



Health locus of control, knowledge of illness and perception of recovery aiding factors among patients with bipolar affective disorder

Umiejscowienie kontroli zdrowia a wiedza o chorobie i percepcja czynników sprzyjających zdrowieniu u pacjentów z chorobą afektywną dwubiegunową*

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ABSTRACT

Objectives. The aim of this study was to explore relationships between health locus of control and patients' knowledge about bipolar affective disorder (BAD) as well as their perception of factors aiding recovery.

Methods. The research involved 32 patients with bipolar disorder. The locus of health control was determined by use of the Multidimensional Health Locus of Control Scale (MHCL). The respondents' knowledge was evaluated on the basis of the questions concerning basic information about the illness, and negative and positive factors influencing the patient's health. Additionally, the perception of the recovery supporting factors was estimated by the Factors Aiding Recovery Questionnaire.

Results. An external locus of control dominates in the group of patients examined, and is manifested through the patients' belief that their health depends on other people, mainly medical staff. The conviction that one's health depends on external factors is linked with a belief that the patient's own involvement in the process of recovery and search for emotional support from others is of no significance. At the same time, patients disregard the significance of the impact of their own actions and competences on the recovery process.

Conclusions. In a group of patients diagnosed with bipolar disorder, the positioning of the locus of control may be a modifying factor, influencing a patient's engagement in the process of recovery. This finding can be used when planning therapeutic interventions.

STRESZCZENIE

Cel. Określenie powiązań pomiędzy lokalizacją kontroli zdrowia a wiedzą pacjentów na temat choroby afektywnej dwubiegunowej (ChAD) oraz postrzeganiem przez nich czynników sprzyjających powrotowi do zdrowia.

Metoda. Badaniem objęto 32 chorych cierpiących na ChAD. Lokalizację kontroli zdrowia określono na podstawie badania „Wielowymiarową skalą umiejscowienia kontroli zdrowia” (MHCL). Poziom wiedzy badanych oceniono na podstawie pytań dotyczących podstawowych informacji o przebiegu choroby oraz czynnikach pozytywnie i negatywnie wpływających na stan zdrowia pacjenta. Sposób percepcji czynników leczących określony został na podstawie „Kwestionariusza czynników sprzyjających zdrowieniu”.

Wyniki. W badanej grupie dominuje zewnętrzna lokalizacja kontroli zdrowia – przekonanie, że za stan zdrowia osoby odpowiadają inni ludzie, głównie personel medyczny. Jednocześnie badani pomniejszają wpływ własnych działań i możliwości na proces powrotu do zdrowia. Przeświadczenie to wiąże się z przekonaniem, że gwarancją powrotu do zdrowia są w głównej mierze działania profesjonalistów, pomniejszane jest natomiast własne zaangażowanie. Przekonanie, że stan zdrowia jest wynikiem przypadkowych czynników wiąże się z niższą oceną istotności osobistego zaangażowania pacjenta w proces leczenia oraz niższą oceną wsparcia emocjonalnego ze strony innych, mimo posiadania wiedzy o znaczeniu tych czynników.

Wnioski. U pacjentów cierpiących na ChAD umiejscowienie kontroli zdrowia może być czynnikiem modyfikującym zaangażowanie pacjenta w proces leczenia. Zależność tę można wykorzystać, planując oddziaływania terapeutyczne.

Key words: bipolar affective disorder / health locus of control / recovery / recovery factors

Słowa kluczowe: choroba afektywna dwubiegunowa / lokalizacja kontroli zdrowia / zdrowienie / czynniki zdrowienia

