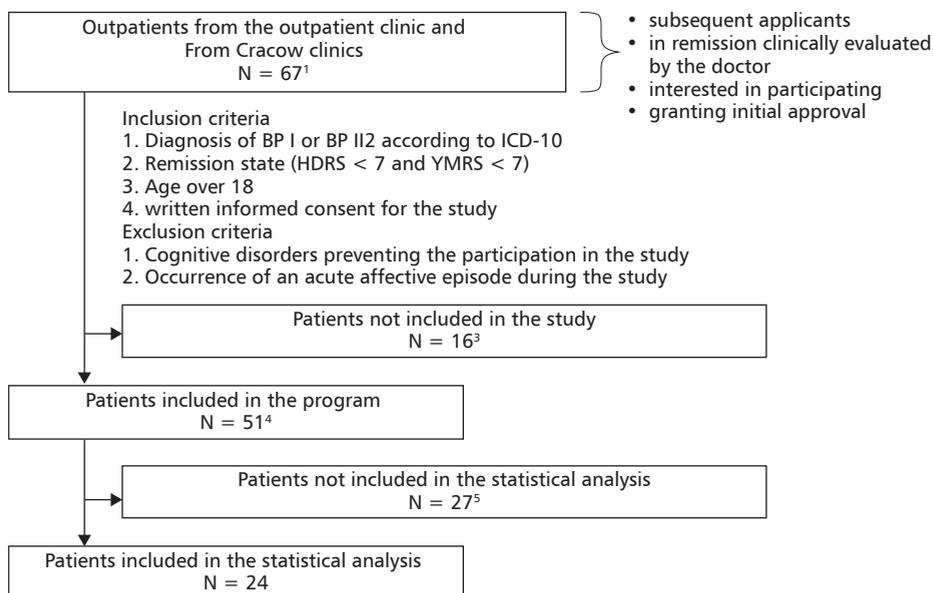
Among the theories explaining the possible mechanisms of the action of psychoeducation mentioned by Walsh [17], which have been discussed elsewhere [8], cognitive theories take a special place from the point of view of this study. The so-called model of the cognitive representation of the illness proposed by Scott and Tacchi [18] derives from cognitive theories. According to the authors, the answer to the question about the identity of the illness, its cause, time perspective, consequences and the possibilities to control it both determine the patient's behaviours related to the illness, and may constitute the starting point to begin the properly fitted therapeutic intervention.

Material

The initial invitation to the participation in the research program on the group psychoeducation was directed to ambulatory patients treated due to bipolar disorders in the outpatient clinic and other urban clinics by attending physicians informed about the program.

Eligibility for the study took place at the appointed personal meeting with the main researcher. Fifty one people fulfilled the study inclusion criteria (diagram 1) and signed an written informed consent. Cycles of psychoeducation took place in the years 2009-2010. The final statistical analysis included 24 people. The process of the recruitment and inclusion criteria to the final statistical analysis are presented in diagram 1. In table 1 the basic demographic characteristics of the studied group are presented.

Diagram 1. The process of recruitment and inclusion to the study



¹ Volunteers, initially included in the list of the people waiting for the study

² Other affective disorders (F31.8)

³ Did not come to the appointment with the researcher (n = 9), did not meet the inclusion criteria for remission (n = 7)

⁴ 4 groups of participants with the initial size of: 14, 10, 13, 14

⁵ Did not participate in the minimal number of meetings (6 out of 8) and/or did not fill in or give the researcher the set of questionnaires from all 3 measurement points and/or were excluded from the program due to the occurrence of the acute illness phase

Table 1. The selected demographic and clinical characteristics of the participants (N = 51)

