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Significance of psychiatrists' personal variables in treatment of persons suffering from schizophrenia.

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Summary

Aim. The aim of the study is to investigate the significance of psychiatrists' personal variables in treatment and functioning of persons suffering from schizophrenia.

Methods. 150 patients with schizophrenia indicated by 30 psychiatrists were included in the study. Data was collected during single interview with the use of Dyadic Questionnaire of the Therapist-Patient Relationship, Questionnaire of Pharmacological Treatment Assessment, Life Satisfaction Scale, Emotion Control Scale, Life Orientation Test, Overall Self-Efficacy Scale, Social Functioning Scale and Socio-demographic Questionnaire. Stepwise regression was used to determine the psychiatrist's related variables which explain variables associated with a patient.

Results. Psychiatrists' personal variables explained up to 20% of variance in social functioning of the patients with schizophrenia. Variables describing psychiatrists were most significant in explaining assessment of psychiatrist's professionalism and rejection of a psychiatrist by a patient. The abilities to identify medication symptoms and adherence to pharmacotherapy were only slightly explained by patient – psychiatrist collaboration length.

Conclusions. Results indicate that psychiatrists' personal characteristics are significant for the development of the relationship between persons with schizophrenia and their psychiatrists.

Key words: schizophrenia, psychiatrists, relationships

Introduction

Mental illness limits but not diminishes need of being in a relationship and patients search for closeness and safety also in a relationship with a doctor [1]. Therefore collaboration with a psychiatrist is one of the most important predictors of positive course

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of an illness and functioning of patients suffering from schizophrenia [2]. Interpersonal components of treatment such as stable relationship with a doctor (defined as contact on regular basis), not overloading patient with emotionally difficult problems and avoiding cold, logical planning in the therapeutic course are of great importance in this regard. In the literature we can find such recommendations as the need of keeping "intimacy at bay", "distanced care" or "close distance" [3]. Wing mentions a need for relatively small personal engagement of a doctor as well as a necessity to follow the rules of low level of feelings expressions, i.e. demonstration of passivity in contacts [4, 5]. According to Kępiński, directness and creation of warm and respectful atmosphere are important for building an effective therapeutic relationship [6].

The aim of this study is to investigate the significance of psychiatrists' personal characteristics for treatment effects and patients' life, and also to identify psychiatrists' characteristics associated with patients' compliance and willingness to collaborate with a doctor. This study will therefore address the following research questions:

1. Is the assessment of psychiatrists' satisfaction with life, sense of effectiveness, life orientation (optimism) and control over negative emotions related to patients' assessment of therapeutic relationship, social functioning or themselves and their lives in the same dimensions?
2. Are psychiatrists' satisfaction with life, sense of self- efficacy, life orientation (optimism) and control over negative emotions related to patients' compliance with the medical recommendations, level of knowledge about treatment and satisfaction with pharmacotherapy effects?

Material and method

Study group included 30 psychiatrists and 150 patients. Each psychiatrist recommended 5 of his/her patients who fulfilled the following criteria: age between 25 and 55 years, ICD-10 diagnosis of schizophrenia [7], receiving treatment from this psychiatrist for at least 3 years, having regular contact with this psychiatrist, i.e. contact him/her at least once a month, ambulatory treatment, moderate severe or lower intensity of patients' psychotic symptoms (according to PANSS score) at the time of examination, lack of organic changes in brain indicated on the basis of medical documentation, regular contacts with family or other close people.

Doctors included in the study were specialists in psychiatry who worked in public or private clinics.

The following questionnaires were used for the purpose of this study:

1. Dyadic Questionnaire of the Therapist-Patient Relationship (version for a patient) developed by M. Stark. Polish version of this questionnaire was developed by A. Cechnicki and M. Wojnar [8]. The questionnaire was used to assess the relationship between a patient suffering from schizophrenia and a doctor in 5 dimensions:

- acceptance of doctor's personal features;
- professionalism in therapeutic course expressed by patient's trust in doctor's knowledge and skills;
- level of uncertainty expressed by a psychiatrist and noticed by a patient;
- level of psychiatrist's dominance experienced by a patient;
- rejection of a doctor expressed by a patient.