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Bipolar affective disorder is an illness, in which psychopathologically opposing mental irregularities i.e. mania and depression occur in a varied succession. [1]. Bipolar disorder takes the high sixth place on the list of disorders that cause impaired functioning and inability to work [2]. In fact, an optimal functioning, stability, prevention of relapses, hospitalizations and complications, including the use of psychoactive substances or suicidal tendencies are only possible with proper treatment, the basis of its effectiveness being determined by the patient's active involvement [1, 3, 4,]. Patient's behaviour in the course of treatment of bipolar affective disorder can essentially influence its quality and effectiveness. It is also crucial for a patient to get to know the illness, follow medical recommendations and rules of healthy living, and equally importantly, to identify areas of support available in the local community [5, 6]. A factor which can significantly modify patient's beliefs and involvement in the treatment process is health locus of control, which, according to K.A. Wallston and B.S. Wallston, is determined on the basis of personal experiences and observations with regard to health and illness. An internal health locus of control is expressed in individual belief that a person can control the condition of his/her health because it depends on them. An external health locus of control can be manifested in two ways: a belief that one's good or bad health is a results of interventions of other people, especially medical personnel or that good or bad health are coincidental, governed by fate or other external factors [7,8]. People with internal locus of control, in contrast to those with the external locus, are characterized by a higher level of adaptive functioning; they show more responsibility for their health and avoid dangerous or risky situations. They make more effort to protect themselves from physical trauma or illness, and actively seek information on healthcare available. People with internal locus of control are more sensitive to the signals from their bodies and, if ill, they choose the forms of treatment which enable them to control the situation and draw on their personal resources [9]. People who experience the locus of control internally feel more responsible for their health, so their daily behaviour is pro-health and they usually follow healthy diet, whereas patients with external locus of control visit the doctor's surgery regularly and adhere to medical advice [7]. Chronic diseases, especially those with difficult course, can modify the health locus of control, as a person might stop believing in the possibility of controlling their health and surrender responsibility to others, especially medical personnel [7, 10].

OBJECTIVE

The study aimed at the evaluation of the health locus of control, assessment of knowledge of bipolar affective disorder and perception of factors which aid recovery in the group of patients suffering from the illness. Among our main objectives was also an attempt to define possible relationships between the health locus of control and other variables.

METHODS

The study involved patients of the psychiatric hospitals in Lublin and Wrocław (N=32), exclusively with the diagnosis of bipolar affective disorder (F31 according to ICD-10 diagnostic criteria), who had been ill for at least 3 years, which meant that they had had enough time to gather information about their illness, have personal experiences of it, observations and coping strategies. At the time of meeting the researchers, patient's condition, as evaluated by a psychiatrist, had to be good enough to allow for the participation in the study i.e. they were neither in deep depression nor mania, were cognitively sound and capable of forming judgments about themselves. Also excluded were the patients who suffered from other mental disorders or neurological illnesses that caused the CNS dysfunctions, those dependent on alcohol or psychoactive substances, patients who showed signs of dementia or the CNS damage or underwent the electroconvulsive treatment. The patients examined were also legally free to express their consent to participate in the research procedure.

The study included 20 women and 12 men, with the average age of 51 (SD=12). The youngest person was 31 and the oldest 77. The average age of the onset of illness was 36 (SD=13) whereas the diagnosis of bipolar affective disorder was on average made 4 years after the appearance of the first symptoms. The average duration of illness (from the time of its first symptoms) was 15 years (SD=7). The examined patients were hospitalized on average 7 times (SD=7).

The analysis of socio-demographic data showed that majority of our patients (68.8%) were married or had a partner, and the rest were single. Most people (62,5%) lived in the cities over 100,000 inhabitants, much fewer came from towns with the population between 20,000 and 100,000 (25%), and the smallest number lived in small towns with the population of under 20,000 (6.3%) and in villages – 6.3%. Most of our respondents were educated to the secondary level

(53.1%), fewer (40.6%) completed higher education and the smallest percentage (6.3%) were educated to primary education level. In the group of our respondents 56.3% of people remained professionally active, others did not work, claimed incapacity benefit because of bipolar affective disorder (21.9%), were retired (12.5%) or had 'unemployed' status (9.4%).

Patients' beliefs on the health locus of control were measured with the use of Multidimensional Health Locus of Control Scale (MHCL), Model A (Wallston, Wallston and DeVillis) in the Polish adaptation by Juczyński. MHCL is a self-reporting scale. A respondent uses a six-step scale to address 18 items, divided into 3 subscales. The score is calculated by adding the points, separately for each subscale, with a possible score of 6-36 for each. In this way 3 indicators are obtained which correspond to the dimensions of health locus of control: internal (I) – 'I control my health, it depends on me'; powerful others (O) – 'My health depends on what other people do, especially the medical personnel'; and chance (P) – 'My health is a consequence of many external factors, chance, fate or luck.' The higher the score the stronger a belief about the influence of a given factor on personal health. The prevalence of one dimension indicates the way that a person perceives their chances of having influence on the condition of their health [7].