Sex	Women	31 [60.8%]
	Men	20 [39.2%]
Age	Mean \pm SD	43.08 \pm 12.58
	Me (Q ₁ -Q ₃)	48 (29-54)
	min-max	21-63
Residence	City	36 [70.6%]
	Small town	6 [11.8%]
	Village	9 [17.6%]
Education	Higher	26 [51.0%]
	Secondary	24 [47.1%]
	Primary	1 [2.0%]
Job	Job	19 [37.3%]
	Pension/retirement	20 [39.2%]
	Unemployment	4 [7.8%]
	Studying	8 [15.7%]
Marriage	no	24 [48.0%]
	yes	26 [52.0%]
	unknown	1 [-]
Suicidal thoughts in the past	no	11 [21.6%]
	yes	39 [76.5%]
Suicidal attempts	0	33 [64.7%]
	1	11 [21.6%]
	2	4 [7.8%]
	3	3 [5.9%]
Number of illness phases	2-5	14 [28.0%]
	6-9	10 [20.0%]
	10-15	19 [38.0%]
	16 and more	7 [14.0%]
	Unknown	1 [-]
Number of hospital admissions (N = 50)	Mean \pm SD	4.78 \pm 4.61
	Me (Q ₁ -Q ₃)	4 (1-7)
	min-max	0-23
Age at the first hospital admission (N = 45)	Mean \pm SD	30.91 \pm 11.89
	Me (Q ₁ -Q ₃)	26 (21-40.5)
	min-max	16-57

Shortcuts used in the description: SD – standard deviation; Me – median; Q₁ – first quartile; Q₃ – third quartile; min – minimal result; max – maximal result

Method

The influence of the applied intervention – group psychoeducation (independent variable) on the cognitive representation of the illness (dependent variable) was subjected to evaluation. It was incorporated in the form of the following variables: acceptance of the illness, location of the health control, generalised self-efficacy, hope for success, therapeutic compliance, beliefs towards the bipolar affective disorder. The main research question was: is there a relationship between the participation in the structured group psychoeducation and the structure of the cognitive representation of the illness? Formulating the research hypotheses the presence of the influence of the applied intervention on particular aspects of the cognitive representation of the illness was assumed.

The studied intervention

The applied intervention was the group structured psychoeducation program entitled “Taming the bipolar affective disorder”, which was described in detail elsewhere [19]. It consisted of eight 90-minute meetings of a lecture-workshop character, taking place within 2 months. The classes were conducted by the clinical psychologist (GM) and specialist psychiatrist (BG), both having experience in the field of clinical work within the mood disorders and additional education in cognitive-behavioural psychotherapy. The subject of the meetings was based on the synthesis of the most important issues proposed by the Barcelona team and presented in table 2.

Table 2. **The subject of the session of the group psychoeducation program in bipolar disorders “Taming the Bipolar Affective Disorder”**

Organisational and introductory meeting
Session 1. Basics of knowledge about the bipolar affective disorder
Session 2. Treating the bipolar affective disorder
Session 3. Therapeutic cooperation. Applying the medical rules
Session 4. Individual image of the bipolar affective disorder
Session 5. Early detection of recurrence and the system of early response
Session 6. Lifestyle favouring the maintenance of health
Session 7. Coping with stress and solving problems
Session 8. Summary. Questions. Feedback

Research tools

Acceptance of Illness Scale – AIS

The scale by B. J. Felton, T. A. Revenson, G. A. Hinrichsen, in Polish adaptation of Zygfryd Juczyński is used to measure the degree of acceptance of the illness. AIS is used in the assessment of the acceptance level in every illness. The scale is a self-

descriptive tool. The reliability of the Polish version: Cronbach's alpha 0.82, while the test retest stability index over seven months (Spearman's rho) 0.69 [20].

The Multidimensional Health Locus of Control Scale – MHLC

The scale by K. A. Wallston, B. S. Wallston, R. DeVellis, in Polish adaptation of Zygryd Juczyński is a popular diagnostic tool, used in programs promoting health in preventive interactions. It opposes the internal location of control to the external one, while the last one differs the influence of others and the influence of the chance or fate. The assumption that the internal location of health control favours the pro-health behaviours underlies the scale construction. The scale is a self-descriptive tool. The reliability indicators of the Polish version of the test are, respectively: 0.77 for the scale of the internal control location; 0.67 for the influence of others and 0.75 for the influence of the chance [20].

Hope for success questionnaire – KNS

Questionnaire by Mariola Łaguna, Jerzy Trzebiński and Mariusz Zięba. Hope for success measured by the questionnaire refers to the strength of the expectation of positive effects of one's own actions. It consists of two components: the belief about the possession of strong will (KNS-S) and the belief about the skill of finding solutions (KNS-U). The relation between the hope for success measured by KNS and the effectiveness of therapeutic interventions and its adaptive role in coping with a difficult situation was found. The questionnaire is a self-descriptive tool. The questionnaire is characterised by the satisfactory internal compatibility and stability [21].