2. Questionnaire of Pharmacological Treatment Assessment – patient's perspective. Tool developed in the Department of Psychiatric Rehabilitation of the Institute of Psychiatry and Neurology. The questionnaire was used to assess collaboration between a doctor and a patient in the following areas: compliance with the medical recommendations, knowledge about medications and their administration, ability to identify side effects of pharmacotherapy and illness itself, frequency of visits in a clinic [9].
3. Life Satisfaction Scale, Emotion Control Scale (subjective assessment of anger, anxiety and sadness control), Life Orientation Test (assessment of optimism level), Overall Self- Efficacy Scale (assessment of one's sense of self-efficacy). Research tools are included in Juczynski's "Measures in health promotion and health psychology." [10] These scales and tests were fulfilled by psychiatrists participating in this study
4. Socio- demographic Questionnaire – developed by the authors.
5. Patients' family or close persons were asked to answer questions on the Social Functioning Scale (version for a carer or family) developed by M. Birchwood. The scale was used to assess social functioning of patients in 7 areas: social engagement/withdrawal, interpersonal behaviour, pro-social activities, recreation and entertainment, independence-performance, employment/occupation [11].

Stepwise regression was used in order to identify which psychiatrists' related variables explain variables associated with a patient. Significance level was set at $p< 0.05$.

Results

Characteristics of the study groups.

Women constituted 59% of patients and men constituted 41% of patients. The majority of the patients had secondary education (56.7%) and only 16.7% had primary education. 29% of the participants did not have their disability class identified and 37% were employed. Patients visited psychiatrists 7 times in last 6 months on average.

The second group participating in this study was a group of 30 psychiatrists (77% females and 33% males). Their mean age was 47.4 years and mean length of work experience was 21.4 years. Mean time of collaboration with a patient participating in this study was 6.2 years.

Role of psychiatrists' personal variables in explanation of social functioning of the patients.

Dependent variables were extracted from the Social Functioning Scale. Only statistically significant results are presented in the tables below.

Patients' tendency to withdraw from isolation was the first analyzed variable. Results showed that psychiatrists' optimism and their abilities to cope with sadness were significant in terms of patients' withdrawal from isolation. However, their relation with the level of isolation withdrawal was poor and allowed for explaining only 13% of variance of this variable.

Further, it was investigated which, if any, psychiatrists related factors influence the schizophrenia patients' ability to create interpersonal bonds. Ability to create interpersonal bonds was significantly related with psychiatrists' sense of effectiveness and coping with anxiety. However, only about 10% of the variance of ability to create interpersonal bonds was explained by these factors.

Patients' ways of spending free time was the last examined variable (participation in recreational and cultural events). Regression analysis showed that psychiatrists' sense of effectiveness and coping with anger were statistically significant for explanation of the variance of ways of spending free time. Length of collaboration with a psychiatrist was also a significant factor. 15% of the variance of the dependent variable were explained by this configuration of factors.

Concluding, psychiatrists' personal variables explained up to 20% of variance in social functioning of the patients with schizophrenia.

Details of the discussed analyses are presented in table 1.

Table 1. **The role of psychiatrists' personal variables in explanation of the effects of withdrawal from isolation, abilities to create interpersonal bonds and schizophrenia patients' ways of spending free time.**

	Withdrawal from isolation			Abilities to create interpersonal bonds			Ways of spending free time		
Personal variables	Beta	t	p	Beta	t	p	Beta	t	p
Optimism	0.293	3.792	0.00						
Sadness	-0.206	-2.65	0.00						
Effectiveness				0.267	3.39	0.001	0.245	3.18	0.002
Anxiety				-0.169	-2.15	0.03			
Length of collaboration							0.239	3.1	0.002
Anger							-0.155	-2.01	0.04
	$R = 0.37$; $R^2 = 0.13$; $F = 11.59$; $p = 0.000$			$R = 0.32$; $R^2 = 0.10$; $F = 8.52$; $p = 0.00$			$R = 0.32$; $R^2 = 0.10$; $F = 8.52$; $p = 0.00$		

Role of psychiatrists' personal variables in creation of therapeutic relationship

Creation of therapeutic relationship with schizophrenia patients was analyzed on the basis of the results obtained from the Dyadic Questionnaire of the Therapist-Patient Relationship.