The measuring of the perception of psychosocial factors involved in the treatment process was performed using the Factors Aiding Recovery Questionnaire, developed by Sękowska-Pratkowska [11]. The questionnaire consists of 76 items, which a respondent evaluates on a five-step scale. The statements are assigned to 9 factors: formal qualifications of medical personnel characteristics and attitudes of medical personnel, emotional support, informational support, patient characteristics, patient's behaviour in the treatment process, institutional conditions, family support, and social and living conditions of the patient.

The BD knowledge test was quoted after Basco's *Zaburzenia afektywne dwubiegunowe* [Bipolar Affective Disorders] [5]. It consists of ten false/true questions regarding the basic information about the illness, its course and factors that affect patient's health in positive or negative way. Because the questions refer to the most important issues relating to the illness, from the point of view of the therapeutic process, it would be best if all of them were answered. Each wrong answer indicates that the information is missing and needs to be provided. If a patient scores 70% or more in the test, it means that his/her knowl-

edge of the illness is sufficient. Lower scores indicate that a patient lacks basic knowledge of the condition and is in need of further psychoeducation.

RESULTS

Health locus of control

The strongest belief among our respondents was that one's health is mostly affected by others (mean, $M = 28.53$, standard deviation, $SD = 5.03$). A lesser role in maintaining good health was attributed to the respondents' own behaviour (internal health locus of control: $M = 21.66$, $SD = 6.70$) and chance, or other external factors (the impact of chance: $M = 22.75$, $SD = 6.64$). The advantage of the influence of powerful others over other dimensions of health locus of control reached statistical significance (T-test) for Wt (31) = 4.96, $p \leq 0.001$ and for Pt (31) = 3.72, $p \leq 0.001$.

Knowledge of bipolar affective disorder

The mean score in the BD knowledge test among our patients was 68.8% (range: 40-100%, $SD = 16.8$). The results suggest that the overall level of knowledge about the disease is average. Some issues were difficult for respondents to understand, revealing misconceptions about the illness. The test statements and the level of patients' knowledge are presented in Table 1.

Table 1. Bipolar disorder knowledge test results in the group of examined patients.

Statements regarding bipolar disorder	Correct answers (%)
Bipolar affective disorder can cause both mania and depression./true/	87.5
You can be depressed and manic at the same time./true/	34.4
Drugs are necessary to control symptoms of bipolar disorder./true/	96.9
It is enough to take daily medication to feel good./false/	56.3
It is impossible to stop the development of depression and mania once they start./false/	53.1
Shortage of sleep can trigger a manic episode./true/	71.9
In order to cope with bipolar disorder you have to give up the exciting things in life./false/	46.9
Such diagnosis means that you have to give up professional work./false/	71.9
I can cope with the illness on my own. I don't need help./false/	84.4
I am not ill with bipolar disorder. Doctors are wrong./false/	84.4

Our respondents had most difficulties with the statement *You can be depressed and manic at the same time*, pointing to the lack of knowledge on mixed states in the course of BAD. Some people gave a wrong answer even to the statement: *Bipolar affective disorder can cause both mania and depression*, though the answer seems fairly obvious.

Perception of recovery aiding factors

The examined group of people suffering from bipolar disorder highly evaluated all factors considered, appreciating their role in the recovery process. The results are presented in Fig. 1

The most important factors affecting the treatment process were considered to be family support, patient characteristics, informational support and characteristics and attitudes of medical staff.

Health locus of control and socio-demographic variables

Our results demonstrate a significantly positive relationship between the influence of powerful others, the age of respondents and the age of the onset of bipolar disorder. Chance, on the other hand, correlated negatively with the age of the onset of illness (Table 2).

Health locus of control, knowledge of the illness and perception of recovery aiding factors

The results demonstrate a relationship between the dimensions of health locus of control and knowledge of BD and recovery aiding factors (Table 3).

Table 2. Pearson's correlation coefficient (r) between the dimensions of health locus of control and socio-demographic variables.