Generalized Self – Efficiency Scale – GSES

Scale by R. Schwarzer and R. Jerusalem in Polish adaptation by Zygryd Juczyński. The scale measures the strength of the general belief of the unit regarding the effectiveness of coping with difficult situations and obstacles. Self-efficacy allows for prediction of intentions and actions in different areas of human activity, including the scope of health behaviours. The scale is a self-descriptive tool. The reliability of the scale: Cronbach's alpha is 0.85, while the standard error of measurement is 0.24 [20].

Mood Stabilizers Compliance Questionnaire – MSCQ

Questionnaire by L. V. Kessing, H. V. Hansen, P. Bech, was created on the basis of a tool for the assessment of cooperation in the use of antidepressants (Antidepressants Compliance Questionnaire – ADCQ) (Demyttenaere et al. 2004). The questionnaire is a self-descriptive tool. It consists of the sub-scales examining: Beliefs on Mood Stabilizers – BMS, perceived Doctor-Patient Relationship – DPR, Perceived Dosing of mood stabilizers Autonomy – PDA, Perceived General Autonomy –PGA.

The questionnaire does not have Polish adaptation. Despite this, it was decided to include it in the study, due to the lack of alternative tools available in the native literature [22].

The questionnaire of beliefs against bipolar disorder

This questionnaire was created by the first author of this paper in order to examine the beliefs held by the patients concerning the bipolar affective disorder and its treatment. This questionnaire is a self-descriptive tool.

Additionally, in the assessment of remission (qualification to the test) the Hamilton Depression Rating Scale – HDRS and Young Mania Rating Scale – YMRS were used.

Each participant underwent the structured interview, based on the questionnaire constructed by the authors, in order to collect basic demographic and clinical data.

Program participants have been tested using the listed tools in 3 time points: I. before the start of the series of meetings; II. just after the end of the series of meetings; III. 18 months after the end of the cycle.

Statistical methods

For the statistical analysis of all obtained results the IBM SPSS Statistics v21 and GPower software were used [23].

Quantitative data were presented using the basic descriptive characteristics, i.e., the mean \pm standard deviation, 95% confidence interval for the mean, median with quartiles, the minimal and maximal value. Qualitative data were presented using the numerical and percentage distribution.

To evaluate the changes in time of the mean results of particular questionnaires the variance analysis (ANOVA) with repeated measurements was used. This analysis requires the fulfilment of the assumption about the compatibility of empirical distributions of the studied questionnaires with the theoretical normal distribution, as well as meeting the assumption of sphericity. The compliance of the distributions was tested using the Shapiro-Wilk's test, while the verification of the zero hypothesis about the occurrence of sphericity was based on the Mauchly's test. In case of non-compliance of the assumption about the normality, the non-parametric equivalent of the variance analysis with repeated measurements – Friedman's test – was used to the analysis of comparisons of mean results over time. However, in case of non-compliance of the assumption of sphericity, the multidimensional approach and the multidimensional variance analysis (MANOVA) were used. Additionally, in case of receiving significant results the analysis of multiple comparisons in pairs (post-hoc tests) was conducted in order to accurately determine which two averages are significantly different from each other. Moreover, in case of significant results, the ϵ^2 coefficient, which is the estimator of the variance of the dependent variable (results of the applied questionnaires) explained by the independent variable (intervention – group psychoeducation) in the sample was calculated.

The comparison of mean questionnaire measurements over time was deepened by the analysis of the test's power.

Results were considered as statistically significant if the calculated test probability p did not exceed the significance level $\alpha = 0.05$.

Results

Statistically significant results for the points values obtained in all scales, if they occurred, were observed only between measurement I (performed before the intervention), and measurement II (performed just after the intervention). No statistically significant changes between other pairs of measurements were observed. The summary of the obtained results is presented in table 3.

The conducted analyses showed the increase of the feeling of acceptance of the illness measured with the acceptance of illness scale just after the end of psychoeducation. The mean result obtained in this measurement by the participants differed by approx. 4 points in relation to the measurement from before the intervention, what constitutes the increase of 12.5% on average.

The increase of the generalised self-efficacy measured using GSES scale just after the end of psychoeducation was observed. The mean result obtained in this measurement by the participants differed by 2.5 points in relation to the measurement performed before the intervention, what constitutes an increase of 8.3% on average.

There was also observed a significant increase in hope for the success measured using the Hope for Success Questionnaire (KNS) just after the end of psychoeducation. The mean result obtained in this measurement by the participant differed by 3.75 points in relation to the measurement performed before the intervention, what constitutes an increase by 4.5% on average.