Sense of acceptance was the first analyzed variable. It was noted that psychiatrists' level of life satisfaction and their ability to cope with anger were significantly associated with explaining sense of acceptance of psychiatrist by patients. This configuration of explaining variables had poor relationship with the level of acceptance and allowed for explaining 13% of results of variance of this variable (table 2).

Further, assessment of psychiatrists' professionalism was investigated. The results showed that psychiatrists' life satisfaction and concentration on patients' problems were significant in terms of patients' withdrawal from isolation.

Length of collaboration was the third variable co- participating in explaining the level of assessment of psychiatrists' professionalism.

This variables explained 21% of the variance of dependent variable.

Finally, psychiatrists' uncertainty in the relationship with patients was examined. Regression analysis showed that psychiatrists' satisfaction with life (inverse proportionality) and length of collaboration with patients were statistically significant for explanation of psychiatrists' uncertainty. However, only about 16% of the variance of psychiatrists' uncertainty was explained by these factors (table 2).

Table 2. **The role of psychiatrists' personal variables in explanation of sense of acceptance, assessment of psychiatrists' professionalism and psychiatrists' uncertainty in the relationships with patients, as assessed by persons suffering from schizophrenia.**

	Sense of acceptance			Psychiatrists' professionalism			Psychiatrists' uncertainty		
Personal variables	Beta	t	p	Beta	t	p	Beta	t	p
Satisfaction with life	0.27	3.57	0.00	0.33	4.45	0.00	-0.208	-2.724	0.002
Anger	0.23	3.08	0.00						
Length of collaboration				-0.24	-3.27	0.001	0.32	4.31	0.00
Concentration				0.19	2.65	0.009			
	$R = 0.36$; $R^2 = 0.13$; $F = 10.85$; $p = 0.000$			$R = 0.458$; $R^2 = 0.21$; $F = 12.76$; $p = 0.000$			$R = 0.403$; $R^2 = 0.16$ $F = 14.09$; $p = 0.000$		

Results of regression analysis showed that psychiatrists' orientation – optimism (inverse proportionality) and length of collaboration with patients were statistically significant for explanation of psychiatrists' dominant attitudes towards their patients. However, such configuration of explaining variables explained only 12% of the variance of psychiatrists' dominant attitude towards patients (table 3).

The last of the analyzed variables from the Dyadic Questionnaire was patients' rejective attitude towards psychiatrist. Results of regression analysis showed that psychiatrists' satisfaction with life (inverse proportionality), coping with anger and length

of collaboration with patients were statistically significant for explanation of patients' rejective attitudes towards psychiatrists and explained 20% of the variance of this variable (table 3).

Table 3. **The role of psychiatrists' personal variables in explanation of their dominant attitudes in the relationships with patients and rejective attitudes towards psychiatrist demonstrated by patients.**

	Psychiatrists' dominance			Rejection of psychiatrists		
Personal variables	Beta	t	p	Beta	t	p
Orientation	-0.289	-3.71	0.00			
Length of collaboration	0.18	2.4	0.01	0.305	4.07	0.00
Satisfaction with life				-0.275	-3.681	0.000
Anger				-0.152	-2.03	0.04
	$R = 0.35$; $R^2 = 0.125$; $F = 10.39$; $p = 0.000$			$R = 0.47$; $R^2 = 0.20$; $F = 11.96$; $p=0.000$		

Results of the analyses showed that psychiatrists' personal variables were most powerful in explanation of the professionalism assessment and level of rejective attitudes demonstrated by patients (> 20%). Other variables explained < 20% of the variance of the dependent variable.

Role of psychiatrists' personal variables in patients' compliance with medical recommendations.