Variables	Health locus of control		
	Internal	Powerful others	Chance
Age	-0.13	0.42*	-0.21
Age of the onset of illness	0.03	0.35*	-0.35*
Number of hospitalizations	-0.08	0.12	0.34

Significant correlation at the level * $p \leq 0.05$

Table 3. Pearson's correlation coefficient (r) between the dimensions of health locus of control, results of the BD knowledge test and Factors Aiding Recovery Questionnaire

Knowledge and factors aiding recovery	Health locus of control		
	Internal	Powerful others	Chance
BD knowledge test	-0.02	-0.44*	0.17
Factors aiding recovery			
- patient characteristics	-0.25	0.10	-0.37*
- behaviour in the treatment process	0.18	0.22	-0.41*
- social and living conditions	0.10	0.34	-0.20
- emotional support	-0.15	0.02	-0.38*
- informational support	-0.19	0.02	-0.21
- family support	-0.25	-0.10	-0.23
- institutional conditions	-0.20	0.01	-0.32
- formal qualifications of the personnel	0.18	0.36*	-0.21
- characteristics and attitudes of the personnel	-0.16	-0.04	-0.29

Significant correlation at the level * $p \leq 0.05$

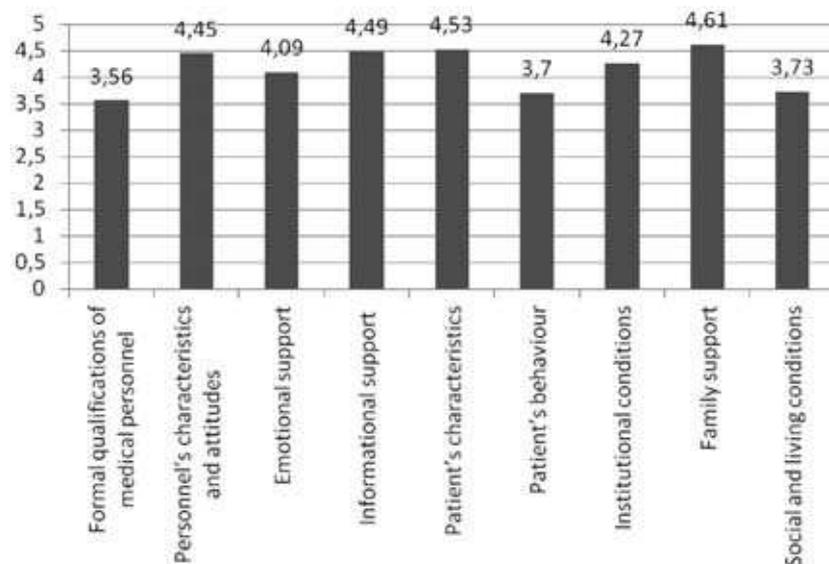


Fig. 1. Perception of recovery aiding factors

The impact of powerful others correlated negatively with the knowledge about the disease and positively with formal qualifications of medical personnel. This allows us to conclude that the stronger the belief that the state of one's health is significantly influenced by other people, the lesser is the knowledge about the disease, and more consideration is given to the formal qualifications of medical staff as relevant to the recovery process. The impact of chance correlated negatively with the patient's characteristics, behaviour throughout the treatment process and availability of emotional support. This allows for a conclusion that the stronger is the patient's belief about the influence of random factors, the lesser is his/her belief in the significance of his/her own characteristics, convictions and behaviour or emotional support of other people in the recovery process.

DISCUSSION OF RESULTS

Health locus of control is a generalised belief in the factors influencing the person's own health [12]. It is considered to be an essential ingredient allowing us to understand and anticipate the individual's health-related behaviour. It is also applicable in the preparation of prophylactic programmes and promotion of healthy attitudes [13]. The internal health locus of control is more often related with healthy lifestyle, sickness prevention, better physical and mental condition of a person. The external health locus of control, on the other hand, allows for a prediction that a patient will be less involved in the prophylactics and take more health-related risks [14, 15, 16].