There was also a significant increase in the scope of abilities to find solutions, measured using the sub-scale Hope for Success Questionnaire (KNS-U) just after the end of psychoeducation. The mean result obtained in this measurement by the participants differed by 1.83 points in relation to the measurement performed before the intervention, what constitutes an increase of 6.5% on average.

The next observed change is a significant increase of therapeutic cooperation measured using (MSCQ) just after the end of psychoeducation. The mean result obtained in this measurement by the participants differed by 5.28 points in relation to the measurement performed before the intervention, what constitutes an increase of 5.3% on average.

In subsequent analyses, we have observed a significant enhancement of pro-healthy beliefs about bipolar disorders measured using the belief questionnaire about bipolar disorder just after psychoeducation. The mean result obtained in this measurement by the participants differed by 17.27 points in relation to the measurement performed before the intervention, what constitutes an increase of 5.85% on average. Detailed results are presented in table 3.

Table 3. Participation in psychoeducation and changes in the selected aspects of the cognitive representation of bipolar affective disorder

	M and SD before the intervention	M and SD after the intervention	p value	% of the mean value increase	Test power(1-β)	Effect size (ε ²)
AIS	24.63 ± 8.23	28.54 ± 7.51	p = 0.001	12.5%	0.764	0.140
MHLC-W	25.5 ± 4.47	27.04 ± 4.22	-	-	0.506	-
MHLC-I	24.38 ± 6.74	26.21 ± 4.51	-	-	0.211	-
MHLC-P	17.63 ± 6.32	17.17 ± 7.41	-	-	0.102	-
GSES	25.83 ± 6.65	28.33 ± 6.16	p = 0.016	8.3%	0.737	0.089
KNS	60.75 ± 8.11	64.5 ± 9.02	p = 0.006	4.5%	0.823	0.125
KNS-U	22.17 ± 5.67	24.00 ± 5.47	p = 0.006	6.5%	0.583	0.079
KNS-S	18.71 ± 6.04	21.13 ± 5.67	-	-	0.551	-
MSCQ	103.36 ± 11.94	108.64 ± 9.53	p = 0.020	5.3%	0.740	0.125
MSCQ DPR	48.24 ± 5.75	50.44 ± 5.73	-	-	0.467	-
MSCQ BMS	20.48 ± 3.32	20.76 ± 3.50	-	-	0.074	-
MSCQ PAG	20.44 ± 4.43	22.68 ± 4.08	-	-	0.526	-
MSCQ PAD	14.20 ± 1.83	14.76 ± 1.81	-	-	0.303	-
BEL	279.58 ± 33.72	296.85 ± 24.36	p = 0.001	5.85%	0.971	0.170

Abbreviations used in the description: AIS – Acceptance of Illness Scale; MHLC-W – Multidimensional Health Scale of the Location of Control – internal influence; MHLC-I – Multidimensional Health Scale of the Location of Control – the influence of others; MHLC-P – Multidimensional Health Scale of the Location of Control – the influence of the chance; GSES – Generalised Self-Efficacy Scale; KNS – Hope for Success Questionnaire, KNS-U – Hope for Success Questionnaire – the ability to find solutions; KNS-S – Hope for Success Questionnaire – strong will; MSCQ – Mood Stabilisers Compliance Questionnaire; DPR – perceiving the doctor-patient relation; BMS – perceiving mood stabilisers; PAG – general sense of autonomy; PAD – sense of autonomy in the scope of taking mood stabilisers; BEL – Beliefs towards BD Questionnaire; M – mean; SD – standard deviation

The additional analysis compared the group of patients, which met the inclusion criteria to the statistical analysis (n = 24), with the group of people, which did not meet these criteria (n = 27) and it was shown that the statistical difference (p = 0.036) was related to the occurrence of suicidal thoughts in the past. It was shown that the chance to finish psychoeducation among the people without the history of suicidal thoughts was five times higher than among the people, who have experienced them (odds ratio OR = 5.25; 95% confidence interval within 1.002; 27.514).