Questionnaire of Pharmacological Treatment Assessment was used to assess patients' compliance. Knowledge about medication dosing was the first analyzed variable. Regression analysis showed that psychiatrists' coping with their own sadness and length of collaboration with patients were statistically significant for explanation of patients' knowledge about medication dosing (tab. 4). However, these variables were poorly associated with a dependent variable and explained only 6% of its variance.

Further, patients' assessment of treatment effectiveness, understood as subjective feeling that proposed pharmacological treatment helps the patient, was investigated. Data analysis showed that psychiatrists' satisfaction with life and length of collaboration with patients were statistically significant for explanation of patients' assessment of treatment effectiveness (tab. 4). These variables explained 12% of the variance of the dependent variable.

Finally, ability to identify medication symptoms was the last analyzed variable. Regression analysis showed that abilities to identify medication symptoms and adhere to pharmacotherapy were only slightly explained by patient-psychiatrist collaboration length (table 4). This variable explained only 3% of the variance of ability to identify medication symptoms.

Table 4. **The role of psychiatrists' personal variables in explanation of patients' knowledge about medication dosing, effectiveness of pharmacotherapy and abilities to identify medication symptoms, as assessed by patients.**

	Knowledge about medication dosing			Treatment effectiveness			Identification of medication symptoms		
Personal variables	Beta	t	p	Beta	t	p	Beta	t	p
Length of collaboration	0.18	2.24	0.02	-0.15	-2	0.047	0.17	2.1	0.03
Coping with sadness	-0.16	-2	0.04						
Satisfaction with life				0.3	3.8	0.00			
	$R = 0.25$; $R^2 = 0.06$; $F = 4.82$; $p = 0.000$			$R = 0.35$; $R^2 = 0.12$; $F = 10.2$; $p = 0.000$			$R = 0.17$; $R^2 = 0.03$; $F = 4.43$; $p = 0.03$		

Discussion

Searching for the factors crucial for the assessment of the schizophrenia patients functioning shows that functioning of persons with schizophrenia is determined by the duration of their illness (27%), rules developed within patients' individual Theory of Mind (15%), verbal memory working (8%), intensity of negative symptoms (6%) and intensity of positive symptoms of schizophrenia (5%) [12]. In another study it was found that changes in social functioning are determined by patients' specific social cognition style (16%) and efficacy of cognitive functions (6%) [13].

The aim of this study was to investigate significance of psychiatrists' personal variables for changes that are experienced by their patients in the course of treatment. The aim was built on an assumption that there is a relationship between psychiatrists and their patients which is significant for the patients suffering from schizophrenia. This assumption is clinically proven but it is still yet unknown how this phenomena operates. However, Baldwin's relational theory may bring some answers in this respect. This theory indicates that these relations may be an effect of the creation of relational scheme between a patient and a person significant for him/her – a psychiatrist [14]. The relationship develops on the basis of the script which is being created over a period of time and which contains information about functioning in this relationship and related thoughts and feelings. However, the script is not only related to the relationship but also influences the way patients think about themselves. This is due to the possibility of experiencing themselves that patients have while being in a relationship with another, important person. This experience is not a single event but it is being systematically repeated in a number of other events. Thus, regular contact, due to its repetitiveness and predictability, contributes to increase in patients' self-esteem. For this process to occur, it is essential that the significant object has attributes proving that it is capable of developing safe and profitable relationship. In his theory Baldwin assumes that the created relationship influences the feelings and motivates a person to

undertake changes that are necessary for its further existence. In case of persons with schizophrenia, the scheme of interpersonal relationships, developed during the contact with a psychiatrist, may play important role in making crucial decisions about continuing, or ceasing, collaboration and compliance with therapeutic prescriptions. Repetitiveness of contact within a relationship with a psychiatrist may become a base for modification as well as introduction of new behaviours or new interpretations of the situation. Thus, it may facilitate social learning phenomenon which, according to the author, becomes a base for changes occurring during therapy. Script regarding the relationship may also be useful in making decisions about establishing new contacts and actions that would support them.