The group of people examined, with the diagnosis of bipolar affective disorder, was dominated by the external health locus of control, a belief that one's health depends primarily on others. This indicates that our respondents surrendered the initiative and responsibility for their health to others, while rigorously adhering to medical recommendations and advice on living with the disease [17, 18]. Similar results were obtained in the groups of patients with chronic medical conditions such as multiple sclerosis [19], neoplastic disease [8], epilepsy [20], cardiac disease [11, 21, 22]. Thus, it seems that as far as the health locus of control is concerned, patients with BD express similar beliefs to those treated for chronic somatic diseases. The results of the study by Buhagiari et al. [23], who obtained a similar pattern of results in the group of persons with mental illness (from the spectrum of schizophrenia and bipolar disorder), suggest

that the tendency to believe that the responsibility for the health of a person lies in others seems typical for patients treated for psychiatric conditions. In case of chronic diseases, both psychiatric and somatic, the preference for the external over the internal health locus of control is interpreted in two ways. It is believed that the reason for this phenomenon may be that people with internal sense of control are more likely to take care of their own health, e.g. look for information on health improvement strategies and take care their health which affects their physical and mental condition [7, 10, 24]. The second interpretation is that long-term, severe or incurable disease changes one's health locus of control, producing doubt in patient's own strength and preference for entrusting our health to medical personnel [10].

The respondents' belief that their health is mostly dependent on others, especially medical personnel, is linked with the conviction that it is professional interventions that guarantee one's recovery. This belief increases in intensity with the patient's age [7, 15]. The results obtained in the examined group confirm that the older the person the more they trust specialists and surrender the responsibility for their health to others, which means that the authority and trust in medical services can be used especially in working with older patients.

The prevalent belief among our respondents that it is others that are responsible for their health is reflected in the state of their knowledge about BAD. In fact it turns out that patients hold a lot of false beliefs which might hinder their recovery. They lack basic information on a possible course of illness, associated difficulties, treatment options and the way they can function in everyday life in spite of the illness. It is worth emphasizing that by enjoying authority medical staff can modify these wrong beliefs and help form positive attitudes towards the illness and treatment, and in this way enhance the quality and effectiveness of therapy. The results obtained by Even et al. [25] among the patients with bipolar disorder treated with lithium demonstrated that psychoeducation on the medication used and its properties improved the course of illness significantly along with the patients' trust in medical personnel. The results of a study by Moshki et al. [26] demonstrated that prophylactic programmes could significantly consolidate the internal health locus of control and increase pro-health behaviour. The group of patients that we investigated in this study underappreciated the relevance of their own activity and involvement in recovery, getting to know their illness and discov-

ering coping strategies. This features more intensely the younger the patients and the earlier the onset of illness. This has serious implications for the therapeutic work, as it is particularly difficult to work with patients who fail to see how they or others can have any impact on their health. The belief that one's health is a result of pure chance is related, in this group, with a perception of lower value of personal involvement in the treatment process, and the use of such individual resources as personality traits, personal values and beliefs, as well as a lower valuation of emotional support from others. The truth is, however, that personal and social resources can play a positive role in combating the illness. A person aware of the helpfulness of various factors in the recovery process can take advantage of a wide range of resources, both personal and social, depending on the actual situation [27, 28, 29]. At the same time, as showed by the results of the study by Doherty et al. [30], it is important for the support to be varied and adapted to individual needs and requirements posed by the specific course of bipolar disorder. It should be emphasized that access to social resources and their use may be hindered by the fact that patients struggling with bipolar disorder find it hard to be understood even by the closest family members. They experience stigmatization and exclusion because of their illness, also in broader social context, which in consequence makes it harder for them to function properly on a daily basis. For help to be effective, it is advisable to create a broad network of support with elements of psychoeducation and disposing of stereotyping in the society [31, 32, 33].

CONCLUSIONS

1. The group of patients who suffer from bipolar affective disorder is dominated by external health locus of control, as demonstrated by a belief that personal health is significantly influenced by other people.
2. The structure of health locus of control varies, dependent on the age of subjects – older patients are more willing to trust professionals and entrust them with the responsibility for their health. The younger the patients and the earlier the onset of illness, the stronger their belief that their health is governed by chance, which results in their lesser involvement in the treatment process or in seeking support.
3. In the group of patients who suffer from bipolar affective disorder, the health locus of control may

be a factor modifying patient's involvement in the treatment process, and the perception of resources which may contribute to recovery. This relationship can be used in planning therapeutic interventions.