Discussion of the results

The obtained results show that even in the case of the relatively short intervention we observe a measurable direct effect in the form of: the increase of the acceptance

of the illness, the growth of the generalised self-efficacy, the increase of hope for success, the increase of the ability to find solutions, the improvement of therapeutic cooperation and the favourable modification of beliefs related to the illness. A significant increase of the mentioned aspects of the cognitive representation of the illness in the studied sample ranged from 4.5 to 12.5%, and the experimental effect size estimated on the basis of the ϵ^2 coefficient was in the range of the average effect ($0.06 < \epsilon^2 \leq 0.14$), indicating the presence of the clear relationship between the independent variable and the studied dependent variables. The obtained results do not allow us, however, to determine to what extent the effect is connected with specific elements of intervention (specific content of subsequent meetings), and to what extent with the non-specific healing factors (group factors, contact with professionals devoting a considerable amount of time).

At the same time it was observed that the stability of the described effect over time, not supported by additional structured interactions, unfortunately gradually decreases. Although it was not shown that in 18 months after the end of psychoeducation the level of the mentioned aspects of the cognitive representation of the illness was still significantly higher than before the start, it was also not proven that the results of this measurement were significantly lower than the results obtained just after the end of psychoeducation. It is possible that in order to maintain their growth over time, it is advisable to use a more elaborate intervention, like, e.g., the 21 stage Barcelona program, or the implementation of additional “revising” meetings, strengthening and perpetuating the obtained result.

Psychoeducation and the acceptance of the illness

Bipolar disorder is difficult to accept, and questioning the diagnosis is a common phenomenon. Test results show that factors, such as: mood swings, change of the previous diagnosis or misdiagnosis, mistrust of health care or experiencing the side effects of medication can contribute to ambivalence regarding diagnosis. One of the main implications of questioning the fact of being ill is worse cooperation in pharmacotherapy resulting in the increased recurrence [24].

Acceptance is associated with obtaining the insight into the nature of one's own condition and the resulting losses and limitations. In this context, one can look at it like on the opposite of negation. Because negation is antagonistic towards pro-active coping with the illness based on acceptance, it stops the ill person from searching for medical help and active participation in treatment. Greenhouse et al. demonstrated the curvilinear relationship, in which the acceptance of the diagnosis of bipolar disorders has positively correlated with the cooperation in treatment, while negation showed the negative correlation [25].

The role of acceptance was also shown in the treatment of other health problems. It is indicated as an essential element of recovery from alcoholism [25, 26]. Acceptance, together with the insight, also constitutes a fundamental predictor of successful cooperation in the treatment of schizophrenia [27]. A positive influence of the disorder acceptance in case of somatic diseases, e.g. diabetes was also ob-

served. People accepting their disease were able to control their own metabolism more effectively [28].

Psychoeducation and the location of health control

The diagnosis of a serious illness is also a challenge for the individual sense of control, including the sense of control over one's own health. Test results indicated the location of the health control as a crucial predictor of the tendency to undertake pro-health behaviours and fluency in coping with stress connected with being ill [29, 30]. It is assumed, though not without reservations, that the internal location of health control is more favourable, and people manifesting it are more autonomous in decision making, they engage more often into pro-health activity and have a greater sense of responsibility for their health [20].

For example, there was the relation between the internal location of health control and the use of effective strategies of coping with pain among the patients with cancer and other patients suffering from chronic diseases [29]. It was also observed that among patients with cancer, the internal location of health control correlated positively with the "fighting spirit" with the disease [31]. What is particularly important from the perspective of this study, people with the internal location of health control more willingly search for expand knowledge related to their own health and better cooperate in the therapy (for: [28]). The sense of the control location is also perceived as an important variable explaining the results of psychotherapeutic interactions and as a crucial factor determining the effectiveness of educational programs addressed to the patients [32, 33].

Studies on the location of health control among the patients with BD are still not numerous, and their results are contradictory. It has been proven that patients poorly cooperating in the treatment, are more often characterised by strongly external location of health control in comparison to the cooperating patients [34, 35]. These reports, however, are in contradiction with the previous test results indicating that the good therapeutic cooperation was often connected with the dependency on others or a greater tendency to being subject to the control of other people [36, 37]. The above data are also consistent with the results obtained by the French researchers – they observed that among the patients with the diagnosis of bipolar disorders, who participated in psychoeducation, there was a significant increase of the level of the external location of health control within assigning the influence to other people, what the authors tried to understand as the increase of trust to the treating people, which could increase the therapeutic cooperation [38].