Concluding, development of relational scheme enables a possibility to extrapolate this experience also to other relationships which prevents persons with schizophrenia from isolation and loneliness.

Applying Baldwin's model to relationships it seems that the moment when patient makes decisions about collaboration with a psychiatrist is crucial for therapeutic relationship development. This is also in line with the current study results which indicated that the relationship that is being developed is significantly correlated with time factor. Patients perceive their psychiatrists differently at the beginning of the contacts, when they have limited information about the doctor and have to make quick decision about collaboration, than later in the relationship. At first psychiatrist is being seen as having more professional attitude towards patient's problems. He/she is then also perceived as less uncertain in his/her decisions and actions as well as less dominant and more acceptable. In the present analyses level of psychiatrist's acceptance gradually decreases as measured by Dyadic Questionnaire "rejection" subscale. The result indicates that this factor may be modified as a result of raising hope for satisfactory therapy and for successful dealing with the consequences of the illness. Simultaneously, assessment of psychiatrists' professionalism was inversely associated with a length of collaboration.

In studies regarding the significance of factors that influence patients' satisfaction with treatment personal characteristics of psychiatrists are more important for patients than those related to their professional skills [15]. In our study psychiatrists' satisfaction with life was similarly associated with assessment of psychiatrists' professionalism. This life satisfaction is inversely correlated to the patients' assessment of professionalism. In case of assessment of acceptance of psychiatrists the most powerful characteristics included psychiatrists' satisfaction with life and effectiveness in coping with anger. Length of collaboration and psychiatrists' satisfaction with life were important while assessing doctor's uncertainty. However, the longer patients collaborated with psychiatrists who were satisfied with their lives, the more they tended to perceive them as more uncertain in their therapeutic work. In case of subjective feeling of doctors' dominance, patients reported that the longer they collaborated with

dominant psychiatrists, the more important was doctors' optimistic attitude towards life. Summing up, the longer patients were treated by optimistic psychiatrists, the less tendency they had to assess doctors as dominant persons. Rejective attitudes towards psychiatrists were determined by doctors' poor coping with anger and their lack of satisfaction with life. Psychiatrists with this set of characteristics were more rejected by patients with the time flow.

Results indicated that psychiatrists' personal characteristics were significant for the development of the relationship between persons with schizophrenia and their psychiatrists. The characteristics described as important for this relationship mirror social needs of persons with schizophrenia as described by Tsirigotis and Gruszczyński [1]. Contacts with people who are kind and nice were the most important in the hierarchy of patients' needs described in that study.

Analyses revealed that patient's knowledge about medication was correlated with a length of collaboration with a psychiatrist. Psychiatrists' ability to cope with their own sadness was also crucial as it might influence the atmosphere of treatment. Patients' assessment of treatment effectiveness was inversely correlated with a length of collaboration with a psychiatrist and his/her satisfaction with life. Positive assessment of treatment effectiveness was the strongest at the beginning of collaboration and decreased with time. This may be associated with patients' hope for treatment to cure the illness and for the current worsening to be the last one. Raising hope is an important factor in treatment process which fluctuates as much as patients' life situation is changing. However, psychiatrists' satisfaction with their own life was another important factor and in this case, there was positive correlation between doctor's satisfaction and patient's subjective feeling of treatment effectiveness. Coexistence of two factors shows how complex it is to assess treatment effectiveness. This is in line with Sarwer-Foner's theory of "total therapeutic effect in schizophrenia." [16] This effect is built of many factors which determine whether patient's assessment of treatment is positive or negative.

Conclusions

1. Patients' social functioning was correlated with a length of collaboration with a psychiatrist as well as assessment of psychiatrists' optimism, coping with their own sadness, anxiety and anger.
2. Development of therapeutic relationship was based on the way the psychiatrists were perceived on the following dimensions: successful coping with stress and sadness, and satisfaction with their own life. The relationship was also associated with a length of collaboration.
3. Compliance with medical recommendations was correlated with a length of collaboration as well as psychiatrists' satisfaction with life and successful coping with sadness.

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