BIBLIOGRAPHY

1. Rybakowski J. *Oblicza choroby maniakalno-depresyjnej*. Poznań: Termedia Wydawnictwa Medyczne; 2008.
2. Mączka G, Siwek M, Skalski M, Dudek D. Lekarze i pacjenci wobec choroby afektywnej dwubiegunowej – czy myślimy podobnie? *Psychiatria Polska*. 2009; 43 (3): 301-312.
3. Goodwin, G, Sachs G. *Zaburzenia afektywne dwubiegunowe*. Bielsko-Biała: Alfa-Medica Press; 2006.
4. Rybakowski J. Choroba afektywna dwubiegunowa – współczesne poglądy na leczenie. *Przewodnik Lekarza*. 2005; 4: 59-65.
5. Basco RM. *Zaburzenia afektywne dwubiegunowe*. Kraków: Wydawnictwo Uniwersytetu Jagiellońskiego; 2006.
6. Russell SJ, Browne JL. Staying well with bipolar disorder. *Australian & New Zealand Journal of Psychiatry*. 2005; 39 (3): 187-193.
7. Juczyński Z. *Narzędzia pomiaru w promocji i psychologii zdrowia*. Warszawa: Pracownia Testów Psychologicznych Polskiego Towarzystwa Psychologicznego; 2001.
8. Juczyński Z. Psychologiczne wyznaczniki zachowań zdrowotnych na przykładzie badań osób dorosłych. W: Łazowski J, Dolińska-Zygmunt G. red. *Ku lepszemu funkcjonowaniu w zdrowiu i chorobie. Materiały z XIII Ogólnopolskiego Sympozjum Medycyny Psychosomatycznej i V Bałtyckiego Sympozjum Balintowskiego*. Wrocław: Wydawnictwo Akademii Wychowania Fizycznego we Wrocławiu; 1997. s.285-291.
9. Kirkcaldy BD, Siefen RG, Merbach M, Rutow N, Brähler E, Wittig U. A comparison of general and illness-related related locus of control in Russians, ethnic German migrants and Germans. *Psychology, Health & Medicine*. 2007; 12 (3): 364-379.
10. Petrulytė A, Pileckaitė-Markovienė M, Lazdauskas T. Peculiarities of health control locus and sense of coherence among adults suffering from chronic diseases. *Psichologija*. 2007; 35: 32-41.
11. Sękowska-Pratkowska K. *Osobowościowe uwarunkowania obrazu własnej choroby. Badania pacjentów kardiologicznych*. Niepublikowana praca doktorska. Lublin: Instytut Psychologii KUL; 2006.
12. Wallston KA. The Validity of the Multidimensional Health Locus of Control Scales. *Journal of Health Psychology*. 2005; 10 (5): 623-631.
13. Malcarne VL, Drahota A, Hamilton NA. Children's health-related locus of control beliefs: ethnicity, gender, and family income. *Children's Health Care*. 2005; 34 (1). 47–59.
14. Helmer SM, Krämer A, Mikołajczyk RT. Health-related locus of control and health behaviour among university students in North Rhine Westphalia, Germany. *BMC Research Notes*. 2012; 5 (1): 1-8.
15. Jacobs-Lawson JM, Waddell EL, Webb AK. Predictors of Health Locus of Control in Older Adults. *Current Psychology*. 2011; 30 (2): 173–183.
16. Juczyński Z. Przekonania i oczekiwania wyznacznikami zachowań związanych ze zdrowiem. W: Juczyński Z, Ogińska-Bulik N. red. *Zasoby osobiste i społeczne sprzyjające zdrowiu jednostki*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego; 2003. s.49–61.
17. Janowski K, Kurpas D, Kusz J, Mroczek B, Jedynek T. Health Related Behavior, Profile of Health Locus of Control and Acceptance of