In other words, although the location of health control is seen as an important aspect of the cognitive representation of the illness which can moderate the health behaviours in bipolar disorders, and an important goal of psychoeducation interactions, further studies in this area are required. Our study did not allow for the confirmation of the influence of psychoeducation on the strengthening of the pro-health location of health control.

Psychoeducation and the generalised self-efficacy

The notion of self-efficacy is another psychological determinant of undertaking healthy behaviours. Although the sense of self-efficacy was often tested in the context of somatic diseases, the experiences of the chronic stress and coping with it [39], the reports on its role in the treatment of bipolar disorders are surprisingly few. Bauer mentions the promotion of self-efficacy as one of the crucial aspects of treating chronic diseases, and particularly the bipolar disorder [40], reinforcing the model of treatment based on the therapeutic alliance.

Psychoeducation and hope for success

The relation of hope and the successful coping with the disease is already well known [41, 42]. It is well known, for example, how important is the role of hope on the patient's and therapist's side for the success of the process of psychotherapy [43]. The increased sense of hopelessness is one of the key risk factors of suicide [44], what indicates hope as the potential protective factor worth mentioning in the process of therapeutic interventions. The observed increase of hope for success among the participants of psychoeducation should be considered as a serious and interesting result requiring further studies.

Psychoeducation and compliance with the treatment of bipolar disorders

In case of BP, similarly as in patients after acute psychotic episodes [45], the non-compliance to the medical recommendations regarding the use of drugs is one of the main factors responsible for the high rates of recurrence and therapeutic failures [46]. The general improvement of the therapeutic cooperation after the application of psychoeducation, observed in this study, is consistent with the previous reports of the researchers in this area [8].

Psychoeducation and beliefs towards bipolar disorders

Numerous studies indicate that the way in which the patients perceive their illness and its treatment is a crucial, but probably underestimated by the doctors, predictor of therapy in case of many chronic diseases [47]. In case of bipolar disorders, this area is still less known, and the attention of the researchers focused more on clinical and demographic correlates of the poor therapeutic cooperation, granting the issue of perceiving the illness by the patients the secondary or third-rate role. Our observations are consistent with the previous reports indicating that the patients' image of bipolar disorders is often dictated by the insufficient, inaccurate or even erroneous knowledge about them [15, 48]. Psychoeducation seems to affect the very core of the cognitive representation of the illness, providing adequate knowledge on this subject in an accessible and structured form, additionally validated by the personal relations of the participants. This was confirmed in our results, i.e., the change of beliefs about the bipolar disorders into more adequate and pro-health ones.

Towards the searching for the psychological mechanisms of the efficacy of psychoeducation

Although in recent years we can observe the blossom of the studies on the psychosocial interventions in bipolar disorders, there is still surprisingly little known about the therapeutically active components and effective psychological mediators of the positive change in psychoeducation. The results of this study seem to widen the area of cognition in this field. This raises an important question: in which mechanisms the enforcement of the illness acceptance, self-efficacy, hope for success, therapeutic cooperation and pro-health beliefs towards the illness obtained as a result of psychoeducation, may contribute to the improvement of its image and clinical process and the improvement of psychosocial functioning of the patients? Referring to the three mechanisms of psychoeducation postulated by Coloma and Vieta [15], i.e., 1) the acquisition of knowledge about the disorder, 2) early detection of new episodes, and 3) compliance with recommendations for treatment, it can be assumed that they are difficult to be implemented into life without the acceptance of the diagnosis, without recognising one's own influence on the treatment process, without looking with hope on the possibility to achieve success, being unwilling to cooperate or having inadequate or erroneous beliefs about the illness.

This study has a number of limitations: 1) a small size of the analysed group and its limited representativeness; 2) the lack of a control group; 3) the lack of registration of clinical variables, including those regarding the pharmacological treatment in the observation period and its relation with the studied cognitive aspects of the illness; 4) the high ratio of falling out of the respondents from the analysis. The great strength of the study is, however, the fact of including important variables and their subjection to the assessment using recognised tools, what in the absence of the research data on this topic and the still unanswered question: how does the psychoeducation work and what works in it, is the prerequisite for the continuance of further studies taking into account the direction proposed in this study.

Conclusions

1. Even relatively short structured group psychoeducation for the patients with bipolar disorders seems to change the pro-health aspects of the cognitive representation of the illness;
2. The above effect is not maintained over time. The link between the observed changes and the clinical variables requires further studies in order to progress in the explanation of the actual mechanisms of the psychoeducation and the indication of its active components.

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