- Illness in Patients Suffering from Chronic Somatic Diseases. *PLoS ONE*. 2013; 8 (5): 1-8.
18. Kurowska K, Siekierska I. Akceptacja choroby a poczucie umiejscowienia kontroli zdrowia u osób po usunięciu nerki z powodu nowotworu. *Pielęgniarstwo Chirurgiczne i Angiologiczne*. 2013; 2: 65-71.
 19. Wrzeńska A, Opuchlik K, Kocur J. Ocena umiejscowienia kontroli zdrowia oraz poziomu poczucia własnej skuteczności i optymizmu u chorych na stwardnienie rozsiane. *Post Psychiatr Neurol*. 2008; 17 (4): 313-118.
 20. Asadi-Pooya AA, Schilling CA, Glosser D, Tracy J, Sperling MR. Health locus of control in patients with epilepsy and its relationship to anxiety, depression, and seizure control. *Epilepsy & Behavior*. 2007; 11 (3): 347-350.
 21. Opuchlik K, Wrzeńska M, Kocur J. Ocena poziomu stylów radzenia sobie ze stresem i poczucia umiejscowienia kontroli zdrowia u osób z chorobą niedokrwinną serca i nadciśnieniem tętniczym. *Psychiatria Polska*. 2009; 43 (2): 235-245.
 22. Rydlewska A, Krzysztofik J, Libergal J, Rybak A, Banasiak W, Ponikowski P, Jankowska EA. Health locus of control and the sense of self-efficacy in patients with: a pilot study. *Patient Preference & Adherence*. 2013; 7: 337-343.
 23. Buhagiar K, Parsonage L, Osborn DPJ. Physical health behaviours and health locus of control in people with schizophrenia-spectrum disorder and bipolar disorder: a cross-sectional comparative study with people with nonpsychotic mental illness. *BMC Psychiatry*. 2011; 11 (1): 104-113.
 24. Marcinkowska-Bachlińska M, Małeczka-Panas E. Poczucie kontroli i strategie radzenia sobie z emocjami i dolegliwościami u chorych na chorobę refluksową. *Przewodnik Lekarza*. 2006; 9: 83-90.
 25. Even C, Thuile J, Kalck-Stern M, Criquillion-Doulet S, Gorwood P, Rouillon F. Psychoeducation for patients with bipolar disorder receiving lithium: short and long term impact on locus of control and knowledge about lithium. *Journal Of Affective Disorders*. 2010; 123 (1-3): 299-302.
 26. Moshki M, Amiri M, Khosravan S. Mental health promotion of Iranian university students: the effect of self-esteem and health locus of control. *Journal of Psychiatric and Mental Health Nursing*. 2012; 19 (8): 715-721.
 27. Proudfoot JG, Jayawant A, Whitton AE, Parker G, Manicavasagar V, Smith M, Nicholas J. Mechanisms underpinning effective peer support: a qualitative analysis of interactions between expert peers and patients newly-diagnosed with bipolar disorder. *BMC Psychiatry*. 2012; 12 (1): 196-206.
 28. Poprawa R. Zasoby osobiste w radzeniu sobie ze stresem. W: Dolińska-Zygmunt G. red. *Elementy psychologii zdrowia*. Wrocław: Wydawnictwo Uniwersytetu Wrocławskiego; 1996. s.101-136.
 29. Sęk H. Wsparcie społeczne jako kategoria zasobów i wieloznaczne funkcje wsparcia. W: Juczyński Z, Ogińska-Bulik N. red. *Zasoby osobiste i społeczne sprzyjające zdrowiu jednostki*. Łódź: Wydawnictwo Uniwersytetu Łódzkiego; 2003. s.17-32.
 30. Doherty EF, Macgeorge EL. Perceptions of Supportive Behavior by Young Adults With Bipolar Disorder. *Qualitative Health Research*. 2013; 23 (3): 361-374.
 31. Eidelman P, Gershon A, Kaplan K, McGlinchey E, Harvey AG. Social support and social strain in inter-episode bipolar disorder. *Bipolar Disorders*. 2012; 14: 628-640.
 32. Cerit C, Filizer A, Tural Ü, Tufan AE. Stigma: a core factor on predicting functionality in bipolar disorder. *Comprehensive Psychiatry*. 2012; 53 (5): 484-9.
 33. Elgie R, Morsell PM. Social functioning in bipolar patients: the perception and perspective of patients, relatives and advocacy organizations—a review. *Bipolar Disorders*. 2007; 9: 144-157.

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